INDEX

JUNIOR DIVISION

INDEX

THE NCC

<u>**LESSON PLAN : N 1**</u>
<u>**INTRODUCTION TO NCC**</u>
<u>**AIMS AND OBJECTIVES, ORGANISATION, TRAINING AND NCC SONG**</u>

Period   -   Two

Type   -   Lecture

Code   -   N 1

Term   -   I (JD / JW)
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<u>Training Aids</u>

1.   Computer Slides, Pointer, Charts, Black board & Chalk.

<u>Time Plan</u>

2.   (a)   Introduction   -   05 Min

            (b)   Aims, Objectives and Organisation of NCC -   35 Min

            (c)   Training in NCC & NCC Song   -   35 Min

            (d)   Conclusion   -   05 Min

<u>INTRODUCTION</u>

3.   During First World War, Britisher's created the **University Corps** with an aim for second line of defence and also to have a large pool of trained youth available for employment into the Armed Forces. NCC in India was conceptualised and raised before independence, mainly with an aim to groom the youth, boys and girls both, nurture them and channelise their energy towards nation building by making them responsible citizen.

4.   After independence, the present day NCC came into existence on 16 Apr 1948, through XXXI Act of Parliament. NCC was formally inaugurated on 15 Jul 1948. The Girls Division of the NCC was raised in Jul 1949. On 01 Apr 1950, Air Wing was raised, with one Air squadron each at Bombay and Kolkata. The Naval Wing of the NCC was raised in Jul 1952, thus completing the true representation of all services in the Corps.

5.   Today the NCC has an enrolled strength of more than 13 Lakhs cadets and it basically comprises of two divisions of all the three Services ie, the Senior Division / Senior Wing for boys / girls from colleges and the Junior Division / Junior Wing for boys / girls from schools. The Motto of NCC is 'Unity and Discipline'.

<u>AIM</u>

6.   To acquaint the cadets about the Aims and Objectives of the NCC.

<u>PREVIEW</u>

7.   The lecture will be conducted in following parts :-

            (a)   Part I   -   Aims, Objectives and Organisation of NCC.

            (b)   Part II   -   Training in NCC & NCC Song.

PART I : AIMS, OBJECTIVES AND ORGANISATION OF NCC

8.   **Aim.** The aims of NCC are mainly three fold:-

(a)   To develop following qualities in the cadets :-

(aa)   Development of Character.

(ab)   Comradeship.

(ac)   Discipline.

(ad)   Secular Outlook.

(ae)   Spirit of Adventure.

(af)   Sportsmanship.

(ag)   Ideals of selfless service among the youth of the country.

(b)   To create a human resource of **Organised, Trained** and **Motivated** youth, to provide leadership in all walks of life and always be available for the service of the nation.

(c)   To provide a suitable environment to motivate the youth to take up a career in the Armed Forces.

9.   **Objectives**. The objectives of the NCC are:-

(a)   Reach out to the maximum youths through various institutions.

(b)   Make NCC as an important part of the society.

(c)   Teach positive thinking and attitude to the youths.

(d)   Become a main source of National Integration by making NCC as one of the greatest cohesive force of our nation irrespective of any caste, creed, religion or region.

(e)   Mould the youth of the entire country into a united, secular and disciplined citizens of the nation.

(f)   Provide an ideal platform for the youth to showcase their potential in nation building.

(g)   Instill spirit of secularism and united India by organizing National Integration Camps all over the country.

(h)   Reach out to the youths of friendly foreign countries through Youth Exchange Programmes (YEP).

Organisation

10.   The NCC is a voluntary organization which is administered through the Ministry of Defence. The Defence Secretary is overall in charge, who is responsible to the Govt of India for efficient functioning of the NCC and other matters.
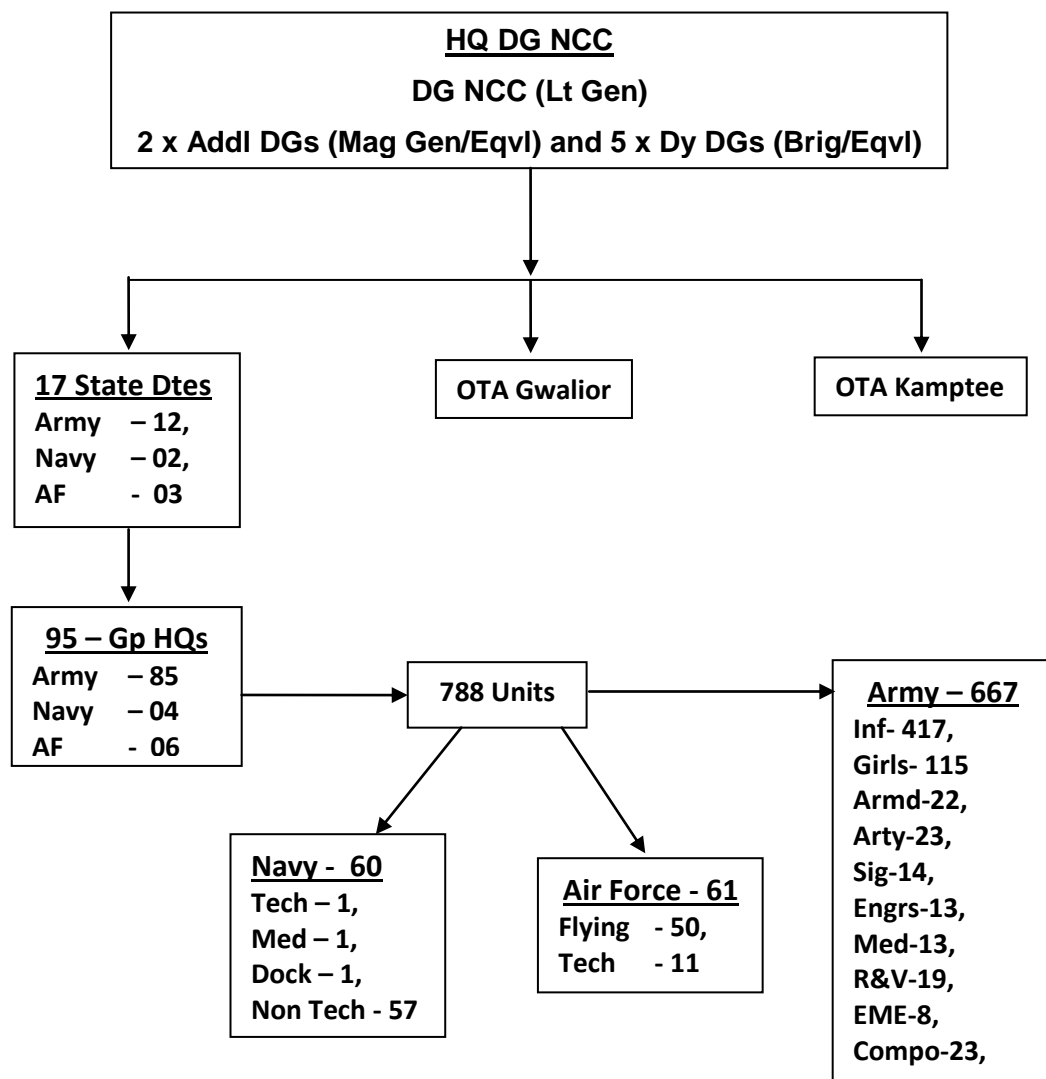
11.   At the Headquarters level, this organization is headed by an officer of the rank of Lieutenant General who is responsible for the functioning of the NCC in the country.

12.	There are 17 Directorates located in the state capitals headed by an officer of the rank of a Major General / Brigadier or equivalent from the three Services. Depending upon the size of the state and growth of NCC in the states, Directorates have up to 14 Group Headquarters under them through which they exercise their command and control of the organisation in the state. Each group is headed by an officer of the rank of Brig / Colonel or equivalent known as Group Commander.

13.	Each NCC Group Headquarters controls 5-7 NCC units / battalions, commanded by Colonel / Lieutenant Colonel or equivalent. Each battalion consists of companies which are commanded by the Associate NCC Officers (ANO) of the rank of Lieutenant, Captain or Major. In all, there are 95 Group Headquarters in the country who exercise control over a network of 667 Army Wing Units (including technical and girls unit), 60 Naval Wing Units and 61 Air Squadrons.

14.	There are two training establishments namely Officers Training School, Kamptee and Women Officers Training School, Gwalior where professors and teachers from colleges and schools are specially trained to impart training to the cadets as Associate NCC Officers (ANOs).

15.	Organisation and structure of NCC is as under:-

HQ DG NCC

DG NCC (Lt Gen)

2 x Addl DGs (Mag Gen/Eqvl) and 5 x Dy DGs (Brig/Eqvl)

17 State Dtes
Army	– 12,
Navy	– 02,
AF	- 03

OTA Gwalior

OTA Kamptee

95 – Gp HQs
Army	– 85
Navy	– 04
AF	- 06

788 Units

Army – 667
Inf- 417,
Girls- 115
Armd-22,
Arty-23,
Sig-14,
Engrs-13,
Med-13,
R&V-19,
EME-8,
Compo-23,

Navy - 60
Tech – 1,
Med – 1,
Dock – 1,
Non Tech - 57

Air Force - 61
Flying	- 50,
Tech	- 11

16.	**NCC Staff.** NCC is staffed by the following:-

(a)	Regular officers drawn from the three services.

(b)	Whole Time Lady Officers (WTLO), who are from NCC.

(c)	Associate NCC officers (ANO), who are professors and teachers.

(d)	Girl Cadet Instructors (GCI), who are from NCC.

(e)	Permanent Instructional (PI) Staff from army, navy and air force.

(f)	Civilian Gliding Instructors.

(g)	Civilian Staff.

PART II : TRAINING IN NCC AND THE NCC SONG

17.	Good and structured training is an essential part of any organization like NCC and hence it is given due importance. A tremendous amount has been achieved by the corps through its well regulated system of intensive training which includes Basic, Advance and Specialised training, with major stress being laid on training camps.

18.	**Training Activities.** Training activities of NCC can be broadly classified as under:-

(a)	**Institutional Training**. Training organised in schools and colleges as parades on a weekly / monthly basis.

(b)	**Camp Training**. Formal training organized as camps of 10-12 days duration.

(c)	**Attachment Training.** Formal training organized by attachment with army / naval / air force units or with officer training academies like IMA and OTA.

(d)	**Naval Wing Activities.** Seamanship, Navigation, Communication, Naval Warfare are taught to cadets. Swimming, Scuba Diving and Wind Surfing are other interesting activities.

(e)	**Air Wing Activities.** Airmanship, Aero modeling, Navigation, Air Frames, Aero Engines and Microlite Flying are taught to cadets.

(f)	**Remount & Vetinary Activities**. This activity is primarily meant for horsemanship and riding.

19.	**Types of Camps.**

(a)	**Annual Training Camps (ATC)**. These are held within the state under the aegis of respective NCC Directorates and are of 12 days duration for senior boys / girls and 10 days for junior boys / girls.

(b)	**Centrally Organised Camps (COC).** These are of an all India nature and are planned by HQ DGNCC in consultation with the Directorates nominated to conduct them. The centrally organized camps are :-

(i)	Leadership Camps (Basic and Advance).

(ii)	Thal Sainik Camp (TSC).

(iii)	Vayu Sainik Camp (VSC).

(iv)	Nau Sainik Camps (NSC).

(v)	Rock Climbing Camp.

(vi)	National Integration Camps (NIC).

        (vii)   RDC and PM's Rally.

        (c)   **Adventure Training and Sports Camps**. These include mountaineering, sailing, para sailing, rafting, trekking, Valley of Flowers expedition, cycle expedition, desert safari, shooting and show jumping activities.

20.   **Youth Exchange Programme (YEP**). In this, selected cadets are sent to friendly foreign countries for a 10 day visit.

21.   **NCC Song.** The official song of the NCC – " Kadam Mila Ke Chal" was adopted in 1963. However, in 1974, a change was felt to catch the imagination of the youths and portray the the true feelings of NCC. As a result the song was replaced by "Hum Sab Hindi Hain" which kept on playing in RDCs till the word 'Hindi' was replaced by ' Bhartiya' in 1980. The NCC song depicts the feelings of unity in diversity and exhorts everyone to march towards the single goal – all being INDIANS.

CONCLUSION

23.   NCC as an organization has unified the youth, not only of our country, but has made significant efforts to interact with the youths of other country through YEPs, thus expanding the scope of its training and the ultimate goal of Unity.

LESSON PLAN : N 2
INCENTIVES TO CADETS

Period   -   One

Type   -   Lecture

Code   -   N 2

Term   -   I (JD/JW)

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Training Aids

1.   Computer Slides, Pointer, Charts, Black board & Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

        (b)   Incentives by Centre   -   15 Min

        (c)   Incentives by States   -   15 Min

        (d)   Conclusion   -   05 Min

INTRODUCTION

3.   Apart from grooming and preparing the youths for the future challenges in NCC, cadets are given various benefits in terms of job opportunities, scholarships and financial assistance in time of any tragedy while doing any NCC related activities. These incentives are announced from time to time by the Central and State Govts. These incentives are in the field of employment as well as academics and personal including medals, trophies, cash award etc. The best incentive being the vacancy reserved for 'C' certificate holders cadets for the commission as officer in the Indian army.

AIM

4.   To acquaint cadets about the Incentives given to the NCC Cadets by Centre and State Govts.

PREVIEW

5.   The class will be conducted in following parts:-

        (a)   Part I   -   Incentives given by the Centre.

        (b)   Part II   -   Incentives given by the State.

PART I : INCENTIVES BY THE CENTRE GOVT

Concession in Employment

6.   (a)   **For 'C' Certificate Holders.** Specific vacancies in the Army, AF and Navy are reserved for NCC 'C' certificate holders. For officers there is no UPSC written exams. After application, the cadet is called directly for SSB interview, which he has to clear before final selection as per the merit list. The following vacancies are reserved by each service as officers :-

                 (i)   **Army**. 64 seats per year at IMA and 100 seats per year at OTA.

        (ii)   **Navy**. 06 seats per course through Naval SSB.

        (iii)   **Air Force.** 10% vacancies in all courses through Air Force SSB.

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(b)   5-10% bonus marks for recruitment in ranks in Army, Navy and Air force.

(c)   Bonus marks for employment in Para Military Forces and Department of Telecommunication.

(d)   Can apply for gazetted post in CRPF if third division degree held by the cadet.

(e)   Preference in State Services and also in private sectors.

(f)   Employment within NCC as Whole Time Lady Officer, Girl Cadet Instructor, Aero and Ship Modeling Instructor.

Financial Assistance / Scholarships

7.   Financial assistance and relief to cadets is provided by **Cadet Welfare Society (CWS) in case of any injury to the cadet or** to the NOK, in case of any fatality during NCC related activities. Details of the financial assistance are:-

	NCC Activities	Death Cases	Permanent Disability	Temporary Disability
(a)	High Risk	4,00,000/-	upto 4,00,000/-	upto 1,75,000/-
(b)	Other Activities	3,50,000/-	upto 3,50,000/-	upto 1,75,000/-

8.   Other benefits provided by the CWS are:-

(a)   Scholarship to academically brilliant students.

(b)   Grant of Best Cadet Award of Rs 3500/- and 2nd Best Cadet Award of Rs 2500/- at each Group level.

(c)   Conduct sports and adventure activities.

9.   **Scholarships.**

(a)   **Cadets Welfare Society(CWS)**. CWS awards scholarship of Rs 6000/- per cadet for 1000 NCC cadets every year.

(b)   **Sahara Scholarship.** Sahara gives Rs 30,000/- for Professional and Other categories and Rs 12000/- for SD/SW.

PART II : INCENTIVES BY STATE GOVTS

Employment Concession

10.   Preference is given by various state govts to the NCC 'B' / 'C' certificate holders for recruitment in following departments:-

(a)   Police Service.

(b)   Transport Department

(c)   Forest Department

(d)   Excise Department

(e)   Preference to the Girl Cadets as nurses, receptionists and telephone operators

Admission in Educational Institutes

11.   Many educational institutes have reserved special quota to the certificate holders from NCC. Preference is given in following fields:-

          (a)   Degree and diploma courses.

          (b)   LLB courses.

          (c)   Govt. Polytechnics and Engineering Colleges.

          (d)   Medical Courses.

12.   The incentives keep changing from time to time. Hence, the cadets must keep themselves aware of the incentives published in various Central / State Govt orders.

CONCLUSION

13.   The youth of Independent India are extremely fortunate to have such an organization existing in the country which devotes vast amount of financial and physical resources towards their personality development, and thus is indeed a nursery for grooming of future leaders in various walks of life. The NCC offers relaxation in the selection criteria for employment in various armed forces, para-military forces as well as state government jobs; provides opportunities to work for NCC either in the form of GCI or WTLO.

INDEX

NATIONAL INTEGRATION

LESSON PLAN : NI 1
RELIGIONS, CULTURE, TRADITIONS AND CUSTOMS OF INDIA

Period   -   One

Type   -   Lecture

Code   -   NI 1

Term   -   I (JD / JW)

_____

Training Aids

1.   Computer, Projector, Charts, Pointer, Black Board & Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

          (b)   Religions and Culture of India   -   20 Min

          (c)   Customs and Traditions of India   -   10 Min

          (d)   Conclusion   -   05 Min

INTRODUCTION

3   India is a multi religious democratic country. There are six major religions in India with Hindus comprising of 83.5 %, Muslims 0.7 %, Christians 2.44 %, Sikhs 1.79 % and others 1.51 %.

4.   The historical analysis has proved that religion has played an 'obstructive role' in the rise of nationalism. In ancient and mediaeval time it has worked as a system of exploitation. Under the British rule, religion acted as a main barrier against national unity. The public has now realized the fact that, religion is a private affair of an individual and it should not be mixed with political affairs of the state. That is why most of the advanced democratic states have adopted secularism in their constitution, which is a factor for unity in multi-religious societies like ours.

AIM

5.   To acquaint the cadets about Religions, Culture, Traditions and Customs of India.

PREVIEW

6.   The lecture will be conducted in following parts:-

          (a)   Part I   -   Religions and Culture of India.

          (b)   Part II   -   Customs and Traditions of India.

PART I : RELIGIONS AND CULTURE OF INDIA

Main Religions of India

7.   **Hinduism**.   Religion for the Hindus is experience or attitude of mind. It is not an idea but a power, not an intellectual proposition but a life conviction. It is consciousness of ultimate reality. Man becomes aware of God through experience. The source of Hindu thought is the Vedas. The

Hindus believe in meditation and yoga. The goal of religious quest is earned by intellectual and moral discipline. The Hindus believe in re-birth, spirit and salvation. Perfection in life as per Hinduism is attained through knowledge of truth. The theory of Hinduism lays stress on Bhakti, Karma and Re-birth.

8.   **Islam**. Islam means 'Submission' or resignation to Allah (God). The Quran, the highest authority is revealed and created being the eternal word of God incarnate. All the prophets from Adam to Mohammad and the books revealed to them are regarded as religious heritage of Islam. Muslims have to bear witness to the oneness of God and message of Muhammed and have to observe prayer five times daily with a weekly Juma prayer on Friday noon. They keep dawn to dusk fast for purity of soul in the ninth month of Ramzan of the Islamic year. Muslims and who can afford, make pilgrimage to Haj once in life time. The Islamic teaching highlights the purity of life, charity to the poor and spread of brotherhood.

9.   **Christianity**. Christianity was founded by Jesus Christ, commands the largest following in the world. Christ was born in 4 BC in Judaea. He started preaching about the kingdom of God when he was thirty. His activities roused the opposition of the Jewish high priests who accused him. He was crucified on the orders of Pontius Pilate, the Roman Governor. Christianity preaches charity, love and peace. The massage of Jesus Christ is given in the Holy Bible. Christianity is not a religion but a way of life, which guides the actions and life for mental peace and love of humanity.

10.   **Jainism**. Jainism derives its name from Jaina (the Conqueror). Mahavira belonged to a princely family in Vaishali.   At the age of 30 he renounced the world and spent 12 years in austerity and meditation in search of truth. At the age of 47, while meditating, he received enlightenment. As per Jainism teachings, anger, pride, deception and greed must be counteracted by the ten best virtues such as forgiveness, humility, straight forwardness, contentment, truthfulness, restraint, austerity, purity, chastity and renunciation. To keep himself steady on path of liberation and to destroy karma, a monk has to bear all the trouble that might cause him pains. The monk has to practice austerity external and internal.   It is pure meditation which ultimately leads to liberation.

11   **Buddhism**.   Buddhism was founded by Gautam Buddha who was son of Indian Prince Suddhodan. The sorrow and suffering of the world tormented his heart and he abandoned his house and started pursuit for enlightenment. Gautam found enlightenment while meditating under a Pipal tree at the age of 42. Buddha preached that emancipation from cycle of re-birth i.e Nirvana can be attained by path of self purification, with doctrine of love and mercy. Buddhism is essentially a religion of kindness, humanity and equality.   It denounces all claims to superiority on grounds of birth or caste.

12.   **Sikhism**.   God the original Guru, imparted his message to his disciple Nanak, who having absorbed the divine spirit became the Guru himself. The message is known as Gurmat. He who follows the teaching of Gurmat is a pure person and known as Sikh. The same spirit was passed on to the successive Gurus and ultimately the divine spirit has been passed onto the sacred script of 'Guru Granth Saheb'. The teachings of Sikhism are that God is one. Equality in society and leading a life of purity are important. The institution of Gurudwara and common kitchen (langar) are noble examples of equality in Sikhism.

Culture of India

13.   **Dimensions of Indian Culture.**   Various races have been coming to India from time immemorial. The civilizations of these races differed a great deal from one another. On entering India, they had conflicts with the earlier inhabitants of the country. These conflicts affected their respective cultures and through the process of assimilation and synthesis, Indian culture grew all the more richer.

14.   **Arrival of Various Races in India and their Effects.**

(a)   **Negrito Race**. According to J H Huntton, the oldest race reaching India was Negrito. They were not very high from the point of view of civilization. They did not know how to make use of the instruments made of stones and bones, how to cultivate the land, how to make earthen wares or how to build houses. They are now found only in Andaman Islands.

(b)   **Proto-Australiod Race.** After the Negrito race, came the Proto-Australiod or the primitive Australian race. They are specially found in Central India or in South - East India in the present age. They are also called 'Austric' in English and 'Agneya' in Hindi. Santhal, Munda, Birho, Asur, Kobra, Coorg, Jaung and such other tribes are related to the Proto-Australoid race. The people of Australoid race influenced the material and religious life in India. Indians learnt, how to cultivate the land with the help of pick - axe and to grow rice, bananas, coconuts, brinjals, betel leaves, lemons, jamboo fruit and cotton from them. In the religious field, they brought to India many things like the belief in rebirth, various fabulous stories about the origin of creation, a myth about incarnation of God in a tortoise, belief about the existence of Gods in stones, the worship of various creatures like snakes, crocodiles, monkeys etc. The interesting stories in Mahabharat and Ramayan about Vasuki, the ruler in 'Patal Lok', the origin of the creation from snakes and eggs, interesting stories about Ganesh, etc have been taken from the myths of this race.   Perhaps, this very race taught the Indians, how to count the dates according to moon phases and fixation of sacred festivals etc.

(c)   **Dravidian Race.** The people of Dravidian or Mediterranean race came to India after the Proto-Australoid race. They were more civilized than the people of both the races which came to India earlier. Under their influence new Gods and new methods of worship came to the Indian religious field. In fact, the word 'Pooja' (worship), belongs to Dravidian language. The acceptance of an idol, as representative of some God, to offer it flowers and tree leaves, to offer it vermilion and sandal paste, to burn incense before it to ring bells, to sing to dance before it, to offer and accept sweets and such other ways of worship were given to India by the Dravidians. The chief new Gods, who began to be worshiped under the influence of the Dravidians, were Shiva, Uma, Kartikeya, Hanuman, Shitla and Ganesh etc. Under the Dravidian influence, the number of Gods increased. Gods and Goddesses, village God, family God and other Gods of Hindu religion supposed to be 330 million in number, are all the result of their influence. The importance of the sacred places of worship increased under the influence of the Dravidians. In the same way, they also preached the worship of the trees, like worship of tulsi, banyan, peepal, bel and many others. It was the Dravidians who gave Indians the festivals of Holi and Basant.

(d)   **Aryan Race.** Aryans made the greatest contribution towards the development of Indian culture. It is their tongue which is in use today in major parts of India. Their Vedas are the main roots of Indian culture. The contribution of the Aryans towards the Indian culture has been thus described by Dr Jadunath Sarkar as a feeling of sympathy and adjustment, a wonderful evolution of science and philosophy, fixation of adjustment among different castes through their principle of 'Varna' system and the spread of civilization among the demons and wild tribes through 'Tapovan' system.

(e)   **Muslim Race**. Muslims came to India after the Aryans. In his book titled 'Influence of Islam on Indian Culture', Dr Tarachand has written that the influence of Muslims on the various parts of Indian life has been very great and this influence has been seen specially on Hindu customs, on the very minute things of their family, on music, dress, cooking methods, marriage traditions, festivals, fairs and on the institutions and manners of the Maratha, Rajput and Sikh courts.

(f)   **Influence of the British**. After the Muslims, the British deeply influenced all aspects of Indian culture. The spread of English language brought hundreds of English words into the Indian languages. The influence of western culture on the prose, novel,

one-act plays and poetry, etc in Indian literature can be clearly seen. Western education created a wave of reformation in the whole country. On the one hand, the ideas of equality, freedom and nationality helped in uprooting the social evils like Sati custom, killing of female child, child marriage and prohibition of widow marriage, on the other hand, they created a political awakening in the country. The present form of administration in India is the outcome of the great influence of the British ideology. The present economic organization, joint stock companies, managing agencies, big factories, production through machines, railways, telegraphs, telephone, aeroplanes and other means of conveyance and communication were brought to India from the west. This influence has regularly been on the increase and it is also needed for the country's progress, although its assimilation is equally necessary.

PART II : CUSTOMS AND TRADITIONS OF INDIA

15.   India is a multiracial, multilingual civilization with rich culture heritage and has provided peaceful atmosphere for the development of many religions. Indian culture and customs are influenced by these religions. The customs of India depict very colourful panorama. There are certain customs which are prevalent in a particular religion and some are common to all religions of the country.

16.   **Festivals**. Indian festivals are famous in the world. Most of the festivals are related to the change of weather and crop harvesting since India is an agro based economy. The most famous Indian festivals are Diwali, Holi, Dussehra and Basant Panchami. There are certain festivals which are prevalent in particular regions only like Bihu in Assam, Baishakhi in Punjab etc.

17.   **Customs and Traditions.**

   (a)   Indian customs are of various types mostly related to local customs, caste customs and family customs. There are different customs of Hindu marriage as compared to a Muslim marriage or a Sikh marriage. Similarly, there are different customs of festival celebrations.   All these customs have been protected by law.

   (b)   Certain religious customs pertain to a particular religion only, like Mundan ceremony in Hindus and Naming ceremony in Sikhs. These customs have religious value and are a means of entertainment also.

   (c)   There are some customs regarding dresses and ornaments of women. These are associated with particular regions, which give a very colorful dimension to Indian customs and traditions. Similarly, all regions have their distinctive ornaments.

   (d)   India being a big country with different races and religions, has rich customs related to festivals, religious ceremonies, dresses, marriages, architecture, painting, song, dance and food habits. The customs and traditions of India though varied, has a binding force in them, which ultimately serves as a unifying factor of Secular India.

CONCLUSION

18.   India being a multi lingual, multi racial and multi religious secular society, has a vast pool of customs and traditions. Today, most of the modern thinking has broken all barriers in society. People have become more tolerant and celebrate most festivals, even if they happen to belong to other religions and they whole heartedly join all celebrations.

LESSON PLAN : NI 2
NATIONAL INTEGRATION : IMPORTANCE AND NECESSITY

Period   -   Two

Type   -   Lecture

Code   -   NI 2

Term   -   I (JD / JW)

_____

Training Aids

1.   Computer, Projector, Charts, Pointer, Black Board & Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

            (b)   Importance of National Integration   -   35 Min

            (c)   Necessity of National Integration   -   35 Min

            (d)   Conclusion   -   05 Min

INTRODUCTION

3.   Indian civilisation is one of the oldest civilisations in the world. In the past people belonging to different races and religions came and settled here. They brought with them their distinctive language and life style. Different tribes with their distinct languages intermingled with various tribes of our country. That is why our culture is described as an example of composite culture. It is made up of all communities, races and religions.

AIM

4.   To acquaint the cadets about National Integration, its Importance and Necessity.

PREVIEW

5.   The lecture will be conducted in following parts:-

            (a)   Part I   -   Importance of National Integration.

            (b)   Part II   -   Necessity of National Integration.

PART I : NATIONAL INTEGRATION AND ITS IMPORTANCE

National Integration

6.   National integration means a feeling of togetherness and unity among the people of a country. It also means an atmosphere in which all citizens, irrespective of their caste, religion and region live together peacefully. It refers to integration in all respects, social political, economic and above all emotional. In an integrated country people share common goals. They all work together and co-operate with each other for the prosperity of the nation.

7.   We must understand that national integration does not mean uniformity of all. It does not stand for uniformity of religion, dress and food habits etc. It means both preservation of diverse cultures and at the same time living and working in harmony with each other. No country or society can survive if its people do not remain united. The feeling of togetherness and a sense of belonging are absolutely necessary for a nation to survive. Such a feeling can only be generated through the process of integration. Thus national integration is a positive concept which provides strength to the people to fight against all evil forces. It provides a congenial condition in which people can make good progress.

Importance

8.   National integration has assumed greater importance in the recent years due to the fast changing ethos and moral values in the society. The need for national integration was probably never felt before as is felt today. The turbulent atmosphere and the deteriorating law and order situation in the country due to various religious, social and political factors have led to the realisation of the necessity of national integration.

9.   The realisation of its importance in itself is a step in the desired direction. The Government having appreciated the urgency and seriousness of the subject is taking positive steps towards achieving the national integration. NCC, one of the prime organisations of the country training the youth, the future of this great nation, makes the ideal ground to start with. National integration has been made part and parcel of NCC training. Lot of emphasis is laid on national integration by conducting national level camps and number of other activities where cadets from all over the country participate.

PART II : NECESSITY OF NATIONAL INTEGRATION

10.   National integration is necessary particularly in a country like India, where people with different languages, religions, races and culture are required to be weaved together. The unity in diversity of which we are proud of can only be maintained if, we have the understanding and respect for each other's religion, customs and traditions. If we have to survive as a nation and safeguard our sovereignty and national integrity, we have to remain united. National integration is a pre-requisite for the survival and prosperity of any nation and hence needs no emphasis. National integration is therefore a basic necessity for survival of any nation such as:-

(a)   Maintenance of sovereignty and territorial integrity of the nation.

(b)   Maintenance of peace and harmony.

(c)   Growth and development of the nation.

(d)   Eradication of poverty and illiteracy.

(e)   Internal security and law and order.

(f)   Culture and religious development.

(g)   Economic and industrial growth.

(h)   Attract foreign investment and increase import and export.

(j)   Exchange of technological know-how and culture.

(k)   Dignity and self respect as a nation.

(l)   Welfare and well-being of the people.

(m)   Foreign relations and better standing among the nations of the world.

CONCLUSION

11.   It is the duty of each and every citizen of our country to strive to achieve unity in spite of diversity and further cement it. We must remember that there should be no divisions between North and South or East and West of India. There is only one India of which we all Indians are inheritors. We are Indian first and Indians last.

LESSON PLAN : NI 3
FREEDOM STRUGGLE AND NATIONALIST MOVEMENT IN INDIA

Period   -   Two / One

Type   -   Lecture

Code   -   NI 3

Term   -   I / II (JD / JW)
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Training Aids

1.   Computer, Projector, Charts, Pointer, Black Board & Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

(b)   The Indian Mutiny of 1857   -   20 Min

(c)   End of East India Company   -   20 Min

(d)   Formation of Indian National Congress   -   30 Min

(e)   Conclusion   -   05 Min

INTRODUCTION

3.   In ancient times, people from all over the world were keen to come to India. The Aryans came from Central Europe and settled down in India. The Persians followed by the Iranians and Parsis immigrated to India. Then came the Moghuls and they too settled down permanently in India. Chengis Khan, the Mongolian, invaded and looted India many times. Alexander the Great too, came to conquer India but went back after a battle with Porus. Hue-en Tsang from China came in pursuit of knowledge and to visit the ancient Indian universities of Nalanda and Takshila. Columbus wanted to come to India, but instead landed on the shores of America. Vasco da Gama from Portugal came to trade his country's goods in return for Indian species. The French came and established their colonies in India.

4.   Lastly, the Britishers came and ruled over India for nearly 200 years. After the battle of Plassey in 1757, the British achieved political power in India. Their supremacy was established during the tenure of Lord Dalhousie, who became the Governor- General in 1848. He annexed Punjab, Peshawar and the Pathan tribes in the north-west of India. And by 1856, the British conquest and its authority were firmly established. While the British power gained its heights during the middle of the 19th century, the discontent among the local rulers, the peasantry, the intellectuals, common masses as also of the soldiers who became unemployed due to the disbanding of the armies of various states, became widespread. This soon broke out into a revolt which assumed the dimensions of the 1857 Mutiny.

AIM

5.   To acquaint the cadets about the Freedom Struggle and Nationalist Movement of India.

PREVIEW

6.   The class will be conducted in the following parts:-

(a)   Part I   -   Indian Mutiny of 1857.

(b) Part II - End of East India Company.

(c) Part III - Indian Nationalist Movement.

PART I : THE INDIAN MUTINY OF 1857

7.   The conquest of India, which could be said to have begun with the Battle of Plassey (1757), was practically completed by the end of Dalhousie's tenure in 1856. It had been, by no means, a smooth affair as the simmering discontent of the people manifested itself in many localized revolts during this period. However, the Mutiny of 1857, which began with a revolt of the military soldiers at Meerut, soon became widespread and posed a grave challenge to the British rule. Even though the British succeeded in crushing it within a year, it was certainly a popular revolt in which the Indian rulers, the masses and the militia participated so enthusiastically, that it came to be regarded as the First War of Indian Independence.

8.   Introduction of 'zamindari system' by the British, where the peasants were ruined through exorbitant charges made from them by the new class of landlords. The craftsmen were destroyed by the influx of the British manufactured goods. The religion and the caste system which formed the firm foundation of the traditional Indian society was endangered by the British administration. The Indian soldiers as well as people in administration could not rise in hierarchy as the senior jobs were reserved for the Europeans. Thus, there was all-round discontent and disgust against the British rule, which burst out in a revolt by the 'sepoys' at Meerut whose religious sentiments were offended when they were given new cartridges greased with cow and pig fat, whose covering had to be stripped out by biting with the mouth before using them in rifles. The Hindu as well as the Muslim soldiers, who refused to use such cartridges, were arrested, which resulted in a revolt by their fellow soldiers on 9 May 1857.

9.   The rebel forces soon captured Delhi and the revolt spread to a wider area and there was uprising in almost all parts of the country. The most ferocious battles were fought in Delhi, Awadh, Rohilkhand, Bundelkhand, Allahabad, Agra, Meerut and western Bihar. The rebellious forces under the commands of Kanwar Singh in Bihar and Bakht Khan in Delhi gave a stunning blow to the British. In Kanpur, Nana Sahib was proclaimed as the Peshwa and the brave leader Tantya Tope led his troops. Rani Lakshmibai was proclaimed the ruler of Jhansi who led her troops in the heroic battles with the British. The Hindus, the Muslims, the Sikhs and all the other brave sons of India fought shoulder to shoulder to throw out the British. The revolt was controlled by the British within one year, it began from Meerut on 10 May 1857 and ended in Gwalior on 20 June 1858.

PART II : END OF THE EAST INDIA COMPANY

10.   Consequent to the failure of the Revolt of 1857 rebellion, one also saw the end of the East India Company's rule in India and many important changes took place in the British Government's policy towards India which sought to strengthen the British rule through winning over the Indian princes, the chiefs and the landlords. Queen Victoria's Proclamation of 1 November 1858, declared that thereafter India would be governed by and in the name of the British Monarch through a Secretary of State.

11.   The Governor General was given title of Viceroy, which meant the representative of the Monarch. Queen Victoria assumed the title of the Empress of India and thus gave the British Government unlimited powers to intervene in the internal affair of the Indian states. In brief, the British supremacy over India, including the Indian States, was firmly established. The British gave their support to the loyal princes, zamindar and local chiefs but neglected the educated people and the common masses. They also promoted the other interests like those of the British merchants, industrialists, planters and civil servants. The people of India, as such, did not have any say in running the government or formulation of its policies. Consequently, people's disgust with the British rule kept mounting, which gave rise to the birth of Indian National Movement.

12.   The leadership of the freedom movement passed into the hands of reformists like Raja Rammohan Roy, Bankim Chandra and Ishwar Chandra Vidyasagar. During this time, the binding psychological concept of National Unity was also forged in the fire of the struggle against a common foreign oppressor.

13.   Raja Rammohan Roy (1772-1833) founded the Brahmo Samaj in 1828 which aimed at purging the society of all its evil practices. He worked for eradicating evils like sati, child marriage and purdah system, championed widow marriage and women's education and favoured English system of education in India. It was through his effort that sati was declared a legal offence by the British.

14.   Swami Vivekananda (1863-1902) the disciple of Ramakrishna Paramahamsa, established the Ramkrishna Mission at Belur in 1897. He championed the supremacy of Vedantic philosophy. His talk at the Chicago (USA) Conference of World Religions in 1893 made the westerners realize the greatness of Hinduism for the first time.

PART III : NATIONALIST MOVEMENT IN INDIA

Formation Of Indian National Congress (INC)

15.   The foundations of the Indian National Movement were laid by Suredranath Banerjee with the formation of Indian Association at Calcutta in 1876. The aim of the Association was to represent the views of the educated middle class, inspire the Indian community to take the value of united action. The Indian Association was, in a way, the forerunner of the Indian National Congress, which was founded, with the help of A.O. Hume, a retired British official. The birth of Indian National Congress (INC) in 1885 marked the entry of new educated middle-class into politics and transformed the Indian political horizon. The first session of the Indian National Congress was held in Bombay in December 1885 under the president ship of Womesh Chandra Banerjee and was attended among others by Badr-uddin-Tyabji.

16.   At the turn of the century, the freedom movement reached out to the common unlettered man through the launching of the "Swadeshi Movement" by leaders such as Bal Gangadhar Tilak and Aurobindo Ghose. The Congress session at Calcutta in 1906, presided by Dadabhai Naoroji, gave a call for attainment of 'Swaraj' a type of self-government elected by the people within the British Dominion, as it prevailed in Canada and Australia, which were also the parts of the British Empire.

17.   Meanwhile, in 1909, the British Government announced certain reforms in the structure of Government in India which are known as Morley-Minto Reforms. But these reforms came as a disappointment as they did not mark any advance towards the establishment of a representative Government. The provision of special representation of the Muslim was seen as a threat to the Hindu-Muslim unity on which the strength of the National Movement rested. So, these reforms were vehemently opposed by all the leaders, including the Muslim leader Muhammad Ali Jinnah. Subsequently, King George V made two announcements in Delhi: firstly, the partition of Bengal, which had been effected in 1905, was annulled and, secondly, it was announced that the capital of India was to be shifted from Calcutta to Delhi.

18.   The disgust with the reforms announced in 1909 led to the intensification of the struggle for Swaraj. While, on one side, the activists led by the great leaders like Bal Gangadhar Tilak, Lala Lajpat Rai and Bipin Chandra Pal waged a virtual war against the British, on the other side, the revolutionaries stepped up their violent activities There was a widespread unrest in the country. To add to the already growing discontent among the people, Rowlatt Act was passed in 1919, which empowered the Government to put people in jail without trial. This caused widespread indignation, led to massive demonstration and hartals, which the Government repressed with brutal measures like the Jaliawalla Bagh massacre, where thousands of unarmed peaceful people were gunned down on the order of General Dyer.

19.   **Jalianwala Bagh Massacre.** Jalianwala Bagh massacre of 13 April 1919, was one of the most inhuman acts of the British rulers in India. The people of Punjab gathered on the auspicious day of Baisakhi at Jalianwala Bagh, adjacent to Golden Temple (Amritsar), to lodge their protest peacefully against persecution by the British Indian Government. General Dyer appeared suddenly with his armed police force and fired indiscriminately at innocent empty handed people leaving hundreds of people dead, including women and children.

20   After the First World War (1914-1918), Mohandas Karamchand Gandhi became the undisputed leader of the Congress. During this struggle, Mahatma Gandhi had developed the novel technique of non-violent agitation, which he called 'Satyagraha', loosely translated as 'moral domination'. Gandhi, himself a devout Hindu, also espoused a total moral philosophy of tolerance, brotherhood of all religions, non-violence (ahimsa) and of simple living. With this, new leaders like Jawaharlal Nehru and Subhash Chandra Bose also emerged on the scene and advocated the adoption of complete independence as the goal of the National Movement.

The Non-Cooperation Movement

21   The Non-Cooperation Movement was pitched in under leadership of Mahatma Gandhi and the Indian National Congress from September 1920 to February 1922, marking a new awakening in the Indian Independence Movement. After a series of events including the Jallianwala Bagh Massacre, Gandhiji realised that there was no prospect of getting any fair treatment at the hands of British, so he planned to withdraw the nation's co-operation from the British Government, thus launching the Non-Cooperation Movement and thereby marring the administrative set up of the country. This movement was a great success as it got massive encouragement to millions of Indians. This movement almost shook the British authorities.

Simon Commission

22.   The Non-cooperation movement failed. Therefore there was a lull in political activities. The Simon Commission was sent to India in 1927 by the British Government, to suggest further reforms in the structure of Indian Government. The Commission did not include any Indian member and the Government showed no intention of accepting the demand for Swaraj. Therefore, it sparked a wave of protests all over the country and the Congress as well as the Muslim League gave a call to boycott it under the leadership of Lala Lajpat Rai. The crowds were lathi charged and Lala Lajpat Rai, also called Sher-e-Punjab (Lion of Punjab) died of the blows received in an agitation.

Civil Disobedience Movement

23.   Mahatma Gandhi led the Civil Disobedience Movement that was launched in the Congress Session of December 1929. The aim of this movement was a complete disobedience of the orders of the British Government. During this movement it was decided that India would celebrate 26th January as Independence Day all over the country. On 26th January 1930, meetings were held all over the country and the Congress tricolour was hoisted. The British Government tried to repress the movement and resorted to brutal firing, killing hundreds of people. Thousands were arrested along with Gandhiji and Jawaharlal Nehru. But, the movement spread to all the four corners of the country and following this, Round Table Conferences were arranged by the British, and Gandhiji attended the second Round Table Conference at London. But nothing came out of the conference and the Civil Disobedience Movement was revived.

24.   During this time, Bhagat Singh, Sukhdev and Rajguru were arrested on the charges of throwing a bomb in the Central Assembly Hall (which is now Lok Sabha) in Delhi, to demonstrate against the autocratic alien rule. They were hanged to death on March 23, 1931.

Quit India Movement

25.   In August 1942, Gandhiji started the 'Quit India Movement' and decided to launch a mass civil disobedience movement 'Do or Die' call to force the British to leave India. The movement was followed, nonetheless, by large-scale violence directed at railway stations, telegraph offices, government buildings, and other emblems and institutions of colonial rule. There were widespread acts of sabotage, and the government held Gandhi responsible for these acts of violence, suggesting that they were a deliberate act of Congress policy. However, all the prominent leaders were arrested, the Congress was banned and the police and army were brought out to suppress the movement.Meanwhile, Netaji Subhash Chandra Bose, who stealthily ran away from the British detention in Calcutta, reached foreign lands and organized the Indian National Army (INA) to overthrow the British from India.

26.   The Second World War broke out in September of 1939 and without consulting the Indian leaders, India was declared a warring state (on behalf of the British) by the Governor General. Subhash Chandra Bose, with the help of Japan, preceded fighting the British forces and not only freed Andaman and Nicobar Islands from the Britishers but also entered the north-eastern border of India. But in 1945, Japan was defeated and Netaji proceeded from Japan, through an aeroplane to a place of safety but, met with an accident and, it was given out that he died in that air-crash itself. "Give me blood and I shall give you freedom" - was one of the most popular statements made by him, where he urges the people of India to join him in his freedom movement.

Partition of India and Pakistan

27.   At the conclusion of the Second World War, the Labour Party, under Prime Minister Clement Richard Attlee, came to power in Britain. The Labour Party was largely sympathetic towards Indian people for freedom. A Cabinet Mission was sent to India in March 1946, which after a careful study of the Indian political scenario, proposed the formation of an interim Government and convening of a Constituent Assembly comprising members elected by the provincial legislatures and nominees of the Indian states. An interim Government was formed headed by Jawaharlal Nehru. However, the Muslim League refused to participate in the deliberations of the Constituent Assembly and pressed for the separate state for Pakistan. Lord Mountbatten, the Viceroy of India, presented a plan for the division of India into India and Pakistan, and the Indian leaders had no choice but to accept the division, as the Muslim League was adamant.

28.   Thus, India became free at the stroke of midnight, on 14 August 1947. Since then, every year India celebrates its Independence Day on 15th August. Jawaharlal Nehru became the first Prime Minster of free India and continued his term till 1964. Giving voice to the sentiments of the nation, Prime Minister, Pandit Jawaharlal Nehru said, Long years ago we made a tryst with destiny, and now the time comes when we will redeem our pledge, not wholly or in full measure, but very substantially. At the stroke of the midnight hour, when the world sleeps, India will awake to life and freedom. A moment comes, which comes but rarely in history, when we step out from the old to the new, when an age ends and when the soul of a nation, long suppressed, finds utterance.... We end today a period of ill fortune, and India discovers herself again.

CONCLUSION

29.   Earlier, a Constituent Assembly was formed in July 1946, to frame the Constitution of India and Dr Rajendra Prasad was elected its President. The Constitution of India which was adopted by the Constituent Assembly on 26th November 1949. On January 26, 1950, the Constitution came into force and Dr Rajendra Prasad was elected the first President of India.

LESSON PLAN : NI 4
PROBLEMS / CHALLENGES OF NATIONAL INTEGRATION

Period   -   One

Type   -   Lecture

Code   -   NI 4

Term   -   I (JD / JW)

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Training Aids

1.   Computer, Projector, Charts, Pointer, Black Board & Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

        (b)   Major Problems / Challenges   -   15 Min

        (c)   Suggested Measures   -   15 Min

        (d)   Conclusion   -   05 Min

INTRODUCTION

3.   India is a country with innumerable diversities, an entity composed of many communities, races classes, languages and sub cultures. In any such nation, there are many obstacles to the achievement of national integration. In India, various hindrances are obstructing the growth of national feeling, viz. casteism, communalism, linguistic fanaticism, social disparity, economic inequalities and immorality, regionalism etc. India is a land of various races; various religious and various languages. Still then, the Indians developed into one nation by the influence of common territory, common history and common fight for freedom against the foreign rule.

4.   When India came under the British, they followed the policy of 'Divide and Rule' in order to perpetuate their authority over India. Consequently, the racial, the religious and the linguistic groups in the Indian nation first began to disintegrate emotionally and psychologically and then, desired to disintegrate territorially. This resulted into division of India into Bharat and Pakistan. Today, the integrity of the Indian nation is awfully threatened as the communal quarrels are fanned by the hostile neighbours of India. Hence, the necessity of strong national Integration in India has become so necessary at present.

AIM

5.   To acquaint the cadets about the Problems / Challenges of National Integration in India.

PREVIEW

6.   The lecture will be conducted in following parts:-

        (a)   Part I   -   Major Problems / Challenges of National Integration.

        (b)   Part II   -   Measures to Achieve National Integration.

PART I : PROBLEMS / CHALLENGES OF NATIONAL INTEGRATION

7.   **Casteism.** Caste is an imported part of our social fabric. This was developed in the past on the basis of division of labour in the society. But now casteism has segregated the society. Unity and integrity has become a dream in a caste ridden society. The feeling of socially neglected scheduled castes under the suppression of upper caste ruined the sense of feeling and unity. It becomes a problem for national integration.

8.   **Communalism.** Religions antagonism has posed a serious challenge to national integration in India. India is a multi- religious land. Political manipulation has projected one religion against the other which resulted in communal riot, bloodbath, mutual, distrust and disintegration of the country. Large scale illiteracy and superstition are responsible along with other causes for raise communalism in the country. It is very difficult to promote national integration under these situations.

9.   **Linguistic Fanaticism.** Multi-linguism is one of the important characters of India. India has fifteen officially recognized languages. There are about 1652 languages which are spoken in India which shows its diversities. There is conflict and riots on the languages issue. People of one language try to establish their language over others. When Hindi was declared as the national language people of South India resented against this decision supporting English language. Language issue became a barrier on the way of national integration.

10.   **Regionalism.** There are several regions in India having their unique traditions, food habits, dress and languages. Each regional differs from the other in one or other ways which leads to disintegration of the country. People of one region compete with the person of other regions which leads to conflict and riots. Land dispute, language problem are some of the reasons which pose hurdle on the way of national integration.

11.   **Social Disparity.** Social disparity among the people of different communities, castes and sometime within the community and caste causes tension and imbalance among the people. Social disparity poses great challenge to national integration.

12.   **Economic Inequalities.** Economic standard of people in a state depends on the fertility of land, resources available and manpower management. All the states are not equal in the above matter which leads to economic backwardness of the people. Even in a state distribution of wealth is not properly done. Day by day poor becoming poorer and rich become richest this causes tension and conflict. It is a problem for national integration

PART II : MEASURES TO ACHIEVE NATIONAL INTEGRATION

13.   **Education.**. Education of the masses can become a very powerful instrument of national unity provided that it is used in the right manner.

14.   **Religious Tolerance.** India is a multi religious country with various religious communities, such as Hindus, Muslims, Sikhs, Christians, Buddhists, Jains and Parses. Each community should appreciate the coexistence of every other community should promote love and communal harmony in society by celebrating / observing important days of every other community. Each community should help and share the religious festivals of every other community.

15.   **Linguistic Tolerance**. India, is a multi-lingual country with linguistic groups speaking different languages, such as Hindi, Urdu, Bangali, Oriya, Assamee, Marathi, Gujarati, Punjabi and so on. Each linguistic group should respect the language of every other linguistic group. Every Indian student should be given full facility to learn his own language wherever he is in India. The work must be begun at the grass-root levels, for this, a band of honest and popular teachers must work. From the impressionable age, boys and girls, must be taught and encouraged to mix with each other.

16.   **Use of Radio / TV.** The services of the Radio and TV must be intelligently used. People of different states must be introduced to each other's cultures and ways of life and common elements should be stressed upon. But these will only create an atmosphere of goodwill and mutual understanding. Other steps are necessary.

17.   **Government Initiative**. At government level, it should be obligatory for members of the All India Services to learn at least one language of a state other than that to which they may belong. On the same principle an All India Educational Service should be organized so that teachers of one State may serve in another at the popular level, political parties or organizations with a communal or racial bias should be ruthlessly banned. Finally, all healthy cultural movements to foster a national, all-India outlook should have to be encouraged.

CONCLUSION

18.   We need national integration on permanent footing and this can be achieved by enlightening our children. All the children, during their formative years, must be taught that we all are Indians belonging to the one Motherland. We must not believe in separate identities. It is the time to merge in one main stream. Unless we develop a sense of unity and leave our narrow outlook, we might loose our independence.

LESSON PLAN : NI 5
UNITY IN DIVERSITY

Period   -   Two

Type   -   Lecture

Code   -   NI 5

Term   -   II (JD / JW)
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Training Aids

1.   Computer, Projector, Charts, Pointer, Black Board& Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

          (b)   Importance and Fundamentals of National Unity   -   35 Min

          (c)   Relevance of NCC in Unifying India   -   35 Min

          (d)   Conclusion   -   05 Min

INTRODUCTION

3.   India is a vast country with diversity in caste, religion, customs and traditions where people from different ethnological groups having different languages or dialects, follow different rituals in daily life and work together shoulder to shoulder. In spite of diversity in physical features and social systems, there is unity in India. It is held together by many ties like territory, language, culture, traditions, economic growth and inter-dependence.
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AIM

4.   To acquaint the cadets about Unity in Diversity.

PREVIEW

5.   The lecture will be conducted in following parts:-

          (a)   Part I   -   Importance and Fundamentals of National Unity.

          (b)   Part II   -   Relevance of NCC in Unifying India.

PART I : IMPORTANCE AND FUNDAMENTALS OF NATIONAL UNITY

Importance of National Unity

6.   National unity is extremely essential for social peace and harmony. We can enjoy peace and security, if there is a mutual trust and goodwill among all the sects of people of the country. No progress can be made by the nation in any field if disruptive tendencies and divisive forces keep on destroying the very fabric of national unity.

Fundamentals of Unity

7.   Some of the essentials for National Unity are as given below:-

(a)   **Language**.   Narrow minded love towards one's own language and negative feeling towards others is a major hindrance to unity. No country can stand on the pillars of an alien language. A language, instead of dividing, should be a unifying force. A via media acceptable to all would go a long way in bringing about linguistic unity in the country. Alongwith regional languages one national language should be fully developed. Languages of different states should be encouraged in the educational institutions.

(b)   **Casteism**.   It is felt in offices and colleges, in politics and almost in all walks of life. The feeling of belonging to an upper caste and hatred for the lower caste is not only an offence against mankind it is a threat to India's unity. The system of casteism and untouchability would eat into the very vitals of a society. Casteism should be tackled with an iron hand. There should be no communal or special constituents. The minority communities should be given their due share of advancement and communal favouritism should be sternly dealt with.

(c)   **Education**.   In India about half of the total population is illiterate. An illiterate person cannot understand what is good or bad for himself or his country. Literacy is an important ingredient for unity. The pattern of education should be so oriented that it encourages love, brotherhood and unity amongst various communities. There could be exchange of teachers from one state to another and there should be no bar on the students of one state for admission into the universities of other states. It would help to cement the bonds of unity which is an essence of any nation.

(d)   **Communalism**. Communalism means discriminatory feelings of an individual against another on the basis of religion or caste. This also endangers the unity of our country. Fundamentalism is the greatest challenge to India's unity. This has to be sternly dealt with. The politicians who encourage provincialism and regionalism should be debarred from elections as members of legislative bodies. All citizens should regard themselves as Indians first and build unity between different sections of our society.

(e)   **Regionalism**.   India is a vast country where regional diversities exist. The feeling of loyalty towards one's own state or region first is also a major hindrance in unity. People from different parts of the diversified subcontinent should meet under a common wing of national consciousness, forgetting the regional differences, sharing the feelings of togetherness and realise the proud feeling in themselves of being part and parcel of a common Indian diaspora.

PART II : RELEVANCE OF NCC IN UNIFYING INDIA

8.   NCC creates awareness amongst youth about the diverse heritage of our country and fosters national integration despite linguistic, cultural, religious and geographical barriers. It helps cadets gain experience to live together, co-operate with each other and work in harmony with cadets of other states whom they have not known before, thus helping in strengthening unity as under:-

(a)   **Ethics and Social Values**. These are very important values in day-to-day activities on the ground and are the essentials of personality. NCC helps to cultivate these values through which the spirit of unity and value of personal sacrifice are ignited in the minds of cadets.

(b)   **Cultural and Traditional Values**. Our country has diverse groups which have been divided on grounds of religion, caste, creed and language. NCC organises various camps and group activities where ample opportunity is given to the cadets to closely watch the cultural and traditional shows of other regions. It provides the cadets with an opportunity to appreciate each other's uniqueness and cultivate friendship.

(c)   **Discipline and Patriotism**. A cadet is trained to give selfless service to society and be available anytime for national cause. NCC can be described as the nation's

disciplined, trained and motivated young force available for national service to provide assistance in various places as well as provide future leadership and participation in all walks of life.

CONCLUSION

9.   It is the duty of each and every citizen of our country to strive to achieve total unity despite of diversity in culture, language and religion. We must remember that there should be no divisions between any religion or community. There is only one India of which, we all Indians are inheritors. We are therefore - Indian first and Indians last.

LESSON PLAN : NI 6
FAMOUS LEADERS OF INDIA

Period   -   One

Type   -   Lecture

Code   -   NI 6

Term   -   II (JD/JW)
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Training Aids

1.   Computer, Projector, Charts, Pointer, Black Board & Chalk.

Time Plan

2.   (a)   Introduction   -   03 Min

          (b)   Pre Independence Leaders   -   20 Min

          (c)   Post Independence Leaders   -   15 Min

          (d)   Conclusion   -   02 Min

INTRODUCTION

3.   India has produced great leaders who have shaped the destiny of the nation. These leaders have had a great impact on the people of the country and therefore immensely contribute towards nation building. India attained independence in 1947 essentially because of the charismatic leaders who spearheaded the freedom struggle. Post independence the Indian leadership has ensured India to be amongst the best developing countries and is stacking its claim to be the permanent member of United Nations. We will be discussing on a few very important leaders, who made a tremendous impact both with in the country as well as in the international arena.

AIM

4.   To acquaint the cadets about the Important Leaders of India.

PREVIEW

5.   The lecture will be conducted in following parts:-

          (a)   Part I   -   Pre-Independence Leaders.

          (b)   Part II -   Post- Independence Leaders.

PART I : PRE-INDEPENDENCE LEADERS

Bal Gangadhar Tilak

6.   Bal Gangadhar Tilak was born on 22 July 1856, in a middle class family in Ratnagiri, a small coastal town in southwestern Maharashtra. His father, Gangadhar Shastri, was a noted Sanskrit scholar and school teacher at Ratnagiri. Tilak was a brilliant student and also very good in mathematics.

Since his childhood, Tilak had an intolerant attitude towards injustice and he was truthful and traightforward in nature. After graduating from Deccan College, Pune in 1877, Tilak cleared the L.L.B. from the Elphinston College, Mumbai. Later, he helped found a school that laid emphasis on nationalism.

7.   Bal Gangadhar Tilak was a social reformer and freedom fighter. He was one of the prime architects of modern India and strongest advocates of Swaraj (Self Rule). He was universally recognized as the "Father of Indian Movement". Tilak was a brilliant politician as well as a profound scholar who believed that independence is the foremost necessity for the well being of a nation. During 1908-1914, Bal Gangadhar Tilak spent six years rigorous imprisonment in Mandalay Jail, Burma. He was deported because of his alleged support to the Indian revolutionaries, who had killed some British people. Following his growing fame and popularity, the British government also tried to stop the publication of his newspapers.

8.   Tilak returned to India in 1915, when the political situation was fast changing under the shadow of World War I. There was unprecedented jubilation in India after Tilak was free and back in India. After seeing such a grand welcome, Tilak decided to re-unite with his fellow nationalists and founded the All India Home Rule League in 1916 with Joseph Baptista, Annie Besant and Muhammad Ali Jinnah.

Gopal Krishna Gokhale

9.   Gopal Krishna Gokhale was born on 09 May1866, at Kothluk in Ratnagiri District of Maharastra. Gokhale received his early education at Rajaram High School in Kothapur and later in 1884, he moved to Bombay, to receive higher education. Gokhale was one of the first Indians to complete graduation. In 1884, after the completion of his graduation in arts from Elphinstone College, Bombay, Gokhale joined as professor of history and political economy at the Fergusson College, Poona. He remained on the staff, and as principal of the college till 1902. Thereafter, he became actively involved with the National Congress movement, as the joint secretary for some years and in 1905, he became the president at the Benares session. The higher education made Gokhale understand the importance of liberty, democracy and parliamentary system of the government.

10.   In 1885-86, Gopal Krishna Gokhale met a great scholar and a social reformer named Mahadev Govind Ranade. who helped Gokhale in establishing the "Servants of India Society" in 1905. The main objective of this society was to train Indians to raise their voices and serve their country. Gokhale dedicated his life to the advancement of the nation's welfare. In 1905, Gokhale was sent by the Congress on a special mission to England to spread India's constitutional demands among the British leaders. Gokhale was instrumental in the formation of the Minto-Morley Reforms of 1909, which was tabled and eventually transformed into law. Gokhale, during his visit to South Africa in 1912, met Mohandas Karamchand Gandhi, popularly known as Mahatma Gandhi. Gokhale made him aware of the issues confronting common people back in India. In his autobiography, Gandhi calls Gokhale his "mentor and guide". Not only Gandhi, Gokhale also guided Muhammad Ali Jinnah, the founder of Pakistan. Jinnah later aspired to become the "Muslim Gokhale".

11.   Due to frequent travelling, excessive exertion and the resulting exhaustion aggravated his diabetes and cardiac asthma. The end came peacefully, on 19 February 1915, when the great leader passed away.

Lala Lajpat Rai

12.   Lala Lajpat Rai was born on 28 January 1865 at Dhudike village in Ferozpur District. His father was a great scholar of Persian and Urdu while his mother was a strict religious lady and inculcated in her children strong morals values. His family values allowed Lajpat Rai, the freedom of having different faiths and beliefs. Lajpatrai received his elementary education in the school

where his father was posted as teacher. He joined the Government College at Lahore in 1880 to study Law. While in college, he came in contact with patriots and freedom fighters like Lala Hans Raj and Pandit Guru Dutt. He studied law from Government College Lahore and thereafter, started his legal practice in Hissar, Haryana. Since childhood he had a desire to serve his country and therefore took a pledge to free it from foreign rule.

13.   In 1886, dut to his father's transfer, the family shifted to Hissar, where he practiced law. There, Lajpat Rai helped to establish the nationalistic Dayanand Anglo-Vedic School and became a follower of Dayanand Saraswati. In 1888 and 1889, he was a delegate to the annual sessions of the National Congress. He moved to Lahore to practice before the High Court in 1892. In 1895, Rai helped found the Punjab National Bank, demonstrating his concern for self-help and enterprise. In 1897, he founded the Hindu Orphan Relief Movement to keep the Christian missions from securing custody of these children. In the National Congress in 1900, he stressed the importance of constructive, nation-building activity and programs for self-reliance. Gradually, Lajpat Rai had curtailed his legal practice and was concentrating all his efforts to free the nation from British. In October 1917, he founded the Indian Home Rule League of America in New York. In 1920, after his return from America, Lajpat Rai was invited to preside over the special session of the Congress in Calcutta, (now Kolkata). He plunged into the non-cooperation movement, which was being launched in response to the Rowlatt Act, in principle. The movement was led by Lajpat Rai's in Punjab and he soon came to be known as "Punjab Kesri" (The Lion of Punjab). Besides, a great freedom fighter and leader, Lala Lajpat Rai was also a noted writer. The United States of America: A Hindu's impressions and a study, History of the Arya Samaj, Swaraj and social change, England's Debt to India: India, The Problems Of National Education In India were among the books, he had written.

14.   On 30 October 1928, to boycott the arrival of the members of the Simon Commission in Lahore, a peaceful procession, headed by Lajpat Rai was launched. Intercepting the march, Superintendent of Police, Scott ordered his police force to 'lathi-charge' the activists. The police targeted Lajpat Rai, in particular, and hit him on the chest. The confrontation left Lala Lajpat Rai with severe injuries and also subsequently led to his death.

Mohandas Karamchand Gandhi

15.   Mohandas Karamchand Gandhi was born on 02 October 1869, at Porbandar, a small town on the western coast of India. His father, Karamchand Gandhi, was a Dewan or Prime Minister of Porbandar. His mother, Putlibai, was a very religious lady and left a deep impression on Gandhiji's mind. Gandhiji was a mediocre student and was excessively shy and timid. Gandhiji was truthful in his conduct right from the childhood. There is a very famous incident in this regard. A British school inspector once came to Gandhiji's school and set a spelling test. Gandhiji spelled all the words correctly except kettle. The class teacher noticed the mistake and gestured Gandhiji to copy the correct spelling from the boy sitting next to him. Gandhiji refused to take the hint and was later scolded for his "stupidity".
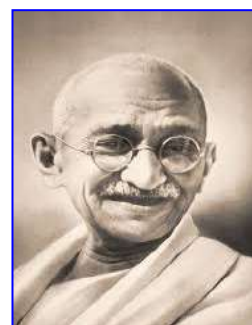
16.   Gandhiji was married at the age of thirteen to Kasturbai. He was in high school at that time. Later on in his life, Gandhiji denounced the custom of child marriage and termed it as cruel. After matriculating from the high school, Gandhiji joined the Samaldas College in Bhavnagar. After the death of Gandhiji's father in 1885, a family suggested that if Gandhiji hoped to take his father's place in the state service, he had better become a barrister which he could do in England in three years. Gandhiji sailed for England on 04 September 1888. Initially he had difficulty in adjusting to English customs and weather but soon he overcame it. Gandhiji completed his Law degree in 1891 and returned to India. He decided to set up legal practice in Bombay but couldn't establish himself. Gandhiji returned to Rajkot but here also he could not make much headway. At this time Gandhiji received an offer from Dada Abdulla & Co. to proceed to South Africa on their behalf to instruct their counsel in a lawsuit. Gandhiji jumped at the idea and sailed for South Africa in April 1893.

17.   It was in South Africa that Gandhiji's transformation from Mohandas to Mahatma took place. Gandhiji landed at Durban and soon he realized the oppressive atmosphere of racial snobbishness against Indians who were settled in South Africa in large numbers. After about a week's stay in Durban Gandhiji left for Pretoria, the capital of the Transvaal, in connection with a lawsuit. When the train reached Pietermaritzburg, the capital of Natal, at about 9 p.m. a white passenger who boarded the train objected to the presence of a "coloured" man in the compartment and Gandhiji was ordered by a railway official to shift to a third class. When he refused to do so, a constable pushed him out and his luggage was taken away by the railway authorities. It was winter and bitterly cold. This incident changed Gandhiji's life forever. He decided to fight for the rights of Indians. Gandhiji then organised the Indian community in South Africa and asked them to forget all distinctions of religion and caste. He suggested the formation of an association to look after the Indian settlers and offered his free time and services. During his stay in South Africa, Gandhiji's life underwent a change and he developed most of his political ideas. Gandhiji decided to dedicate himself completely to the service of humanity. He realized that absolute continence or brahmacharya was indispensable for the purpose as one could not live both after the flesh and the spirit. In 1906, Gandhiji took a vow of absolute continence. In the course of his struggle in South Africa, Gandhiji, developed the concepts of Ahimsa (non-violence) and Satyagraha (holding fast to truth or firmness in a righteous cause). Gandhiji's struggle bore fruit and in 1914 in an agreement between Gandhiji and South African Government, the main Indian demands were conceded.

18.   Gandhiji returned to India in 1915, and on the advice of his political guru Gopal Krishna Gokhale, spent the first year touring throughout the country to know the real India. After a year of wandering, Gandhiji settled down on the bank of the river Sabarmati, on the outskirts of Ahmedabad, where he founded an ashram called Satyagraha Ashram. Gandhiji's first satyagraha in India was in Champaran, in Bihar, where he went in 1917, at the request of a poor peasants to inquire into the grievances of the much exploited peasants of that district, who were compelled by British indigo planters to grow indigo on 15 percent of their land and part with the whole crop for rent. Gandhiji's Satyagraha forced British government to set up a inquiry into the condition of tenant farmers. The report of the committee of which Gandhi was a member went in favour of the tenant farmers. The success of his first experiment in satyagraha in India greatly enhanced Gandhiji's reputation in the country.

19.   In 1921, Gandhiji gave the call for Non-cooperation movement against the ills of British rule. Gandhiji's call roused the sleeping nation. Many Indians renounced their titles and honours, lawyers gave up their practice, and students left colleges and schools. Non-cooperation movement also brought women into the domain of freedom struggle for the first time. Non-cooperation movement severely jolted the British government. But the movement ended in an anti-climax in February 1922. An outbreak of mob violence in Chauri Chaura so shocked and pained Gandhi that he refused to continue the campaign and undertook a fast for five days to atone for a crime committed by others in a state of mob hysteria. Gandhiji was sentenced to six years imprisonment but was released in 1924, on medical grounds.

20.   On 12 March 1930 Gandhiji started the historic Dandi March to break the law which had deprived the poor man of his right to make his own salt. On 6 April 1930, Gandhiji broke the Salt law at the sea beach at Dandi. This simple act was immediately followed by a nation-wide defiance of the law. This movement galvanized the whole nation and came to be known as "Civil Disobedience Movement". Within a few weeks about a hundred thousand men and women were in jail, throwing mighty machinery of the British Government out of gear. This forced the then Viceroy Lord Irwin to call Gandhiji for talks. On 5 March 1931, Gandhi Irwin Pact was signed. Soon after signing the pact Gandhiji went to England to attend the First Round Table Conference and after his return from England Gandhiji was arrested without trial.

21.   After the outbreak of Second World War in 1939, Gandhiji again became active in the political arena. British Government wanted India's help in the war and Congress in return wanted a clear-cut promise of independence from British government. But British government dithered in its response and on 8 August 1942, Gandhiji gave the call for Quit India Movement. Soon the British Government arrested Gandhiji and other top leaders of Congress. Disorders broke out immediately all over India and many violent demonstrations took place. Second World War ended

in 1945 and Britain emerged victorious. In the general elections held in Britain in 1945, Labour Party came to power, and Atlee became the Prime Minister. He promised an early realization of self Government in India. A Cabinet Mission arrived from England to discuss with Indian leaders the future shape of a free and united India, but failed to bring the Congress and Muslims together. India attained independence but Jinnah's intransigence resulted in the partition of the country. Communal riots between Hindus and Muslims broke out in the country in the aftermath of partition. Tales of atrocities on Hindus in Pakistan provoked Hindus in India and they targeted Muslims. Gandhiji worked ceaselessly to promote unity between Hindus and Muslims. This angered some Hindu fundamentalists and on 30 January 1948, Gandhiji was shot dead by one such fundamentalist Nathu Ram Godse while he was going for his evening prayers. The last words on the lips of Gandhiji were Hey Ram.

Vallabhbhai Patel

22.   Vallabhbhai Patel was born on 31 October 1875 in Gujarat to Zaveribhai and Ladbai Vallabhbhai, His father had served in the army of the Queen of Jhansi, while his mother was a very spiritual woman. 1910, Sardar Vallabhbhai Patel went to England to study law. He completed his law studies in 1913 and came back to India and started his law practice. For his Excellences in Law, Vallabhbhai was offered many lucrative posts by the British Government but he rejected all. He was a staunch opponent of the British government and its laws and therefore decided not to work for the British.

23.   In 1917, Sardar Vallabhbhai was elected as the Secretary of the Gujarat Sabha. The next year, when there was a flood in Kaira, the British insisted on collecting tax from the farmers. Sardar Vallabhbhai led a massive "No Tax campaign" that urged the farmers not to pay their land. The peaceful movement forced the British authority to return then land taken away from the farmers His effort to bring together the farmers of his area brought him the title of 'Sardar' to his name. In 1928, the farmers of Bardoli faced a similar problem of "tax-hike". After prolonged summons, when the farmers refused to pay the extra tax, the government in retaliation seized their lands. In 1930 Sardar Vallabhbhai Patel was imprisoned for participating in the famous Salt Satyagraha called by Mahatma Gandhi. His inspiring speeches during the "Salt Movement" transformed the lives of numerous people, who later played a major role in making the movement successful.

24.   Sardar Patel was freed in 1931, following an agreement signed between Mahatma Gandhi and Lord Irwin, the then Viceroy of India. The treaty was popularly known as the Gandhi-Irwin pact. The same year, Patel was elected as the president of Indian National Congress Party for its Karachi session. During the election for the Congress presidency in 1946, thirteen of the sixteen states proposed Sardar Patel's name for the post. It was a very crucial election, as the elected president of the congress party would be later considered as the first Prime Minister of independent India. Just a few days, before the all important election, Mahatma Gandhi request Sardar Patel to leave the candidacy and support Jawaharlal Nehru. Sardar Patel, without pondering twice, stepped down. Sardar Vallabhbhai Patel's health declined in 1950. After suffering a massive heart attack, on 15 December 1950, the great soul left the world.

Sarojini Naidu

25.   Sarojini Naidu was born on February 13, 1879 in Hyderabad. Her father, Dr. Aghornath Chattopadhyaya was a scientist, philosopher, and educator. He founded the Nizam College of Hyderabad. Her mother, Varada Sundari Devi was a Bengali poetess. Dr. Aghornath Chattopadhyaya was the first member of the Indian National Congress in Hyderabad. For his socio-political activities, Aghornath was dismissed from his position as Principal.

26.   Since childhood, Sarojini was a very bright and intelligent child. Though Aghornath wanted his daughter to become a mathematician or scientist, young Sarojini was fond of poetry. At an early age, she wrote a "thirteen-hundred-lines"

long poem "The Lady of the Lake". Impressed with her skills of expressing things with appropriate words, Aghornath Chattopadhyaya encouraged her works. Few months later, Sarojini, with assistance from her father, wrote the play "Maher Muneer" in the Persian language. Sarojini's father Dr. Aghornath Chattopadhyaya distributed some copies of the play among his friends and relatives. He also sent a copy to the Nizam of Hyderabad. Impressed with the works of the little child, the Nizam granted her a scholarship to study overseas. At the age of 16, she got admission in the King's College of England. There, she had the opportunity to meet prominent English authors like Arthur Simon and Edmond Gausse. It was Gausse who asked Sarojini Naidu to write on the Indian themes like great mountains, rivers, temples, social milieu etc. After returning to India, at the age of 19, Sarojini Naidu married Muthyala Govindarajulu Naidu. He was a noted doctor from South India. They were married by the Brahmo Marriage Act (1872), in Madras in 1898. The marriage took place at a time when inter-caste marriages were not allowed and tolerated in the Indian society. Her marriage was a very happy one. They had four children.

27.   Sarojini Naidu was moved by the partition of Bengal in 1905 and decided to join the Indian freedom struggle. She met regularly with Gopal Krishna Gokhale, who later introduced her to the stalwarts of the Indian freedom movement. She met Mahatma Gandhi, Pandit Jawaharlal Nehru, C. P. Ramaswami Iyer and Muhammad Ali Jinnah. With such an encouraging environment, Sarojini later moved on to become leader of the Indian National Congress Party. She traveled extensively to the United States of America and many European countries as the flag-bearer of the Indian Nationalist struggle. During 1915, Sarojini Naidu traveled all over India and delivered speeches on welfare of youth, dignity of labor, women's emancipation and nationalism. In 1916, she took up the cause of the indigo workers of Champaran in the western district of Bihar. In March 1919, the British government passed the Rowlatt Act by which the possession of seditious documents was deemed illegal. Mahatma Gandhi organized the Non-Cooperation Movement to protest and Naidu was the first to join the movement. Besides, Sarojini Naidu also actively campaigned for the Montagu-Chelmsford Reforms, the Khilafat issue, the Sabarmati Pact, the Satyagraha Pledge and the Civil Disobedience Movement.

28.   In 1919, she went to England as a member of the all-India Home Rule Deputation. In January 1924, she was one of the two delegates of the Indian National Congress Party to attend the East African Indian Congress. In 1925, she was elected as the President of the Indian National Congress Party. Sarojini Naidu was the first woman Governor of Uttar Pradesh. Her chairmanship of the Asian Relations Conference in 1947 was highly-appraised. Two years later, on 02 March 1949, Sarojini Naidu died at Lucknow, Uttar Pradesh.

Maulana Abul Kalam Azad

29.   Maulana Abul Kalam Azad was born on 11 November 1888 in Mecca, Islam's main center of pilgrimage. His forefather's came to India during the reign of Mughal Emperor Babar, from Heart, Afghanistan. Azads were the descendent of eminent Ulama or scholars of Islam religion. His mother was the daughter of a rich Arabian Sheikh and his father, Maulana Khairuddin, was a Bengali Muslim of Afghan origins. Khairuddin left India during the 1857 Sepoy Mutiny (Indian rebellion of 1857) and settled in Mecca, where he met his wife. In 1890, He, along with family, returned to Calcutta (now Kolkata).

30.   Maulana Abul Kalam Azad was a renowned journalist of his time. Disturbed by his provocative articles, the British Government decided to deport him off Calcutta. Despite of his house-arrest and imprisonment, Maulana Abul Kalam Azad continued to write against the anti-people policies of the British Government. He was elected as Congress President in 1923 and 1940. Despite being a Muslim, Azad often stood against the policies of the prominent Muslims leaders like Muhammad Ali Jinnah. Azad was the first education minister of independent India. On 22 February 1958 Maulana Abul Kalam Azad passed away. Maulana Abul Kalam Azad was posthumously awarded, Bharat Ratna, India's highest civilian honor, in 1992.

Netaji Subhash Chandra Bose

31.   Netaji Subhash Chandra Bose was born on 23 January, 1897 in Cuttack (Orissa). Subhash was the ninth child among eight brothers and six sisters. His father, Janakinath Bose, was an affluent and successful lawyer in Cuttack and received the title of "Rai Bahadur". He, later became a member of the Bengal Legislative Council. Subhash Chandra Bose was a very intelligent and sincere student but never had much interest in sports. He passed his B.A. in Philosophy from the Presidency College in Calcutta. After reading so many incidents about the exploitation of the fellow Indians by the British, Subhash decided to take revenge. In 1916, Subhash reportedly beat and thrashed one of his British teachers E F Otten when the professor made a racist remark against the Indian students. As a result, Bose was expelled from the Presidency College The incident brought Subhash in the list of rebel-Indians. In December 1921, Bose was arrested and imprisoned for organizing a boycott of the celebrations to mark the Prince of Wales's visit to India.

32.   His father wanted him to become a civil servant and therefore, sent him to England to appear for the Indian Civil Service Examination. Bose was placed fourth with highest marks in English. But his urge for participating in the freedom movement was so intense that, in April 1921, Bose resigned from the coveted Indian Civil Service and came back to India. Soon, he left home to become an active member of India's independence movement. He, later joined the Indian National Congress, and also elected as the president of the party. During the Second World War in September, 1939, Subhash Chandra Bose decided to initiate a mass movement. He started uniting people from all over the country. There was a tremendous response to his call and the British promptly imprisoned him.

33.   In jail, he refused to accept food for around two weeks. When his health condition deteriorated, fearing violent reactions across the country, the authority put him under house-arrest. During his house-arrest, in January, 1941, Subhash made a planned escape. He first went to Gomoh in Bihar and from there he went on to Peshawar (now, Pakistan). He finally reached Germany and met Hitler. Bose had been living together with his wife Emilie Schenkl in Berlin. In 1943, Bose left for south-east Asia and raised an army called as the Indian National Army (INA) with a view to free India from the British. Although it was believed that Netaji Subhash Chandra Bose died in a plane crash, his body was never recovered.

Chandrasekhar Azad

34.   Chandrasekhar Azad was born on 23 July 1906 in Badarka (Unnao). His original name was Chandrasekhar Tiwari. He received his early schooling in Bhavra District in Jhabua, Madhya Pradesh. For higher studies he went to the Sanskrit Pathashala at Varanasi. Chandrashekhar was deeply troubled by the Jalianwala bagh massacre in Amritsar in 1919. Azad, at an age of 15, got involved in the revolutionary activities. He was caught by the British police while participating in the non-cooperation movement and sentenced to whiplashes as punishment. When the magistrate asked him his name, he said "Azad" (independence). From that point onwards, Chandrashekhar assumed the title of Azad and came to be known as Chandrashekhar Azad.
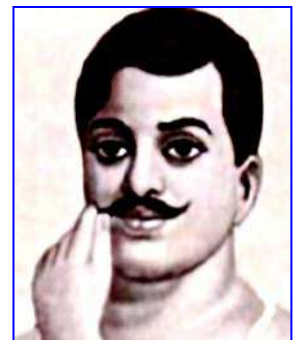
35.   Following the Chauri-Chaura incident, in which police stations were vandalized and burnt by the activists, Mahatma Gandhi called for the suspension of the non-cooperation movement. Azad, along with Bhagat Singh distanced themselves from the paths of Gandhi. They were more attracted by the aggressive and violent revolutionary ideals and means. Towards this end, they formed the Hindustan Socialist Republican Association and trained the revolutionaries like Bhagat Singh, Sukhdev, Batukeshwar Dutt, and Rajguru. Azad was instrumental in carrying out numerous acts of violence. This includes the Kakori Train Robbery in 1926, assassination of John Poyantz Saunders in 1928 at Lahore to avenge the killing of Lala Lajpat Rai. How important his role was in the freedom struggle of India can be understood by the fact that the British police badly wanted to nab him dead or alive. On February 27, 1931 Chandrashekhar Azad while meeting with friends at Alfred Park, Allahabad, and the police surrounded the park and asked Chandrashekhar Azad to

surrender. Azad fought alone and valiantly and killed three policemen but after nearly exhausting his ammunition and foreseeing no means of escape, he shot himself in the head with his last bullet. He was reportedly betrayed by an informer.

Bhagat Singh

37.   Bhagat Singh was born on 27 September 1907 at Banga in Lyallpur district (now Pakistan). From his early childhood, Bhagat Singh was imbued with the family's spirit of patriotism. At the time of his birth, his father Kishan Singh was in jail. His uncle, Sardar Ajit Singh, was a great freedom fighter and established the Indian Patriots' Association.

38.   On 30 October 1928, an all-parties procession, led by Lala Lajpat Rai, marched towards the Lahore railway station to protest against the arrival of the Simon Commission. Stopping the procession, police made a lathi charge at the activists. The confrontation left Lala Lajpat Rai with severe injuries and also later led to his death. As a revenge to the death of Lala Lajpat Rai, Bhagat Singh and his associates plotted the assassination of Scott, the Superintendent of Police, believed to have ordered the lathi charge. The revolutionaries, mistaking J.P. Saunders, an Assistant Superintendent of Police, as Scott, killed him instead. Bhagat Singh quickly left Lahore to escape his arrest. To avoid recognition, he shaved his beard and cut his hair, a violation of the sacred tenets of Sikhism.

39.   On April 8 1929 Bhagat Singh and Batukeshwar Dutt threw a bomb onto the corridors of the assembly and shouted 'Inquilab Zindabad!' The bomb was not meant to kill or injure anyone and therefore it was thrown away from the crowded place. Following the blasts both Bhagat Singh and Batukeshwar Dutt courted arrest. The British authority, while interrogating them, came to know about their involvement in the murder of J. P. Saunders. Bhagat Singh, Rajguru, and Sukhdev were charged with the murder. Singh admitted to the murder and made statements against the British rule during the trial. Bhagat Singh along with other revolutionaries found responsible for the Assembly bombing and murder of Saunders. On 23 March 1931, Bhagat Singh was hanged in Lahore with his fellow comrades Rajguru and Sukhdev. Bhagat Singh was cremated at Hussainiwala near Ferozepur, on banks of Sutlej river.

PART II : POST- INDEPENDENCE LEADERS

Dr. Rajendra Prasad

40.   Dr. Rajendra Prasad was born 3 Dec 1884, into a big joint family of Mahadev Sahay in the Siwan district of Bihar, near Chhapra. His father, Mahadev Sahay was a scholar of Persian and Sanskrit language while his mother Kamleshwari Devi was a religious lady. Since childhood, Rajendra Prasad was a brilliant student. In 1902, Rajendra Prasad joined the Presidency College. He was initially a student of science and his teachers included J.C.Bose and Prafulla Chandra Roy. Later, he decided to switch his focus to the arts. Prasad lived with his brother in the Eden Hindu Hostel. A plaque still commemorates his stay in that room. Dr. Rajendra Prasad was instrumental in the formation of the Bihari Students' Conference in 1908. It was the first organization of its kind in the whole of India. The move produced the entire political leadership of the twenties in Bihar.
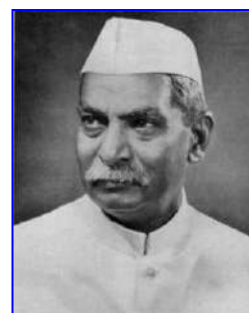
41.   In 1915, Rajendra Prasad passed with a Gold medal in Masters in Law examination with honors. He then went on to complete his Doctorate in Law. Rajendra Prasad used to practice his Law & studies at Bhagalpur in Bihar and eventually emerged as a popular and eminent figure of the entire region. In 1916, Rajendra Prasad joined the High Court of Bihar and Orissa. Such was his intellect and his integrity, that often when his adversary failed to cite a precedent, the judges asked Rajendra Prasad to cite a precedent against himself. in 1911, during his stay in Calcutta (now Kolkata) as a legal practitioner, Rajendra Prasad joined the Indian National Congress Party

and was subsequently elected to the AICC. Nationalist India expressed its admiration by electing Rajendra Prasad as the President of the Bombay session of the Indian National Congress Party in October 1934.

42.   In July 1946, when the Constituent Assembly was established to frame the Constitution of India, Dr. Rajendra Prasad was elected its President. And, eventually he was also elected as the first President of Republic of India. Rajendra Prasad spent the last few months of his life in retirement at the Sadaqat Ashram in Patna and after suffering from brief illness for around six months, Dr. Prasad expired on 28 February, 1963. Rajendra Prasad was awarded with "Bharat Ratna", the nation's highest civilian award.

Jawaharlal Nehru

43.   Jawaharlal Nehru was born on 14 November 1889, to a wealthy Kashmiri Brahmin family in Allahabad, Uttar Pradesh. His father Motilal Nehru was a renowned advocate and also an influential politician. For higher education, young Nehru was sent to Harrow school and then later to Cambridge University in England. After spending two years at the Inner Temple, London, he qualified as a barrister. During his stay in London, Nehru was attracted by the ideas of liberalism, socialism and nationalism. In 1912, he had returned to India and joined the Allahabad High Court Bar.In 1916, Nehru participated in the Lucknow Session of the Congress. There, after a very long time, member of both the extremist and moderate factions of the Congress party had come. All the members equivocally agreed to the demand for "swaraj" (self rule). Although the means of the two sections were different, the motive was "common" - freedom.
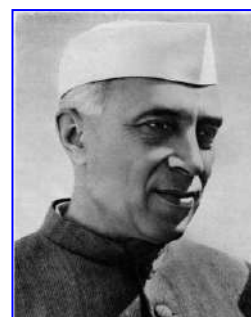
44.   In 1921 Nehru was imprisoned for participating in the first civil disobedience campaign as general secretary of the United Provinces Congress Committee. The life in the jail helped him in understanding the philosophy followed by Gandhi and others associated with the movement. He was moved by Gandhi's approach of dealing with caste and "untouchablity". With the passing of every minute, Nehru was emerging as a popular leader, particularly in Northern India. In 1922, some of the prominent members including his father Motilal Nehru had left the congress and launched the "Swaraj Party". The decision, no doubt upset Jawahar but he rejected the possibility of leaving the Congress party. He was also elected as the president of the Allahabad municipal corporation in 1920. In 1930 Mahatma Gandhi advocated Nehru as the next president of the Congress. The decision was also an attempt to abate the intensity of "communism" in the Congress. The same year, Nehru was arrested for the violation of the Salt Law.

45.   In 1936, Nehru was re-elected as the president of the Indian National Congress. Sources suggest that a heated argument between the classical and young leaders had taken place in the Lucknow Session of the party. The young and "new-gen" leaders of the party had advocated for an ideology, based on the concepts of Socialism. On 15 August, 1947, the congress succeeded to overthrow the influential British Empire. Nehru was recognized as the first Prime Minister of independent India. He was the first PM to hoist the national flag and make a speech from the ramparts of Lal Quila (Red Fort). The time had come to implement his ideas and construct a healthy nation. In 1951, Jawaharlal Nehru launched the country's "First Five-Year Plan" emphasizing on the increase in the agricultural output. Jawaharlal Nehru was supporter of the anti-imperialist policy. He extended his support for the liberation of small and colonized nations of the world. He was also one of the prominent architects of the Non-Aligment Movement. Following the policies of NAM, India decided stay away from being a part of the global bifurcation.

Lal Bahadur Shastri

46.   Lal Bahadur Shastri was born on 02 October 1904, in Moghalsarai, (Uttar Pradesh). He shares his birthday with Mahatma Gandhi, the father of the nation. Lal Bahadur was against the prevailing caste system and therefore decided to drop his surname. The title "Shastri" was given after the completion of his graduation at Kashi Vidyapeeth, Varanasi in 1925. His father Sharada Prasad, a schoolteacher by profession, passed away when Lal Bahadur was barely two years old.

His mother Ramdulari Devi took him and his two sisters to their maternal grandfather Hazari Lal's house. Lal Bahadur acquired virtues like boldness, love of adventure, patience, self-control, courtesy, and selflessness in his childhood. After completing his primary education at Mirzapur, Lal Bahadur was sent to Varanasi, where he stayed with his maternal uncle. Young Lal Bahadur, inspired with the stories and speeches of national leaders, developed a desire to participate in the Indian nationalist movement. He would also spend time by reading foreign authors like Marx, Russell and Lenin. In 1915, a speech of Mahatma Gandhi changed the course of his life and decided to jump into the fire of Indian freedom struggle.
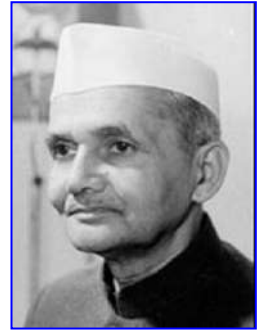
47.   In 1930, Lal Bahadur Shastri became the secretary of the Congress party and later the president of the Allahabad Congress Committee. He played a crucial role during the "Salt Movement". Lal Bahadur lead a door-to-door campaign, urging people not to pay land revenue and taxes to the British authority. The leader was also sent to jail for the campaign. During the long span of nine years he spent in jails, Lal Bahadur utilized the time in reading the social reformers and western philosophers. He was one of the leading and prominent faces that continued the Quit India movement, called by Mahatma Gandhi. Lal Bahadur, in 1937, was elected to the UP Legislative Assembly.Lal Bahadur Shastri had served in various positions before being elected as the Prime Minister. He was a responsible man and known for his ethics and morality. Nehru, had once said, "No one could wish for a better comrade than Lal Bahadur, a man of the highest integrity and devoted to ideas".

48.   Jawaharlal Nehru was succeeded as Prime Minister by a mild-mannered and soft-spoken Lal Bahadur Shastri on 9 June, 1964. He was a follower of Nehruvian socialism. Lal Bahadur Shastri, who had earlier suffered two heart attacks, died of the third cardiac arrest on 11 January, 1966. He is the only Indian Prime Minister, to have died in office, overseas. Lal Bahadur Shastri was the first person to be posthumously awarded the Bharat Ratna, (India's highest civilian award).

Indira 'Priyadarshini' Gandhi

49.   Indira 'Priyadarshini' Gandhi was born on 19 November, 1917, in Allahabad to Kamala and Jawaharlal Nehru. Indira's father was a well-educated lawyer and an active member of the Indian Independence Movement. Since the Nehru family was the centre of national political activity, Indira Gandhi was exposed to politics when she was a little child. A leader like Mahatma Gandhi was among the frequent visitors of the Nehru house in Allahabad. She passed her Metric from Pune University and went to Shantiniketan in West Bengal. Here, the students were made to lead a very strict and disciplined life. She later went on to study in Switzerland and Oxford University in London. Indira, then stayed few months in Switzerland with her ailing mother. In 1936, after Kamala Nehru finally succumbed to tuberculosis, she returned to India. At the time of Kamala's death, Jawaharlal Nehru, was languishing in the Indian jails.

50.   After her father's return to the country, Indira showed an active participation in the national movement. She also became a member of the Indian National Congress. Here, she met Feroze Gandhi, a journalist and key member of the Youth Congress - the youth wing of the Congress Party. In 1941, despite his father's objections, she married Feroze Gandhi. In 1944, Indira gave birth to Rajiv Gandhi and two years later she gave birth to Sanjay Gandhi. After the independence, Indira Gandhi's father Jawaharlal Nehru, became the first Prime Minister of India. Indira Gandhi decided to shift to Delhi to assist his father. Her two sons remained with her but, Feroze decided to stay back in Allahabad. He was working as an editor of The National Herald newspaper founded by Motilal Nehru.

51.   During the 1951-52 Parliamentary Elections, Indira Gandhi handled the campaigns of her husband, Feroze, who was contesting from Rae Bareli, Uttar Pradesh. After being elected as MP, Feroze opted to live in a separate house in Delhi. In 1959, Indira Gandhi was elected as the

President of the Indian National Congress Party. She was one of the political advisors of Jawaharlal Nehru. After the death of Jawaharlal Nehru on 27 May 1964, Indira Gandhi decided to contest elections and eventually elected. She was appointed as the in-charge of the Information and Broadcasting Ministry under Prime Minister Lal Bahadur Shastri. Following the death of Lal Bahadur Shastri on 11 January 1966, in Tashkent, the race to the coveted throne of Prime Minister began. The party faced a serious trouble, as, all the senior leaders of the Congress party desired to contest. Unable to reach at a consensus, the high-command picked Indira as their contender. The virtual reason behind Indira's selection was the thought that "Indira would, indirectly be run by the top leadership." But Indira Gandhi, showing extraordinary political skills elbowed the Congress stalwarts out of power.

52.   In 1971, in order to stop the Bangladeshi refugees from flowing in into the country, Indira Gandhi supported the East Pakistan's struggle for freedom against West Pakistan. India provided logistical support and also sent troops to fight against West Pakistan. India's triumph in the war of 1971 against Pakistan enhanced the popularity of Indira Gandhi as a shrewd political leader. In 1975, the Opposition parties and social activists staged regular demonstrations against the Indira Gandhi-led Central government over rising inflation, the poor state of economy and unchecked corruption. The same year, a ruling of Allahabad High Court that Indira Gandhi had used illegal practices during the last election helped in adding fuel to the existing political fire. The verdict ordered her to vacate her seat, immediately. The agitation and anger of the people intensified. Realizing the consequences, on 26 June, 1975, Indira Gandhi declared "an emergency, due to the turbulent political situation in the country". On 31 October 1984, Indira Gandhi's bodyguards Satwant Singh and Beant Singh, as a revenge of the Golden Temple assault, assassinated the Prime Minister at her Safdarjung Road residence.

CONCLUSION

53.   The study of the lives and biography of our national leaders is very important and inspiring for all of us because, we can learn and imbibe some of the leadership qualities of these great leaders. Besides we must also not forget the great sacrifices they have made in getting us freedom from the British.

LESSON PLAN : NI 7
IMAGES / SLOGANS FOR NATIONAL INTEGRATION

Period   -   Three

Type   -   Lecture

Code   -   NI 8

Term   -   II (JD/JW)
_____

Training Aids

1.   Computer, Projector, Charts, Pointer, Black Board& Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

          (b)   Images of National Integration   -   55 Min

          (c)   Slogans of National Integration   -   55 Min

          (d)   Conclusion   -   05 Min

INTRODUCTION

3.   A Nation is a community which considers itself one. It is held together by many ties just like territory, language, culture, economic inter dependence etc. Thus a Nation is a large group of people, sharing the same culture, language or history and inhabiting a particular state or area. India is a Nation sharing different culture, religion and history under one sovereign state. Indian civilization is one of the oldest civilizations in the world. In the past people belonging to different races and religions came & settled here. They brought with them their distinctive language and life style. Different tribes with their distinct languages intermingle with various tribes of our country. That is why our culture is described as an example of composite culture. It is made up of all communities, races and religions.

AIM

4.   To acquaint the cadets about National Integration through various Images / Slogans.

PREVIEW

5.   The lecture will be conducted in following parts:-

          (a)   Part I   -   Images of National Integration.

          (b)   Part II   -   Slogans of National Integration.

PART I : IMAGES OF NATIONAL INTEGRATION

6.   **General.** Images and posters have a very lasting and defining effect / impression on a persons mind and keeps reminding him of what he has seen. This has a very positive effect on his thinking and actions. Images / posters also have are very major impact on impressionable minds of children and adolescents. That is the reason of putting up huge hoardings you see on the roads and in towns / cities. It is one of the most effective method's of conveying a social message.

7.   Some of the important images related to National Integration are as under:-

राष्ट्रीय एकता
संकल्पना
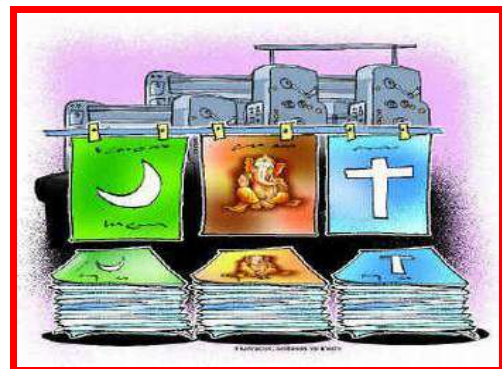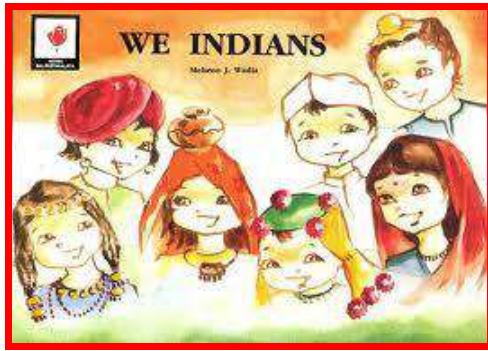
PART II : SLOGANS OF NATIONAL INTEGRATION

8.   Just like images / posters, slogans also have a positive and lasting impression on the minds. Some of the important slogans related to National Integration are as under:-

CONCLUSION

9.   Images, posters and slogans have a lasting impression on the minds of people. Hence it is an important tool for promoting National Integration in India. The NCC Logo is itself an excellent example of National Integration and is true to its image.

LESSON PLAN : NI 8
CONTRIBUTION OF YOUTH IN NATION BUILDING

Period   -   Two

Type   -   Lecture

Code   -   NI 8

Term   -   II (JD / JW)

_____

Training Aids

1.   Computer, Projector, Pointer, Black Board & Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

            (b)   Contribution of Youth in Nation Building   -   50 Min

            (c)   Conclusion   -   05 Min

INTRODUCTION

3.   The youth of a nation are the backbone and the most powerful force within the nation. They are the hope of the future and can shape the destiny of a country. History shows that countries subjected to alien rule have without exception sought the help of youth in times of crisis. The youth have also been instrumental in the change of governments, whenever need for such a change has been felt. They have always been in the forefront in the building of political, social and economic orders of a society. They play a positive role for the cause of a nation and national integration. Today's generation faces greater challenges in national building due to the force and pressure of internal politics and external conflicts.
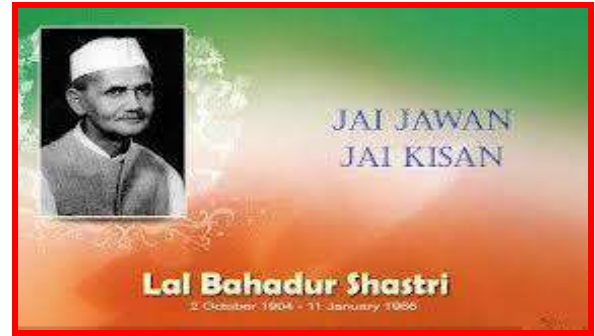
AIM

4.   To acquaint the cadets about the Contribution of Youth in Nation Building.

CONTRIBUTION OF YOUTH IN NATION BUILDING

National Integration

5.   The youth act as a catalyst in an already vibrant country aspiring to find its rightful place in the world politics and play a more effective role of a true leader. To help India realise its dreams the youth can and ought to play a leading role in bringing together the people of different states with diverse religions and integrate them emotionally, culturally and geographically, contribute in extricating society from age old stigmas of casteism, communalism, parochialism and regionalism, help preserve cultural heritage and infuse the spirit of patriotism, thus keep the country together and defeat all separatist attempts by unscrupulous elements.

Political Measures

6.   Today's youth can contribute immensely to the politics of the country. If a nation does not rejuvenate its political leadership profile it would be-come old in thought and slow in action. The youth are the future of a nation and its future leaders. The opportunity provided at educational

level to contribute to politics should be encouraged and the youth should learn and follow clean and meaningful politics which can thereafter be translated into greater national aim.

Security

7.   The nation today faces grave security concerns both externally and internally. This intensifies when viewed with the fact that our country is a respected democratic country with a secular base. The terrorist, fundamentalists are a grave danger to our unity. The youth are the pulse and strength of the nation and with their alertness and their balanced approach can help in bringing stability to the nation and help in thwarting selfish designs of the enemy. The youth are a big force which if channelized correctly, can ensure and enhance the security of the country.

Social and Cultural

8.   The youth are the privileged persons in the society who can contribute to development. Therefore they have a special responsibility and should actively participate in the development plans of the nation. Youth should be acquainted with the major problems facing the country. Firstly, they should study the basic problem of health, AIDS, environment, nutrition, lack of education, economic backwardness, ignorance, dowry-deaths, casteism, and superstitions /false beliefs of the masses. Our society is experiencing a constant change and faces the conflicting ideologies of the past vis-a-vis the West. Our past with a shadow of casteism, superstition and religious over tunes needs a balanced approach and the youth can play a very important role in this regard and educate the general public about the misnomers relating to superstition. The need to do away with the caste system and encourage lateral, vertical and diagonal in mingling of people to mesh them into a true India n network. They can establish good rapport with the people so as to involve them in active participation in social work which will help to make society a better place to live in.

9.   Further, the Government programmes such as 'Clean and Green' are very good opportunities for youth to join hands with their countrymen and give impetus in the process of nation building.

10.   India has a National Cadet Corps (NCC), National Social Service (NSS), National Service Volunteer Scheme (NSVS) and other similar organization, which are an asset to our Nation. Apart from these measures to channelise young energy into constructive channels, following few steps can be taken.

(a)   Films with social upliftment and nation building as theme would make a fair contribution in instilling a healthy and progressive attitude in the youth. Non Government Organisation (NGO) should also engage youth in such programmes which strengthen nation building.

(b)   There should be integration committees, composed of representatives of various communities at village, city, district, state and national level. Youth should be engaged in such committees to contribute in society. Youth to train themselves effectively both in institutional and adventure activities, as such activities imbibe self confidence, harmony and patriotism.

CONCLUSION

11.   Young men and women are the reservoirs of unbounded energy and enthusiasm. Youth should accept all the challenges faced by the country. Let the youth be put to best use. For this, their energies, skills and talents have to be properly harnessed, channelised and put to right use for the common good of the country.

INDEX

DRILL

LESSON PLAN : D 1
DRILL KI AAM HIDAYATEN AUR WORDS OF COMMAND

Period   -   One

Type   -   Lecture and Practice

Code   -   D 1

Term   -   I (JD/JW)

_____

Training Aids

1.   Drum and drummer, Pace and stick, Angle board, Back stick, Ghadi (samay suchak).

Time Plan

2.   (a)   Drill Ki Aam Hidayaten   -   20 Min

      (b)   Words of Command   -   20 Min

BHUMIKA

3.   Shuru shuru mein fauj ke andar, drill ki sikhlai Germany ke Major General Dral ne 1666 mein shuru kiya tha, is uddesh ko samne rakhte hue ki, faujon ko control karne ke liye drill hi ek aisa zariya hai, jisse discipline, turnout aur team spirit ki bhavna lai ja sakti hai. Yeh pichli ladaion se sabit ho chuka hai ki, ladai ke maidan mein discipline ki buniyad rakhne mein, drill ne kafee sahyog diya hai.

TARTIB

4   Is lesson ko do bhagon mein chalaya jayega.

      (a)   Bhag I   -   Drill ke Aam Hidayaten.

      (b)   Bhag II   -   Words of Command.

BHAG I : DRILL KI AAM HIDAYATEN

5.   **Drill Ki Paribhasha.** Kisi procedure ko kramwar aur uchit tarike se karne ki karyawahi ko 'drill' kahte hain.

6.   **Drill ke Prakar.** Drill do prakar ki hoti hai:-

      (a)   **Open Drill**. Open drill field mein kiya jata hai.

      (b)   **Close Drill.** Close drill peace mein rahte hue, parade ground men ki jata hai

7.   **Drill Ka Maksad.** Drill ke nimnlikhit maksad hote hain:-

      (a)   Drill discipline ki buniyad hai.

      (b)   Drill se milkar kaam karne ki aur hukm manne ki aadat parti hai.

      (c)   Drill officers, JCOs aur NCOs ko command aur control sikhati hai.

(d)   Drill dress pahanna aur chalna phirna sikhati hai.

(e)   Drill ko dekh kar kisi unit ke discipline aur morale ka pata lagaya ja sakta hai.

8.   **Drill Ke Usul.** Drill ke teen usul hain:-

(a)   Smartness (furti).

(b)   Steadiness (sthirta).

(c)   Coordination (milkar kaam karna).

9.   **Foot Drill Ke Usul.** Shoot the foot forward (paon ko teji se age nikalna).

10.   **Drill Mein Buri Adaten.** Drill mein buri adaten is prakar se hain:-

(a)   Aankh ka ghumana (rolling of eyes).

(b)   Koodna aur fudakna (hopping and jumping).

(c)   Paon ko ghasit kar chalna (dragging of foot).

(d)   Arion ko takrana (clicking the heel).

(e)   Boot mein angulion ko harkat dena.

BHAG II : WORDS OF COMMAND

11.   Ek sahi word of command nirbhar karta hai awaz ki "tone aur pitch" pe. Durust word of command "clear aur unchi awaz " men diya jata hai, taki uska turant amal kiya jaye. Ek ache word of command dene ke liye nimnlikhit baten zaruri hain:-

(a)   **Loudnes (Swar)**. Word of command ki loudness is baat pe nirbhar karta hai ki word of command kitne logon ko diya ja rah hai ya unki duri kitni hai. Word of command dene ke liye, commander apne aap ko squad ki samne, bichon bich unki taraf muh kar ke khada ho kar diya jata hai. Word of command hamesha – savdhan position men diya jata hai.

(b)   **Clarity (Safai).** Jeeb, lips aur danton ka sahi talmel ke sath clear word of command diya jae. Sust word of command squad men tezi nahi paida karega.

(c)   **Pitch.** Durust word of command ke liye sahi pitch ka hona zaruri hai.

(d)   **Timing.** Word of command ki sahi timing uske turant amal ke liye bahut hi zaruri hai. Ek word of command ke do bhag hoten hai "cautionary" aur "executive". Cautionary aur executive ke bich char (four) tez kadam ka fasla hona chahiye. Tez chal men, cautionary word of command, baen pair se shuru hota hai.

12.   **Words of Command.** Drill men nimlikhit words of command diye jaten hain (Byan ke sath Namuna):-

(a)   Savdhan aur Vishram.

(b)   Dahine Mud ya Baen Mud.

(c)   Piche Mud ya Age Mud.

(d)   Dahine Dekh ya Baen Dekh.

(e)   Tez Chal ya Dhire Chal aur Tham.

(f)   Khuli Line Chal ya Nikat Line Chal.

(g)   Line Ban, Sajja ya Visarjan.

(h)   Dahine Salute, Baen Salute ya Samne Salute.

13.   **Abhyas.** Ustad words of command ka ek ek kar ke abhyas karaye.

LESSON PLAN : D 2
SAVDHAN, VISHRAM, ARAM SE AUR MUDNA

Period   -   One

Type   -   Lecture and Practice

Code   -   D 2

Term   -   I / II (JD/JW)

_____

Training Aids

1.   Nil.

Time Plan

2.   (a)   Savdhan, Vishram, Aram Se   -   15 Min

             (b)   Khade Khade Mudna   -   15 Min

UDDESH

3.   Is period mein khaali haath drill men Savdhan, Vishram, Aram Se aur Khade Khade Mudna ki karyawahi sihkana hai.

TARTIB

4.   Yeh sabak do bhagon mein chalaya jayega:-

             (a)   Bhag I   -   Savdhan, Vishram, Aram Se – Bayan va Namuna.

             (b)   Bhag II   -   Khade Khade Mudna – Bayan va Namuna.

BHAG I : SAVDHAN, VISHRAM AUR ARAM SE

Savdhan

5.   Jab drill ki koi bhi harkat karni ho toh hamesha savdhan position se hi shuru hoti hai. Iske alawa, apne se senior ke saath baat karni ho to, savdhan position se hi baat ki jaati hai.

6.   **Bayan se Namuna**. Jab word of command milta hai "Savdhan" to baen paon ko 6 inch uthate hue dahine paon ki aaedi ke saath baen paon ki aaedi milaen. Jab baen paon zameen par lagta hai to shout karen ek. Savdhan position mein dekhne ki baten.

             (a)   Dono aaedian mili hui aur toe ka angle 30 degree.

             (b)   Dono ghutne kase hue hon.

             (c)   Dono baju dahine aur baen taraf pant ki silai ke saath mile hue aur mutthi kudrati taur par bandh ho.

             (d)   Pent kheencha hua, chhati uthi hui, kandhe pichhe kheenche hue, gardan collar ke saath mili hui,chin upar aur nigah samne.

Savdhan Position   **Vishram Position**

Vishram Aur Aram Se

7.   Jab senior ke saath baat khatam kar lete hain to, Vshram ki karyawahi ki jaati hai ya drill ki harkat khatam hone par Vishram aur Aram se ki karyawahi karte hain.

8.   **Bayan se Namuna.** Jab Savdhan position se word of command milta hai 'Vishram" to baen paon ko 6 inch upar uthate hue, 12 inch door lejate hue zamin par rakhen aur, saath hi, dono bajuon ko pichhe le jaen, bayen haath niche aur dahina haath upar se pakden aur shouting karen ek. Is position mein dekhne ki baten:-

(a)   Dono aaedion ke beech 12 inch ka fasla.

(b)   Dono ghutne kase hue.

(c)   Dono haath pichhe bandhe, Bayen haath niche aur dahina haath upar se, angulian niche ki taraf , dahina angutha baen anguthe ke upar se.

(d)   Badan ka bojh dono paon par.

9.   **Aram se** ke word of command par, kamar ke upar wale hisse ko dheela Karen lekin, paon se harkat nahin hogi.

10.   **Abhyas**. Ustad pure squad ka ginti se 'word of command' pe durust abhyas karaen.

BHAG II : KHADE KHADE MUDNA

Dahine Mudna

11.   Jab hum ek jagah par khade hon aur 90 degree par dahine taraf apni simmat aur formation ki badli karni ho to "Dahine Mud" ki karyawahi ki jati hai.

12.   **Ginti aur Bayan se Namuna**.

(a)   Jab savdhaan position se word of command milta hai ginti se mudna 'dahine mud ek' to is word of command par dahine paon ki aaedi aur baen paon ke panje par dahine taraf 90 degree teji se ghoom jayen aur shout karen 'ek' . Is position mein dekhne ki baten - dahina paon pura zameen par laga hua aur, badan ka bojh dahine paon par, baen paon ka panja zameen par aur aedi uthi hui, dono tangen kasi hui hon.

(b)   Jab word of command milta hai 'do' to is word of command par baen paon ko 6 inch upar uthate hue dahine paon ke sath savdhaan position mein lagaen aur shout karen 'do'. Is position mein dekhne ki baten - Dahine taraf 90 degree par simmat ko badli ki hue ho.

13.   **Abhyas**. Ustad pure squad ka ginti se 'word of command' pe durust abhyas karaen.

Baen Mudna

14.   Jab ham ek jagah par khade hon aur 90 degree par baen taraf apni simmat aur formation ki badli karni ho to "baen mud" ki karyawahi ki jaati hai.

15.   **Ginti aur Bayan se Namuna**.

(a)   Jab Savdhan position se word of command milta hai 'ginti se mudna baen mud ek' to is word of command par baen paon ki aaedi aur baen paon ke panje ki madad se 90 degree, teji se ghoom jayen aur shouting karen 'ek'. Is position mein dekhne ki baten - badan ka bojh baen paon par aur bane paon pura zameen par laga hua ho, dahine paon ka panja zameen par aur aaedi uthi hui ho, dono tangen kasi hui.

(b)   Jab word of command milta hai 'do', to dahine paon ko 6 inch upar uthate hue baen paon ke sath savdhaan position mein lagaen aur shouting karen 'do'. Is position mein dekhne ki baten - baen taraf 90 degree par simmat ko badli kiye hue ho.

16.   **Abhyas**. Ustad pure squad ka ginti se 'word of command' pe durust abhyas karaen.

Pichhe Mudna

17.   Jab ham ek jagah par khade hon aur, 180 degree par piche ki taraf apni formation ko kayam rakhte hue simmat ko badli Karen to, "pichhe mud" ki karyawahi ki jaati hai.

18.   **Ginti aur Bayan se Namuna**.

(a)   Jab Savdhan position se word of command milta hai 'ginti se mudna pichhe mud ek' to is word of command par dahine paon ki aaedi aur baen paon ke panje par 180 degree par teji se ghoom jayen aur shouting karen 'ek'. Is position mein dekhne ki baten - dahina paon pura zameen par laga hua, badan ka bojh dahine paon par, baen paon ka panja zameen par aur aaedi uthi hui. Dono tangen kasi hui aur thai muscle apas men mile hue.

(b)   Jab word of command milta hai 'do' to baen paon ko 6 inch upar uthate hue dahine paon ke saath savdhan position mein lagaen aur shouting karen 'do'. Is position mein dekhne ki bat - 180 degree par simmat ko badli ki hui ho aur baki position savdhan.

19.   **Abhyas**. Ustad pure squad ka ginti se 'word of command' pe durust abhyas karaen.

Aadha Dahine Aur Baen Mudna

20.   Jab khade khade squad se salute ka abhyas karwana ho ya iske alawa dahine/baen squad banana ho ya disha badal ki karyawahi karna ho toh adha dahine / baen mud ki karyawahi ki jati hai.

21.   **Ginti aur Bayan se Namuna.** Ginti aur bayan se namuna usi tarah hai jaise aap dahine / baen mud ka namuna dekh chuke hain, sirf itna fark hai ki adha dahine / baen mudne mein 90 degree ke bajay 45 degree par dahine/ baen ko simmat ki badli Karen.

22.   **Abhyas.** Ustad pure squad ka, ginti se, 'word of command' pe durust abhyas karaen.

LESSON PLAN : D 3
KADWAR SIZING, TEEN LINE BANANA,
KHULI LINE AUR NIKAT LINE MEN MARCH

Period   -   One

Type   -   Lecture and Practice

Code   -   D 3

Term   -   I / II (JD/JW)
_____

Time Plan

1.   (a)   Kadwar Sizing   -   15 Min

          (b)   Teen line Banana   -   10 Min

          (c)   Khuli Line aur Nikat Line men March   -   15 Min

UDDESH

2.   Is period mein khaali haath drill men Kadwar Sizing, Teen File Banana, Khuli Line aur Nikat Line men March sihkana hai.

TARTIB

3.   Yeh Sabak ko teen bhagon mein chalaya jayega:-

          (a)   Bhag I   -   Kadwar Sizing.

          (b)   Bhag II   -   Teen File Banana.

          (c)   Bhag III   -   Khuli Line aur Nikat Line men March.

BHAG I : KADWAR SIZING

4.   **Zarurat**. Kadwar sizing ki zarurat drill me hamesha hoti hai, khas kar ke Ceremonial Drill ke liye. Is men pure squad ko ke line men khada karten hai taki Lamba sabse dahine khada ho aur size wise chota uske baen khada ho. Kadwar ki hui parade aur squad, dur se dekhne main achchhe aur sundar lagte hai.

5.   **Bayan.**

          (a)   Kisi bhi formation mein khade squad ko ceremonial kadwar karne ke liye word of command milta hai "squad lamba dahine -chhota baen - ek line mein kadwar khada ho", to pura squad line tod karke, sabse lamba jawan dahine, baki uske baen khade ho jayenge.

          (b)   Jab word of command milta hai "squad ginti kar" to lambe se shuru karke - ek, do, teen, char ki ginti karen. Is ke bad word of command "visham ek kadam age aur - sam kadam piche" par No 1, 3, 5 ek kadam age lenge aur, No 2, 4, 6 ek kadam piche lenge.

          (c)   Is ke bad word of command milta hai "No 1 khada rahe, visham dahine aur sab baen, dahine baen mud". Is word of command pe squad tej chal se bari bari se jawan No 1 ke piche milenge aur phir 'in 3s' madhya, piche aur age khade honge. Yani No1 agli

line(peheli rank) ka 1 hoga, No 3 madhya line ka 1 hoga aur No 5 pichli line ka 1 hoga. No7 fir No 2 rank ka No 1 hoga. Is trah se, squad kadwar ho jata hai, jis men lambe jawan dahine aur baen hote hain aur bich men chote jawan hote hain.

6.   **Abhyas.** Isi karyawahi ks ustad squad se 'ginti se' abhayas karaen.

BHAG II : TEEN LINE BANANA

7.   **Zarurat**. Jab nafri nau se jyada ho to teen file (line) banane ki karyawahi ki jaati hai.

8.   **Bayan.**

(a)   Jab word of command milta hai "no 1 line ban" to seekhe hue tarike ke mutabik karyawahi ki jayegi. Isi tarah No 2 bhi No 1 ke piche line ban karega aur fir No 3, No 2 ke ek kadam piche jaakar tham karega aur "up" bolega, milkar vishram karenge. Jab word of command milta hai 'No 4 line ban' to No 4 savdhan hokar march karke No 1 ke baen, baju bhar ka fasla rakhte hue tham karega, "up" bolega aur milkar vishram karenge. No 5 savdhan aur march karke No 2 ke baen aur No 4 ko cover karke tham karega, "up" bolega aur sabhi vishram karenge, no 5 line ban. Jab word of command milta hai 'No 6 line ban' to No 6 savdhan aur march karke No 3 ke baen aur No 5 ke cover karke tham karenga, "up" bolega aur milkar sabhi vishram karenge. Baki nafri ko line ban karne ke liye karyawahi isi tarah karte jayen.

(b)   Agar squad ki nafri 11,14,17,20 ki ginti ki ho to hamesha baen se No 2 file aur madhya line mein khaali jagah rakhi jayegi. Agar squad ki nafri 10, 13, 16,19 ki ginti ki ho to baen se No 2 file madhya aur pichhli line mein khaali jagah rakhi jayegi. Agar squad do ko dahine baen ki taraf munh karna ho to word of command "squad teenon teen mein dahine / baen chalega dahine / baen mud". Jab teen jawan age hon baki unke piche se cover kiye hon, use teenon teen kahte hain, baki word of command aur karyawahi usi tarah hai jaise ek file mein aap ko bata diya hai.

10.   **Abhyas.** Isi karyawahi ks ustad squad se 'ginti se' abhayas karaen.

BHAG III : KHULI LINE AUR NIKAT LINE CHAL

Khuli Line Chal

11.   **Zarurat.** Jab squad ko shastr qawaid karana ho, ya badi paradeon mein VIP ko nirikshan karana ho toh 'khuli line' ki karyawahi ki jaati hai.

12.   **Ginti aur Bayan se Namuna.**

(a)   Jab savdhan position se word of command milta hai "ginti se chalna khuli line chal – ek" to is word of command par baen paon ko 6 inch uthate hue 30 inch age dabaen aur bolen 'ek'. Is position mein dekhne wali baten - baen paon 30 inch age poora laga hua, dahine paon ka panja zameen par, aaedi uthi hui, dono tange kasi hui baki position savdhan.

(b)   Jab word of command milta hai squad 'do'. Toh dahine paon ko 6 inch uthate hue 15 inch age len aur baen paon ko teji se uthate hue dahine paon ke saath savdhan position mein milaen aur shout karen 'do'. Is position mein dekhne ki baten - pahle wali jagah se 45 inch ka fasla tai kiya hua aur position savdhan.

13.   **Abhyas.** Isi karyawahi ks ustad squad se 'ginti se' abhayas karaen.

Nikat Line Chal

14. **Zarurat.** Jab nirikshan ho jata to march karne se pahle 'nikat line' ki karyawahi ki jaati hai.

15. **Ginti aur Bayan se Namuna.**

(a)   Jab savdhan position se word of command milta hai "ginti se chalna -nikati line chal- ek" to is word of command par baen paon ko 6 inch upar aur age se uthate hue 30 inch pichhe dabean aur badan ka bojh baen paon par le jayen aur bolen 'ek'. Is position mein dekhne ki baten - baen paon 30 inch pichhe pura laga hua, badan ka bojh baen par, dahine paon ka eri lagi hui aur panja khara hua dono tange kasi hui baki position savdhan.

(b)   Jab word of command milta hai squad 'do'. Toh dahine paon ko 6 inch upar uthate hue baen paon se 15 inch pichhe barhaen aur bean paon ko teji se uthate hue dahine paon ke saath savdhan position mein lagean aur shout karen ek 'do'. Is position mein dekhne ki baten - pahli wali jagah se 45 inch ka fasla tai kiya hua aur position savdhan.

16. **Abhyas.** Isi karyawahi ks ustad squad se 'ginti se' abhayas karaen.

LESSON PLAN : D 4
KHADE KHADE SALUTE KARNA

Period   -   One

Type   -   Lecture / Practice

Code   -   D 4

Term   -   I / II (JD/JW)

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Time Plan

1.   (a)   Khade Khade Salute Karna   -   10 Min

            (b)   Abhyas   -   30 Min

UDDESH

2.   Is period mein khaali haath drill men Khade Khade Salute Karne ki karyawahi sihkana hai.

TARTIB

3.   Yeh sabak ko do bhagon mein chalaya jayega:-

            (a)   Bhag I   -   Khade Khade Salute Karna.

            (b)   Bhag II   -   Abhayas.

BHAG I : KHADE KHADE SALUTE KARNA

4.   **Zarurat.** Jab ham kisi jagah par khade hon aur, hamare samne se koi bhi salute lene wale adhikari gujren to unhen izzat dene ke liye 'khade-khade samne salute' ki karyawahi ki jaati hai. Isi tarah, dahine salute va baen salute ki karyawahi ki jaati.

5.   **Ginti aur Bayan se Namuna.**

            (a)   Jab word of command milta hai "ginti se salute karna samne salute -ek" to is word of command par dahine baju ko dahine taraf sidha uthate hue kandhe ke barabar layen aur kohni se modte hue anguliyon ko sidhe aur milate hue kalme wali anguli ko dahine ankh ki bhaown se 1 inch upar lagaen, shouting karen 'ek'. Is position mein dekhne ki baten - dahine haath ki anguliyon aur angutha seedha aur mile hue, kalme wali anguli dahine ankh ke bhown se 1 inch aur beech mein kalai se kohni tak 45 degree ke angle par, nigah samne, baki position savdhan.

            (b)   Jab word of command milta hai squad "do" to, dahine haath ko nazdik ke raste se teji se giraen, aur shout karen 'do'. Is position mein dekhne ki baten - position savdhan.

BHAG II : ABHYAS

6.   **Abhyas.** Ustad ke word of command pe squad isi kayawahi ka ginti se abhyas karen.

LESSON PLAN : D 5
PARADE PAR, VISARJAN AUR LINE TOD

Period   -   One

Type   -   Lecture / Practice

Code   -   D 5

Term   -   I / II (JD/JW)

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Time Plan

1.   (a)   Parade Par   -   20 Min

        (b)   Visarjan aur Line Tod   -   20 Min

UDDESH

2.   Is period mein khaali haath drill men Parade Par, Visarjan aur Line Tod ki karyawahi sihkana hai.

TARTIB

3.   Yeh sabak ko do bhagon mein chalaya jayega:-

        (a)   Bhag I   -   Parade Par.

        (b)   Bhag II   -   Visarjan aur Line Tod.

BHAG I : PARADE PAR

4.   **Zarurat**. Jab platoon ya troops kisi bhi formation mein drill ground ke kinare par khade hon aur unhen parade mein hazir karne ke liye 'parade par' kiya jata hai. Platoon ko parade par lane se pahle dahina darshak mangwaya jata hai. Squad mein squad commander, platoon mein platoon Hav, company mein CHM dahina darshak hota hai. Darshak ko cover nahin kiya jata hai.

5.   **Bayan se Namuna.**

        (a)   Jab vishram position se word of command milta hai dahina darshak to is word of command par savdhan hon, teen ka thahrao dete hue march karen aur 15 kadam par tham karen aur dahine se saj karen. Is position se word of command milta hai darshak hilo mat to vishram karen.

        (b)   Abhi word of command, "squad parade par", to squad darshak ke baen aakar tham karen, baju uthakar 'dahine se saj' ki karyawahi karen, bari-bari baju giraen aur bari –bari vishram karen. Baen wale dono jawan milkar vishram karen.

6.   **Abhyas**. Ustad ke word of command pe squad isi kayawahi ka ginti se abhyas karen.

BHAG II : VISARJAN AUR LINE TOD

7.   **Zarurat**. Jab dubara fall in nahi karna ho aur officer parade par hazir hon to visarjan ki karyawahi ki jaati hai.

8.   **Bayan se Namuna.** Jab savdhan position se word of command milta hai "squad / platoon visarjan" to, dahine mud karke salute karen aur, teen kadam age lekar tham karen aur, sidhe age nikal jayen lekin, sikhlai mein squad ke upar control rakhne ke liye dubara baen mud karen aur savdhan position mein khade rahen.

9.   **Abhyas.** Ustad ke word of command pe squad isi kayawahi ka ginti se abhyas karen.

Line Tod

10.   **Zarurat**. Jab thodi der ke liye aram dena ho aur dubara fall in karna ho to 'line tod' ki karyawahi ki jaati hai.

11.   **Bauan se Namuna.** .Line tod ki karyawahi usi tarah hai jaise visarjan mein seekh chuke hain - lekin line tod par salute nahin kiya jayega.

12.   **Abhyas**. Ustad ke word of command pe squad isi kayawahi ka ginti se abhyas karen.

LESSON PLAN : D 6
TEJ CHAL - THAM AUR DHIRE CHAL - THAM

Period   -   One

Type   -   Lecture / Practice

Code   -   D 6

Term   -   I / II (JD/JW)
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Time Plan

1.   (a)   Tez Chal –Tham   -   20 Min

      (b)   Dhire Chal - Tham   -   20 Min

UDDESH

2.   Is period mein khaali haath drill men Tez Chal, Dhire Chal aur Tham ki karyawahi sihkana hai.

TARTIB

3.   Yeh sabak ko do bhagon mein chalaya jayega:-

      (a)   Bhag I   -   Tez Chal aur Tham – Bayan va Namuna.

      (b)   Bhag II   -   Dhire Chal aur Tham – Bayan va Namuna.

BHAG I : TEZ CHAL AUR THAM

4.   **Zarurat.**   Discipline ko kayam rakhte ha ek jagah se dusri jagah jane ke liye 'tej chal' kiya jata hai. Kadam ki lambai 30 inch hoti hai. Regiment / units ki kadam ki raftaar ek minute mein 120 kadam, rifle units 140, NCC cadets 116 kadam aur NCC girls cadets 110 kadam per minute hoti hai. Lekin, shuru mein recruits 135 kadam ki raftaar se march karte hain.

5.   **Ginti aur Bayan se Namuna.**

      (a)   Jab savdhan position se word of command milta hai "ginti se chalna tej chal ek" to, is word of command per baen paon ki aaedi 30 inch par age lagaen, dahina baju age kandhe ki line mein, baen baju pura piche, mutthi kudrati taur par band rakhen, yahan tak ke movement ko dekhen. Is position mein dekhne ki baten. - Baen paon ki aaedi zameen par lagi hui, panja khada, dahina paon pura zameen par, badan ka bojh, dahine paon par, dono tangen kasi hui, dahina baju age, kandhe ki line mein aur baen haath piche, mutthi kudrati taur par band, baki position savdhan.

      (b)   Jab word of command milta hai "squad do" to is word of command par paon aur baju ki apas mein badli Karen, shout karen 'do'. Is position mein dekhne ki baten - dahine paon ki aaedi lagi hui, panja khada hua, bayan paon pura zameen par laga hua aur badan ka bojh baen paon par, bayan baju age dahina baju piche.

      (c)   Jab word of command milta hai "squad ek" to paon aur bajuon ki phir badli karen. Is position mein dekhne ki baten - jo isse pahle seekh chuke hain.

(d)   Jab word of command "squad tham". Ye word of command us samay milta hai jab bayan paon zameen par ho ya, dahina paon baen paon ko cross kar raha ho to, dahine paon ko 30 inch par pura age rakhen, shout karen 'khaali', phir baen paon ko upar utha kar dahine paon ke saath dabaen aur' dahine paon ko teji se 6 inch uthate hue baen paon ke saath savdhan position par lagaen, shout karen 'ek-do'. Is position mein dekhne ki baten - position savdhan.

6.   **Abhyas.** Ustad ke word of command pe squad ginti se abhyas Karen.

BHAG II : DHIRE CHAL AUR THAM

7.   **Zarurat**. Badi parade mein, parade ke nirikshan ke liye VIP ke age jo pilot chalte hain woh dhire chal se chalte hain. Kadam ki lambai 30 inch, kadam ki raftar, 1 minute mein 70 kadam hoti hai.

8.   **Kadam Tol Kar Bayan se Numuna**.

(a)   Jab savdhan position se word of command milta hai, 'kadam tol kar dhire chalna - bayan paon age', to, is word of command par baen paon ko 15 inch age teji se, kadam tol kar ruk jayen aur shout karen age. Is position mein dekhne ki baten - dahina paon pura zameen par laga hua aur, badan ka bojh dahine paon par, bayan paon dahine paon se 15 inch age, zameen se alag, panja zameen ki taraf kheencha hua, baki position savdhan.

(b)   Jab word of command milta hai "age badh" to is word of command par baen paon ko 15 inch aur age badha kar panja pahle zameen par lagaen aur shouting karen 'badho'. Is position mein dekhne ki baten - bayan paon pura zameen par laga hua, badan ka bojh pura baen paon par, dahine paon ka panja zameen par, aedi uthi hui, dono tangen kasi hui, baki position savdhan.

(c)   Jab word of command milta hai "dahina paon age" to dahine paon ko 15 inch age baen paon se nikalen aur shout karen 'age'. Is position mein dekhne ki baten jo aap baen paon age mein seekh chuke hain uske ulta.

(d)   Jab word of command milta hai, "age badh" to dahine paon ko aur 15 inch age badha kar panja pahle zameen par lagaen aur shouting karen 'badho'. Is position mein dekhne ki baten, baen paon ke ulta.

(e)   Jab word of command milta hai "bayan paon age" to baen paon ko age len aur shout karen "age". Is position mein dekhne ki baten jo isse pahle seekh chuke hain.

(f)   Jab word of command milta hai "tham", ya word of command us samay milta hai jab bayan paon dahine paon ko cross kar raha ho ya dahina paon zameen par laga ho toh baen paon ko 15 inch age lekar ,uthakar dabaen aur teji se dahine paon ko 6 inch uthakar baen paon ke saath milaen aur shout karen "ek-do".

9.   **Abhyas**. Ustad ke word of command pe kadam tol kar abhyas karen.

LESSON PLAN : D 7
TEJ CHAL SE MUDNA

Period   -   One

Type   -   Lecture / Practice

Code   -   D 7

Term   -   I / II (JD/JW)

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Time Plan

1.   (a)   Tej Chal se Dahine Mudna   -   15 Min

       (b)   Tej Chal se Baen Mudna   -   15 Min

       (c)   Tej Chal se Piche Mudna   -   10 Min

UDDESH

2.   Is period mein khaali haath drill Tez Chal se Mudne ki karyawahi sihkana hai.

TARTIB

3.   Yeh sabak ko teen bhagon mein chalaya jayega:-

       (a)   Bhag I   -   Tej Chal se Dahine Mudna - Bayan va Namuna.

       (b)   Bhag II   -   Tej Chal se Baen Mudna - Bayan va Namuna.

       (c)   Bhag III   -   Tej Chal se Piche Mudna - Bayan va Namuna.

BHAG I : TEJ CHAL SE DAHINE MUDNA

4.   **Zarurat.** Jab tej chal se march karte hue kisi simmat ko ja rahe hon, aur 90 degree par apni simmat ya formation ko dahini taraf badli karni ho to, dahine mud ki karyawahi ki jaati hai.

5.   **Ginti aur Bayan se Namuna.**

       (a)   Tej chal se word of command milta hai "ginti se mudna dahine mud - ek", ye word of command us samay milta hai jab dahina paon baen paon ko cross kar raha ho ya, baen paon zameen par laga ho to, is word of command par dahine paon ko 15 inch age zameen par rakhen aur chalti halat mein ruk jayen aur shouting karen 'ek'.Is position mein dekhne ki baten - dahina paon zameen par, badan ka panja zameen par aur aedi uthi hui, baen baju age dahina baju piche chalti halat mein.

       (b)   Jab word of command milta hai 'squad do' to, is word of command par baen paon ko dadam taal ki halat main age uthaen, aur baju savdhan ki halat mein le jayen shout karen 'do'. Is position mein dekhne ki baten, dahina paon pura zameen par, badan ka bajh dahine paon par, baen paon kadam taal ki halat mein baki position savdhan.

       (c)   Jab word of command milta hai "squad teen" to, dahine paon ki aaedi par dahine taraf 90 degree par ghoom jayen aur baen paon ko savdhan position mein lagaen aur

dahine paon ko teji se 15 inch age kadam tol ki halat mein nikalen aur shouting karen teen. Is position mein dekhne ki baten - baen paon pura zameen par laga hua badan ka bojh baen paon par dahina paon 15 inch age kadam tol ki halat mein baki position savdhan.

(d)   Jab word of command milta hai "squad char" to, dahine paon ko 15 inch age aaedi lagate hue tej chal ko shuru karen aur shout karen 'badho'. Squad char badho tham khaali ek-do. Jaise the.

6.   **Abhyas.** Ustad ke word of command pe, squad se ginti se abhyas karaen.

BHAG II : TEJ CHAL SE BAEN MUDNA

7.   **Zarurat.** Jab tej chal se march karte hue kisi bhi simmat ko ja rahe hon, aur 90 degree par apni simmat ya formation ko baen taraf badli karni ho to, baen mud ki karyawahi ki jaati hai.

8.   **Ginti aur Bayan se Namuna.**

(a)   Tej chal se word fo command milta hai "ginti se mudna baen mud – ek", ye word of command us samay milta hai jab baen paon dahine paon ko cross kar raha ho ya dahine paon ki aaedi zameen par lag rahi ho toh baen paon ko 15 inch age zameen par rakhen aur chalti halat mein ruk jayen, shouting karen ek. Is position mein dekhne ki baten - baen paon pura zameen par badam ka bojh baen paon par dahine paon ka panja jaimn par aedi uthi hui, dahina baju age baen baju piche chalti halat mein.

(b)   Jab word of command milta hai "squad do" to, is word of command par dahine paon ko kadam taal ki halat mein age uthaen aur baju savdhan position mein layen, shoutkaren 'do'. Is position mein dekhne ki baten - baen paon pura zameen par laga hua badan ka bojh baen paon par, dahina paon kadam taal ki halat mein, baki position savdhan.

(c)   Jab word of command milta hai "squad teen" to, baen paon ki aaedi par baen taraf 90 degree par ghoom jayen aur dahine paon ko savdhan position mein lagaen aur baen paon ko teji se 15 inch age kadam tol ki halat mein, baki position savdhan.

(d)   Jab word of command milta hai "squad char" to, baen paon ko 15 inch age aedi lagakar tej chal shuru karen aur shout karen badho. Squad char badho - squad tham khaali ek-do.

9.   **Abhyas.** Ustad ke word of command pe, squad se ginti se abhyas karaen.

BHAG III : TEJ CHAL SE PICHE MUDNA

10.   **Zarurat.** Jab tej chal se march karte hue kisi bhi simmat ko ja rahe hon, aur 180 degree par formation ko kayam rakhte hue simmat ki badli karni ho to piche mud ki karyawahi ki jaati hai.

11.   **Ginti aur Bayan se Namuna.**

(a)   Tej chal se word of command milta hai "ginti se mudna piche mud –ek", ye word of command us samay milta hai jab baen paon dahine paon ko cross kar raha ho ya dahine paon ki aedi zameen par lag rahi ho toh baen paon ko khaali jane den, dahine paon ko 15 inch age lagate hi chalti halat mein ruk jaen, shout karen 'khaali ek'. Is position mein dekhne ki baten - dahine mud ke No 1 movenemt ki tarah.

(b)   Jab word of command milta hai "squad do" to, dahine paon ki aaedi par 90 degree dahine taraf ghoom jayen aur baen paon ko dahine paon ke saath savdhan postion mein lagaen, shout karen 'do'. Is postion mein dekhne ki baten, 90 degree dahine turn kiya hua, baki postion savdhan.

(c)   Jab word of command milta hai "squad teen" to, is word of command par baen paon ke panje par dahine taraf 90 degree par aur ghoom jayen, saath hi dahine paon ko 6 inch utharkar savdhan position mein lagaen aur shout karen teen. Is position mein dekhne ki baten - position savdhan.

(d)   Jab word of command milta hai "squad char" to, postion aur direction ko durust karne ke liye baen paon ko 6 inch upar uthate hue dahine paon ke saath savdhan postion mein lagaen. Is podition mein dekhne ki baten - 180 degree piche turn kiya hua baki postion savdhan.

(e)   Jab word of command milta hai "squad panch" to, dahine paon ko 30 inch age nikalkar tej chal ki karyawahi shuru karen aur shout karen 'badho'. Squad panch - badho tham kaho ek-do.

12.   **Abhyas.** Ustad ke word of command pe, squad se ginti se abhyas karaen.

LESSON PLAN : D 8
TEJ CHAL SE SALUTE KARNA

Period   -   One

Type   -   Lecture / Practice

Code   -   D 8

Term   -   I / II (JD/JW)

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Time Plan

1.   (a)   Tej Chal se Samne Salute   -   10 Min

          (b)   Tej Chal se Dahine Salute   -   15 Min

          (c)   Tej Chal se Baen Salute   -   15 Min

UDDESH

2.   Is period mein khaali haath drill Tez Chal se Salute karne ki karyawahi sihkana hai.

TARTIB

3.   Yeh sabak ko teen bhagon mein chalaya jayega:-

          (a)   Bhag I   -   Tej Chal se Samne Salute Karna - Bayan va Namuna.

          (b)   Bhag II   -   Tej Chal se Dahine Salute Karna - Bayan va Namuna.

          (c)   Bhag III   -   Tej Chal se Baen Salute Karna - Bayan va Namuna.

BHAG I : TEJ CHAL SE SAMNE SALUTE KARNA

4.   **Zarurat.** Jab hamein kisi Officer ya, JCO se baat karni ho ya, unhone hamen apne paas bulaya ho to unhen izzat dene ke liye tej chal se samne salute ki karyawahi ki jaati hai.

5.   **Ginti aur Bayan se Namuna**.

          (a)   Tej chal se word of command milta hai "ginti se salute karna samne salute – ek" ye word of command usi tarah milta hai jaise tej chal mein tham karte hain.Is position mein dekhne ki baten - position savdhan.

          (b)   Jab word of command milta hai "squad do" to, is word of command par ek bar khade khade samne salute ki karyawahi karen. Squad do - ek-do-teen-ek. Is position mein dekhne ki baten, ek bar khade khade samne salute ki karyawahi ki hui, baki position savdhan.

          (c)   Jab word of command milta hai "squad teen" to, is word of command par dubara salute karen. Squad teen, ek-do-teen-ek. Is position mien dekhne ki baten - position No 2 ki tarah.

(d)   Jab word of command milta hai "squad char" to, is word of command par piche mud karen. Squad char - ek-do-teen-ek, (dubare piche mud karen). Is position mein dekhne ki baten - 180 degree direction ki badli ki hui baki position savdhan .

(e)   Jab word of command milta hai "squad panch" to, baen paon se tej chal shuru karen aur shout karen 'badho'. Squad panch - badho -squad tham khaali ek-do.

6.   **Abhyas**. Ustad ke word of command pe, squad se ginti se abhyas karaen.

BHAG II : TEJ CHAL SE DAHINE SALUTE KARNA

7.   **Zarurat.** Jab tej chal se march karte hue kisi bhi simmat ko ja rahe hon, dahine taraf koi salute lene wale adhikari milen to unhen izzat dene ki liye dahine salute ki karyawahi ki jaati hai.

8.   **Ginti aur Bayan se Namuna.**

(a)   Tej chal se word of command milta hai ginti se salute karna dahine salute ek, ya word of command us samay milta hai jab dahina paon baen paon ko cross kar raha ho ya baen paon ki aedi zameen par lag rahi ho, toh dahine paon ko khaali aur baen paon ki aedi lagte hi dahine salute karen aur chalti halat mein ruk jaen, shout karen 'kahli ek'.Is postion mein dekhne ki baten - baen paon ki aedi zameen par panja khada, dahina paon pura zameen par, badan ka bojh dahine paon par, dono tange kasi hui, salute seekhe hue tarike se kiya hua, nigh puri dahine taraf, baki position savdhan.

(b)   Jab word of command milta hai "squad do" to, dahine paon se do ki ginti shuru karte hue panch ki ginti tak march karen aur ruk jayen. Sqad do - do-teen –char-panch. Is position mein dekhne ki baten, panch kadam ka jaimni fasla tai kiya hua baki position No 1 ki tarah.

(c)   Jab word of command milta hai "squad teen" to, dahine paon ki aedi ka lagna chehre ko age lena salute ko girana ek saath karen aur shout karen 'down'. Squad teen - down. Is position mein dekhne ki baten, dahine paon ki aedi 30 inch age lagi hui panja khada badan do bojh baen paon par, slaute giraya hua, baki position savdhan.

(d)   Jab word of command milta hai "squad char" to baen paon se tej chal ki karyawahi shuru karen aur shout karen badho. Squad char - badho squad tham - khaili ek-do.

9.   **Abhyas.** Ustad ke word of command pe, squad se ginti se abhyas karaen.

BHAG III : TEJ CHAL SE BAEN SALUTE KARNA

10.   **Zarurat .** Jab tej chal se march karte hue kisi bhi simmat ko ja rahe hon, baen taraf koi salute lene wale adhikari milen toh unhem izzat dene ki liye baen salute ki karyawahi ki jaati hai.

11.   **Ginti aur Bayan se Namuna.**

(a)   Tej chal se word of command milta hai "ginti se salute karna baen salute -ek", ye word of command us samay milta hai jab dahina paon baen paon ko cross kar raha ho ya baen paon ki aedi zameen par lag rahi ho, toh dahine paon ko khaali aur baen paon ki aedi lagte hi baen salute karen aur chalti halat mein ruk jaen, shouting karen khaali ek.Is postion mein dekhne ki baten - baen paon ki aedi zameen par panja khada, dahina paon

pura zameen par, badan ka bojh dahine paon par, dono tangent kasi hui, salute seekhe hue tarike se mutabik kiya hua, nigah puri baen taraf, baki position savdhan.

(b)   Jab word of command milta hai "squad do" to, dahine paon se march ko jari karen aur panch ki ginti karke ruk jayen. Squad do - do-teen –char-panch. Is position mein dekhne ki baten, panch kadam ka jaimni fasla tai kiya hua baki position No 1 ki tarah.

(c)   Jab word of command milta hai "squad teen" to, dahine paon ki aedi ka lagna chehre ko samne lana salute ko girana ek saath karen aur shouting karen down,. Squad teen - down. Is position mein dekhne ki baten - dahine paon 30 inch age, aedi lagi hui panja khada baen paon pura zameen par, badan do bojh baen paon par, slaute giraya hua, baki position savdhan.

(d)   Jab word of command milta hai "squad char" to, baen paon se tej chal ki karyawahi shuru karen aur shout karen 'badho'. Squad char - badho- squad tham -khaili ek-do.

12.   **Abhyas.** Ustad ke word of command pe, squad se ginti se abhyas karaen.

LESSON PLAN : D 9
INDIVIDUAL WORDS OF COMMAND

Period   -   One

Type   -   Lecture / Practice

Code   -   D 9

Term   -   II (SD/SW)
_____

Time Plan

1.   (a)   Words of Command   -   10 Min

      (b)   Abhyas   -   30 Min

UDDESH

2.   Is period mein khaali haath drill Individual Words of Command sihkana hai.

TARTIB

3.   Yeh sabak do bhag mein chalaya jayega:-

      (a)   Bhag I   -   Words of Command ki Jankari

      (b)   Bhag II   -   Abhyas

BHAG I : WORDS OF COMMAND

4.   Drill men nimlikhit words of command diye jaten hain (Byan ke sath Namuna):-

      (a)   Savdhan aur Vishram.

      (b)   Dahine Mud ya Baen Mud.

      (c)   Piche Mud ya Age Mud.

      (d)   Dahine Dekh ya Baen Dekh.

      (e)   Tez Chal, Dhire Chal aur Tham.

      (f)   Khuli Line Chal ya Nikat Line Chal.

      (g)   Line Ban, Sajja, Visarjan ya Line Tod.

      (h)   Dahine Salute, Baen Salute ya Samne Salute.

      (j)   Salami Shastra, Bagal Shastra aur Baju Shastra.

BHAG II : ABHYAS

5.   Ustad words of command ka ek ek kar ke abhyas karaye.

INDEX

WEAPON TRAINING

LESSON PLAN : WT 1
CHARACTERSTICS OF .22 RIFLE AND ITS AMMUNITION

Period - One

Type - Lecture/Practice

Code - WT 1

Term - I (JD/JW)

_____

Training Aids

1. Charts, Pointer, Charts, Black board & Chalk.

Time Plan

2. (a) Introduction & Uddesh - 05 Min

    (b) .22 Rifle ki Viseshtaen - 15 Min

    (c) .22 Ammunition ki Viseshtaen - 15 Min

    (d) Conclusion - 05 Min

INTRODUCTION

3. .22 rifle ek bahut hi achcha sidha sadha hathiyar hai. Iska istemal NCC cadet ko firing me hone wali ghabrahat ko hatane ke liye istamal karte hain. Isliye iska istemal karne se pahle iske baare mein jaankari honi chahiye taaki cadet iska sahi istemal kar saken.

UDDHESH

4. .22 Rifle aur uske Ammunition ki Visehtaen ke bare men janari dena hai.

TARTIB

5. Is sabak ko do bhagon mein chalaya jaega :-

    (a) Bhag I - .22 Rifle ki Viseshtaen.

    (b) Bhag II - .22 Rifle Ammunition ki Viseshtaen.

BHAG I : .22 RIFLE KI VISESHTAEN

6. .22 Rifle do kisim ki hoti hain. Rifle .22 No II MK IV aur .22 Deluxe BA. In ki viseshtaen is parkar se hain:-

Ser No	Details	Rifle .22 No II MK IV BA	Rifle .22 Deluxe BA
(a)	Length	45"	43"
(b)	Weight	8 Lbs 10 ½ OZ	6 LBs 2 OZ
(c)	Magzine Capacity	10 Rounds	05 Rounds

(d)	Muzzle Velocity	2700 per sce	2700 per sec
(e)	Grooves in the barrel	06	06
(f)	Effective Range	25 yds	25 yds
(g)	Max Range	1700 yds at 33 angle	1700 yds at 33 angle
(h)	Calibre	.22	.22
(j)	Ammunition	.22	.22
(k)	Rate of fire :- (i) Normal (ii) Rapid	05 Rds pm 10-15 Rds pm	05 Rds pm 10-15 Rds pm

Rifle . 22 MK IV

Rifle . 22 Deluxe BA

BHAG I : .22 AMMUNITION KI VISESHTAEN

7.   **.22 Ammunition.**

(a)   Calibre   -   .22

(b)   Length of Bullet   -   10 mm

(c)   Length of Bullet with Case   -   15 mm

(d)   Weight   -   38/40 gm

(e)   Type of Bullet   -   Lead / Copper

(f)   Type of Ammunition   -   Rim / Rimless
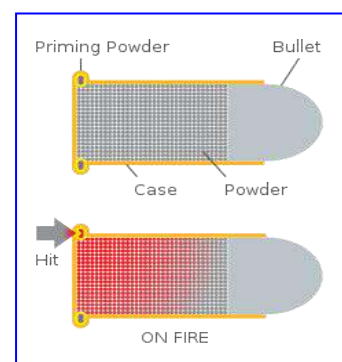
SANKSHEP

8   .22 rifle ek bahut hi kargar aur sidha sadha hathiyar hai jis ki madad se cadet ko durust fire karne ka tarika sikhaya jata hai. Iss hathiyaar ki achhi jankari hone se cadets ko achha firer banaya ja sakta hai.

LESSON PLAN : WT 2
STRIPPING, ASSEMBLING, CLEANING
AND SIGHT SETTING OF .22 RIFLE

Period   -   One

Type   -   Lecture/Practice

Code   -   WT 2

Term   -   I / II (JD/JW)

_____

Training Aids

1.   Charts, .22 Rifle, Case Collector, Chindi, Pull Through, Ground Sheet and Oil Bottle.

Time Plan

2.   (a)   Introduction   -   03 Min

          (b)   .22 Rifle Kholna aur Jorna   -   10 Min

          (c)   Safai Karne ka Tarika   -   10 Min

          (d)   Abhyas   -   15 Min

          (e)   Sankshep   -   02 Min

INTRODUCTION

3.   .22 rifle ek bahut hi achcha sidha sadha hathiyar hai. Iska istemal NCC cadet ko firing me hone wali ghabrahat ko hatane ke liye istamal karte hain. Isliye iska istemal karne se pahle iske baare mein jaankari honi chahiye, taaki cadet iska, kholna jorna aur safai kar saken.

UDDHESH

4.   .22 Rifle ka Kholna-Jorna, Sight Setting aur Safai karne ka tarika sikhana hai.

TARTIB

5.   Is sabak ko do bhagon mein chalaya jaega :-

          (a)   Bhag I   -   .22 Rifle Kholna - Jorna.

          (b)   Bhag II   -   . 22 Rifle ka Safai Karne ka Tarika.

BHAG I : RIFLE .22 KO KHOLNA – JORNA AUR SIGHT SETTING

7.   **Kholna.** Rifle ko kholne ki tarkib main sabse pahle bayonet, phir sling, bolt aur case collector ko khola jata hai. Sling ko utaren aur roll karte hue ground sheet par rakh den. Safety catch 'S' par Karen, bolt lever ko upar ki taraf uthate hue bolt ko piche ki taraf khichein aur rifle se alag karen. Aakhir mein case collector catch ko dabate huye case collector ko alag karen aur saaf jagah pe rakhen.

8. **Jorna.** Yakin Karen safety catch 'R' par hai. Bolt ko uthaen aur bolt head ko tight karen. Uske baad bolt ko guide ke saath milate hue fit karein. Jorte samay yadi ek se jyada rifle khula hai to uske purzon ke registration no. check karlen. Trigger dabaen, safety catch ki position 'S' par Karen aur case collector ka chota mehrav aage ki ore rakhte hue use fit karen. Sling ko rifle mein fit Karen. Bayonet sabse baad mein fit Karen.

9. **Sight Setting.** Sight set karne ke liye thumb spring ko press karo aur sight ko set karo. Muzzle ki taraf le jane se range badhti hai.

BHAG II : SAFAI KARNE KA TARIKA

10. .22 rifle ko bhi Anaya hathiyar ki taraha Safaai kiya jata hai.

    (a) **Aam Safai.**

        (i) **Daily Safai.** Aam taur par daily hathiyar training ke liye nikalte hain. Hathiyar ka dusting karke Kote mein jama karte hain.

        (ii) **Weekly Safai.** Saptah me ek bar hathiyar ko bahar nikala jata hai aur sabhi hisse purjon mein oil badly kiya jata hain.

        (iii) **Quarterly Safai.**

            (aa) Quarterly ke douran pure hathiyar ko khola jata hai aur jaruri suda hathiyar oil aur greasing kiya jata hai.

            (ab) Hathiyar ke hisse purjon ki tut- phut check ki jaati hai aur unhe marammat kiya jata hai.

    (b) **Firing Ke Dauran Safai.**

        (i) Firing se pahle hathiyar ki tut phut ko armourer dwara check karate hain.

        (ii) Lagaatar hathiyar ki safai karte hain aur armourer dwara inspection karate hain.

        (iii) Firing ke dauran jab bhi firer ko mauka milta hai to wah apne hathiyar ko saaf karta rehta hai.

    (c) **Firing Ke Baad Ki Safai.**

        (i) Firing ke baad firer kam se kam 07 din garm pani dalkar barrel ko saaf karte hain.

        (ii) Uske baad armourer dwara inspection karaya jata hai.

        Note: Safai ke liye Chindhi ka size 4x1.5" aur Oil ke saath chindi size 4x 1".

11. **Abhyas.** Squad ko groupon mein baanto aur .22 rifle ko kholne aur jorne ke tarike ka abhyas class ko karwao.

SANKSHEP

12. .22 rifle ek bahut hi kargar aur sidha sadha hathiyar hai jis ki madad se cadet ko durust fire karne ka tarika sikhaya jata hai. Iss hathiyaar ki achhi jankari hone se cadets ko achha firer banaya ja sakta hai.

LESSON PLAN : WT 3
LOADING, COCKING AND UNLOADING OF .22 RIFLE

Period   -   One

Type   -   Lecture/Practice

Code   -   WT 3

Term   -   I / II (JD/JW)
_____

Training Aids

1.   .22 mm Rifle, Magazine, Dummy Rds, Charts, Target 1x1, Sand Bag, Ground Sheet.

Time Plan

2.   (a)   Introduction & Uddesh   -   03 Min

        (b)   Bharna, Cock Karna aur Khali Karna   -   10 Min

        (c)   Abhyas   -   20 Min

        (d)   Sankshep   -   02 Min

INTRODUCTION

3.   Ek acche firer ki khubi hoti hai ki who tezi se rifle ko bhare, load kare aur durust fire kare. Yeh tabhi sambhav ho sakta hai jab training ke dauran acchi sikhlai aur abhyas Karen.

UDDESH

4.   .22 Rifle ko bharna, cock karna aur khali karne ka tariqa sikhana hai.

TARTIB

5.   Ye Sabak do bhagon mein chalaya jayega:-

        (a)   Bhag I   -   .22 rifle ko Bharna, Cock Karna aur Khali Karne ka Byan / Namuna.

        (b)   Bhag II -   Abhyas.

BHAG I : .22 RIFLE KO BHARNA, COCK KARNA AUR KHALI KARNE KA BYAN / NAMUNA

6.   **Rifle ko Bharne ki Karwahi.** .22 Deluxe Rifle ke sath koi charger nahi diya jata hai. Ammunition ko siddha mag men ek ek kar ke bhara jata hai. Bharne se pehele ammunition ko saaf kar len.

7.   **Loading, Cocking aur Unloading.**

        (a)   Loading, cocking aur unloading ki karwahi hamesha hokum pe hi ki jati hai. Karwahi hamesha tezi se aur sahi tartib se hi ki jati hai.

(b) Is karwahi ko let ke karne ke liye drill is parkar se hai:-

 (i)   Let ne ke liye, bayen paer se ek lamba kadam len, rifle ko bayen hanth men pakren, phir dahina hanth zamin pe rakhen, bayen paer ki line men aur let jaen. Let te sayam, dono tange khuli honi chahiye. Ab rifle ke bolt ko piche khinch ke, age push karo taki round chamber men load ho jaye.

 (ii)   Unload karne ke liye, bolt ko piche kincho, taki fire kiya hua round bahar nikal jaye.

BHAG II : ABHYAS

8.   Class ko jodi-jodi men loading, cocking aur unloading ka abhyas karao.

SANKSHEP

9.   Drust tartib se rifle ko load karna, cock karna aur unload karna ek ache firer ki khubi hai, jo sabhi ko abhyas karke hasil karni cahiye.

LESSON PLAN : WT 4
LYING POSITION AND HOLDING OF .22 RIFLE

Period   -   One

Type   -   Lecture/Practice

Code   -   WT 4

Term   -   I / II (JD/JW)
_____

Training Aids

1.   .22 mm Rifle, Magazine, Dummy Rds, Charts, Target 1X1, Sand Bag, Ground Sheet.

Time Plan

2.   (a)   Introduction & Uddesh   -   03 Min

        (b)   Lying Position aur Holding   -   10 Min

        (c)   Abhyas   -   20 Min

        (d)   Sankshep   -   02 Min

INTRODUCTION

3.   Rifle se kai position se fire kiya jata hai lekin, position aisi honi chahiye ki aasani se ikhitihar kiya ja sake aur hathiyar par majboot pakar hasil ki ja sake. Yeh zamin ki banawat aur kudrati sidhai par nirbhar karta hai. Isliye har ek cadet ko kudrati sidhai hasil karne ka tariqa pata hona chahiye. Yeh tabhi sambhav ho sakta hai jab ek cadet squad post training ke dauran achchhi sikhlai paya ho.

UDDESH

4.   .22 Rifle ka Lying Position aur Holding ka Tqrika sikhana hai.

TARTIB

5.   Ye sabak do bhagon mein chalaya jayega:-

        (a)   Bhag I   -   Lying Position aur Holding ka Byan va Namuna.

        (b)   Bhag II   -   Abhyas.

BHAG I : LYING POSITION AUR HOLDING
KA BYAN VA NAMUNA

6.   **Lying Position.** Lying position asani se akhtiyar ki jane wali aramdeh aur bunyadi position hai. Iss position mein badan ka khaka chhota banta hai, jis se larai ke maidan mein nichi se nichi aar ke pichhe se dushman ki najar aur fire se bachte hue dushman ke upar kargar fire dal sakte hai.

7. **Position Lene Ka Tarika.** Sabse pehle target ki sidh mein khare ho jaen, chalti halat mein baen paon ko thora baen aur age len, sath hi rifle ko baen hath men pakren. Iske bad daen hath se zamin ka sahara lete hue, let jaen. Rifle ko dahine rakhen aur bayen haath ki kohni ko tab tak harkat den jab tak ki target, baen kohni, dahina kandha aur dahina paon ek seedh mein na aa jae. Ab dahini kohni ko us jagah par rakhen jahan par kohni dahine aur thora kandhe ke niche ho. Dono haathon ki hatheli ko thudi ke neeche lagakar aankhen band Karen aur badan ke tanav ko mahsoos Karen, yadi badan mein tanav hai to kohni usi jagah rakhte hue badan ko aage peechhe karte hue tanav ko door Karen aur kohni ki jagah ko mark kar den.

8. **Holding (Durust Pakar).** Rifle ki pakar haasil karne ke liye kandhe mein le jaen. Baen haath ki kalmen wali anguli aur anguthe ke beech jo 'V' banta hai wahan par rifle ko rakhen. Hand guard niche wali hatheli ke upar aa jae. Charon angulian bahar se aur angutha andar se saath hi magazine ko kalai ke saath hona chahiye. Poori pakar ko majboot karne ke liye baen kohni ke loose mans ko zamin par jamate hue thora aage push Karen , dahine kohni ke loose mans ko kaabu rakhne ke liye kohni ko apni taraf khiche. Yadi rifle upar point kar rahi ho to dahine hath ko aage Karen. Agar niche point kar rahi ho to dahine hath ko pichhe Karen. Agar baen point kar rahi ho to dahine pair ko baen kare. Agar dahine point kar rahi ho to position thora dahine Karen. Khara hone ke

BHAG II : ABHYAS

9. Class ko jodi-jodi men lying position, holding aur aiming ka abhyas karao.

SANKSHEP

10. Drust firing tabhi mumkin hai, jab ek firer durust position, majboot pakar, durust sisht aur durust trigger operation karta hai. Is ke liye kafi abhyas karna padta hai.

LESSON PLAN : WT 5
AIMING, RANGE AND FIGURE TARGET

Period   -   One

Type   -   Lecture/Practice

Code   -   WT 5

Term   -   I / II (JD/JW)

_____

Training Aids

1.   .22 mm Rifle, Magazine, Dummy Rds, Charts, Target 1x1, Sand Bag, Ground Sheet.

Time Plan

2.   (a)   Introduction & Uddesh   -   03 Min

        (b)   Aiming, Range aur Target   -   10 Min

        (c)   Abhyas   -   20 Min

        (d)   Sankshep   -   02 Min

INTRODUCTION

3.   Rifle se kai position se fire kiya jata hai lekin, position aisi honi chahiye ki aasani se ikhitihar kiya ja sake aur hathiyar par majboot pakar hasil ki ja sake. Yeh zamin ki banawat aur kudrati sidhai par nirbhar karta hai. Isliye har ek cadet ko kudrati sidhai hasil karne ka tariqa pata hona chahiye. Yeh tabhi sambhav ho sakta hai jab ek cadet squad post training ke dauran achchhi sikhlai paya ho.

UDDESH

4.   .22 Rifle ka Aiming (sisht), Range aur Target ke bare men jankari dena hai.

TARTIB

5.   Ye sabak do bhagon mein chalaya jayega:-

        (a)   Bhag I   -   Aiming (sisht), Range aur Target ka Byan va Namuna.

        (b)   Bhag II   -   Abhyas.

BHAG I : AIMING, RANGE AUR TARGETS

Aiming

6.   Eh ache shot ke liye durust sisht ka hona zaruri hai. Sisht lena ankh(eye) ka kam hota hai aur ankh ki kuch ahtbandhiyan hoti hain. Good shooting ke lye sisht men consistency hona zaruri hai.

7.   **Aiming (Sisht) Lene ka Kaida**. Let ke firing position ko ikhtihar karen, rifle ko seedha aur majboot pakren. Target ka khaka aur Point of Aim (POA) apne dimag mein bithayena aur koi ek aankh band karen. Rear sight aperture ke beechon beech fore sight tip ki noke ko POA par milaen aur durust sight picture haasil karein. Trigger press karne se pahle nazar fore sight ki tip par layen. Durust sisht ke liye main do mukhya baaten zaruri hain:-

      (a)   **Sight Alignment.**   Jab ek firer back sight aperture ke madhya mein fore sight tip ko milata hai ,yani ki firer ki aankh, back sight aperture ka madhya aur fore sight tip ko ek line mein milane ki karwahi ko sight alignment kahte hain.

      (b)   **Sight Picture.**   Durust align ki gai sight ko POA par milane ke karwahi ko sight picture kahte hain, yani ki firer ki aankh, back sight aperture ka Madhya fore sight tip aur POA tak jo farziya line banti hai use sight picture kahte hain.
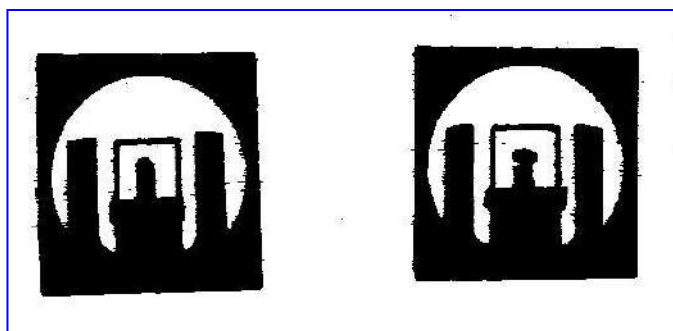
Durust Sisht

8.   **Range.**   Aam taur pe .22 rifle ki firing 25 m short range pe hi ki jati hai. Hatiyar se fire hone pe goli ek trajectory banati hui target pe lagti hai. Yeh trajectory gravity ke force ko counter karne ke liye banti hai. Isi pe nirbhar karta hai range. Agar range jada hai to trajectory unchi hoti hai, aur agar range kam hai to trajectory flat hoti hai. Jab ham backsight men range lagate hai to, usi be nirbhar karti hai trajectory.

9.   **Targets.**   Firing targets kai kisim ke hote hain jaise :-

      (a)   1' x 1' Target – Grouping aur Zeroing ke liye.

      (b)   6" Figure target – Rapid firing ke liye.

      (c)   Figure 11 target.

      (d)   Figure 12 target.

      (e)   Bunker target.

      (f)   Miniature target fig 11, 12, 13 – short range ke liye.

BHAG II : ABHYAS

10.   Class ko jodi-jodi men lying position, range lagana aur aiming ka abhyas karao.

SANKSHEP

11.   Drust firing tabhi mumkin hai, jab ek firer durust position, majboot pakar, durust sisht aur durust trigger operation karta hai. Is ke liye kafi abhyas karna padta hai.

LESSON PLAN : WT 6
TRIGGER CONTROL AND FIRING A SHOT

Period   -   One

Type   -   Lecture/Practice

Code   -   WT 6

Term   -   I / II / III (SD/SW)
_____

Training Aids

1.   .22 mm Rifle, Magazine, Dummy Rds, Charts, Target 1x1, Sand Bag, Ground Sheet, Aim Correcter and Tin Disc.

Time Plan

2.   (a)   Introduction & Uddesh   -   03 Min

        (b)   Durust Trigger Control aur Fire   -   15 Min

        (c)   Abhyas   -   15 Min

        (d)   Sankshep   -   02 Min

INTRODUCTION

3.   Achook nishane baaji ke buniyadi usool hain majbot pakar, durust sisht lena, aur durust trigger operation ki karwahi. Is liye har ek firer ko sisht lene ke saath –saath sahi trigger operation ki karwahi achhi tarah se aani chahiye.

UDDESH

4.   .22 Rifle ka sahi Trigger Control aur Firing ka tqrika sikhana hai.

TARTIB

5.   Ye sabak do bhagon mein chalaya jayega :-

        (a)   Bhag I   -   Durust Trigger Control aur Fire ka Byan va Namuna.

        (b)   Bhag II   -   Abhyas.

BHAG I : DURUST TRIGGER CONTROL AUR FIRE

6.   **Trigger Control.** Durust trigger control ke liye tartib is parkar se hai :-

        (a)   Durust trigger operation ke liye kalmi wali anguli (index finger) ka sahi istemal hai. Anguli ka pehla aur dusre jor ke beech ki jagah ko trigger ke upar rakhte hai.

        (b)   Trigger ke do khichav hai, halka aur sakht khichav. Pahla khichav haasil karne ke baad dusra khichav hasil karen. Trigger dabate samay barrel harkat nahin karni chahiye.

(b)   Sahi trigger operation ki karwai karne ke liye firer ko tin disk ex di jati hai. Is men rif ko ready karo aur barrel par tin disk rakho aur trigger ko press karo. Agar tin disk niche nahin girti hai to trigger operation ki karwahi sahi hai.

7.   **Shot Fire Karne ki Tartib.**   Sahi shot fire karne ke liye sahi position aur pakar, sahi eyesight, aiming, dimag aur trigger control men durust tal-mel se hi hasil ho sakta hai. Is ke liye tartib is parkar se hai:-

(a)   Sahi posn ikhtiyar karen. Kudrati seedhai ko check karen.

(b)   Rif ko bhar karen, Ready karen, sahi sight lagaen aur sahi alignment hasil karein. Dimagi taur par un angon ko check karein jo rifle ko hold karne mein madad karte hain. Jaise baen hath ki kohni, kalai, dahina kandha, dahine haath ki pakar aur kalme wali anguli.

(c)   Ab saans ko normal chalne den aur, back sight aperture ka madhya se fore sight tip ko POA se milao. Fore sight tip 6 baje aur 12 baje ki line mein harkat karni chahiye.

(d)   Trigger ka pahla khichav haasil karne ke baad kuchh samay ke liye saans ko roken. Aur sight picture ko check karen. Uske baad poora dhyan fore sight tip par le jaen aur trigger dabayen to goli fire ho jaegi.

(e)   Goli fire ho jaane ke baad usi pakar, posn aur sisht ko kayam rakhte hue fore sight tip ki movement ko check karen fore sight ki tip jahan point karegi goli usi jagah par lagegi.

(f)   Ab saans ko chhor den aur 'maar' ko pukaren. Goli fire hone se maar pukarane tak ki karwai ko **follow through** kahte hain.

BHAG II : ABHYAS

8.   Class ko jodi-jodi men trigger control aur fire ka abhyas karao.

SANKSHEP

9.   Drust firing tabhi mumkin hai, jab ek firer durust position, majboot pakar, durust sisht aur durust trigger operation karta hai. Is ke liye kafi abhyas karna padta hai.

<u>LESSON PLAN : WT 7</u>
<u>RANGE PROCEDURE AND SAFETY PRECAUTIONS</u>

Period   -   One

Type   -   Lecture/Demo/Practice

Code   -   WT 7

Term   -   I / II / III (SD/SW)

_____

<u>Training Aids</u>

1.   Red flag 6'x6', Flag pole 20', Target Plate 3'x2', Red Jacket, Helmets, Repairing Material, Butt Register, Sand Bag and Ground Sheet.

<u>Time Plan</u>

2.   (a)   Introduction & Uddesh   -   03 Min

            (b)   Range ki Tartib aur Fire   -   15 Min

            (c)   Demo   -   15 Min

            (d)   Sankshep   -   02 Min

<u>INTRODUCTION</u>

3.   Shooting ke darje banaye rakhne ke lie, troops range par pistol, carbine rifle aur lmg fire mein abhyas karte hain. hamare desh mein short range to takriban har unit mein paaye jaate hain lekin classification range bahut kam jagah par hote hain. range allottment ka pura faide uthane ke lie fire se pahle samay se range fire ke lie tayar karna aur range par durust range drill par amal karne se sabhi trainees ko fire mein abhyas diya ja sakta hai.

<u>UDDESH</u>

4.   Iss lecture aur demonstration ka uddesh, range par durust Range ki Tartib aur Fire conduct karne ka tarika sikhana hai.

<u>TARTIB</u>

5.   Is lec aur demonstration ko teen bhagon mein chalaya jaega :-

            (a)   Bhag I   -   Fire se pahle ki taiyariyan aur zaruri saman.

            (b)   Bhag II   -   Practice conduct karna aur suraksha sambandhi baatein.

            (c)   Bhag III   -   Demonstration.

<u>BHAG I : FIRE SE PAHLE KI TAIYARIYAN AUR ZARURI BAATEIN</u>

6.   **Fire Se Pahle Ki Taiyariyan.** Range per, range standing orders, pamphlet Inf training vol I aur range course ke mutabiq fire ke lie taiyar karna chahiye taaki, fire samay par shuru kiya ja sake aur fire ke dauran koi hadsa na ho. Range ki taiyari mein nimnlikhit baatein shamil ki jaen:-

(a) Stop butt ke dahine kinare par 20' uncha staff pole jis par 6x6' ka lal jhanda laga ho.

(b) Stop butt ki mitti naram aur usmen pathar ya sikka na ho.

(c) Target bahar wale kinare se 20' andar ki taraf ho.

(d) Stop butt par 2'x3' chauri target number plate lagi ho.

(e) Markers gallery ke bayen taraf 12' pole par 4x5' ka lal jhanda laga ho.

(f) Mantlet butt ki mitti naram aur usmen bhi koi pathar ya sikka na ho.

(g) Firing point aur trenches par format ke mutabik naram mitti se bhara sand bag ho.

(h) Area saaf ho.

(i) Range ke ek taraf munasib jagah par nimnlikhit stand lagaye jaen.

   (aa) Ammunition.

   (ab) Armour.

   (ac) Nursing Assistant.

   (ad) Sights kala karne ki jagah.

(j) Milap ke liye telephone line lay kiya hua sath hi radio set ka bandobast.

(k) Sentries, nafri aur jagah range standing order ke mutabik, lal coat men ho.

7. **Annya Taiyariyan.**

(a) Range clearance.

(b) Firers ka nominal roll taiyar karna.

(c) Hathiyaron ki before firing inspection.

(d) Ammunition ka bandobast.

(e) Milap ke sadhan ka prabandh.

(f) Butt party bantna.

(g) Working party bantna.

(h) Coaches ka bandobast.

(j) Hathiyar safai ke lie saman.

(k) Warning boards taiyar karna.

(l) Armourer, Nursing Assistant aur bugler ka saman ke sath bandobast.

(m) Practice ke mutabik target taiyar karna.

(n)   Temporary camp lagane ka bandobast yadi range unit se dur ho.

(o)   **Documents**.

   (i)   Firing point register.

   (ii)   Butt register.

   (iii)   Range course SAO 12/S/85 (new RANGE course).

   (iv)   No damage certificate.

   (v)   Lead deposite certificate.

   (vi)   Ammunition aur fired case ka detail.

BHAG II : PRACTICE CONDUCT KARNA AUR SURAKSHA SAMBANDHI BATEN

Practice Conduct Karna

8.   Range par firer ko 2 groups mein baant diya jata hai, Firing Group aur Training Group.

9.   **Firing Group**.   Pure firers ko details mein bant diya jata hai aur ek samay par chaar (4) detail range par kaam kar rahi hoti hain yani ki.

   (a)   Firing Detail.

   (b)   Waiting detail – do (2).

   (c)   Ammunition collection detail.

10.   **Target Group.**   Firing point se pichhe target group ko nimnlikhit abhyas ke lie lagaya jata hai.

   (a)   Aiming.

   (b)   Trigger operation.

   (c)   Holding.

   (d)   Roken dur karna.

   (e)   Firers ki jati galti ke lie sudharak exercise aur coaching.

   (f)   TsOET.

Suraksha Sambandhi Baatein

11.   **Firing Point se Phele**.

   (a)   Hathiyar clear, magazine utra hua aur safety device laga hua.

   (b)   Muzzle hamesha surakshit disha mein.

   (c)   Drill cartridge ka istemal nahin.

   (d)   Ammunition practice ke mutabik issue.

   (e)   Harkat chal kar.

   (f)   Chamber hamesha khali.

   (g)   Dry exercise se pahle hathiyar ka nirikshan.

12.   **Firing Point Par**.

   (a)   Ammunition ki safai aur damage check.

   (b)   Barrel surakshit disha.

   (c)   Bhar hukam se.

(d)   Sahi khali kar.

(e)   Barkhilap karwai par fire band.

(f)   Roken dur karte samay savdhani.

BHAG III : DEMONSTRATION

13.   Ustad range drill ki tartib ka ek sahi aur durust namuna byan ke saath den.

SANKSHEP

14.   Drust range drill ka follow kara bahut hi zaruri hai kiyon ki, is se samay ki bachat hoti hai aur koi anhoni ya hadsa bhi nahi hota. Firing ke dauran range drill ki laparwahi, yah range drill ka andekhi se dukhad ghatnae ho sakne ki sambhawna hai, aur is men ksi ki jaan bhi ja sakti hai.

LESSON PLAN : WT 8
SHORT RANGE FIRING AND AIMING II

Period   -   One

Type   -   Lecture/Demo/Practice

Code   -   WT 8

Term   -   I / II / III (SD/SW)

_____

Training Aids

1.   Red flag 6'x6', Flag pole 20', Target Plate 3'x 2', Red Jacket, Helmets, Repairing Material, Butt Register, Sand Bag and Ground Sheet.

Time Plan

2.   (a)   Introduction & Uddesh   -   03 minutes

       (b)   Short Range Firing   -   18 minutes

       (c)   Aiming II - Alternation of Sight   -   19 minutes

INTRODUCTION

3.   Jis tarah bimar ke lakshan ko dekhkar bimari ka pata chalta hein, usi tarah, target par goliyon ki maar ya group ka vishleshan karne se, honewali galtiya ka pata chalta hain. Group me goliyon ki maar aur unke failav ko dekhkar firer ki kabliayat ka asani se pata lagaya ja sakta hai.

UDDESH

4.   Short range pe Firing aur Sisht men badly ke bare men jankari den hai.

5.   Is lec ko do bhagon mein chalaya jaega:-

         (a)   Bhag I   -   Short Range Firing.

         (b)   Bhag II   -   Alternation of Sight.

BHAG I : SHORT RANGE FIRING (.22 RIFLE)

Practice	**Target Type**	**Range In Yards**	**Round**	**Instructions**	**Scoring**
Deliberate	1' x 1'	25	10	(a) Position lying supported. (b) One practice of 5 rounds	Bull & Inner - 3 points Magpie - 2 points Outer - 1 points HPS - 15 Points

   Note :- Out of 12 rounds authorized per cadets, 2 rounds will be pooled for zeroing and re-classification of failures.

BHAG II : AIMING II - ALTERATION OF SIGHT

6**.   Zarurat.** Firing ke dauran agar yeh pata chalta hai ki, durust aim aur firing ke babzood goli POA se upar ya niche lagti hai to, back sight ko adjust karke setting karna zaruri hai.

7.   **Elevation.** Back sight ko jo adjustment karni hai who niche diye table ki madad se ki ja sakti hai jis men, 100 yds pe jo change karte hain, us se MPI kitni badalti hai.

Range Target	Rise or Drop of MPI on Target
200 Yards	6 inches
300 Yards	12 inches
400 Yards	18 inches
500 Yards	24 inches

8.   Sight men 50 yards ki alteration se, upar diye hue effect adhe ho jate hain, aur agar sight men 200 yards ki alteration ki jati hai to, upar diya hua effect double ho jata hai.

SANKSHEP

9.   Range pe durust firing karna sabhi ka kartavya hai. Is liye agar goli target pe nahi lagti hai to turant sight men alteration kar ke goli target pe marna zaruri hai.

INDEX

CIVIL AFFAIRS

LESSON PLAN : CA 1
CIVIL DEFENCE ORGANISATION AND THEIR DUTIES

Period   -   One

Type   -   Lecture

Code   -   CA 1

Term   -   I (JD/JW)

_____

Training Aids

1.   Computer Slides, Charts, Pointer, Black Board & Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

          (b)   Civil Defence Organisations   -   15 Min

          (c)   Civil Defence Services   -   15 Min

          (d)   Conclusion   -   05 Min

INTRODUCTION

3.   Civil Defence was first established in India on 24th October 1941. Two significant events took place after independence which gave a major fillip to Civil Defence in India. The first was the Chinese aggression in November, 1962 and the other was the Indo-Pakistan conflict in September 1965, when, for the first time after Independence, the nation was subjected to enemy air attacks. This led to considerable rethinking about the policy and scope of Civil Defence and as a result the Civil Defence policy, as it exists today, was evolved.

AIM

4.   To acquaint the NCC Cadets about the Civil Defence Organisations and their duties.

PREVIEW

5.   The lecture will be conducted in following parts:-

          (a)   Part I   -   Civil Defence Organisation

          (b)   Part II   -   Civil Defence Services and their Duties.

PART I : CIVIL DEFENCE ORGANISATIONS

General

6.   The Civil Defence Act of India was enacted by Parliament on May 1968. Today, Civil Defence' includes any measures, not amounting to actual combat, for affording protection to any person, property, place or thing in India or any part of the territory thereof, against any hostile attack, whether from air, land, sea or other places, or for depriving any such attack of the whole or part of its effect.

7.   Civil Defence is a much misunderstood subject because, it is often confused with the air raid precautions taken during the war. There are many other measures necessary to deal with effects of direct and indirect raids and such measures cannot be disassociated from the Civil Defence measures. Civil Defence measures mainly consist of the following:-

(a)   **Protective Preventive Measures**. Measures which may be taken before an air raid, such as dispersal of population and industries, camouflage, preparation of shelter, warning and training etc.

(b)   **Control Measures**. Measures taken immediately after the raid, such as reconnaissance, reporting of damage and unexploded bombs, rescue of casualties, control of services, clearance of debris and extinguishing of fires.

(c)   **Restorative Measures**. The measures which become necessary after an air raid include feeding, providing shelter and clothing, salvage of property, disposal of dead, disposal of unexploded bombs, control of infection and contamination, repair of damages caused to utility services etc.

Civil Defence Organisations

8.   Civil Defence is primarily organised on voluntary basis except for a small nucleus of paid staff and establishment which is augmented during emergencies. The present target of Civil Defence volunteers is 12.49 lakhs, out of which 6.0 lakhs have already been raised and 4.8 lakhs have been trained. These volunteers are administered and trained by 68 Deputy Controllers, 17 Medical Officers and 503 Civil Defence Instructors, which are full time paid posts.

9.   **National Level**. At the national level, the Home Ministry is responsible for the Civil Defence. It has under its direct control, the Directorate of Civil Defence, headed by a Director General - usually a senior police officer, who is responsible to advise the Home Ministry on all matters relating to Civil Defence. The Civil Defence organization basically comprises of the Home Guards, NCC and the Fire-Fighting Units. Most of the central ministries have a civil defence cell which gets activated during emergency and is responsible for rendering specialist advise pertaining to their respective ministries to the Home Ministry. In addition, The Ministries of Defence and Railways are responsible for civil defence on properties owned or managed by them.

10.   **State Level Organisation**. Each State and Union Territory government has, under the overall control of its Inspector General of Police, a Director General of Home Guards and Civil Defence. As in the case of the central government, he is a senior police officer and is responsible for controlling fire departments as well.

11.   **District Level Organisation.** In a district, the District Magistrate is the ultimate authority on Civil Defence. He is designated as the Controller of Civil Defence. He is responsible for implementation of all Civil Defence measures by the district departmental heads such as Civil Surgeon, Superintendent of Police, PWD Engineer, Publicity Officers etc. They are appointed by him as in-charge of various Civil Defence Services. He also constitutes an Advisory Committee out of the people possessing qualities of leadership and discipline who can arouse and sustain public interest in the Civil Defence Services.

PART I : CIVIL DEFENCE SERVICES AND THEIR DUTIES

12.   The Civil Defence Corps has the following 12 services in which volunteers are trained:-

(a)   **Headquarters Service**. This service works under control of Civil Defence.

(b)   **Warden's Service**. It is a link between the public and the authorities. This service is responsible for organizing self-help parties, fire parties and to check light restrictions, report damages and guide homeless to the Rest Centres.

(c)   **Fire Fighting Service**.   They detect small fires and put out the same.

(d)   **Casualty Services**.   The functions of this service are:-

    (i)   Rendering first aid on the spot.

    (ii)   Providing transport to casualties for short distances.

    (iii)   To send various causalities for further treatment.

(e)   **Communication Services**.   This service is responsible for:-

    (i)   Receipt and dissemination of air raid warning.

    (ii)   Provision of co-ordination and control facilities.

    (iii)   Provision of communication between warden posts, control centres through messengers or telephone etc.

(f)   **Rescue Services**.   Their duty is to rescue the injured and personnel trapped under the debris.

(g)   **Welfare Services**.   It is responsible to supply information about missing and dead etc. to provide shelter, food and clothing and to arrange evacuation from vulnerable areas.

(h)   **Depot and Transport Services**.   It is this service which is responsible to send various services to the scene of the incident and provide the necessary transport required from time to time.

(i)   **Salvage Service**. It is responsible to salvage the damaged property and keep it in safe custody.

(j)   **Corpse Disposal Service**. This service is responsible for collection, identification and disposal of dead bodies.

(k)   **Supply Service**.   This service is responsible for planning, organizing and procuring necessary equipment for Civil Defence Services and its proper storage and quick distribution of equipment at the time of need.

(l)   Besides the above noted services, the Civil Defence organisation will be required to set up Repair and Demolition Parties and make arrangements for the care of animals through appropriate existing agencies operating in the town.

CONCLUSION

13.   Civil Defence is an important activity both, during peace (natural disasters) or during war. NCC with its vast trained resource can play an important role and help in the Civil Defence of the country.

<u>LESSON PLAN : CA 2</u>
<u>TYPES OF NATURAL DISASTERS</u>

Period   -   Two

Type   -   Lecture

Code   -   CA 2

Term   -   I (JD/JW)

_____

<u>Training Aids</u>

3.   Computer Slides, Charts, Pointer, Black Board & Chalk.

<u>Time Plan</u>

4.   (a)   Introduction   -   05 Min

      (b)   Classification of Disasters   -   35 Min

      (c)   Types of Natural Disasters   -   35 Min

      (d)   Conclusion   -   05 Min

<u>INTRODUCTION</u>

3.   Since the dawn of civilization, human society, natural environment and disasters have been closely interlinked. Natural disasters and the increasing environment degradation world-wide are serious threats to development. Natural disasters threaten all three dimensions of development to include economic, social and environmental. In the past twenty years, earthquakes, volcanic eruptions, landslide, floods, tropical storms, droughts and other natural calamities have killed over three million people, inflicted injury, disease, homelessness and misery on one billion others, and caused billions of dollars of material damage. 90 percent of the natural disasters and 95 percent of the total disaster-related deaths world-wide, occur in the developing countries.

4.   The term disaster is commonly used to denote any odd event 'natural or manmade' which brings about immense misery to a region and it becomes difficult to cope with the situation through local resources.

<u>AIM</u>

5.   To acquaint the NCC Cadets about the types of Naturals Disasters.

<u>PREVIEW</u>

6.   The lecture will be conducted in following parts:-

      (a)   Part I   -   Classification of Disasters.

      (b)   Part II   -   Types of Natural Disasters.

<u>PART I : CLASSIFICATION OF DISASTERS</u>

7.   Disasters can be classified based on nature of onset (rapid/ slow), natural and manmade disasters as under:-

(a)   **Natural Disasters**. These are of the following types :-

(i)   **Wind Related**. Storms, Cyclones, Tornados, and Tidal Waves.

(ii)   **Water Related**. Floods/Flash Floods, Cloudburst, Excessive Rains and Drought.

(iii)   **Earth Related.** Earthquakes, Tsunamis, Avalanches, Landslides and Volcanic Eruptions.

(b)   **Man Made Disasters**. These can be classified as under :-

(i)   **Accidents**. Road, rail, air, sea accidents or building collapse.

(ii)   **Industrial Mishaps**.   Gas leaks, explosion, sabotage and safety breaches.

(iii)   **Fires**. In buildings, coal fields or oil / gas fields and oil / gas storage depots.

(iv)   **Forest Fires**. In tropical countries, forest fires are often man made.

(v)   **Contamination/Poisoning**.   Incidents of mass food poisoning, water contamination, illicit-liquor poisoning and epidemics.

(vi)   **Terrorists Activities**. Serial Blasts / explosions in public transport or markets.

(vii)   **Ecological**.   Pollution of air, water, noise, soil degradation, loss of biodiversity, global warming, sea level rise, toxic wastes and nuclear accidents.

(viii)   **Warfare**.   Conventional, chemical, biological or nuclear.

PART II : TYPES OF NATURAL DISASTERS

8.   **Volcanoes**.   The word "volcano" comes from the Latin word Vulcan, the Roman god of fire. Volcanoes erupt when the lower levels of the earth's crust push up on hot magma causing the volcano to burst through the top layer of the earth. When a volcano erupts, magma, ashes, and other gases are released and pushed upward from beneath the earth's surface. The melted molten rock is called lava when above the surface, and is referred to as magma when below the surface. When a volcano erupts, the molten rock that is spewed from the volcano builds up and begins to form a mountain-like structure. Because the molten lava is so hot, sometimes reaching over 2,000 degrees Fahrenheit, anything that it comes in contact with it can burn or melt. The volcano can spew lava, dust, ashes, and deadly gases. After the molten lava cools down, it hardens and turns into hard molten rock. The ash that is sent from the top of the volcano can be carried hundreds of miles by the wind. Volcanoes can be both, active or dormant volcanoes and can be found both, on land or under the sea.

9.   **Landslides**.   Landslides are mostly caused by movement in the ground and the force of gravity pulling down on all earthly objects. Landslides can also be caused by heavy rain, earthquakes, and even some man-made causes such as road work. Landslides usually consist of falling rocks and sliding earth in addition to failure in the Earth's surface. Landslides often occur in conjunction with other natural disasters such as volcanic eruptions, earthquakes, and other faults in the earth. Effects of landslides include collapsing buildings, collapsing roads and even sometimes causing death.

10.   **Earthquakes**. Earthquakes are one of the many powerful natural disasters caused when there is a shift, collision, or sudden release of energy in the Earth's crust. Sometimes called tremors and temblors, earthquakes usually occur on the boundaries of, or near, the lines where the Earth's tectonic plates collide and slide past each other. This is called a fault line. Changes in

the Earth's surface usually result in earthquakes. Earthquakes consist of shaking and displacement of the ground. Depending on the intensity of the earthquakes, they can cause buildings to collapse, which sometimes results in fatalities. The Richter Magnitude Scale is used to classify and measure the magnitude of earthquakes. The Richter Scale was invented by Charles F. Richter in 1935, and it has a scale from 1-9.
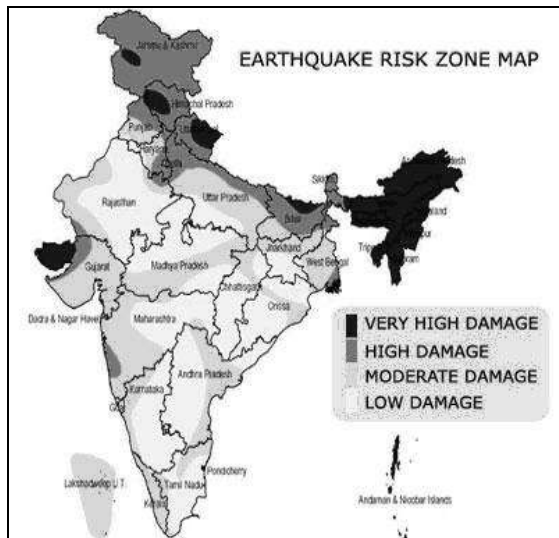
Earthquake Zone : India
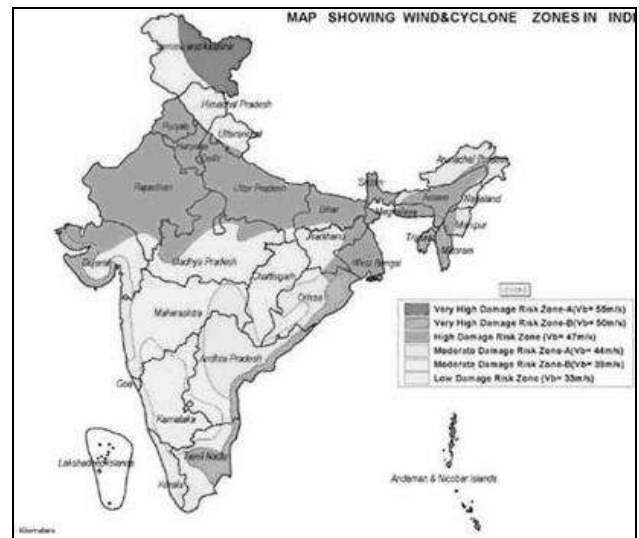
Wind & Cyclone Zone : India

11.   **Tsunamis**.   "Tsunami" is a Japanese word meaning "harbor wave." Tsunamis usually take place in the ocean, but can also occur in large lakes. Caused by an underwater earthquake, volcano, landslide, or other type of explosion, tsunamis are giant waves that can destroy entire cities. Tsunamis can range anywhere from a few inches to several yards high. Some large tsunamis have been as tall as 100 feet while some have been less than 20 feet tall and still caused extensive damage. These great walls of water can gain speed as they approach the shore, sometimes up to 500 miles per hour. Tsunamis have tremendous destructive power and can destroy hundreds of lives and homes each year.

12.   **Hurricanes**.   Sometimes called Tropical Cyclones, Typhoons, or Willy-Willies. Hurricanes can rip up trees, destroy crops, and flatten buildings. Torrential rain causes flooding and coastal regions may be swamped by huge waves whipped up by winds that blow as fast as 300 km/h (185 mp). Hurricanes start to form when the Sun's heat stirs up moist air over the oceans, where the temperature at the centre of the storm, called the eye, can be more than 300 km (185 miles) across and the winds only gale force. But as the eye narrows to about 50 km (30 miles) across, the winds begin to swirl around it at hurricane force. Cyclones pose a major threat to lives and property in many parts of the world.

13.   **Floods**.   It can arise from abnormally heavy precipitation, dam failures, rapid snow melting, river blockages or even burst water mains. It is usually sudden in onset. Types of floods can further be classified into Inland and Coastal floods. Major floods result in physical damage, deaths and injuries, problems in drinking water supply and food shortages and displacement of population.

14.   **Droughts**. If, over about two weeks, there is less than 0.2 mm (1/100in) of precipitation, there is said to be a drought. Without reservoirs, there is not enough water for people and crops. Some places have extreme drought which lasts for many Terms. Droughts have disastrous and long term impact on the economy and can affect a large segment of the society which may last for months and in some cases several Terms. Generally, drought situation may be defined as a temporary reduction in water or moisture availability significantly below the normal or expected amount for a specific period. Drought is a slow onset phenomenon.

CONCLUSION

15.   Natural disasters and the increasing environment degradation world-wide are serious threats to development. Natural disasters threaten all three dimensions of development to include economic, social and environmental. Natural calamities have killed over three million people, inflicted injury, disease, homelessness and misery on one billion others. It is therefore important for all of us to be fully aware of the various types of Natural Disasters and take measures to minimize losses of all types.
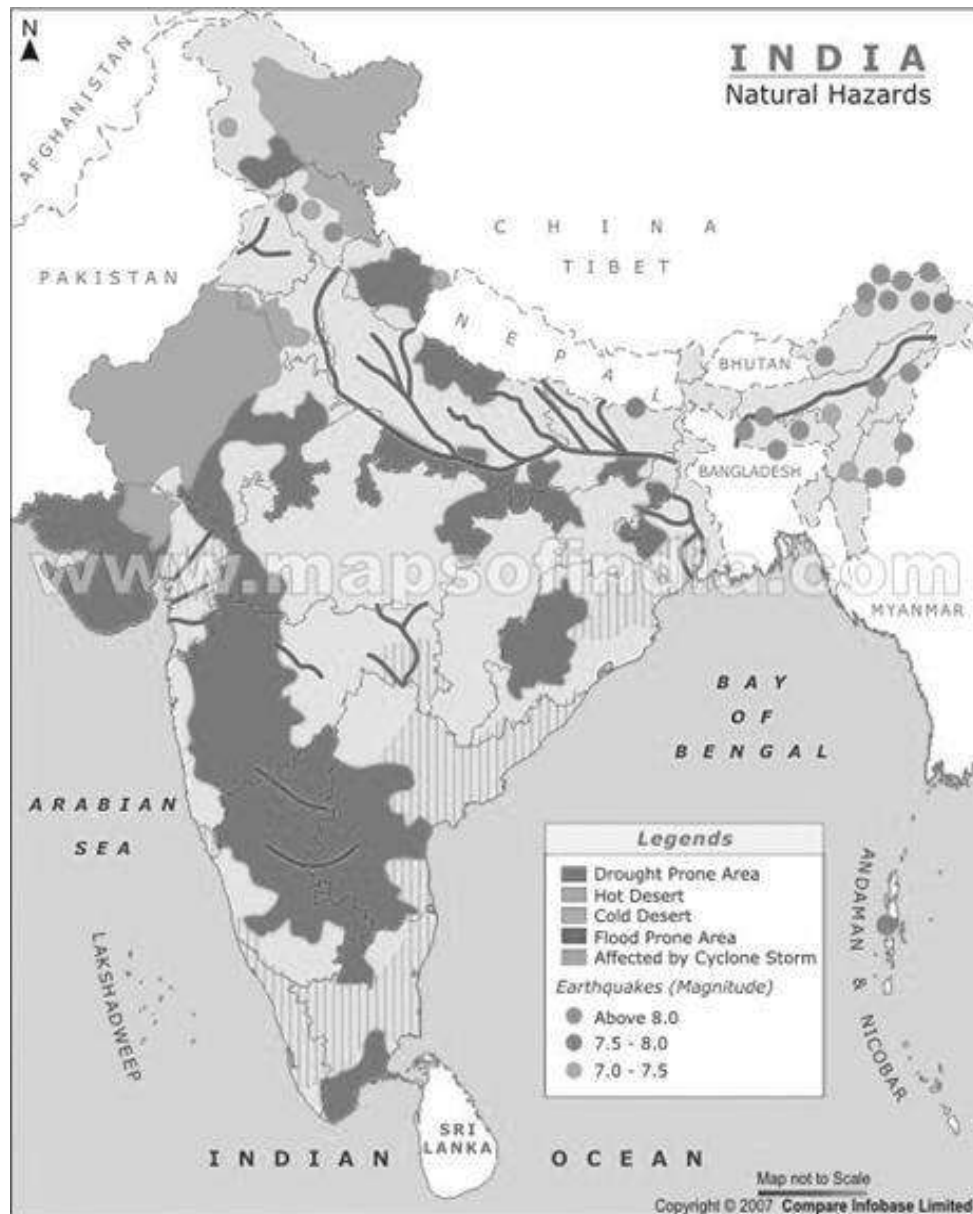
LESSON PLAN : CA 3
ROLE OF NCC DURING NATURAL DISASTERS

Period   -   One

Type   -   Lecture

Code   -   CA 3

Term   -   I (JD / JW)

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Training Aids

1.   Computer Slides/ Charts, Pointer, Black Board & Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

          (b)   Role of NCC   -   15 Min

          (c)   DOs and DONTs During Natural Disasters   -   15 Min

          (d)   Conclusion   -   05 Min

INTRODUCTION

3.   NCC can play a significant role in the management of the after effects of natural calamities and disasters. With its organisational capability, strength and quality of its cadres, involvement of NCC in disaster relief will be able to provide valuable assistance to the nation as well as an avenue to the youth in showing its commitment to the society.

AIM

4.   To acquaint the NCC Cadets about the role of NCC during Natural Disasters.

PREVIEW

5.   The lecture will be conducted in following parts :-

          (a)   Part I   -   Role of NCC during Natural Disasters.

          (b)   Part II   -   DOs and DONTs during Natural Disasters.

PART I : ROLE OF NCC DURING DISASTERS

6   NCC cadets can effectively assist the state system in disaster management, which could take shape in the form of:-

          (a)   Traffic Management under supervision.

          (b)   Search and Rescue.

          (c)   First Aid and evacuation of rescued people.

          (d)   Helping in setting up and administration of Relief Camps.

(e)   Collection, loading and dispatch of medical aid, material, food and other articles of relief.

(f)   Conduct of cultural and recreational activities for victims to boost their morale at later / rehabilitation stages.

7.   **Points for Consideration.** NCC is an extra-curricular activity of students and the cadets are not like embodied soldiers available at all times. Some points for employment of cadets are as under:-

(a)   JD/JW cadets are young and may not be considered suitable for such operations. SW cadets may be used for softer jobs like providing medical assistance or manning exchanges during strikes of nurses or telephone operators. Only SD cadets may be found suitable for helping in natural calamities like earthquakes, land-slides and floods.

(b)   Suitable bonds would be required to be obtained from parents of cadets.

(c)   Cadets are never readily available to be mustered at short notice because they are busy with their studies at schools/colleges. It is only during camps that the cadets are available and can be launched at short notice.

(d)   Cadets are not adequately trained for specialized tasks related to Disaster Management. Suitable training must be given to them during institutional training.

(e)   Adequate allowances would require to be allocated for the cadets taking part in these activities.

(f)   Joint schemes with the State Disaster Relief machinery would be required to be made in which NCC cadets may be incorporated.

(g)   Adequate signal equipment and other disaster relief equipment would be required to be authorised to NCC to carry out necessary training.

(h)   NCC cadets would have to carry out rehearsals along with the Army, Police, Fire Fighting forces and others in the State.

8.   A number of international and national NGOs are active in the area of disaster preparedness and response. The national voluntary agencies working in various aspects of disaster mitigation, including risk reduction, preparedness and response. NCC is required to actively participating in disaster relief management in concerned states. Therefore, there is a need for a coordinating body for emergency relief efforts with each state government. The objective of such a coordinating body could be to strengthen the role of NCC in:-

(a)   Emergency preparedness.

(b)   Emergency response (both immediate and in reconstruction efforts).

(c)   Mitigation.

<div align="center">

PART II : DO'S AND DONT'S DURING NATURAL DISASTERS

</div>

9.   **Earthquake.**

(a)   **If You Live in an Earthquake-Prone Area.**

(i)   Learn about its causes and effects. Speak about them in a clam and composed manner.

(ii)   Keep in a handy place, a torch and a portable transistor radio.

(iii)   Arrange your home in such a way that it is possible to move more easily, keeping corridors clear of furniture and toys.

(iv)   Attach shelves, gas cylinders, vases and flowerpots to the walls of your home.

(v)   Place heavy or bulky objects on the floor or on the lowest shelves.

(vi)   Teach all members of your family how to turn off the electricity, water and gas supply.

(b)   **During an Earthquake.**

(i)   Keep calm and keep others calm.

(ii)   If you are at home or inside a building or an auditorium:-

(aa)   Do not rush to the doors or exists; never use the lifts; keep well away from windows, mirrors, chimneys and furniture.

(ab)   Protect yourself by staying under the lintel of an inner door, in the corner of a room, under a table or even under a bed.

(c)   **If You are in the Street.**

(i)   Walk towards an open space, in a calm and composed manner. Do not run and do not wander the streets.

(ii)   Keep away from buildings, especially old, tall or detached buildings, electricity wires, slopes and walls which are liable to collapse.

(d)   **If You are Driving**.   Stop the vehicle away from buildings, walls, slopes, electricity wires and cables and stay inside the vehicle.

(e)   **After an Earthquake.**

(i)   Keep calm, switch on the transistor radio and obey any instructions you hear on the radio.

(ii)   Keep away from beaches and low banks of rivers. A huge wave may sweep in.

(iii)   Expect aftershocks.

(f)   **Culture of Prevention**.

(i)   Turn off the water, gas and electricity.

(ii)   Do not smoke and do not light matches or use a cigarette lighter. Do not turn on switches. There may be gas leaks or short-circuits.

(iii)   Use a torch.

(iv)   If there is a fire, try to put it out. If you cannot, call the fire brigade.

(v)   If people are seriously injured, do not move them unless they are in danger.

(vi)   Immediately clean up any inflammable products that may have spilled (alcohol, paint etc).

(vii)   If you know that people have been buried, tell the rescue teams. Do not rush and do not worsen the situation of injured persons.

(viii)   Avoid places where there are loose electric wires and do not touch any metal object in contact with them.

(ix)   Do not drink water from open containers without having examined it and filtered it through a sieve, a filter or an ordinary clean cloth.

(x)   Eat something. You will feel better and more capable of helping others.

(xi)   If your home is badly damaged, you will have to leave it. Collect water containers, food and ordinary and special medicines.

(xii)   Do not re-enter badly damaged buildings and do not go near damaged structures.

(xiii)   Do not walk around the streets to see what has happened. Keep clear off the streets to enable rescue vehicles to pass.

10.   **Cyclone**. Listen to the radio for advance information and advice. Allow considerable margin for safety. A cyclone may change direction, speed or intensity within a few hours. So stay tuned to the radio for updated information.

(a)   **If Storm Force Winds or Severe Gales are Forecasted for Your Areas.**

(i)   Store or secure loose boards, corrugated iron, rubbish tins or anything else that could become dangerous.

(ii)   Tape up large windows to prevent them from shattering.

(iii)   Move to the nearest shelter or vacate the area if this is ordered by the appropriate government agency.

(b)   **When the Storm Hits.**

(i)   Stay indoors and take shelter in the strongest part of your house.

(ii)   Listen to the radio and follow instructions.

(iii)   Open windows on the sheltered side of the house if the roof begins to lift.

(iv)   Find shelter if you are caught in the open.

(v)   Do not go outside or to a beach during a break in the storm.

(c)   Cyclones are often accompanied by large storm surges from the ocean or lakes and the precautions listed for floods should be taken if you live near the coast.

11.   **Flood.**

(a)   Listen to the radio for advance information and advice.

(b)   Disconnect all electrical appliances and move all valuable personal and household goods and clothing out of reach of flood water, if you are warned or if you suspect that flood

waters may reach the house.

(c)   Move vehicle, farm animals and movable goods to the highest ground nearby.

(d)   Prevent dangerous pollution. Move all insecticides out of reach of the water.

(e)   Turn off electricity/gas and lock all outside doors and windows if you have to leave the house.

(f)   Do not enter floodwaters on foot if you can avoid it.

(g)   Never wander around a flooded area.

CONCLUSION

12.   In the event of disaster, the NCC should respond in an organised manner, so that its coordination with Government of India, State Government and the District Administration becomes easier. This is essentially the purpose of GOI-NCC partnership in disaster management.

LESSON PLAN : CA 4
CIVIL ADMINISTRATIVE SET UP AT DISTRICT,
TALUKA AND VILLAGE LEVEL

Period   -   One

Type   -   Lecture

Code   -   CA 4

Term   -   II (JD/JW)
_____

Training Aids

1.   Computer Slides, Charts, Pointer, Black Board & Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

         (b)   Administration at District Level   -   20 Min

         (c)   Administration below District Level   -   10 Min

         (d)   Conclusion   -   05 Min

INTRODUCTION

3.   We all are aware that the Indian constitution guarantees and provisions Union and State laws as well as policies and programmes for economic and social development are relevant to the daily lives of the people only to the extent they are implemented honestly and efficiently. Constitution stipulates that the Governments preserve public order and ensure welfare of its citizens. '*Administration*' encompasses any activities towards implementation and execution of above tasks.

4.   Administration is an art of getting things done through and with the people in various organizational departments of the Governments. Administration involves guidance, leadership and control of the efforts of various departments towards common goals.

AIM

5.   To acquaint the cadets about the administrative set up in India at District / Taluka / Village levels.

PREVIEW

6.   The lecture will be conducted in three parts as under:-

         (a)   Part I   -   Administrative set up at District level.

         (b)   Part II   -   Administrative set up below District level.

PART I : ADMINISTRATIVE SET UP AT DISTRICT LEVEL

7.   The government at the centre and the state level cannot implement its policies directly from the head quarters. Therefore, the state is divided into territorial divisions and districts. The actual work of the government is carried out at the district level. People tend to judge the performance of

the government by the way the programmes are actually administered in the district. The people come into direct contact with the administration at the district level more than the state or central level.

8. District administration is one of the most important parts of the Indian administrative system and has been one of the most powerful institutions. During the colonial regime, it was rigorously built up to bring the totality of government closer to the people. It was hierarchical sub-system of the state administration performing the specific tasks assigned to it.

District Collector

9. The head of civil administration in a district is a District Collector who is also a district magistrate. She/he is a regional officer but she/he represents the government in the district in practically all spheres of its activities. She/he is assisted by a number of other bureaucrats in various departments. All the officers assist him in different branches of administration such as land records, collection of revenues, policy implementation etc. He is also the ex-officio district election officer. He is also responsible for planning and development of the district plans and assists district planning committees in the budgetary processes. The office of the collector is called the collectorate.

10. The other major functions of District Collector include:-

   (a) Maintenance of law and order.

   (b) Inspection of Jails.

   (c) Supervise cadastral survey and land records.

   (d) Revenue administration and collection of land revenue.

   (e) Enforces civil defence measures, and is responsible for the protection of vital installations.

   (f) Coordinates work of Different Departments/Offices

   (g) Acts as returning Officer for elections.

   (h) Heads the District disaster management Authority.

   (i) Thus, the office of the collector is burdened with a number of activities and enormous powers are vested in the collector.

Other Officials

11. A District is further divided into tahsils for the purposes of realization and collection of land revenue administration. Tahsils are the units of Sub divisions, and Sub Divisional Magistrate performs similar functions as that of district collector at the tahsil level. He is assisted by a number of land revenue officials like Tahsildar, Naib-Tahsildar, Kanoongo and lastly the Lekhpal. Lekhpal is the last in the revenue chain and is a village level functionary.

PART II : ADMINISTRATION BELOW DISTRICT LEVEL

Sub Divisions

12. For administrative purposes the district is divided into Sub divisions, Tehsils, Parganas or Circles or Ferkas and the Village is at the lowest level. The sub division is headed by SDO – SDM/ Assistant Collector. He performs revenue as well as law and order functions in his sub division. He is a link between the District Collector and the Tehsildar in revenue matters and DM and the

Station Police Officer, in law and order matters. Tehsil is the basic unit for purposes of general administration, treasury, land revenue, land records, etc. A Tehsil comprises of about 100 villages.

Taluka / Tehsils

13.	Talukas, blocks or mandals (sub-districts but can also refer to division), headed by a Tehsildar or Talukdar, comprise several villages or village clusters. The governmental bodies at the Tehsil level are called the panchayat samiti.

Blocks

14.	The block is often the next level of administrative division after the Tehsil.

Villages

15.	Villages are often the lowest level of subdivisions in India. The governmental bodies at the village level are called Gram Panchayat, of which there were an estimated 256,000 in 2002. Each Gram Panchayat covers a large village or a cluster of smaller villages with a combined population exceeding 500 (Gram Group).

Municipalities

16.	Municipalities of India are governed by Municipal Corporations (Mahanagar Paalika) for large urban areas, Municipal Council (Nagar Paalika) for smaller urban areas, and Town Councils (Nagar Panchayats) for suburban areas. Municipalities can be as large as a district or smaller than a Tehsil.

CONCLUSION

17.	It is very important in a large and democratic country like India, all welfare schemes and other administrative benefits reach every citizen. For this to happen, it is important that an effective administration set up is available at every level from Central Government to Gram Panchayat. Of course, honest and corrupt-free implementation of projects will decide the success of the system. As the future citizens of India, we need to be aware of the system and responsibilities of each official in the administrative set up so that we can contribute in our own way for the development of our society.

LESSON PLAN : CA 5
FIRE FIGHTING

Period   -   Two

Type   -   Lecture

Code   -   CA 5

Term   -   II (JD/JW)

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Training Aids

1.   Computer Slides, Charts, Pointer, Black Board & Chalk.

Time plan

2.   (a)   Introduction   -   05 Min

             (b)   Causes and Prevention of Fire   -   35 Min

             (c)   Fire Fighting   -   35 Min

             (d)   Conclusion   -   05 Min

INTRODUCTION

5.   Fire is a major cause for destruction of property / lives these days. Due to increase in the standard of living, electrical goods, air conditioners and cooking gas are found in most of the houses. Also, due to the influx of multinational companies, most offices, shopping malls and hospitals have air conditioners. With the influx of these electrical gadgets and cooking gas, occurrences of fire incidents have increased manifold, especially during winters and summers. It is therefore essential that everyone should be aware of how to prevent fire hazards or to provide assistance in firefighting.

AIM

6.   To acquaint the NCC Cadets about the Fire Services and Fire Fighting.

PREVIEW

7.   The lecture will be conducted in following parts :-

             (a)   Part I   -   Causes and Prevention of Fire.

             (b)   Part II   -   Fire Fighting.

PART I : CAUSES AND PREVENTION OF FIRE

6.   Fire is the outcome of either heating or over heating of a combustible substance to the required temperature or igniting an inflammable material. The following three elements are essential for creation of fire and its continuation:-

             (a)   Oxygen.

             (b)   Sufficient heat to raise the temperature of fuel to its burning point or ignition temperature.

(c)   Combustible or burnable material (Solid, Liquid or Gas).

7.   It should, therefore, be remembered that three things or conditions are necessary to start a fire and to sustain it. Fuel (Combustible Material), Oxygen (Air) and Sufficient Heat to raise the temperature of the fuel to its burning point, must be present at the same place and time.

Modes of Spread

8.   The fire spreads by the transmission of heat in one or any combination of the following four ways:-

     (a)   **Conduction**. Transfer of heat by the intermediary material. Many materials which will not burn easily particularly metals are good conductors for transmitting heat. These materials when overheated or heated by the fire, may ignite other combustible material with which these may be in contact eg short circuiting of electrical wires due to overloading.

     (b)   **Convection**. Transfer of heat through gases or smoke. Gases tend to rise until ceiling or roof is reached after which they spread sideways in a mushroom manner and ignite combustible materials located at higher levels than the original fire e.g. fire spreading onto top floor. The best method to check this is to remove or cool the combustible materials.

     (c)   **Radiation**.   Radiation means transfer of heat from the source of fire, without heating the midway media e.g. air. The effect of radiation can be countered by forming a 'water curtain' between the fire and the object to be protected or the object may be removed or cooled.

     (d)   **Direct Burning**.   This phenomenon is self-explanatory. Direct burning is often due to a combination of the above two or three factors viz, conduction, convection and radiation.

Prevention of Fire

9.   The following measures must be taken to prevent occurrence of fire incidents:-

     (a)   **Domestic Fires.**

          (i)   **Kitchen Fires.** These fires can be prevented by following measures:-

          (aa)   Don't keep any inflammable material like petrol, kerosene or clothing near the fire or the gas.

          (ab)   Always check the gas cylinder, gas pipe for leakage. Keep the kitchen well ventilated to prevent leaking gas accumulation. Switch off the regulator when the gas is not in use.

          (ac)   Before lighting the gas, ensure there is no gas leakage.

          (ad)   Keep children away from gas or fire or stoves.

          (ae)   Before leaving the kitchen, ensure that the gas and kero stoves are switched off and there are no burning embers in the 'Chula'.

          (ii)   **Other Fires.**

          (aa)   Ensure that no electrical circuit is 'overloaded'.

          (ab)   Ensure that good quality electrical items are used.

(ac)   Ensure that all electrical gadgets are switched off when not in use, eg TV, AC, room heater or iron.

(ad)   Ensure that smokers do not leave any burning cigarettes or stubs in ashtrays near inflammable material.

(ae)   Don't ignite any fire cracker inside the house.

(b)   **Fire in Public Places.**

(i)   Ensure that smokers do not leave any burning cigarettes or stubs in public dustbins or near inflammable material in closed AC offices, shopping malls or cinema halls.

(ii)   Don't ignite any fire cracker near petrol pumps, in crowded markets, near inflammable material or inside malls.

PART II : FIRE FIGHTING

Fire Fighting

10.   Fire can be extinguished if any one or more of the three main constituents are removed from the scene of fire. The fire can thus be extinguished by:-

(a)   **Starvation**. Starvation means removal of fuel combustible material and it can be achieved by either segregation of fire and un-burnt fuel by removing either of them e.g. removing un-burnt combustible materials from a room on fire with the help of hook or otherwise or division of a large fire into several smaller ones to prevent the radiated heat from setting alight combustible material at some distance.

(b)   **Cooling**. Cooling implies the removal of heat to lower the temperature of burning material to a point below its ignition point. This is usually achieved by water. When water is poured over a burning material, it absorbs heat, becomes hot and flows away or is converted into steam. The burning substance loses heat to the water and its temperature comes down to below its ignition temperature and so the fire is extinguished.

(c)   **Smothering**. Smothering means 'Choking' or restricting the supply of Oxygen (Air) to the burning material. This is also called 'blanketing' and is achieved by sealing all the burning material from Oxygen (Air) by covering it with sand/dry earth/ foam or by creating an atmosphere over the fire of heavier than air inert gas.

Fire Fighting Parties

11.   To carryout the above methods, the fire services and fire parties are organized at the level of every city, town and important establishments.

12.   **House Fire Parties.** It consists of four persons who carry stirrup pumps and water buckets. They act as fire watchers and work under the orders of the wardens. They carry one stirrup pump, two buckets, one torch and one hand axe. One steel helmet and one whistle per member is envisaged as personal equipment.

13.   **Auxiliary Fire Services.** This consists of eight persons with Trailer Pump which can throw water at the fire from a distance. The members of this Service are drawn from the Home Guards.

Fire Fighting Equipment

14.   Fire Fighting Equipment can be divided into the following four categories:-

(a)   Fire Extinguishers.

(b)   Stirrup Pumps.

(c)   Buckets.

(d)   Fire Beaters and Hooks.

15.   **Fire Extinguishers.** For the convenience of study, these could be grouped as under:-

(a)   **Soda Acid Extinguishers.** These fire extinguishers are used for extinguishing fires involving ordinary combustible material, where the cooling effect is achieved by water or solution containing large percentage of water. Such extinguishers are conical /cylindrical in shape.

(b)   **Foam Type or Dry Chemical Powder Extinguishers.** These fire extinguishers contain dry chemicals or solution and are exclusively meant for extinguishing fires involving inflammable liquids such as oils, fats, or grease, where blanketing the fire to isolate it from Oxygen (Air) is required.

(c)   **CTC Carbon dioxide and Dry Chemical Extinguishers**. These fire extinguishers contain chemicals, either liquid, gas or dry, and are mainly used to fight fires involving 'Live' electrical equipment etc. where, the use of an electrically non-conductive extinguishing agent is of most importance.
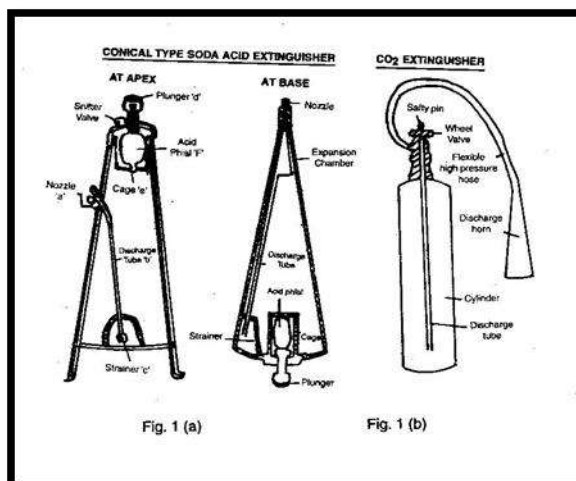
Soda Acid Fire Extinguisher   Foam Fire Extinguisher
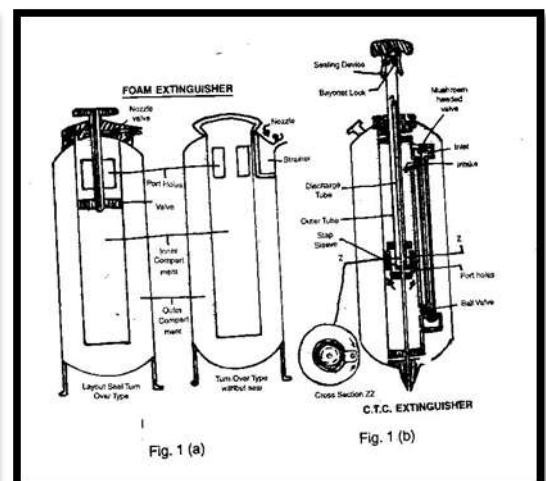
(d)   The main advantages of these extinguishers are:-

     (i)   They are easy to operate.

     (ii)   They need only one man to operate and carriage to another place.

     (iii)   They are very useful in the initial stage of fire.

(e)   The disadvantages of these extinguishers are:-

     (i)   The use is limited as the duration of the working of the extinguishers is approximately one to two minutes.

     (ii)   The cost of these extinguishers is prohibitive.

     (iii)   These extinguishers require constant care and careful maintenance.

16.   **Stirrup Pumps**. The stirrup pump is an excellent piece of first aid firefighting equipment designed for use on small fire. It is very useful in localising and controlling fires with limited water supplies. Water spray from this equipment may be used on small fires for cooling the combustible material or the surrounding of scene of fire. It is generally operated by a team of four members but in an emergency a team of two members can also operate it effectively. The water jet produced by this pump can hit the ground at a distance not less than 9 meters from the nozzle.   The consumption of water is about 1 to 1-1/2 gallons per minute.   The spray produced by this pump can reach 15 to 20 feet away from the nozzle with water consumption ¾ gallons per minute.

17.   **Bucket**. Buckets are ideal for storing water and sand for fighting small fires. They could be easily carried by one person, from one place to another.

18.   **Fire Beaters / Hooks**. Beaters made of wire net in a rectangular shape and hooks made of iron fitted on bamboo poles are ideal for separating the burning and unburnt combustible material, and extinguishing by beating the small fires.

CONCLUSION

19.   It therefore extremely essential for all to be aware of the causes of fires and how to prevent fires or carryout firefighting in homes and public places.

LESSON PLAN : CA 6
ESSENTIAL SERVICES AND THEIR MAINTAINENCE

Period   -   One

Type   -   Lecture

Code   -   CA 6

Term   -   II (JD/JW)

Training Aids

1.   Computer Slides, Charts, Pointer, Black Board & Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

        (b)   Type of Essential Services   -   15 Min

        (c)   Maintaining Essential Services   -   15 Min

        (d)   Conclusion   -   05 Min

INTRODUCTION

3.   The term 'Essential Services' means any public utility services, public safety or the maintenance of infrastructure and services which are necessary for the maintenance of daily life of the people and the non-availability of which would result in the infliction of grave / extreme hardship to the people.

AIM

4.   To acquaint the NCC Cadets about Essential Services and their Maintenance.

PREVIEW

5.   The lecture will be conducted in following parts:-

        (a)   Part I   -   Type of Essential Services and their Maintenance.

        (b)   Part II   -   Role of NCC Cadets in Maintaining Essential Services.

PART I : ESSENTIAL SERVICES AND THEIR MAINTENANCE

6.   Essential services can be categorized as under:-

        (a)   Postal, telegraph or telephone services.

        (b)   Transport Services like rail, road, air and sea.

        (c)   Running of air / sea ports.

        (d)   Provision of water, electricity and sanitation services.

        (e)   Medical services and essential supplies.

(f)   Production and supply of essential commodities.

(g)   Running of government mint and security presses.

Type of Maintenance Required for Essential Services

7.   These services are maintained by Govt at all cost. There are very rigid acts and provisions to ensure continuity of these services since, without them life in country will go out of gear. Very strict provisions in law exist against personnel going on strike, refusing to work overtime or any other conduct which is likely to result in cessation or substantial retardation of work in maintaining these services. At district level, each district is required to prepare in advance, contingency plans to tackle the likely disturbances in continuity of these services.

8.   **Medical.**

     (a)   Running of medical facilities and hospitals.

     (b)   Providing nursing and first aid.

     (c)   Immunisation of the population in relief camps.

     (d)   Rescue of trapped persons and causality evacuation..

     (e)   Disposal of dead bodies and carcasses.

9.   **Communication.**

     (a)   Maintenance of uninterrupted telecommunication through telephone services /tele fax, mobile phones, VHF transmitters etc.

     (b)   Dissemination of information, monitoring media coverage and quelling of rumors.

10.   **Transport.**

     (a)   Maintenance of rail/road communications with special attention to:-

         (i)   Repairing damaged rail/ road network, as it directly relates to the delivering of relief supplies by vehicles.

         (ii)   Creating diversions of bypassing damaged sections of the roads.

     (b)   Extent of containers that can be moved inland.

     (c)   Availability of maintenance facilities and spare parts.

     (d)   Measures for security of cargo in transit.

11.   **Infrastructure.**

     (a)   Infrastructure of roads and bridges, communications, water and electricity supply, sewerage and essential buildings such as schools/ colleges and health centres may be required to be rebuilt/ repaired.

     (b)   Housing and rehabilitation.

     (c)   For economic rehabilitation, funding and various new opportunities to be created, in addition to getting the destroyed stocks replenished, for restoration of livelihood.

12.   **Miscellaneous.**

   (a)   Provision of Military, Para Military assistance.

   (b)   Speedy establishment of Control Room and deployment of human and material resources in a short time.

PART II : ROLE OF NCC CADETS IN MAINTAINING ESSENTIAL SERVICES

13.   Being qualified in First Aid, Basic Home Nursing, Signals and having developed leadership traits and learnt about Social Services, Civil Defence and Disaster Management, the cadets of NCC could assist in maintaining the following essential services and important tasks in any and every part of the country in following ways:-

   (a)   As operators in Telephone Exchange.

   (b)   As nurses In Hospitals or as links between doctors, nurses, patients and hospital technicians. They could also help in maintaining hospital discipline and security.

   (c)   Assist in establishment and running of First Aid Centres.

   (d)   Assist civil defence wardens in carrying out their duties.

   (e)   Carry out neighborhood campaigns by motivating people to create self assistance groups.

   (f)   Counteract gossip and rumors to restore the morale of the people.

   (g)   Assist the civil authorities whenever feasible and to the best of ability. Some of the areas where cadets can help are:-

      (i)   Search for and rescue trapped people.

      (ii)   Salvage destroyed structures and property.

      (iii)   Distribution of relief material to the affected population for their temporary sustenance.

      (iv)   Coordinate the relief flow from out-side and ensure maximum coverage of territory in provision of relief stores, food and water avoiding wastage and duplication of work in the same area.

      (v)   Repair and restore essential services to enable rescue and relief work and for normalization of activities.

CONCLUSION

14.   Maintenance of essential services during strikes or calamities an important task for the govt administration. NCC Cadets, being qualified in first fid, signals and having developed various leadership traits and social services / Civil Defence, can play an important role in maintaining the essential services.

INDEX

SOCIAL AWARENESS AND COMMUNITY DEVELOPMENT

LESSON PLAN : SA 1
BASICS OF SOCIAL SERVICE AND ITS NEED

Period   -   One

Type   -   Lecture

Code   -   SA 1

Term   -   I (JD/JW)

_____

Training Aids

1.   Computer, Projector, Charts, Pointer, Black Board & Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

         (b)   Basics of Social Service   -   15 Min

         (c)   Need for Social Service   -   15 Min

         (d)   Conclusion   -   05 Min

INTRODUCTION

3.   The term 'Social Service' is defined broadly as, the provisions made by governmental or voluntary efforts to meet income maintenance, medical care, housing, education and recreational needs and provisions, for the care and protection of recognised special groups. The origin of social service is ancient, stemming from the tenets of the Judaco- Christian teachings. The modern institutional service took shape with the impact of the industrial revolution upon family and community life , substituting as it did an industrial for an agrarian economy, urban living for rural living and creating dependence upon the wage system as a means of livelihood.

4.   Social service characterises a formalised way of helping people, to help themselves. It is based on the reorganization of variations in individual capability and variations in the social structure. The objective is to help the individual to utilise his capability for his own welfare and for that community.

AIM

5.   To acquaint the cadets about the Basics of Social Service and its Need.

PREVIEW

6.   The lecture will be conducted in following parts:-

         (c)   Part I   -   Basics of Social Service.

         (d)   Part II   -   Need for Social Service.

PART I : BASICS OF SOCIAL SERVICE

7.   **Methods**.   There are generally three accepted methods identified for conduct of social service which are as under:-

(a)   **Social Case Work**.   This aims to help the individual make maximum use of the established community, through understanding the individual in his total situation.

(b)   **Social Group Work**.   It seeks to help the individuals utilize their fullest capacity for their own welfare and for the welfare of the group as a whole, through understanding of the behaviour of individuals in a group setting.

(c)   **Community Organization**.   It attempts to help groups of individuals or groups of agencies to work together so that their combined efforts will be useful for the social welfare of the whole community.

8.   **Types of Social Service Activities.** The various types of social service activities which can be undertaken are as under :-

(a)   Education.

(b)   Family Welfare, Medical Care, Family Planning and Nutrition.

(c)   Provision of Water and Cooking Fuel, Roads, Electricity and Sanitation.

(d)   Old Age Support Systems.

(e)   Employment.

(f)   Social Assistance, Social Security and Care & Protection.

(g)   Housing and Rehabilitation.

(h)   Recreation, Sports and Social activities.

PART II : NEED FOR SOCIAL SERVICE

9.   **General.** India is still divided into many endogamous groups, or castes and sub-castes, as a result of centuries of practicing a form of social hierarchy called the caste system. The traditional caste system, leads to severe oppression and segregation of the lower castes and other weaker sections and limits their access to various freedoms e.g, education and employment. After independence the constitution of India included safeguards for suppressed and other backward classes. The Indian constitution prohibits any discrimination based on religion, race, caste, sex and place of birth. But, while providing equality of opportunity for all citizens, the constitution also contains special clauses to ensure reservation, 'for the advancement of any socially and for the educationally backward classes of citizens or for the Scheduled Castes and the Scheduled Tribes'.

10.   **Classes of Society.**

(a)   **Scheduled Caste and Scheduled Tribes.** Scheduled Castes and Scheduled Tribes are communities that are accorded special status by the Constitution of India. These communities were considered "outcastes". These castes and tribes have traditionally been relegated to the most menial labour with little possibility of upward mobility and are subject to extensive social disadvantage and discrimination. The Scheduled Caste people are also known as Dalits and the Scheduled Tribes people as Adivasis. According to 2001 census,

population of SC and ST is approximately 16% and 8% of India's total population respectively.

(b)   **Other Backward Classes (OBCs).** These classes are a group of sub castes which are socially and educationally backward while still having a higher status than scheduled castes or scheduled tribes.   As of 2006 approximately 2300 communities are listed backwards. Central and all state governments are enjoined to ensure their social and educational development.

11.   **Needs of the Weaker Sections.**

(a)   **Education**.   Education is the basic need of the weaker sections. The right approach would be to provide all weaker sections, proper primary education, to prevent them from dropping out of school and making them 'natural competitors' and to give scholarships at higher level.   There is an urgent need to increase the number of educational institutes. Some measures which can contribute in this are:-

   (i)   At the village level, opening of schools which impart basic education coupled with the vocational skill that can be taught with the naturally available resources e.g. basket weaving, painting printing, tailoring, embroidery, pottery, music, dance, etc will help in achieving self-sufficiency. Specially trained teachers should be adequately compensated, so that talented people do not hesitate to go to villages.

   (ii)   Schools should also educate the villagers on moral values, hygiene, first aid, family planning, budgeting, savings etc.

   (iii)   Villagers must be educated on the need for educating the girl child as she is the one responsible in bringing up the future generations. She should therefore develop courage, self-confidence, competitive spirit and a sense of equality   with boys.

   (iv)   Social evils such as the dowry system, child marriages and superstitions, should be taken up for discussion and their drawbacks be pointed out, so that they become events of history.

(b)   **Employment**.   Provision of land to landless and helping them in working out a life by providing softer loans for cultivations etc can take care of employment problems to some extent. Taking up of infrastructure projects will help in creating large number of jobs.

(c)   **Reservation in Educational Institutions and Govt Jobs**.   Reservations are intended to increase the social diversity in campuses and workplaces by lowering the entry criteria for certain identifiable groups who are grossly underrepresented in proportion to their number in general population. Reservation is a term used to describe policies whereby a portion of jobs, positions or academic seats are set aside or reserved for a given group. Government has taken initiatives on a large scale by providing reservations in different fields such as government jobs, educational institution and other such government aided and semi-govt institutions, to help the SCs, STs and OBCs.   A certain percentage of seats are reserved for sections so that the discrimination against them can be reduced and they will be provided with equal opportunities to work and grow. The Constitution lays down that 15% and 7.5% of vacancies in government-aided educational institutes and for jobs in the government /public sector are reserved as quota for the SC and ST respectively. Although originally supposed to last for 10 years, the reservation system has continued till date and now applies to higher education and legislative offices also. Currently 22.5% of the seats in

higher education institutes under the Central Government are reserved for SC and ST, and 27% for OBCs.

12.   **Contribution of NCC Cadets.** Our NCC Cadets are from every nook and corner of India. We must therefore utilise this huge potential of eager, helpful, energetic, educated and talented cadets, to achieve our aim of imbibing values and   skills   amongst   the weaker sections of our society which will make themselves self-sufficient and confident. They will cease to be a drain on the resources of India and will become valuable contributors to our economy.

CONCLUSION

13.   There is no doubt that the interests of the weaker sections need to be protected and their legitimate needs fulfilled so that we can have a just and fair society where the under privileged are not discriminated against and no section lags behind the other.

LESSON PLAN : SA 2
RURAL DEVELOPMENT PROGRAMMES

Period   -   One

Type   -   Lecture

Code   -   SA 2

Term   -   I (JD/JW)

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Training Aids

1.   Computer, Projector, Charts, Pointer, Black Board & Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

         (b)   Rural Development and Its Need   -   15 Min

         (c)   Rural Development Programmes in India   -   15 Min

         (d)   Conclusion   -   05 Min

INTRODUCTION

3.   Every country has a population which is divided into two sections, the urban and the rural. Urban people are those who live in urban areas where everything is available, particularly the basic needs like health care, education, water, electricity, telecommunication, roads, transports, railways etc. The areas where such facilities are not available at all or are not adequate, are known as rural areas. For a country to develop, it is very essential that the country progress as a whole and not only in the urban areas. As we are aware, India is one of the largest democracies in the world and fast emerging as a world power, but it has not yet reached the stage of a fully developed country, due to the huge gap between its people living in urban and rural areas.

AIM

4.   To acquaint the cadets about the Rural Development Programmes in India.

PREVIEW

5.   The lecture will be conducted in three parts as under:-

         (a)   Part I   -   Rural Development and its Need.

         (b)   Part II   -   Important Rural Development Projects in India.

PART I : RURAL DEVELOPMENT AND ITS NEED

6.   Rural development is a process that aims at improving the quality of life and standard of living of the people in the rural areas. It may be defined as overall development of rural areas to improve the quality of life of rural people. It is an integrated and sustainable process of improvement of the rural areas, which includes social, economical, political and spiritual development of the poorer sections of the society.

7.   Rural development encompasses the following:-

(a)   Finding ways to improve the rural lives, with participation of the rural people themselves, so as to meet the required need of the rural area.

(b)   It covers the following activities:-

       (a)   Education.

       (b)   Health.

       (c)   Banking.

       (d)   Roads.

       (e)   Water and Electricity.

       (f)   Employment.

       (g)   Small Scale Industries and Agricultural Products.

       (h)   Crop, Poultry and Animal Farming.

       (j)   Rural Tourism.

Need For Rural Development

8.   India is primarily and agro based economy. 70 % of the country's population lives in rural areas with no or very little facilities. In order to become a global power, we need to develop our rural areas. The need to develop rural areas can be summarized as under:-

(a)   To bridge the urban – rural divide.

(b)   To bridge the economic gap between incomes of rural – urban population.

(c)   To control or reduce mass migration of population from rural to urban areas.

(d)   To have equitable distribution of resources and development activities.

(e)   To create more job opportunities.

(g)   To empower the rural population.

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PART II : IMPORTANT RURAL DEVELOPMENT PROGRAMMES IN INDIA

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MGNREGA

9.   On 2nd Feb, 2006 'National Rural Employment Guarantee Act'2005 (NREGA) was launched and in 2010 it was renamed as the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). It was the first ever law internationally, that guarantees wage employment in an un-precedented scale. MGNREGA aims at enhancing livelihood security of households in rural areas of the country, by providing at least one hundred days of guaranteed wage employment in a financial year, to every household whose adult members volunteer to do unskilled manual work. To start with, 200 selected districts of the country were brought under it and within three years of its launch, MGNREGA was extended to all the districts of the country from 1st April 2008.

10.   Unique features of the Act include:-

(a)   Time bound employment guarantee and wage payment within 15 days.

(b)   Incentive – disincentive structure to the state governments, for providing or not providing employment, as per demand.

(c)   Emphasis on labour intensive works prohibiting the use of contractors, and machinery.

(d)   Ensure the creation of durable community, social and economic infrastructure and assets in the rural areas.

(e)   The Act also mandates 33 per cent participation for women.

11.   Over the years employment opportunities under MGNREGA have increased and during 5.49 crore household were provided employment in 2010-11.The average wage paid under MGNREGA has increased from Rs 65 in 2006-07 to Rs 100 in FY 2010-11. The Programme had a high workforce participation of marginalized groups like SC/ST (52 % in 2011) and women participation was 50% in 2012 . About 9.88 crore bank and post office accounts have been opened to disburse wages directly to the workers' accounts. Of the total works were undertaken, 53% constituted water conservation, 22% rural connectivity and 9% land development.

Swarnajayanti Gram Swarojgar Yojna (SGSY)

12.   This programme was launched in April, 1999. This is a holistic programme covering all aspects of self employment such as organisation of the poor into selfhelp groups, training, credit, technology, infrastructure and marketing.

13.   The objective of SGSY is to provide sustainable income to the rural poor. The programme aims at establishing a large number of micro-enterprises in the rural areas, based upon the potential of the rural poor. It is envisaged that every family assisted under SGSY will be brought above the poverty-line with in a period of three years.

14.   This programme covers families below poverty line in rural areas of the country. Within this target group, special safeguards have been provided by reserving 50% of benefits for SCs/STs, 40% for women and 3% for physically handicapped persons. Subject to the availability of the funds, it is proposed to cover 30% of the rural poor in each block in the next 5 years. SGSY is being implemented by the District Rural Development Agencies (DRDAs) with the active participation of Panchayat Raj Institutions, the Banks, the line Departments, and NGOs. SGSY has been restructured as National Rural Livelihoods Mission (NRLM) and now renamed as 'Aajeevika'.

Jawahar Gram Samriddhi Yojna (JGSY)

15.   The critical importance of rural infrastructure in the development of village economy is well known. A number of steps have been initiated by the Central as well as the State Governments for building the rural infrastructure. The public works programme have also contributed significantly in this direction.

16.   Jawahar Gram Samridhi Yojna (JGSY) is the restructured, streamlined and comprehensive version of the erstwhile Jawahar Rozagar Yojana. Designed to improve the quality of life of the poor, JGSY has been launched on 1st April, 1999. The primary objective of the JGSY is the creation of demand driven community village infrastructure including durable assets at the village level and assets to enable the rural poor to increase the opportunities for sustained employment. The secondary objective is the generation of supplementary employment for the unemployed poor in the rural areas. The wage employment under the programme shall be given to Below Poverty Line (BPL) families.

17.   JGSY is implemented entirely at the village Panchayat level. Village Panchayat is the sole authority for preparation of the Annual Plan and its implementation.

Indira Aawas Yojna (IAY)

18.   IAY is the flagship rural housing scheme which is being implemented by the Government of India with an aim of providing shelter to the poor below poverty line. The Government of India has decided that allocation of funds under IAY (Indira Awas Yojna) will be on the basis of poverty ratio and housing shortage.

19.   The objective of IAY is primarily to help construction of new dwelling units as well as conversion of unserviceable kutcha houses into pucca / semi-pucca by members of SC/STs, freed bonded labourers and also non-SC/ST rural poor below the poverty line by extending them grant-in-aid.

20.   IAY is a beneficiary-oriented programme aimed at providing houses for SC/ST households who are victims of atrocities, households headed by widows/unmarried women and SC/ST households who are below the poverty line. This scheme has been in effect from 1st April, 1999 and since inception of scheme about 272.83 lakh houses have been constructed. December, 2000, a 100 % centrally sponsored scheme namely Pradhan Mantri Gram Sadak Yojana (PMGSY) was launched with the objective of providing connectivity by all weather roads to about 1.60 lakh unconnected habitations with population of 500 persons and above (250 persons and above in respect of hill States, the tribal and the desert areas) through good all-weather roads in the rural areas by the end of Tenth Plan Period (2007) Upto January,2012, a total of 42,531 habitations have been connected out of 63,940 habitations to be connected and works for 58,387 habitations sanctioned.

National Social Assistance Programme (NSAP)

21.   The National Social Assistance Programme (NSAP) was launched in 1995-96 The NSAP then comprised of the National Old Age Pension Scheme (NOAPS), National Family Benefit Scheme (NFBS) and National Maternity Benefit Scheme (NMBS). On 1st April, 2000 a new scheme known as 'Annapurna Scheme' was launched. This Scheme aimed at providing food security to meet the requirement of those senior citizens who, though eligible had remained uncovered under the NOAPS. In February 2009 two new Schemes namely, Indira Gandhi National Widow Pension Scheme (IGNWPS) and Indira Gandhi National Disability Pension Scheme (IGNDPS) have been introduced under NSAP. The major benefits under these various schemes are as under:-

>   (a)   Under Annapurna Scheme 10 kgs of food grains per month is provided free of cost to the beneficiary.

>   (b)   Under NOAPS, Rs 75 per month was being provided per beneficiary to destitute who are 65 years of age or above. However, with effect from 01 Apr 2011, the eligibility age for old age pension under IGNOAPS has been reduced from 65 years to 60 years and the amount of pension has been raised from Rs 200 to Rs 500 per month for those who are 80 years or above.

>   (c)   GOI approved a pension of Rs 200 per month, per beneficiary to BPL widows in the age group of 40-64 years. Consequent upon the revision in age limit under IGNOAPS w.e.f. 01.04.2011, the upper age limit under IGNWPS was revised from 64 years to 59 years. Presently, widow pension under IGNWPS is provided to BPL widows in the age group of 40-59 years. It is estimated that during the year 2011-12, 29 lakh beneficiaries would be covered under the scheme.

>   (d)   A pension of Rs 200 per month, per beneficiary is provided to disabled persons with severe or multiple disabilities between the age group of 18-64 years belonging to BPL families, under Indira Gandhi National Disability Pension Scheme(IGNDPS).

Pradhan Mantri Gram Sadak Yojana (PMGSY)

22.   In December, 2000, a 100 % centrally sponsored scheme namely Pradhan Mantri Gram Sadak Yojana (PMGSY) was launched with the objective of providing connectivity by all weather roads to about 1.60 lakh unconnected habitations, with population of 500 persons and above (250 persons and above in respect of hill States, the tribal and the desert areas) through good all-weather roads in the rural areas by the end of (2007. Upto January, 2012, a total of 42,531 habitations have been connected out of 63,940 habitations which were to be connected and works for 58,387 habitations have been sanctioned.

Other Development Projects

23.   Details of other rural development projects / schemes are as under:-

(a)   **Sampoorna Grameen Rozgar Youjana (SGRY) 2001**. For providing additional wage employment and food security, alongside creation of durable community assets in rural areas.

(b)   **National Food for Work Program (NFWP) 2004.** To provide additional resources apart from the resources available under the SGRY to 150 most backward districts of the country for generation of supplementary wage employment and provision of food security.

(c)   **Drought Prone Area Program (DPAP) 1974.** To tackle the special problems by those in drought areas.

(d)   **Desert Development Program (DDP) 1978**. To mitigate adverse effects of desertification.

(e)   **Integrated Wastelands Development Program (IWDP) 1990.** Projects sanctioned to the areas not covered under DPAP or DDP.

(f)   **Rajiv Gandhi National Drinking Water Mission (RGNDWM) 1991**. To provide safe drinking water to all villages, to maintain sources of drinking water in good condition and to give special attention for water supply to SCs and STs.

(g)   **Central Rural Sanitation Program (CRSP) 1986.** For improving the quality of life of rural people and, providing privacy and dignity to women.

CONCLUSION

24.   It is very important in a large and democratic country like India, all welfare schemes and other administrative benefit reach every citizen. For this to happen, it is important that an effective administration set up is available at every level from Central Government to Gram Panchayat. Of course, honest and corrupt-free implementation of projects will decide the success of the system. As the future citizens of India, we need to be aware of the system and responsibilities of each official in the administrative set up so that we can contribute in our own way for the development of our society.

LESSON PLAN : SA 3
LITERACY ENHANCEMENT & POVERTY ALLEVIATION

Period   -   One

Type   -   Lecture

Code   -   SA 3

Term   -   I (JD/JW)
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Training Aids

1.   Computer, Projector, Charts, Pointer, Black Board & Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

        (b)   Literacy Enhancement   -   15 Min

        (c)   Poverty Alleviation   -   15 Min

        (d)   Conclusion   -   05 Min

INTRODUCTION

3.   Literacy or lack of it is a key factor for development of any nation. Enhancement of literacy, hence, is one of the primary duties of the Governments at Centre as well as States. All other issues like economic development, health index, employment availability, industrial development, poverty etc can be linked to the basic issue of literacy or lack of it. As a future citizen of India, it is very essential that we know about the state of literacy in India and various initiative of the Governments for literacy enhancement.

4.   For a developing nation like India, another root cause problem is that of poverty. Since independence, successive Governments have initiated many programmes and schemes for poverty alleviation. We must do everything possible to eradicate poverty from our society and help Governments to achieve this.

AIM

5.   To acquaint the cadets about the Literacy Enhancement and Poverty Alleviation in India.

PREVIEW

6.   The lecture will be conducted in three parts as under:-

        (a)   Part I   -   Literacy Enhancement in India.
        (b)   Part II   -   Poverty Alleviation in India.

PART I : LITERACY ENHANCEMENT IN INDIA

General

7.   Literacy is the ability to read, write, speak, listen, and communicate effectively. Literacy is the ability to read and write one's own name and further for knowledge and interest, write coherently, and think critically about the written word. The United Nations Educational, Scientific and Cultural Organization (UNESCO) defines literacy as the "ability to identify, understand, interpret, create, communicate and compute, using printed and written materials associated with varying contexts.

8.   The Literacy rate in India has improved a lot over the last one decade, especially after the implementation of free education in the villages, the literacy rate has gone up tremendously. As per the data published by the 2011 census, India has managed to achieve an effective literacy rate of 74.04 per cent in 2011. There are almost 74 per cent literates that constitute the total population of India aged between seven and above. As per the report, effective literacy rates (age 7 and above) in 2011 were 82.14% for men and 65.46% for women. The census provided a positive indication that growth in female literacy rates (11.8%) was substantially faster than in male literacy rates (6.9%) in the 2001–2011 decadal period, which means the gender gap appears to be narrowing. It is estimated that by the year 2020 over 50% of the illiterate population will live in India.

9.   **Reasons for Low Literacy Rate in India.** Some of the reasons for low literacy rates in India are:-

        (a)   **Inadequate / Poor Infrstructure**. Study of 188 government-run primary schools in central and northern India revealed that 59% of the schools had no drinking water facility and 89% no toilets. In 600,000 villages and multiplying urban slum habitats, 'free and compulsory education' is the basic literacy instruction dispensed by barely qualified 'para teachers'. The average Pupil - Teacher Ratio for All India is 1:42, implying teacher shortage. It is estimated that at least 35 million, and possibly as many as 60 million, children aged 6–14 years are not in school.

        (b)   **Caste System.** Discrimination of lower castes has resulted in high dropout rates and low enrolment rates. The National Sample Survey Organization and the National Family Health Survey collected data in India on the percentage of children completing primary school which are reported to be only 36.8% and 37.7% respectively.

        (c)   **Poverty**. Absolute poverty in India has also deterred the pursuit of formal education as education is not deemed of as the highest priority among the poor as compared to other basic necessities.

        (d)   **Gender Bias**. The large proportion of illiterate females is another reason for low literacy in India. Inequality based on gender differences resulted in female literacy rates being lower at 65.46% than that of their male counterparts at 82.14%. Less than 2% of girls who engaged in agriculture work attended school.

        (e)   **Lack of Political Will**. At the time of independence, the literacy rate of India was only 12 %. The fact that we needed to invest more in education was well established, but successive governments have failed to take the required initiative in this regard. The expenditure allocated to education was never above 4.3% of the GDP from 1951–2002 despite the target of 6% laid down by the Kothari Commission.

Literacy Enhancement

10.   Government of India has taken several measures to improve the literacy rate in villages and towns of India. State Governments have been directed to ensure and improve literacy rate in

districts and villages where people are very poor. There has been a good improvement in literacy rate of India in last 10 years, but there is still a long way to go.

11. **Steps taken by Government of India to Improve Literacy Rate.**

(a) **National Literacy Mission.** The National Literacy Mission, launched in 1988, aimed at attaining a literacy rate of 75 per cent by 2007. It imparts functional literacy to non-literates in the age group of 15–35 years. The Total Literacy Campaign is the principal strategy of the NLM for eradication of illiteracy. The Continuing Education Scheme provides a learning continuum to the efforts of the Total Literacy and Post literacy programmes.

(b) **Sarva Siksha Abhiyan.** The Sarva Siksha Abhiyan (Hindi for Total Literacy Campaign) was launched in 2001, to ensure that all children in the 6–14-year age-group attend school and complete eight years of schooling by 2010. An important component of the scheme is the Education Guarantee Scheme and Alternative and Innovative Education, meant primarily for children in areas with no formal school within a one ilometer radius. The centrally sponsored District Primary Education Programme, launched in 1994, had opened more than 160,000 new schools by 2005, including almost 84,000 alternative schools.

(c) **Non-Governmental Efforts.** The bulk of Indian illiterates live in the country's rural areas, where social and economic barriers play an important role in keeping the lowest strata of society illiterate. Government programmes alone, however well intentioned, may not be able to dismantle barriers built over centuries. Major social reformation efforts are sometimes required to bring about a change in the rural scenario. Several non-governmental organisations such as ITC, Rotary Club, Lions Club have worked to improve the literacy rate in India.

(d) **Saakshar Bharat**. The Prime Minister of India launched Saakshar Bharat, a centrally sponsored scheme of Department of School Education and Literacy (DSEL), Ministry of Human Resource Development (MHRD), Government of India (GOI), on the International Literacy Day, 8th September, 2009. It aims to further promote and strengthen Adult Education, specially of women, by extending educational options to those adults, who having lost the opportunity of access to formal education and, crossed the standard age for receiving such education, now feel a need for learning of any type, including, literacy, basic education (equivalency to formal education), vocational education (skill development), physical and emotional development, practical arts, applied science, sports, and recreation.

(e) **Right to Education (RTE) Act 2010.** The Right of Children to Free and Compulsory Education Act or Right to Education Act (RTE), which was passed by the Indian parliament on 4 August 2009, The Act makes education a fundamental right of every child between the ages of 6 and 14 and specifies minimum norms in elementary schools. It requires all private schools to reserve 25% of seats to children from poor families (to be reimbursed by the state as part of the public-private partnership plan). The Act also provides that no child shall be held back, expelled, or required to pass a board examination until the completion of elementary education. There is also a provision for special training of school drop-outs to bring them up to par with students of the same age.

PART II : POVERTY ALLEVIATION

General

12. **Poverty in India** is widespread, with the nation estimated to have a third of the world's poor. In 2010, the World Bank reported that 32.7% of the total Indian people fall below the international poverty line of US$ 1.25 per day (PPP) while 68.7% live on less than US$ 2 per day. According to 2010 data from the United Nations Development Programme, an estimated 37.2% of Indians live below the country's national poverty line. The latest UNICEF data shows that one in three malnourished children worldwide are found In India, whilst 42% of the nation's children under

five years of age are underweight. It also shows that a total of 58% of children under five surveyed were stunted.

13.   Estimates by NCAER (National Council of Applied Economic Research) show that 48% of the Indian households earn more than ₹90,000 (US$1,656.00) annually (or more than US$3 PPP per person). According to NCAER, in 2009, of the 222 million households in India, the absolutely poor households (annual incomes below ₹ 45,000) accounted for only 15.6% of them or about 35 million (about 200 million Indians). Another 80 million households are in income levels of ₹ 45,000– 90,000 per year.

14.   **Causes for Poverty in India.** Some of the causes could be identified as under:-

(a)   **Lack of Market Economy.** Lack of market economy and government over-regulation and red tape, known as License Raj, is the main cause of poverty in India. While other Asian countries like China, Singapore and South Korea started with the same poverty level as India after independence, India adopted a socialist centrally planned, closed economy. India has started to open its markets since the economic reforms in 1991 which has cut the poverty rate in half since then.

(b)   **High Population Growth Rate.** Another cause for poverty in India is the high population growth rate, although demographers generally agree that this is a symptom rather than cause of poverty.

(c)   **Neglecting Agricultural Sector**. While services and industry have grown at double-digit figures, agriculture growth rate has dropped from 4.8% to 2%. About sixty percent of the population depends on agriculture whereas, the contribution of agriculture to the GDP is about eighteen percent. The surplus of labour in agriculture has caused many people to not have jobs. Farmers are a large vote bank and use their votes to resist reallocation of land for higher-income industrial projects.

Poverty Alleviation Programmes

15.   In order to alleviate poverty, a large no of programmes have been launched by the government these are as under:-

(a)   **Jawhar Gram Samridhi Yojna.**   It was started on 1 April 1999. The main aim of this programme was development of rural areas. Its secondary objective was to give out sustained wage employment. This was only given to BPL families.

(b)   **National Old Age Pension Scheme(NOAPS)**. As the name suggest this scheme provided pension to old people who were above the age of 65 who could not fend for themselves and did not have any means of subsistence. The pension that was given was Rs 200 a month. This pension is given by the central government.

(c)   **National Family Benefit Scheme(NFBS).** This scheme was started in August 1995 by GOI. This scheme provides a sum of Rs 10000 to a person of a family who becomes the head of the family, after the death of its primary breadwinner. A breadwinner is a person who is above 18 and who earns the most for the family and the family survives on his/her earnings. The scheme is for families below the poverty line only.

(d)   **National Maternity Benefit Scheme.** This scheme provides a sum of 500 Rs to a pregnant mother for the first two live births. The women have to be older than 19 years of age. It is given normally 12–8 weeks before the birth and in case of the death of the child the women can still avail it.

(e)   **Annapurna**. This scheme was started by the government in 1999-2000 to provide food to senior citizens who cannot take care of themselves and are not under the targeted public distribution system(TPDS), and who have no one to take care of them in their village. This scheme would provide 10 kg of free food grains a month, for the eligible senior citizens.

(f)   **Rural Housing-Indira Awaas Yojana(IAY).** This scheme was aimed at creating housing for everyone. It aimed at creating 20 lakh housing units out of which 13lakhs were in rural area. This scheme also would give out loans to people at subsidized rates to make houses.

(g)   **Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA).** The scheme was started in 2005, and guarantees 100 days of paid work to people in the rural areas. The scheme has proved to be a major boost to Indian rural populations income.

CONCLUSION

16.   Literacy Enhancement and Poverty Alleviation are two important aspects to be tackled on an urgent basis in order to ensure that our country progresses very fast and become a global power. We cannot keep saying 'India Shining' on one side and keep having the evils of illiteracy and poverty as a continuing and unmanageable realities on the other. Though there are many Government sponsored programmes to tackle these evils, effectiveness and honesty of its implementing agencies decide the outcome. NCC cadets can play an important role in both these aspects, particularly literacy.

LESSON PLAN : SA 4
CONTRIBUTION OF YOUTH TOWARDS SOCIAL WELFARE

Period   -   One

Type   -   Lecture

Code   -   SA 4

Term   -   I (JD/JW)

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Training Aids

1.   Computer, Projector, Charts, Pointer, Black Board & Chalk.

Time plan

2.   (a)   Introduction   -   05 Min

        (b)   Contribution of Youth   -   30 Min

        (c)   Conclusion   -   05 Min

INTRODUCTION

3.   Youth constitute the most creative segment of any society. Their role and contribution are vital to all societies and more so in a country like India with wide social, cultural and other demographic diversities. Youth constitute about 34 % of the total population of India and their role and contribution towards social welfare and nation building cannot be ignored. For a better understanding of the subject it is important to first understand the basic of social welfare.

4.   Social welfare has been defined by a United Nations expert group as "Organised activity that aims towards a mutual adjustment of individuals and their social environment". Social welfare is considered as including the attempts made by governments and voluntary organizations to help families and individuals by maintaining incomes at an acceptable level.

AIM

5.   To acquaint the cadets about the Contribution of Youth towards Social Welfare.

CONTRIBUTION OF YOUTH TOWARDS SOCIAL WELFARE

6.   The contribution of youth towards social welfare have been discussed in the succeeding paras:-

        (a)   **Leadership.** Youth are the leaders of tomorrow and young and vibrant youth are essential for future leadership. Support is provided to voluntary organizations to participate in youth development programmes. Youth need to involve themselves in activities which will develop creditable leadership.

        (b)   **Community Service.**   Youth need to work in social welfare activities and community services. Therefore, Community Service has been developed as an integral part of the curriculum for education, instruction and training of all students enrolled in educational institution so that youth can fruitfully understand and contribute in community service.

(c)   **National and Cultural Integration.** The youth, when organized as youth force will contribute for the promotion of national and cultural integration of the country. Fostering and developing interaction between youth from different parts of the country specially the isolated border and tribal areas will help in achieving national integration. It should be the endeavour of youth to motivate the general public to work against the separatist forces and ensure unity of the country is maintained.

(d)   **Education and Literacy.**   The Youth need to educate themselves and subsequently get into the process of providing quality education to all sections of society. They need to promote education and self development capabilities of the rural youth specially of girls and youth in backward areas.

(e)   **Environment.**   The youth must understand the importance and implications of environment on the society and the ecological wealth of the nation. They must help in improving and protecting the environment. They need to engage in afforestation programmes and cleaning of rivers and lakes and disposal of degradable and non-degradable waste.

(f)   **Health Care and Family Welfare.**   They must promote awareness and involvement in social programmes pertaining to health and family welfare. Programmes such as 'Youth against AIDS' campaign, 'Pulse Polio', 'Small Family' norm and various immunization programmes should be promoted. They must also volunteer in manpower intensive programmes at the implementation stage.

(g)   **Physical Education and Adventure Training.** The youth must understand the importance of physical education for health and physical fitness with a view to increasing individual productivity and the value of sports as a means of recreation and with a potential for promoting social harmony and discipline.

(h)   **Old Age Care.** Our basic social fabric and the joint family system inherently provide for old age care. However with the breakdown of the joint family system the need for old age care has increased. The youth must contribute to the wellbeing of the senior citizen of the society by taking care of their aged and provide them financial security and moral self-respect and make all efforts to ensure that they have a secure old age with adequate housing and health care.

(j)   **Watershed and Waste Land Development.** These two are one of our major resources which need to be continuously protected and systematically proclaimed and developed and can be used for various social welfare activities. Youth has genuine potential for this nature of work. They must contribute in these programmes and ensure that these areas are protected from unscrupulous elements who may enter these areas of interests, for personal gains.

CONCLUSION

7.   Our youth are the strength of the family, village, locality and the community. They are also the future of our nation. We must take all necessary steps to mobilize this most idealistic, inspired and energetic section of our society in the mission of nation building and social welfare.

LESSON PLAN : SA 5
CIVIC RESPONSIBILITIES

Period   -   One

Type   -   Lecture

Code   -   SA 5

Term   -   II (JD/JW)

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Training Aids

1.   Computer, Projector, Chart, Pointer, Black Board & Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

         (b)   Civic Responsibilities   -   30 Min

         (c)   Conclusion   -   05 Min

INTRODUCTION

3.   Sense of community (or psychological sense of community) is a concept in community psychology and social psychology, as well as in several other research disciplines, such as urban sociology, which focuses on the experience of community rather than its structure, formation, setting, or other features. Sociologists, social psychologists, anthropologists, and others have theorized about and carried out empirical research on community, but the psychological approach asks questions about the individual's perception, understanding, attitudes, feelings, etc. about community and his or her relationship to it and to others' participation-indeed to the complete, multifaceted community experience.

AIM

4.   To acquaint the cadets about Civic Responsibilities.

UNDERSTANDING CIVIC RESPONSIBILTIES

5.   Civic Sense is the sense in an individual which makes him a civilized citizen of a country. However, it is certainly more than just that. Civic Sense means social ethics, the positive perception, understanding, attitudes, towards society or community. Its the behavior between individuals and groups, civility and unspoken principles of society. Civic Sense is not just about keeping the roads clean and avoiding the violation of basic civic rights, its about respecting one another, abiding by the law and maintaining proper etiquette in public places.

6.   Nowadays, we are so busy that we do not have time to spare. We absolutely lack basic civic sense and some of us are not even bothered. Why is it that only a few of us need to do our homework and raise an alarm? We see people littering, smoking in public places, cutting off plants and many other violations everyday. There are so many products that we use mindlessly every day, without a thought of how they might be affecting the environment around us. The time has come for us to think carefully before we use a product and look for healthy alternatives. Aren't we all proud to live in a city that boasts a high standard of living and good infrastructure? Why is it that when it comes to civic sense, we turn a blind eye?

7.   In some people civic sense is found to be inadequate. The reason for this is plausible for, never are some people formally taught to treat things that belong to others nicely, kindly and well. Nowhere in any syllabus in a school or in a daily routing at home is civility part of the program to be instilled, it is instead conspicuous by its absence. Some of the children are not taught to treat the neighbourhood, the society and public property as something meant to be maintained well. What is being taught to some of the children is just to keep themselves, their things and their homes in order. The society is becoming not my concern. With this attitude, it is no wonder that parks, cinemas, roads are all littered, because they do not belong to anyone. Some of the people feel that the municipality is to look after these but, what about the public contribution? Some of the people only contribute filth wherever they can.

8.   Some of the people clean our homes and throw the rubbish in front of our neighbour's home, we eat sweets and chocolates and throw wrappers here there and everywhere. A very common sight is a biscuit wrapper being flung out of a speeding car in the middle of the road. This only goes to show how very civic minded our so called creamy layer of society is. If this is the standard of the cream, the less said about others, the better it would be. One just has to go to a newly built cinema house with all the most modern gadgets but, all the walls are full of pan spit. Is this how we care for our public property? Would we destroy the walls of our homes? No definitely not, then why this indifference for public property? This is because we have become and continue becoming more and more selfish and self-centered. We only look at self and nothing else around us matters. Yet, at the same time if we do not have public amenities - we shout the loudest. What an irony? We want everything but cannot contribute to the maintenance of anything. This is the standard of our civic sense. In this, the most tragic fact about the whole affair is that we are at no stage of life taught to respect other peoples' property or public property. It is the educated and the rich who should be the best conducted, contribute maximum to lack of civic sense. We must make destroying of public property a punishable offence then people might be less frivolous to civilities.

CONCLUSION

9.   Civic Sense is that sense in an individual which makes him a civilized citizen of a country. As far as the normal understanding is concerned, it is felt that people from cultured, educated and belonging to the upper strata are more or less quite civilized and have a huge stock of civic sense. Lack of civic sense is not far to seek, we find it all pervading no matter where we go. At home, in our neighbourhood, in the colony, on the road, in the office, in a theatre, in a restaurant and everywhere we go, we are duty bound to have civic sense.

LESSON PLAN : SA 6
DRUG ABUSE AND DRUG TRAFFICKING

Period   -   One

Type   -   Lecture

Code   -   SA 6

Term   -   II (SD/SW)
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Training Aids

1.   Computer, Projector, Charts, Pointer, Black Board & Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

         (b)   Types of Drugs   -   15 Min

         (c)   Drug Abuse and Trafficking   -   15 Min

         (d)   Conclusion   -   05 Min

INTRODUCTION

3.   A   `DRUG` is a substance–solid, liquid or gas that brings about physical and / or psychological changes. Drugs affect the central nervous system. They act on the brain and can change the way a person thinks, feels or behaves. These drugs are known as psychoactive drugs. Drug menace is one of the most serious problems facing the world. Drug trafficking and drug abuse are considered as a greater problem than drug consumption.

AIM

4.   To acquaint the cadets about the Drug Abuse and Drug Trafficking.

PREVIEW

5.   The lecture will be conducted in following parts:-

         (a)   Part I   -   Types of Drugs.

         (b)   Part II   -   Drug Abuse and Trafficking.

PART I : TYPES OF DRUGS

6.   **Types of Drugs**. There are three main types of drugs affecting the central nervous system:-

         (a)   **Depressants**.   Depressants are drugs that slow down the function of the central nervous system. Depressant drugs do not necessarily make a person feel depressed. They include:-

                  (i)   Alcohol.

(ii)   Cannabis.

(iii)   Barbiturates, including Seconal, Tuinal and Amytal.

(iv)   Benzodiazepines (Tranquilisers), Benzos, Tranx, such as Rohypnol, Valium, Serepax, Mogadon, Normison and Eupynos.

(v)   GHB (Gamma- hydroxybutrate), or Fantasy.

(vi)   Opiates and Opioids, including Heroin.

(b)   **Stimulants**.   Stimulants act on the central nervous system to speed up the messages to and from the brain. They make the user feel more awake, alert or confident. Stimulants increase heart rate, body temperature and blood pressure. Other effects include appetite, dilated pupils, talkativeness, agitation and sleep disturbance. Mild stimulants include:-

(i)   Ephedrine used in medicines for bronchitis, high fever and asthma.

(ii)   Caffeine in coffee, tea and cola drinks.

(iii)   Nicotine in tobacco.

(c)   **Hallucinogens**.   Hallucinogens affect perception, People who have taken them may believe they see, hear and perceive things that are not really there or what they see may be distorted in some way. The effects of hallucinogens vary a great deal, so it is impossible to predict how they will affect a particular person at a particular time. Hallucinogens include:-

(i)   Dhatura.

(ii)   Ketamine.

7.   **Legal Drugs.** These are those where laws and regulations control the availability, quality and price of the legal drugs. For example tobacco may not be sold to persons below age of 18 years.

8.   **Illegal Drugs**.   Because they are illegal there are no prices or quality controls on the illicit drugs such as heroin. This means that a user can never be sure that the drug they are taking is in fact what they think it is. The user also cannot be sure of a drug`s strength or purity. Various batches of an illegally manufactured drug may have different mixtures of the drug and additives such as poisons, caffeine or even talcum powder.

PART II : DRUG ABUSE AND TRAFFICKING.

Drug Abuse

9.   **What is Drug Abuse.** It is a patterned use of a substance (drug) in which, the user consumes the substance in amounts or with methods, neither approved nor supervised by medical professionals. Drug abuse is not limited to mood-altering or psycho-active drugs. If an activity is performed using the objects against the rules and policies of the matter (as in the case of steroids for performance enhancement in sports), it is also called drug abuse. Using illicit drugs – narcotics, stimulants, depressants (sedatives), hallucinogens, cannabis, even glues and paints, are also considered to be classified as drug abuse. Continuous and prolonged abuse of drugs may make a person an addict.

10.   It was found that all the addicts either take cannabis or heroin.   72% percent of addicts are in the age group of 20-24 years, And females comprise only 2% of the addicts. 78% of addicts come from the families which are facing problems such as, loss of one or both parents or separation of the parents.

11.   Drug addiction is found to be most common in peer group. The other reasons are curiosity (19.85%), pleasure seeking (12%) and mental tension (5%). Majority of addicts (84%) mention that the drug is easily available to them. Education and occupation has no significant effect on the habit. The problem of drug addiction appears to be common amongst youths (20-24 yrs). High incidents in youth may be due to their emotional immaturity.

Harm Caused by Drugs

Drug Trafficking

12.   India, due to its geographical location has become a transit route base for illicit heroin, hashish and morphine from Afghanistan, Pakistan, Iran, Nepal and Burma. This area is known as Golden Crescent. Cannabis smuggled from Nepal is mainly consumed in India. Most heroin transiting through India is bound for Europe.

13.   A peculiar system of supply and demand that characterizes the Indian drug market is that the user and traders are often the same. To fund drug consumption many users resort to crimes and thefts. The drug syndicates often use poor people, especially youth to carry their illicit products from one place to another, at a hefty price, which makes the youth fall for this easy money. The youth do not understand the dangers of this illegal activity.

14.   **The Law.** Control over cultivation of opium and all matters relating to narcotic drugs and psychotropic substances are regulated by the "Narcotic Drugs and Psychotropic Substances (NDPS) Act and Rules", which provide for:-

   (a)   Punishment of upto 20 yrs Rigorous Imprisonment and fine up to Rupees Two Lakhs for indulging in trafficking of narcotic drugs and psychotropic substances.

   (b)   Death sentence in case of repeat of this offence.

   (c)   Forfeiture of property of smugglers.

   (d)   Regulating of legitimate trade and commerce of NDPS for medicinal and scientific purposes. The "Prevention of Illicit Trafficking in Narcotic Drugs and Psychotropic Substances" (PITNDPS) provides for detention of persons indulging in trafficking of narcotic drugs for 1 to 2 years by an executive order.

CONCLUSION

15.   Drug trafficking and consumption has become a global menace. To eradicate this, it requires mobilisation of international communities through a comprehensive approach in combating illicit production, trafficking and consumption of drugs. Government and NGOs should emphasise on education, healthcare, treatment and rehabilitation for effective control of drug abuse.
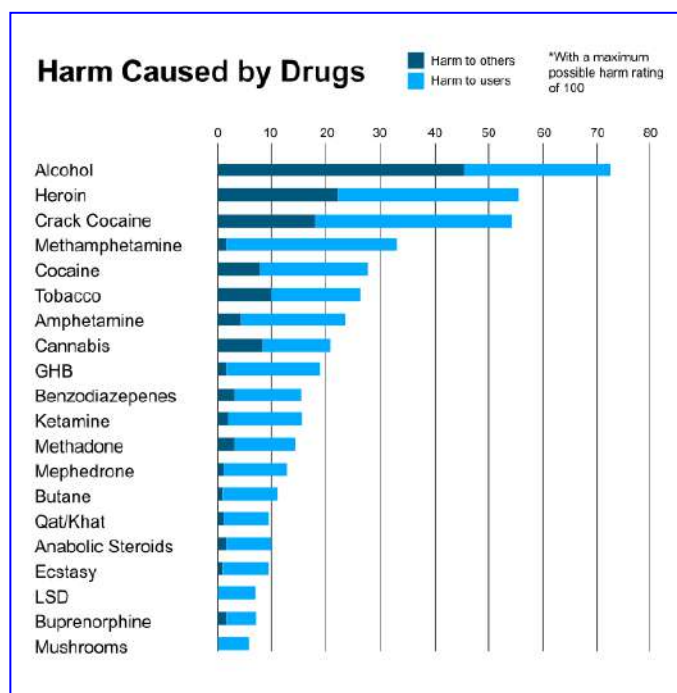
LESSON PLAN : SA 7
CAUSES / PREVENTION OF HIV / AIDS

Period   -   One

Type   -   Lecture

Code   -   SA 7

Term   -   II (JD/JW)

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Training Aids

1.   Computer, Projector, Charts, Pointer, Black Board & Chalk.

Time Plan

2.   (a)   Introduction   -   03 Min

         (b)   Causes of HIV / AIDS   -   10 Min

         (c)   Prevention of HIV / AIDS   -   15 Min

         (d)   Role of Youth   -   10 Min

         (e)   Conclusion   -   02 Min

INTRODUCTION

3.   Few diseases have been feared as much as HIV/AIDS has been ever since human beings began efforts to prevent and control major diseases. Although a large number of health problems continue to defy human efforts to control them, none of them presents a challenge greater than the prevention and control of HIV/AIDS.

4.   Globally, an estimated 38.6 million people are living with HIV, of which an estimated 4.1 million were new infections. In Asia, an estimated 8.2 million people are living with HIV including 1.2 million new infections last year. In India, an estimated 5.2 million people are living with the virus, most of whom are poor and marginalized. The patterns of HIV infection in India reflect underlying patterns of social and economic inequality, such as distribution of wealth, power, gender relations, women's status, poverty, lack of sustainable livelihoods, civil unrest and disorder, etc.

AIM

5.   To acquaint the cadets about the Causes and Prevention of HIV / AIDS and the Role of Youth.

PREVIEW

6.   The lecture will be conducted in following parts:-

         (a)   Part I   -   Causes of HIV / AIDS.

         (b)   Part II   -   Prevention of HIV / AIDS.

(c)   Part III   -   Role of Youth.

PART I : CAUSES AND PREVENTION OF HIV / AIDS

7.   **What is HIV / AIDS.**

(a)   Although HIV and AIDS are often used synonymously, they are different. HIV (Human Immuno-deficiency Virus) is a virus that gradually destroys the body's immune system. AIDS (Acquired Immuno Deficiency Syndrome) is a condition wherein various diseases affect the body because of the body's weak natural defense mechanism – the immunity. AIDS stand for Acquired (not inborn, but passed from mother to baby), Immune (relating to the body's immune system, which provides protection from disease causing bacteria/viruses/ fungi); Deficiency (lack of response by the immune system to bacteria / viruses / fungi / cancer cells); Syndrome (a number of signs and symptoms indicating a particular disease or condition).

(b)   Therefore, AIDS is an acquired condition in which a person may have various diseases that cause similar symptoms, all of which are due to the body's diminished ability to fight diseases. Anyone who has HIV infection will develop AIDS over a period of time.

8.   **How Does HIV Affect the Body**.   A special variety of white blood cells called T lymphocytes secrete chemicals that are necessary for destroying the disease causing germs or agents. HIV destroys T lymphocytes (also called T-cells), and thereby reduces the body's ability to fight diseases. T-cells contain a protein called CD4 on their surface. HIV first attaches itself to CD4 and then fuses with the T-cells to multiply. Fusion with T-cells destroys the T cell and several copies of HIV are produced.

9.   **How Does HIV/AIDS Spread.**   HIV is present in all body fluids of an infected person and is more in number, in the blood, semen and vaginal fluids. HIV infection normally spreads when there is contact with these body fluids through four main routes:-

(a)   **Sexual Transmission**.   The most common route of spread of HIV infection is through unprotected sex between two people, where at least one has HIV infection. Unprotected sex means having sex without condom. Although the risk of HIV being transmitted during one sexual act depends upon several factors, it is important to remember that even one episode of unprotected sex with an infected partner can transmit HIV. Increased number of unprotected sex increases the risk of infection. Some issues related to sexual transmission of HIV are as under:-.

(i)   **Increased Risk for Women**.   Women are at greater risk of developing HIV infection through unprotected sex. This means that the risk of transmission of HIV from man to woman is higher than that from woman to man. There are five main reasons why women are at greater risk:-

(aa)   The semen from the infected male sexual partner remains in the woman's vagina for a longer time, thereby increasing the duration of contact between infected semen and delicate lining of the vagina.

(ab)   The surface area of the vagina is larger than the surface of tip of the penis in men, which provides greater opportunity for the virus to enter the body.

(ac)   Many women with sexually transmitted infections (STIs) do not have any symptoms and therefore do not seek treatment. Presence of STIs increases the risk of HIV transmission.

(ad)   The gender imbalance makes it difficult for women to exercise their sexual rights. This means that they have less control over, when and with whom, they have sex.

(ae)   Women are less likely to take treatment, especially for STIs, which increase the risk of HIV transmission.

(ii)   **Sexually Transmitted Infections**. Presence of STIs increases the risk of HIV transmission. People who have ulcers in the genital organs or abnormal discharge either from the penis or the vagina are at higher risk of HIV transmission. Early treatment of STIs reduces the risk of HIV infection.

(iii)   **Anal Sex**. Although anal sex is more common among men, who have sex with men (MSM), some heterosexual partners also practice it. Anal sex has higher risk of HIV transmission as compared to vagina sex. This is mainly because the delicate inner lining of the anus gets easily damaged during anal sex. This damage helps the HIV to enter the body easily.

(iv)   **Menstruation**. The menstrual blood of a woman with HIV infection will contain the virus. Thus, sexual intercourse during menstruation with an infected woman increases the risk of the male partner getting HIV infection.

(b)   **Blood Transfusions**. As per the guidelines of the National AIDS Control Organization (NACO), it is mandatory to test blood for HIV before transfusion. The risk of transmission of HIV through tested blood is therefore very remote. The only possibilities of infection through blood are, if the blood was not tested for HIV or the HIV infection was in the *window period*. Window period is the term used for the duration between the entry of HIV in the body and the detection of its antibodies through blood tests. Window period is normally up to three months. This means that during this time, even if a person is HIV infected he/she will test negative. He/she can however transmit infection to others. **Blood donation has no risk of getting HIV infection because the needle and other equipment used for collecting your blood are safe.**

(c)   **Sharing Needles and Syringes for Intravenous Drug Use**.

(i)   When people inject drugs intravenously, they may draw small amounts of blood into the needle. If another person uses this needle immediately, the blood containing HIV will be injected into the second person. Thus, he/she can also be infected with HIV.

(ii)   Despite several concerns about the poor sterilisation practices by some doctors, especially in rural areas, HIV infection through injections given at a health centre is not a common mode of transmission in India. This is mainly because most of these doctors, even if they are not qualified, boil them for a short time. HIV is destroyed by even short duration heat and drying. Shorter boiling time for sterilizing needles may not destroy other disease causing germs such as Hepatitis B virus. It is also important to remember that injections that are given in the muscles, under the skin or in the skin layers carry little risk of transmitting the HIV.

(iii)   For several years now, rumours are periodically spread about people with HIV infection, intentionally pricking other people with infected needles in public places such as movie theatres, markets, bus-stops etc. with an intention of transmitting the infection to them. These rumours are baseless because of three main reasons:-

(aa)   There should be adequate amounts of blood containing the virus on the needle before it can cause infection. A needle that has been merely

pricked in the body of a person with HIV is not likely to have the number of HIV necessary to cause infection.

(ab) Even if the infected person were to use needle that has been used intravenously, the virus may not be alive if the blood on the needle has dried up.

(ac) When an infected needle is pricked into the muscles, the risk of transmitting the infection is very low.

(d) **Mother to Child Transmission.** Mother to child transmission of HIV can occur in three ways:-

(i) During pregnancy, when the HIV crosses the placenta.

(ii) During delivery.

(iii) **During Breastfeeding**. Although HIV is present in breast milk, it does not mean that the baby will always be infected with it. Also, in a country such as India, the alternative to breast-feeding is bottle-feeding, which is not only expensive but also carries a higher risk of diarrhoea, poor nutrition and as a result death. Since the benefits of breast-feeding are much more than the risk of getting HIV infection, it is recommend that women with HIV infection breast-feed their babies.

(e) **Other Methods**.

(i) **Skin Piercing**. There are several cultural practices in India that involve skin piercing such as, piercing ears or nose for ornamental reasons, tattooing, etc. Although skin piercing is not currently one of the major routes of transmission of HIV infection in India, it is desirable to use sterilized equipment for prevention of infections such as Hepatitis B.

(ii) **Oral Route**. Many people believe that kissing, sharing utensils etc. with people who have HIV can transmit the infection. This is not true. HIV has not been shown to be transmitted through saliva. If the virus is ingested in the stomach, the acids in it are likely to inactivate or destroy the virus. The risk through oral route may be there only if there are cuts or wounds in the mouth or bleeding gums.

10. **How is HIV Diagnosed**. HIV is normally diagnosed through blood tests that detect antibodies to HIV. It is recommended that the tests are done only at the Voluntary Counselling and Testing Centres (VCTCs) set up by National AIDS Control Organisation (NACO). Counselling is done before and after the test in order to ensure that the person being tested is aware of all the issues related to HIV transmission, prevention, treatment, care and support. In case of a negative test result, the test is repeated after three months to rule out the possibility of the first test being carried out in the window period. Confidentiality is strictly maintained while testing for HIV. This means that no one other than the person being tested is informed about the test results.

PART II : PREVENTION OF HIV/AIDS

11. **Symptoms of HIV.**

(a) Most people infected with HIV are not likely to have any symptoms for about three to ten years. Few develop symptoms earlier while few others may not develop any symptoms for more than ten years. Even if a person does not have symptoms, he/she can transmit the infection to others. This is why it is recommended that anyone who has sex with a partner who is not in mutually faithful relationship should use condoms for every sex.

(b)   A normal person has about 500 to 1500 CD4 cells per millilitre of blood. When the CD4 count decreases below 200, people with HIV can present with opportunistic infections, which are infections, that affect the body because of poor immunity. Opportunistic infections are caused by bacteria, virus, fungus and parasites. They may also get some types of cancer.

(c)   When HIV progresses to AIDS, the infected person would have had unexplained weight loss of more than ten percent, unexplained diarrhoea or fever for more than one month, fungal infections, tuberculosis or severe bacterial infections.

12.   **Tuberculosis**. Since tuberculosis is already one of the major health problems in India, people with HIV infection are at higher risk of getting it. Very often, tuberculosis is the first indication that a person has HIV infection. Although tuberculosis largely affects the lungs, it can affect other organs of the body also. People with AIDS are more likely to get infection in other organs of the body. One of the major concerns related with tuberculosis and AIDS is resistance of the tuberculosis bacteria to several medicines that were earlier effective for its treatment. Common symptoms of tuberculosis include cough, fever, increased sweating at nights, loss of weight and excessive fatigue.

13.   **HIV Prevention**.

(a)   HIV/AIDS can be prevented in four main ways:-

(i)   Being in a mutually faithful sexual relationship. If this is not possible, then correct and consistent use of condoms for every sexual act, irrespective of the type of sex is essential.

(ii)   Checking all the blood and blood products for HIV infection before transfusion.

(iii)   Avoiding drug abuse, especially sharing needles and syringes for injecting drugs.

(iv)   Reducing the risk of mother-to-child transmission by following recommended guidelines for preventing parent to child transmission of HIV infection.

(b)   **Condom Use.**   Condoms have two main advantages-they prevent infections such as sexually transmitted infections (STIs) and HIV, and also prevent pregnancy. Many people use condoms only for commercial sex. It is important to remember that anyone who is not in a mutually faithful sexual relationship should use condoms for every sex. There are some myths about the use of condoms which are not true. These are:-

(i)   Some people argue that condoms do not offer complete protection. This is not true. It is only the inconsistent and incorrect use of condoms, which may lead to contacting STD or HIV.

(ii)   Some people complain that condoms, especially those that are distributed free by the government, are probably not of good quality and therefore break during sexual act. These complaints are not valid, as several strict quality control methods are adopted during condom manufacturing.

(iii)   A belief that condoms reduce sexual pleasure, is one of the major barriers to condom use. This is also not true. There may be a difference in the sensation in the initial stages of using condoms but most people adapt to them very soon.

(c)   **Preventing Parent to Child Transmission.**   NACO has set up 'Prevention of Parent to Child Transmission (PPTCT) centres in all districts of the six states where HIV infection is high and in several other hospitals in other states. In these centres, pregnant women are counseled and tested for HIV. If they are positive, they are given medicines for HIV at the time of delivery and caesarean section is done to surgically deliver the baby. This reduces the risk of infection for the newborn from about 45% to less than 2%.

14.   **Ethical Issues Related to HIV Infection.**   Ethical issues related to HIV infection are mainly for ensuring that a person with HIV infection leads a life of dignity. HIV testing should not be done without informed consent of the person to be tested. This means that the person to be tested should have understood what test results would mean and its likely impact on his/her life. People with HIV infection have as much right to get education, employment and medical treatment from any source as everyone else.

PART III : ROLE OF THE YOUTH IN PREVENTING HIV / AIDS

15.   HIV is more common in the most productive age group of 15-45 years, and therefore causes major impacts on the economic status of the affected individual, family, community, and the nation at large. The young adults can play a very important role in preventing the HIV at community level, and also minimise its impact at all levels by taking following actions :-

(a)   Youth can assume responsibility in preventing HIV infections by avoiding behaviour that might lead to HIV infections.

(b)   Youth may also share the right to refuse sex and assume responsibility for ensuring safe sex.

(c)   People living with HIV/AIDS have the same right to education, employment, health, travel, marriage, recreation, privacy, social security, scientific benefits etc. Hence, all should share responsibilities for avoiding HIV infection / re-infection.

(d)   The youth by creating a proper and positive peer pressure, can delay the age at first sex, avoid sex before marriage, practicing safer sex, and preventing alcohol and drug abuse. The stereotypical image of a "macho" male needs to be changed to depict responsible behaviours.

(e)   The young can also play an important role in addressing gender imbalance, which is one of the important factors for underdevelopment and HIV transmission.

(f)   Youth should also educate general public by spreading the information that HIV can not be transmitted by the following actions:-

(i)   Shaking Hands.

(ii)   Sharing of Clothes.

(iii)   Sharing of Food and Utensils.

(iv)   Sharing of Toilets.

(v)   Insect Bites.

(vi)   Hugging or Kissing.

(vii)   Working in the same office or travelling in the same vehicle.

(viii)   Playing or swimming with the infected person.

(ix)   Coughing, sneezing or in routine patient-care activities (bed - making, feeding etc).

CONCLUSION

16.   HIV can be transmitted from person to person only if the body fluids like blood, semen and vaginal fluids come in contact with body fluids of an HIV infected or AIDS patient. Young people, with or without HIV/AIDS, have an important role to play in actively countering discrimination against young people living with HIV/ AIDS. We require to provide a platform for people living with HIV/AIDS, so that we work together according to their interests. We also need to mobilize support of local authorities and community leaders to listen to people living with HIV/AIDS and to combat actively against their discrimination and exclusion. Setting up training programmes, to improve the integration of the young people suffering from HIV/AIDS into society, is the need of the hour.

LESSON PLAN : SA 8
CORRUPTION

Period   -   One

Type   -   Lecture

Code   -   SA 8

Term   -   I (JD/JW)

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Training Aids

1.   Computer, Projector, Charts, Pointer, Black Board & Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

        (b)   Types of Corruption   -   15 Min

        (c)   Methods of Corruption and Preventive Measures   -   15 Min

        (d)   Conclusion   -   05 Min

INTRODUCTION

3.   Anti-corruption watchdog Transparency International, currently ranks the national perception of corruption in India to be 87th highest in the world (in an index of 182 positions). However, the real significance of perceptions of corruption does not lie in the extent to which phenomena such as bribery are perceived to be prevalent across society. A more important assessment is of how differing forms of corruption are deemed to be concentrated at different levels of the state. In India, public scandals of the previous twenty years, which link numerous elected politicians and even government ministers to repeated acts of parliamentary corruption, embezzlement, land seizure, blackmail, extortion, kidnap and murder, serve to erode the assumption of legitimate political authority and the efficacy of the ballot box.

AIM

4.   To acquaint the cadets about Corruption and its Prevention.

PREVIEW

5.   The lecture will be conducted in following parts:-

        (a)   Part I   -   Types of Corruption.

        (b)   Part II   -   Methods of Corruption and Preventive Measures.

PART I : TYPES OF CORRUPTION

6.   **Definition**. The word **corrupt** means to abuse or destroy. Corruption can therefore be defined as the abuse of entrusted power for private gains. It hurts everyone who depends on the integrity of people in a position of authority.

7. **Types of Corruption**.

   (a) **Petty Corruption.** "Petty" corruption occurs at a smaller scale and occurs within established social frameworks and governing norms. Examples include the exchange of small improper gifts or use of personal connections to obtain favors. This form of corruption is particularly common in developing countries and where public servants are significantly underpaid.

   (b) **Grand Corruption.** "Grand" corruption is defined as corruption occurring at the highest levels of government, in a way that requires significant subversion of the political, legal and economic systems. Such corruption is commonly found in countries with authoritarian or dictatorial governments and in those without adequate policing of corruption by anti-corruption agencies.

   (c) **Systemic Corruption.** Systemic corruption is, corruption which is primarily due to the weaknesses of an organization or process. It can be contrasted with individual officials or agents who act corruptly within the system. Factors which encourage systemic corruption include conflicting incentives, discretionary powers; monopolistic powers; lack of transparency; low pay; and a culture of impunity.

8. **Different Sectors of Corruption.** Corruption can occur in many different economic sectors whether it be public or private, industry or even NGOs as under:-

   (a) **Government / Public Sector.** Public / government sector corruption is one of the more dangerous forms of corruption, as corruption of the governing body can lead to widespread effects.

   (b) **Legislative System (Political).** Political corruption is the abuse of public power, office, or resources by elected government officials for personal gain, e.g. by extortion, soliciting or offering bribes It can also take the form of office holders maintaining themselves in office by purchasing votes by enacting laws which use taxpayers' money.

   (c) **Executive System (Police).** Police corruption is a specific form of police misconduct, designed to obtain financial benefits, other personal gain, and / or career advancement for a police officer or officers, in exchange for not pursuing, or selectively pursuing, an investigation or arrest.

   (d) **Judiciary System**. Judicial Corruption refers to corruption related misconduct of judges, through receiving or giving bribes, improper sentencing of convicted criminals, bias in the hearing and judgment of arguments and other such misconduct.

   (e) **Corporate.** As corporations and business entities grow larger, sometimes with a monetary turnover many times that of small countries, the threat of corruption in the business world, within the organization, in dealings with other organisations and in dealings with the government is a looming and growing threat. Companies may also indulge in political corruption.

   (f) **Unions.** Labour unions were formed to protect and further the rights of employees via collective bargaining. However, as with other entities, corruption has been known to happen within the organizations. In addition, some unions have been infiltrated by, or associated with organized crime syndicates.

   (g) **Non-Government Organizations**. NGOs and other non-profit organizations are not immune to corruption and may be linked to political corruption.

PART II : METHODS OF CORRUPTION AND PREVENTIVE MEASURES

9. **Methods of Corruption**. Corruption can occur in many ways. The use of both positive and negative inducements to encourage the misuse of power is well known. In addition, favouring of friends and relatives in a way that is not directly beneficial to the corrupt individual, is a form of corruption. In systemic corruption and grand corruption, multiple methods of corruption are used concurrently with similar aims. Some of the methods of corruption are as under:-

    (a)   **Bribery.** Bribery is the improper use of gifts and favours in exchange for personal gain. This is also known as kickbacks or baksheesh. It is the most common form of corruption. The types of favours given are diverse and include money, gifts, sexual favours, company shares, entertainment, employment and political benefits. The personal gain that is given can be anything from actively giving preferential treatment to having an indiscretion or crime overlooked.

    (b)   **Embezzlement, Theft and Fraud.** Embezzlement and theft involves someone with access to funds or assets, illegally taking control of them. Fraud involves using deception to convince the owner of funds or assets, to give them up to an unauthorized party eg, misdirection of company funds into "shadow companies" and then into the pockets of corrupt employees, or the skimming of foreign aid money, scams and other corrupt activity.

    (c)   **Extortion and Blackmail.** While bribery is the use of positive inducements for corrupt aims, extortion and blackmail centre around the use of threats. This can be the threat of violence or false imprisonment as well as exposure of an individual's secrets or prior crimes. This also includes such behaviour as an influential person, threatening to go to the media, if they do not receive speedy medical treatment (at the expense of other patients), or threatening a public official with exposure of their secrets, if they do not vote in a particular manner, or demanding money in exchange for continued secrecy.

    (d)   **Abuse of Discretion.** Abuse of discretion refers to the misuse of one's powers and decision-making facilities. Examples include a judge improperly dismissing a criminal case or a customs official using their discretion to allow a banned substance through a port.

    (e)   **Favouritism, Nepotism and Clientelism.** This involves the favouring of not the perpetrator of corruption, but someone related to them, such as a friend, family member or member of an association. Examples would include hiring a family member to a role they are not qualified for, or promoting a staff member who belongs to the same political party as you, regardless of merit.

    (f)   **Improper Political Donations.** This is the use of contributions / donations to political parties to secure illicit power, not because one favours their policies. An example would be tobacco or alcohol companies funding major political parties, as a means of influencing the policing of their industry. It can be difficult to differentiate between proper and improper use of political contributions.

10. **Prevention of Corruption**. Removing corruption form our society is extremely difficult. However, some of the methods by which corruption can be reduced are:-

    (a)   Proper education of all sections of society that corruption in any form is bad and will not be tolerated.

    (b)   Don't give bribe or favours to any one nor take bribes / favours from any one.

    (c)   Highlighting / Reporting of cases of corruption.

    (d)   Speedy trial and exemplary punishment for persons involved in corruption.

(e)   Ensuring transparency in all dealings.

(f)   Dealing with corruption in higher echelons.

(g)   Strict implementation of the Prevention of Corruption Act.

(h)   Full freedom to Lok Pal or Lok Ayukt to investigate cases of corruption.

(j)   Simplifying routine procedures to prevent corruption.

CONCLUSION

11.   Corruption in any form is bad and not acceptable. If we want to eradicate corruption, we must all take a pledge not to form part of the chain of corruption either as a 'giver' or as a 'taker'. Also we must ensure that, any person who makes a demand for bribes or gratification, must be promptly reported to the authorities for remedial action.

LESSON PLAN : SA 9
SOCIAL EVILS : FEMALE FOETICIDE,
DOWRY AND CHILD ABUSE

Period   -   One

Type   -   Lecture

Code   -   SA 9

Term   -   I (JD/JW)
_____

Training Aids

1.   Computer, Projector, Charts, Pointer, Black Board & Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

        (b)   Female Foeticide   -   10 Min

        (c)   Dowry   -   10 Min

        (d)   Child Abuse   -   10 Min

        (e)   Conclusion   -   05 Min

INTRODUCTION

3.   India is a large heterogeneous society with varied castes, cultural, religion and economic strata. Due to various customs, a large no of myths and beliefs are prevalent in the society. These have given birth to various kinds of social evils like dowry, female foeticide, gender bias, child abuse and trafficking etc.

AIM

4.   To acquaint the cadets about the various types of Social Evils and their Prevention.

PREVIEW

5.   The lecture will be conducted in following parts:-

        (a)   Part I   -   Female Foeticide.

        (b)   Part II   -   Dowry.

        (c)   Part III   -   Child Abuse.

PART I : FEMALE FOETICIDE

6.   **Definition.** Female foeticide is the selective abortion / elimination of the girl child in the womb itself, done deliberately by the mother, after the detection of the child's gender through medical means. This is usually done under family pressure from the husband or the in-laws or even the woman's parents.

7.   **Causes of Female Foeticide.** The main causes / reasons for female foeticide are:-

(a)   **Fanatic Desire / Preference to Have a Male Child**. Elimination / removal of girls from the family tree, even before they are born, clearly indicates the vehement desire for a boy child. The core factor is the need to continue the family line, through the male born into it. Sons are seen as the main source of income and the belief that they will look after the family and the old age parents.

(b)   **Unwanted Pregnancy**. Though most people cite this as an excuse for medical termination of Pregnancy (MTP) but, it is generally the course taken after sex determination test proves of a female foetus.

(c)   **Foul Medical Ethics**. This process began in the early 1990s, when ultrasound techniques gained widespread use in India. There was a tendency for families to continue producing children, until a male child was born. Also, the unethical sex determination and selective abortion of female infants has become a booming US $224 million industry, with lucrative incentives.

(d)   **Dowry System**. In India, the age old custom of 'dowry system' puts a damper on the parents' spirits who are 'blessed' with a girl child. Right then and there, begin the calculations associated with marriage expenses, which may happen after a couple of decades, following the child's first breath. Girls are seen more as a burden and some think that it would be so much better to get rid of them, with just a fraction of the amount.

(e)   **Deteriorated Status of Women**. Centuries of repression has made 'inferiority' second nature to most women. They willingly embrace the role of the meek, submissive, docile wife, who works relentlessly to cater to the whims of her husband. Female foeticide happens with the explicit consent of the mother.

8.   **Effects of Female Foeticide.**

(a)   **Skewed Sex Ratio.** In India, the number of girls per 1000 boys is declining with each passing decade. From 962 for every 1000 boys in the years 1981 the sex ratio had plummeted to an all time low of only 914 girls for 1000 boys in 2011.

(b)   **Female / Women Trafficking.** The steep decline in the number of girls makes them scarce for the teaming number of males eligible for marriage. As a solution to this issue, illegal trafficking of women has become commonplace in many regions. Women, often young girls who've just crossed the threshold of puberty, are compelled to marry for a price fixed by the groom-to be.

(c)   **Increase in Rape and Assault.** Once women become an endangered species, it is only a matter of time before the instances of rape, assault and violence become widespread. The legal system may offer protection, but as is the situation today, many cases might not even surface for fear of isolation and humiliation on the girl's part.

(d)   **Population Decline.** With no mothers or wombs to bear a child (male or female), there would be fewer births, leading to a decline in the country's overall population.

9.   **Measures to Prevent Female Foeticide**. Of the numerous steps taken to curb the matter, the prominent ones are:-

(a)   Cancellation / permanent termination of the doctor's license who partakes in fulfilling a client's demand to do away with her girl child.

(b)   Heavy penalty imposed on companies like GE, that specialize in marketing medical equipments used for illegal sex determination and abortion in unlicensed clinics and hospitals.

(c)   High fines and judicial action against 'parents' who knowingly try to kill their unborn baby.

(d)   Widespread campaigns and seminars for young adults and potential parents to enlighten them about the ill effects of female feticide. Ignorance is one of the major causes for the increase in the selective sex abortion cases. Spreading awareness can go a long way in saving our future sisters, mothers, girlfriends and wives.

(e)   High incentives for the girl child in education, employment etc.

(f)   Equal rights for women in the property of the parents / husband.

PART II : DOWRY

10.   **General.**   In India, **dowry** is the payment in cash or some kind of gifts given to bridegroom's family along with the bride. Generally they include cash, jewellery electrical appliances, furniture, bedding, crockery, utensils and other household items that help the newly-wed set up her home. As per the book **"Genocide of Women in Hinduism"** authored by Sita Agarwal, over the last 65 years, more than 50 million female children have been murdered as a result of Vedic dowry and infanticide laws. The **Dowry Prohibition Act 1961** states that: "If any person, gives or takes or abets the giving or taking of dowry, he shall be punishable with imprisonment for a term which shall not be less than five years, and with fine which shall not be less than fifteen thousand rupees or the amount of the value of such dowry, whichever is more."

11.   **Causes of Dowry System.**

(a)   **Devine Sanction.** Dowry is one of the most ancient practices of India. **The Vedas prescribe** that a dowry be given by the bride's family to the groom. Thus, in order to marry Sita to Rama, her father had to supply her with 100 crores of gold mohurs, 10,000 carriages, 10 lakh horses, 60,000 elephants, 100000 male slaves, 50000 female slaves, 2 crores of cows, 100000 pearls, and many other items. Thus most people think that it is legal as per the vedic rights.

(b)   **Growing Economic Inequality**. This fuels the desire to ask for more and more cash or gifts to persue a lavish life style or other ventures.

(c)   **Increasing Unemployment of Males**. In order to prove their status, unemployed males are growingly demanding more and more dowry to fulfill their desires.

(d)   **Parental Compulsions**. In order to find a good match for their daughter, well to do parents are offering huge dowry. This adds fuel to the growing demand for dowry.

12.   **Effects of Dowry System**.

(a)   Increase in Domestic Violence.

(b)   Increase in Mortgage and Loans.

(c)   Female Foeticide.

(d)   Female Trafficking.

(e)   False Dowry Allegations.

13.   **Prevention of Dowry**. Society and we as a member of the society can do a lot to prevent offences related to dowry by taking the following steps:-

(a)   Start practicing dowry prohibition in your family. Don't take or accept dowry.

(b)   Educate the members of your family with the provisions of law – that demanding and accepting or giving dowry is an offence.

(c)   A woman is an important member of family and is entitled to all the rights and privileges a man enjoys. Educate the members of your family and your neighbors to respect a woman's rights and privileges.

(d)   Encourage women folk to raise their voice about their rights and to fight against dowry system.

PART III : CHILD ABUSE

14.   **General**.

(a)   India is home to almost 19 percent of the world's children. More than one third of the country's population, around 440 million, is below 18 years. According to one assumption 40 percent of these children are in need of care and protection, which indicates the extent of the problem.

(b)   Child abuse is a state of emotional, physical, economic and sexual maltreatment meted out to a person below the age of eighteen and is a globally prevalent phenomenon. Child abuse is a violation of the basic human rights of a child and is an outcome of a set of inter-related familial, social, psychological and economic factors. Child abuse has serious physical and psycho-social consequences which adversely affect the health and overall well-being of a child.

15.   **Definition**. According to WHO: "Child abuse or maltreatment constitutes all forms of physical and / or emotional ill-treatment, sexual abuse, neglect or negligent treatment or commercial or other exploitation, resulting in actual or potential harm to the child's health, survival, development or dignity in the context of a relationship of responsibility, trust or power.

16.   **Forms of Child Abuse.** Child Abuse can be of following forms:-

(a)   **Physical Abuse**. Physical abuse is inflicting physical injury upon a child. This may include hitting, shaking, kicking, beating, or otherwise harming a child physically.

(b)   **Emotional Abuse.** Emotional abuse (also known as verbal abuse, mental abuse, and psychological maltreatment) includes acts or the failure to act by parents, caretakers, peers and others that have caused or could cause serious behavioural, cognitive, emotional, or mental distress/trauma.

(c)   **Sexual Abuse.** Sexual abuse is inappropriate sexual behaviour with a child. It includes fondling a child's genitals, making the child fondle an adult's genitals, sexual assault (intercourse, incest, rape and sodomy), exhibitionism and pornography. To be considered child abuse, these acts have to be committed by a person responsible for the care of a child or related to the child (for example a baby-sitter, parent, neighbour, relatives, extended family member, peer, older child, friend, stranger, or a day-care provider).

(d)   **Child Neglect**. Child neglect is an act of omission or commission leading to the denial of a child's basic needs. Neglect can be physical, educational, emotional or psychological. Physical neglect entails denial of food, clothing, appropriate medical care or supervision. It may include abandonment. Educational neglect includes failure to provide appropriate schooling or special educational needs. Psychological neglect includes lack of emotional support and love.

(e)   **Unreasonable Deprivation**. Unreasonable deprivation of his/her basic needs for survival such as food and shelter, or failure to give timely medical treatment to an injured child resulting in serious impairment of his/her growth and development or in his/her permanent incapacity or death.

(f)   Any other act, deed or word which debases, degrades or demeans the intrinsic worth and dignity of a child as a human being.

17.   **Child Abuse in India**. A National Study on Child Abuse was conducted in the year 2005 by the Ministry of Child and Women Welfare. This study, which is the largest of its kind undertaken anywhere in the world, covered 13 states with a sample size of 12447 children, 2324 young adults and 2449 stakeholders. It looked at different forms of child abuse: Physical Abuse, Sexual Abuse and Emotional Abuse and Girl Child Neglect in five different evidence groups, namely, children in a family environment, children in school, children at work, children on the street and children in institutions. The major findings of the study are as under:-

(a)   It is the young children, in the 5-12 year age group, who are most at risk of abuse and exploitation.

(b)   **Physical Abuse.**

(i)   Over 50% children were being subjected to one or the other form of physical abuse ie, two out of every three children were physically abused.

(ii)   88.6% children were physically abused by parents.

(iii)   65% of school going children reported facing corporal punishment i.e. two out of three children were victims of corporal punishment. 62% of the corporal punishment was in government and municipal schools.

(c)   **Sexual Abuse.**

(i)   53.22% children reported having faced one or more forms of sexual abuse.

(ii)   Out of the child respondents, 5.69% reported being sexually assaulted. Children on street, children at work and children in institutional care reported the highest incidence of sexual assault.

(iii)   Most children did not report the matter to anyone.

CONCLUSION

18.   Social Evils are mostly born due to poor education, misplaced beliefs, unemployment and inequitable distribution of wealth. Social Evils are a disease on the society and have disastrous long term effects. We need to take concerted action to eradicate these evils from society. Although many laws / legislations presently exist to prevent the social evils, but the wholehearted participation of the people will only force their implementation. Hence we must all educate ourselves, as also our family and neighbours to take all necessary steps to eradicate all types of social evils form society.

LESSON PLAN : SA 10
ANTI DRUNKEN DRIVING AND
TRAFFIC CONTROL ORG

Period   -   One

Type   -   Lecture

Code   -   SA 10

Term   -   II / III (JD/JW)
_____

Training Aids

2.   Computer, Projector, Charts, Pointer, Black Board & Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

        (b)   Traffic Control Organisation   -   15 Min

        (c)   Anti Drunken Driving   -   15 Min

        (d)   Conclusion   -   05 Min

INTRODUCTION

3.   Expansion in the road network, surge in motorization and a rising population of a country contribute towards increasing numbers of road accidents, leading to injuries and fatalities. Road accidents are a human tragedy, which involve high human suffering. They impose a huge socio-economic cost in terms of untimely deaths, injuries and loss of potential income. The ramifications of road accidents can be colossal and its negative impact is felt, not only on individuals, their health and welfare, but also on the economy. Consequently, road safety has become an issue of national concern.

AIM

4.   To acquaint the cadets about the Traffic Control Org and Anti Drunken Driving.

PREVIEW

5.   The lecture will be conducted in following parts:-

        (a)   Part I   -   Traffic Control Organisation.

        (b)   Part II   -   Anti Drunken Driving.

PART I : TRAFFIC CONTROL ORGANISATION

6.   The responsibility to control all traffic in a city or outside it is that of the Traffic Police department which works under the District police Chief. The Traffic Police carries out following tasks :-

        (a)   Management and Regulation of all traffic.

(b)   Opening / closing of roads due to move of VIP or repairs or accidents.

(c)   Checking of vehicles documents for permits, license and ownership.

(d)   Checking of vehicles for overloading of passengers / load.

(e)   Ensuring proper marking and placement of road signs.

(g)   Conduct vehicle based patrolling of roads / highways.

(j)   Manning of road intersections, one way routes and check posts.

(k)   Manning of PRC vans.

(l)   Investigation of road accidents, making of accident reports and evacuation of injured to hospitals.

(m)   Clearing of road blockages due to accidents or any other reason.

(n)   Educating general public on road safety rules.

(o)   Conduct of road safety seminars or training.

(p)   Speed monitoring dets.

7.   **Traffic Organisation**.

(a)   The entire traffic in any city or town is controlled by the Deputy Commissioner of Police (Traffic). He is assisted by various Assistant Commissioner Police (ACPs), Inspectors, Assistant Sub Inspectors (ASIs), Head Constables and Constables. The strength depends on the size of the city or town and the traffic that is to be managed.

(b)   For control of traffic, a city / town is divided into Zones and Divisions. Each Zone is under a ACP and a Division under an Inspector. In addition, there is a Control Room, which monitors all Traffic Cameras and Communications.

PART II : ANTI DRUNKEN DRIVING

General

8.   An act of drunk driving can be described as driving a vehicle (including wheelchairs) under the influence of alcohol. Drunken driving is an offence in India, like many other countries worldwide. The object of making it an offence under law is to improve road safety by seeking to bring down the number of accidents and fatalities caused by driver's fault. We really can't blame the authorities for thinking that, what with daily news of some drunken late-night-partygoer mowing down footpath dwellers. With statistics saying that almost 78% of all road accidents in India are caused due to driver's fault. Drunk driving is the cause of approx. 39% of all casualties.

9.   **Law**. In India, while driving a motor vehicle, if a person has a Blood Alcohol Level (BAC) exceeding 30 mg of intake per 100 ml of blood detected by a Breathalyzer, he or she is booked under **'first offense'**. This consists of imprisonment for a term, which may extend up to six months or with a fine up to two thousand rupees or both. For a second or subsequent offense, if committed within three years of the commission of the previous similar offense, he or she will face an imprisonment of a term, which may extend to two years, or with fine, which may extend to three thousand rupees or with both.

10.	As per the Department of Road Transport and Highways, in 2011, there were a total of 4,92,686 road accidents in India which resulted in 5,27,512 deaths and 5,11,394 persons wounded. 'Drivers fault' resulted in nearly 78 % of these accidents. The intake of alcohol / drugs by drivers resulted in 31,000 road accidents and 9,976 fatalities. As a proportion of total accidents and deaths due to 'drivers' fault', intake of alcohol / drugs accounted for 8.0 per cent and 9.9 per cent, respectively.

11.	The most common violators of drunk driving have been identified as under:-

(a)	Children between 16-25 yrs of age.

(b)	Most truck drivers.

(c)	Most people returning from pubs / parties in cities.

(d)	After New Year parties or Holi celebrations.

Prevention

12.	The following measures can prevent deaths / accidents due to drunk driving:-

(a)	Don't drive after drinks under any circumstances.

(b)	Strict checking and penalty by police, if found drunk while driving.

(c)	Change of Laws to make it more serious a offence.

(d)	Report cases of drunk driving to police.

CONCLUSION

13.	The role of Alcohol in traffic safety has produced more controversies than any other topic. After drinking, the judgment power of the driver gets impaired - a threat to road safety. Due to its effects, driver tends to take more risks, becomes more aggressive and takes a longer reaction time. It has been well established that the relative probability of causing crash increases with the rising blood alcohol levels keeping road safety at stake. Thus we must ensure that neither do we drive after drinking nor do we allow others to do this.

LESSON PLAN : SA 11
PROVISIONS OF PROTECTION OF CHILDREN FROM
SEXUAL HARASSMENT - ACT 2012

Period   -   One

Type   -   Lecture

Code   -   SA 11

Term   -   II (JD/JW)
_____

Training Aids

1.   Computer, Projector, Charts, Pointer, Black Board & Chalk.

Time Plan

2.   (a)   Introduction   -   03 Min

         (b)   Definitions and Provisions   -   10 Min

         (c)   Punishments   -   10 Min

         (d)   Method to Report and Record Cases   -   15 Min

         (e)   Conclusion   -   02 Min

INTRODUCTION

3.   India is home to the largest child population in the world, and almost 42 per cent of its total population is under eighteen years of age. The health and security of the country's children is integral to any vision for its progress and development. One of the issues marring the vision for the country's children is the evil of child sexual abuse. In May 2012, the Protection of Children from Sexual Offences Bill 2012, was passed by Parliament. The Act received the President's assent on 19th June 2012 and was notified in the Gazette of India for public information on 20th June, 2012. The Act is to come into force on the 14th of November, 2012, along with the rules framed under the Act.

AIM

5.   To acquaint the cadets about the "Protection of Children from Sexual Offences Act 2012".

PREVIEW

6.   The lecture will be conducted in three parts as under:-

         (a)   Part I   -   Definitions and Provisions.

         (b)   Part II   -   Punishment under the Act.

         (c)   Part III   -   Methods for Reporting and Recording.

PART I : DEFINITIONS AND PROVISIONS

7.   **General Provisions**.

(a)   The Act is gender-neutral and **defines a child as any person below the age of eighteen years.**

(b)   The Act provides precise definitions for different forms of sexual abuse, including penetrative and non-penetrative sexual assault, sexual harassment and pornography.

(c)   The Act provides for stringent punishment graded as per the gravity of the offence, with a maximum term of rigorous imprisonment for life for certain offences, and fine. It also prescribes punishment for a person if he provides false information with the intention to defame any person, including a child.

(d)   The Act provides for mandatory reporting of sexual offences.

(e)   The Act provides for child-friendly procedures for reporting of offences, recording of evidence, investigation and trial.

8.   Under Section 45 of the Act, the power to make rules rests with the Central Government. The rules framed under the Act provide:-

(a)   Qualifications and experience of interpreters, translators, special educators, and experts; arrangements for care and protection and emergency medical treatment of the child.

(b)   Compensation payable to a child who has been the victim of a sexual offence. The compensation may be awarded at the interim stage, as well as upon completion of trial.

(c)   The manner of periodic monitoring of the provisions of the Act by the National Commission for Protection of Child Rights (NCPCR) and State Commissions for Protection of Child Rights (SCPCR).

(d)   Arrangements for the care and protection of the child and to ensure that the child is not re- victimised in the course of investigation and trial.

(e)   That where a child is taken to a medical facility for emergency medical care, no magisterial requisition or other documentation may be demanded by such facility prior to rendering medical care.

9.   The **National Commission for the Protection of Child Rights (NCPCR)** and **State Commissions for the Protection of Child Rights (SCPCRs)** have been made the designated authority to monitor the implementation of the Act.

PART II : PUNISHMENT UNDER THE ACT

10.   The Act provides for stringent punishments, which have been graded as per the gravity of the offence. The punishments range from simple to rigorous imprisonment of varying periods. There is also provision for fine, which is to be decided by the Court.

11.   The act also recognizes that the **intent to commit an offence**, **even when unsuccessful for whatever reason, needs to be penalized.** The attempt to commit an offence under the act has been made liable for punishment for up to half the punishment prescribed for the commission of the offence.

12.   The act also provides punishment for abetment of the offence, which is the same as for the commission of the offence. This would cover Trafficking of the children for sexual purposes.

13**.**   **Punishment for Offences Covered in the Act.** These are as under:-

(a)   **Penetrative Sexual Assault (Section3).** Not less than seven years imprisonment, which may extend to imprisonment for life and, fine (Section 4).

(b)   **Aggravated Penetrative Sexual Assault (Section 5).** Not less than ten years imprisonment, which may lead to imprisonment for life and, fine (Section 6).

(a)   **Sexual Assault (Section 7).** Not less than three years imprisonment, which may extend to five years and, fine (Section 8).

(d)   **Aggravated Sexual Assault (Section 9).** Not less than five years imprisonment, which may extend to seven years, and fine (Section 10).

(e)   **Sexual Harassment of the Child (Section 11).** Three years imprisonment and fine (Section 12).

(f)   **Use of Child for Pornographic Purposes (Section 13).** Five years imprisonment and fine , and in the event of subsequent conviction, seven years imprisonment and fine (Section 14 (1)).

PART III : METHODS FOR REPORTING AND RECORDING

14.   **General Provisions**.

(a)   It is necessary for the proper development of the child that, his or her right to privacy and confidentiality be protected and respected by every person by all means and through all stages of a judicial process involving the child.

(b)   The media has been barred from disclosing the identity of the child without the permission of the special court.

(c)   For speedy trial the act provides the evidence of the child to be recorded within a period of 30 days. Also, the special court is to complete the Trial within a period of one year, as far as possible.

(d)   The SJPU or the local police are also required to report the matter to the child welfare committee within 24hrs of recording the complaint, for long term rehabilitation of the child.

(e)   The Act provides for the establishment of Special Courts for trial of offences under the Act, keeping the best interest of the child as of paramount importance at every stage of the judicial process.

15.   **Reporting and Recording of Evidence.** The Act incorporates child friendly procedures for reporting, recording of evidence, investigation and trial of offences. These include:-

(a)   Recording the statement of the child at the residence of the child or at the place of his choice, preferably by a woman police officer not below the rank of sub-inspector.

(b)   No child to be detained in the police station in the night, for any reason.

(c)   Police officer will not be in uniform, while recording the statement of the child.

(d)   The statement of the child to be recorded, as spoken by the child.

(e)   Assistance of an interpreter or translator or an expert be provided as per the need of the child.

(f)   Assistance of special educator or any person familiar with the manner of communication of the child in case child is disabled.

(g)   Medical examination of the child to be conducted in the presence of the parent of the child or any other person in whom the child has trust or confidence.

(h)   In case the victim is a girl child, the medical examination shall be conducted by a woman doctor.

(i)   Frequent breaks for the child during trial.

(j)   Child not to be called repeatedly to testify.

(k)   No aggressive questioning or character assassination of the child.

(l)   In-camera trial of cases.

CONCLUSION

16.   We have a very large population of children in our country and many of them require protection of various kinds. The Protection of Children from Sexual Offences Act 2012, is an important milestone and it is our moral responsibility, that we educate our children about the act and the provisions enshrined in it.

INDEX

HEALTH & HYGIENE

LESSON PLAN : H 1
STRUCTURE AND FUNCTION OF THE HUMAN BODY

Period   -   One

Type   -   Lec

Code   -   H 1

Term   -   I (JD/JW)

_____

Training Aids

1.   Computer Slides, Charts, Pointer, Black Board and Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

             (b)   Skeletal and Muscular System   -   10 Min

             (c)   Organ Systems   -   20 Min

             (d)   Conclusion   -   05 Min

INTRODUCTION

3.   The human body is the greatest of all complex machineries. In order to carryout first aid, a first aider should have basic idea of structure and function of every part of the human body. Many lives can be saved if proper and timely first aid can be rendered.

AIM

4.   To teach the NCC cadets about the Structure and Functioning of the human body.

PREVIEW

5.   The class will be conducted in the following parts:-

             (a)   Part I   -   Skeletal and Muscular System.

             (b)   Part II   -   Organ Systems.

PART I : SKELETAL AND MUSCULAR SYSTEM

Skeletal System

6.   **Structures of Bones.** The human body has 206 bones of various shapes and sizes. The bones give shape and firmness to the body, as also it protects the vital organs like brain, heart, lungs spinal cord**.** Bones can either be 'loosely arranged' or 'densely arranged'. The loosely arranged bone is called 'spongy bone' and densely arranged bone is called 'compact bone'. Some bones are hollow from inside and filled with bone marrow.

7.   **Classification of Bones.** Bones can be classified according to their shape as under:-

             (a)   **Long Bones.** These bones are long and tubular and are confirmed to upper / lower limbs.

             (b)   **Short Bones.** This bones are short and tubular and are found in the ankle / wrists.

(c)   **Flat Bones.** These bones are flat like plates, e.g. bones of cranium (Skull), shoulder or hips.

(d)   **Irregular Bones.** Irregular or mixed shape, eg. vertebral column.

(e)   **Sesamoid Bones.** They develop in the tendons of the muscles around the joint eg. patella.

Muscular System

8.   The muscle forms about half of the total weight of the body and are responsible for body movement. The muscles form the 'flesh' of the body are under the control of nervous system.

9.   **Classification.** The muscles of the body are classified into the following types:-

(a)   **Voluntary/Skeletal Muscles.** Voluntary muscles or skeletal muscles are attached to the surface of bones. These muscles form about 47% of the body weight and are either fiber type or striated type. Most of the skeletal muscles pan from one bone to another across a joint and by contracting, they act upon the joints and produce movements.

(b)   **Involuntary Muscles.** These are called involuntary muscles, because they are controlled by the autonomic nervous system.

(c)   **Cardiac Muscles.** Though cardiac muscles are striated structurally, they form the main part of heart wall.

PART II : ORGAN SYSTEMS

10.   **Circulatory System.** The circulatory system consists of the Heart, Blood Vessels and Blood. Each time the heart contracts, blood is pumped along the blood vessels. It is therefore kept in a state of continuous motion. By blood circulation, oxygen, nutrients and other substances are brought to the tissues and the waste products and carbon dioxide formed by the tissue are constantly removed.

(a)   **Heart.** The Heart is the most important organ of blood circulation. It is situated in thorax between the lungs and on to the left side of the body. The size of heart in equal to a cloned fist and the average wt of heart in a male is about 300 gms, and in a female about 250 gm. It is divided into two compartments, the right and the left. The right side contains impure blood while left side contains pure blood. Each side is again divided into AURICLEs and VENTRICLEs. Auricles are the receiving chambers.

(b)   **Blood.** The blood is also known as the 'transport system' of the body, and plays an important role in maintenance of life. The total volume of blood contains – hemoglobin, RBC, WBC & platelets.

(c)   **Blood Vessels.** Blood vessels are tube like structures which carry blood all over the body for circulation. These are of three types:-

(i)   **Arteries.** These are the blood vessels which carry pure blood from the heart to all parts of the body.

(ii)   **Capillaries**. These are tiny blood vessels which connect the small arteries & veins. The exchange of oxygen and nutrition with carbon di oxide by the tissue takes place in the capillaries.

(iii)   **Veins.** These blood vessels carry impure blood to the heart. The main veins are called 'superior' and 'inferior' vena cava.

11.   **Respiratory System.** Respiration or breathing is a process by which, oxygen, obtained from fresh air, is absorbed in to the blood stream and carbon dioxide, formed by the tissue action,

is removed from the blood and expelled into the air, that is then expired. It is a process essential to life. It involves the taking in of oxygen and giving out of carbon dioxide. The main organs of respiratory system are Nose, Pharynx, Larynx, Trachea, Bronchi, and the Lungs.

12.   **Digestive System.** Digestion is a mechanical and chemical process by which, complex food substances are converted into simple substances so that they can be easily absorbed by blood and utilized by the various tissues of the body according to their requirements. The main organs of digestive system are mouth, salivary glands, pharynx, esophagus, stomach, pancreas, liver, small intestine and the large intestine.

13.   **Excretory System.** Excretion is a process by which waste products are removed out of the body. Among the organs that contribute towards the elimination of waste products are the skin, lungs, kidneys and the gastro-intestinal tract.

     (a)   **Skin.** The skin covers the external surface of the body. Waste matter in the form of sweat is removed through perspiration by the skin.

     (b)   **Urinary System.** The main organs of the urinary system are:-

     (i)   **Kidneys.** There are two bean shaped organs situated on the posterior abdominal wall in the lumbar region. They act as filters in the body, to filter the waste.

     (ii)   **Ureters.** Ureters are two tubes, which carry the urine from kidney to Urinary bladder.

     (iii)   **Urinary Bladders.** It is a hallow muscular organ situated in the pelvic cavity. It is a freely movable organ. Its size and shape varies according to the amount of urine it contains. It stores the urine.

     (iv)   **Urethra.** It is a tube leading from the floor of the urinary bladder to the exterior. It is used for excretion of the urine from the body.

14.   **Nervous System.** Internal Balance of the human body is maintained within normal limits by the nervous system and the endocrine system. The nervous system may be sub divided into three main portions:-

     (a)   **The Central Nervous System.** This consists of brain and spinal cord.

     (b)   **The Peripheral Nervous System.** This forms the connections between the central nervous system and the various organs and muscles.

     (c)   **The Autonomic Nervous System.** It is an offshoot of the central nervous system and controls the involuntary functions of the various internal organs such as the stomach, intestine bladder and also the tiny muscles of the blood vessels and also controls the secretions of the Liver and Kidneys. A person is neither conscious for the normal activities of the autonomic system nor is he able to control them.

CONCLUSION

15.   Basic knowledge of our body systems allows us to understand the field of health and hygiene with ease. This knowledge provides us the basic framework on which subsequent knowledge and skills dealing with medical science can be gained in a progressive manner.

LESSON PLAN : H 2
PERSONAL AND FOOD HYGIENE

Periods   -   Two

Type   -   Lec

Code   -   H 2

Year   -   I (JD/JW)

_____

Training Aids

1.   Computer Slides, Pointer, Black Board and Chalk.

Time Plan

2.   (a)   Introduction   -   03 Min

        (b)   Personal Hygiene   -   35 Min

        (c)   Food Hygiene   -   40 Min

        (d)   Conclusion   -   02 Min

INTRODUCTION

3.   Personal and Food Hygiene are necessary to preserve and improve the health of the individual and of the community as a whole. Its study is aimed at making the cadets aware of the many preventable health hazards and to enable them to look after themselves and their community most efficiently. It seeks to develop in them the concepts of healthy living. Personal hygiene involves all aspects of the health of an individual. Responsibility for the maintenance of personal health therefore lies with the individual. Every person must remain in perfect physical, mental and social health, only then can he serve the community and the country well.

AIM

4.   To teach the NCC cadets about Personal and Food Hygiene.

PREVIEW

5.   The class will be conducted in the following parts:-

        (a)   Part I   -   Personal Hygiene.

        (b)   Part II   -   Food Hygiene.

PART I : PERSONAL HYGIENE

6.   Maintenance of personal hygiene is very important in preventing disease. It deals with the practices that help in the maintenance and promotion of a person's health. Personal Hygiene helps in the following:-

        (a)   To maintain a good and clean physique.

        (b)   To maintain good muscle strength.

(c)   To maintain clean mouth and teeth.

(d)   To maintain resistance to prevent information.

7.   **Main Components.** The main components of personal hygiene are:-

(a)   **Sleep.** Sleep means the periodical rest of both body and mind and it is extremely essential for a healthy body. The amount of sleep one requires varies with individual age. The average requirement of sleep is about 7 to 8 hours a day.

(b)   **Bathing**. Keeping the skin clean and in healthy condition is essential for good health. A bath with a mild soap with warm water in winters and cool water in summers are essential for body cleaning. While bathing, all parts of the body including folds in the skin must be cleaned well. After the bath, the body must be dried properly including the folds in the skin as wetness or dampness will lead to cuts /fungal infection.

(c)   **Eating and Drinking.** Properly cooked food with its full nutrient value is beneficial for health. Eat slowly and chew well. Do not swallow hastily. Drink plenty of water between meals and avoid strenuous exercise after a heavy meal.

(d)   **Care and Cleanliness of Skin, Hair and Teeth**. Our skin keeps on secreting sweat and hence it is necessary to keep it clean through bathing and by removing dust and dirt.. Regular changing and cleaning of clothing is essential to keep the body fit. Digestive and other disorders take place when decayed teeth and unhealthy gums bleed giving foul smell in the mouth. Teeth should be regularly brushed after the last meal at night and early in the morning.   In – sufficient vitamins C & D are the cause of dental decay.

(e)   **Exercise**. Organized games and physical exercise are necessary for proper development of the body and mind.

8.   **Water Supply and Its Purification.**

(a)   **Sources of Water Supply**. The main sources of water supply are:-

(i)   **Rain Water**. Most of the fresh water on earth comes from rains. However, most of this water is not fit for consumption due to impurities of the atmosphere.

(ii)   **Surface Water.** Surface water is found mainly in rivers and streams or lakes. This water is unfit for human consumption without treatment due to discharge of various types of wastes into it.

(iii)   **Underground Streams.** Bore Wells are a good source of potable water supply. However, even these need to be protected from contamination.

(b)   **Purification of Water**. Safe drinking water comes only from an authorized source. Purification provides good and safe water by eliminating the suspended matter, harmful salts in solution, bad taste/smell, undesirable colors and germs. The following methods are used for water purification:-

(i)   **Boiling and Filtering Water**. Untreated or treated potable water from any unreliable source must be boiled at 100 degrees for 30 min, cooled and then filtered. Only then will it be fit for consumption.

(ii)   **Clarification**. This is the removal of suspended matter through filtration, by passing it though filter beds of gravel and sand or through properly sterilized filters.

(iii)   **Sterilization**. This is done by using chlorine gas or bleaching powder.

(iv)   **Pinking.** During cholera epidemic potassium permanganate should be used for pinking of wells.

(v) **Precipitation**. This is done by adding alum or some similar chemical to water, which makes all impurities accumulate at the bottom and leaves pure water. This water is then passed through a filter.

PART II : FOOD HYGIENE

9.   Food is a potential source of infection and is liable to contamination by microorganisms at any point during its journey from the producer to the consumer. Prevention of contamination of food has to be observed from production to handling, distribution and serving. The following are the important components of food hygiene:-

(a) **Milk Hygiene.**   Milk is an efficient vehicle for many disease organisms. Contamination of milk may be due to infected animal, human handler or environmental factors. Following aspects should be ensured to obtain clean and safe milk:-

(i)   The animal and its surroundings should be healthy and clean. The animal should be properly washed before mulching.

(ii)   Milk handler should be free from any communicable disease.

(iii)   Milk vessels should be totally clean, sanitized and kept covered.

(iv)   Water supply must be safe.

(v)   **Pasteurization.**   It is the heating of milk to such temperature and for such periods of time, as are required to destroy any pathogens without destruction of nutritive value. It does not alter taste. (Temperature 130 C and time 1 to 2 seconds).

(b). **Meat Hygiene.**   The word meat includes various tissues of animal origin. The diseases which may be transmitted through meat are 'Tapeworm Infestation' and 'Bacterial Infections" like anthrax, tuberculosis or food poisoning. The **a**nimal intended for slaughter, must be subjected to proper ante mortem and post mortem inspection. Good meat should neither be pale pink nor deep purple nor should it be should not be slimy. Good meat should be elastic to touch and should have agreeable color.

(c) **Fish Hygiene.**   Fish for human consumption should be fresh. In fresh fish, the gills are bright red and the eyes are clear and prominent. Consumption of contaminated fish may give rise to fish poisoning.

(d) **Egg Hygiene.**   Though the majority of freshly laid eggs are sterile inside, the eggshell may become contaminated by fecal matter from the hen. The egg must be properly washed before cooking.

(e) **Fruits and Vegetables Hygiene.**   Fruits and vegetables are an important source for the spread of pathogenic organisms, protozoan and helminthes. Fruits and vegetables consumed raw must be washed well before eating.

(f) **Hygiene of Eating Places.**

(i)   Eating places should not be located near filthy places, open drains, animal sheds, manure /soakage pits and other such places.

(ii)   Floors should be easy to clean, and should be preferably tiled.

(iii)   Rooms for storage of food should be well ventilated, insect and rat proof and should have adequate lighting.

(iv)   Perishable and non perishable items should be kept separately.

(v)   Furniture should be strong and easy to clean.

(vi)   Refuse should be collected in covered bins and removed regularly.

(vii)   Water supply should be independent, adequate and safe.

(viii)   Proper place for cleaning of utensils should be provided.

(g)   **Hygiene of Food Handlers.**

(i)   Complete medical examination of food handlers must be done at the time of employment.

(ii)   Regular health checkups should be done.

(iii)   Education of food handlers should be regularly educated on health and hygiene aspects.

(iv)   They should be constantly reminded about hand washing, trimming of nails, covering of hair, wearing of overalls and covering mouth while coughing and sneezing during cooking.

CONCLUSION

10.   Personal and Food are two sides of a coin, which must be ensured together for best results. These are simple steps which, if taken regularly and correctly can be beneficial to both individuals and community as investing of time and effort in them can lead to saving of lives.

LESSON PLAN : H 3
PHYSICAL AND MENTAL HEALTH

Period   -   One

Type   -   Lec

Code   -   H 3

Year   -   I (JD/JW)

___

Training Aids

1.   Computer Slides, Pointer, Black Board and Chalk.

Time Plan

2.   (a)   Introduction   -   03 Min

             (b)   Physical Health   -   15 Min

             (c)   Mental Health   -   20 Min

             (d)   Conclusion   -   02 Min

INTRODUCTION

3.   Earlier doctors defined health simply as 'an absence of disease or illness'. However, after the formation of World Health Organization (WHO) in 1948, health is defined as 'a complete state of physical, mental and social well being' and not merely the absence of disease or infirmity'. The mind and body are single system.

AIM

4.   To teach the NCC Cadets about the importance of Physical and Mental Health.

PREVIEW

5.   The class will be conducted in the following parts:-

             (a)   Part I   -   Physical Health.

             (b)   Part II   -   Mental Health.
.

PART I : PHYSICAL HEALTH

6.   Physical health is the absence of disease and infirmity and it is assessed by taking health state measurements of the body.

7.   **Elements of Good Health.** Good health is an essential condition for a purposeful existence. The main elements good health are:-

             (a)   Absence of disease.

             (b)   Ability to work hard with efficiency and enthusiasm.

             (c)   Ability to endure stress and strain.

(d)   Cheerfulness.

(e)   Courage.

(f)   Freedom from anxiety.

(g)   Self control and self confidence.

(h)   Sense of well being.

(j)   Wholesome mental attitude.

PART II : MENTAL HEALTH

8.   **Importance of Mental Health.** Mental health refers to the successful performance of mental functions, resulting in productive activities, fulfilling relationship with other people, ability to adopt to change and cope up with adversities. It is of paramount importance, to lay due emphasis on the development of mental health of children. Any disregard to this may lead to mental disorder and conflicts, which ultimately may bring frustration, misery and unhappiness. Parents and teachers play a major role in providing an environment in which children develop healthy mental attitude.

9.   **Characteristics of a Healthy Mind**. These are:-

(a)   Normal appetite.

(b)   Calmness.

(c)   Cheerful outlook.

(d)   Good temper.

(e)   Socially acceptable habits.

(f)   Well regulated instincts.

(g)   Normal physical vitality.

(h)   Receptivity to new ideas.

(j)   Sex consciousness.

10.   **Mental Disorders.** Following are some of the indicators of mental disorders:-

(a)   Undue anxiety.

(b)   Embarrassment in presence of others.

(c)   Lack of courage.

(d)   Undeveloped habits and will.

(e)   Low intelligence.

(f)   Depressed and pessimistic outlook.

(g)   Moodiness.

(h) Bad temper.

(j) Full of prejudice.

11. **Measures to Improve Mental Health.** Following measures will help in improving mental health:-

(a) Favorable and stress free home and school environment.

(b) Regular medical examination.

(c) Provision of educational and vocational guidance / counseling.

(d) Provision of co-curricular activities.

CONCLUSION

12. Health is very important aspect for all living beings. Human have a tendency to get into bad life styles due to facilities available to them which results in their poor health .The subject of health must be understood by all of us to remain in good health.

LESSON PLAN : H 4
INFECTIOUS & CONTAGIOUS DISEASES AND ITS PREVENTION

Period   -   Two

Type   -   Lec/Demo

Code   -   H 4

Year   -   II (JD/JW)

___

Training Aids

1.   Computer Slides, Pointer, Black Board and Chalk.

Time Plan

2.   (a)   Introduction   -   03 Min

        (b)   Classification of Diseases -   35 Min

        (c)   Preventive Measures   -   40 Min

        (d)   Conclusion   -   02 Min

INTRODUCTION

3.   Many of the deadly diseases can be prevented from spreading to healthy persons if proper precautions are taken by checking infection and contagion of several diseases and by killing carriers of several other diseases.

AIM

4.   To teach the NCC cadets about the different types of Infectious and Contagious Diseases and their Prevention.

PREVIEW

5.   The class will be conducted in the following parts:-

        (a)   Part I   -   Classification of Diseases.

        (b)   Part II   -   Preventive Measures.

PART I : CLASSIFICATION OF DISEASES

6   Communicable diseases can be classified as follows:-

        (a)   **Excremental Diseases**. These are those diseases which are communicated or transferred through human excreta (urine and faeces). The excreta can contaminate food, water or hands of cooks and thus pass on the infection. Typhus fever, dysentery, diaorreah, jaundice and intestinal worms are some of the important diseases belonging to this group.

        (b)   **Droplet Infection**.   These are those diseases which are communicated or transferred through germs which are sprayed out from the nose, throat or lungs in the air, in small droplets of saliva during coughing, sneezing or even while talking. These germs are inhaled by a healthy man if he happens to be near the sick. Common cold, influenza,

diphtheria, meningitis, (inflammation of the brain) and tuberculosis are the common diseases in this group.

(c) **Contact Diseases**. These are those diseases which are communicated or transferred when the germs pass from a sick person to a healthy person by actual body contact. Venereal diseases i.e. syphilis, gonorrhea and skin infection are some common examples.

(d) **Insect Borne Diseases**. These are those diseases which are communicated or transferred when the germs move from a sick person to a healthy person through Blood sucking insects known as 'Carriers'. These insects first bite a sick person and then bite a healthy person, transferring the germs of the diseases in the blood of the healthy person. These germs then multiply in the blood of the healthy person during the period of incubation, and at the end of which he starts showing symptoms of the disease carried by the insect. Some of the carrier insects and their disease are:-

       (i) Mosquito - Malaria, Dengue and Filaria.

       (ii) Sand fly - Sand fly fever, Kala Zar, Oriental Sore.

       (iii) Lice - Typhus, Relapsing Fever.

       (iv) Flies - Diaorreah, Dysentery, Cholera, Typhoid.

       (v) Fleas - Plague, Typhus.

       (vi) Ticks - Relapsing Fever, Typhus.

(f) **Water Borne Diseases.** Certain diseases spread due to infection carried through water. These are cholera, dysentery, diaorreah, jaundice etc. These spread as water gets contaminated through vomits or faeces passing into it. Epidemics are likely to spread if immediate steps are not taken to disinfect water and to properly dispose off the excreta through efficient conservancy arrangements. All sources of the diseases ought to be eliminated.

(g) **Animal Borne Diseases**. The germs are transmitted through the agency of animals by drinking milk or through the agency of insects. Rabies, plague, anthrax and tuberculosis are some of the common diseases.

PART II : PREVENTIVE MEASURES

7. Specific measures to prevent diseases are as under:-

(a) **Prevention of Excremental & Water Born Disease.**

    (i) Control of water route is easy by disinfecting water or providing safe water in place.

    (ii) Control of the milk route is easy by subjecting the milk to boiling or pasteurization.

    (iii) Food born infection may be controlled by standards of food hygiene, exclusion of sick persons from food handlings, strict attention to personnel hygiene, promotion of hand washing, protection of foods against flies and rodents and providing facilities for refrigeration.

    (iv) Safe disposal of excreta will block the transmission of disease by the faecal –oral route.

(b) **Prevention of Droplet Infection.** This can be achieved by :-

    (i) Use of mask.

(ii)   Bed spacing.

(iii)   Screening.

(iv)   Dust Control.

(v)   Avoid over-crowding.

(vi)   Proper ventilation.

(vii)   Avoid spiting in public places.

(viii)   Proper sunlight.

(ix)   Proper disinfection of air.

(c)   **Prevention of Contact Disease.**

(i)   Complete segregation of patient.

(ii)   No direct personal contact between patient and the staff.

(iii)   The early diagnosis will help in preventing the spread in the patient.

(iv)   Proper disposal of all the excreta and disinfection of all articles of the patient.

(d)   **Prevention of Insect Born Disease.**

(i)   Filling, leveling and drainage of breeding places and water management will help in eliminating larvae. Adequate collection, removal and disposal of sewage and waste water are important in preventing culex.

(ii)   Use kerosene oil, fuel oil, or special oil to prevent larvae.

(iii)   Use of residual sprays like malathion.

(iv)   Use of mosquito nets, screening of doors and windows, mosquito repellant and sun down sleeves.

(v)   Control the presence of rodents and fleas in and around the home.

(vi)   Avoid contact with any species of wild rodents, especially sick or dead rodents.

(vii)   Not to handle sick or dead animals or animal waste.

8.   The following preventive measures are necessary to ward off these diseases;-

(a)   **Segregation of the Patient.**   Important points are as under:-

(i)   Preferably shift patient to an isolated room.

(ii)   Ensure room confirms to hygiene and sanitation standards ie adequate ventilation, sunlight and cleanliness.

(iii)   Nominate one healthy person to undertake nursing and care of the patient.

(iv)   Nominated person to take preventive measures like use of mask, gown, and gloves and avoid direct contact and hand washing before and after every visit.

(v)   Clothing and utensils used by patient to be cleaned / washed separately.

(vi)   Safe disposal of patients excreta – Urine, Stool, Sputum, Refuse eg discarded dressings, garbage etc by burning.

(b)   **Destroy Agents (Germs) Causing Infection in the Surrounding   Area or Premises.**   Immediately on detection of a communicable disease, the source of agents / germs causing infection should be destroyed by following actions :-

(i)   Removal / destruction of garbage.

(ii)   Cleaning the drains & keep them covered.

(iii)   Remove/ dry out waste water.

(iv)   Spray malathion mixed in water (ratio: malathion - 1 ml, water 1000 ml) in and around premises. (Caution - malathion is highly poisonous direct breathing / touch should be avoided). Wash hands after use.

(v)   Keep premises free of rodents (rats), stray dogs.

(vi)   Use mosquito nets, long sleeves, screening of doors & windows.

(c)   **Disinfection.**   All articles in contact with the patient should be disinfected by following means:-

(i)   **Natural.** Sunlight and air can be used to disinfect articles like blanket, mattresses, pillows and also the rooms. The microorganisms thrive in darkness and need moisture for their survival, on being exposed to sunlight and air they die.

(ii)   **Physical.** Physical agents like heat, cold radiation etc. can also be used for disinfection and sterilization.

   (aa)   **Heat.**   Heat can be used in two ways for sterilizing.

      (i)   **Moist Heat**.   Moist Heat in the form of 'boiling' kills germs very rapidly. In addition, 'autoclaving or Steam under Pressure' is the most effective method used to disinfect all hospital equipment which can be boiled like linen, bandage, dressing material, gloves and instruments.

      (ii)   **Dry Heat.** Dry heat like flaming or use of hot air oven. Sterilization by steam under pressure (autoclaving) is the commonest method for sterilization which is being used in the army.

   (ab)   **Cold**.   Freezing or freeze-drying can inactivate bacteria. Some of them can however survive even at 0° C.

   (ac)   **Radiation.**   It includes ionizing radiations like X rays, gamma beta and ultraviolet radiation. These are expensive methods and are not suitable for small-scale procedures.

   (ad)   **Other Methods**.   Disinfection and sterilization can also be done by using other methods like of infrared rays, filtration etc.

(iii)   **Chemical Agents.** Chemical agents like phenol, savlon, potassium permanganate, Hydrogen peroxide etc are commonly used for disinfection and sterilization. The strength of agent depends upon its used concentration being.

(iv)   **Control of Food & Drink.** Salient points to be observed while feeding the patient:-

   (aa)   Clean water preferably boiled must be served to the patient Water container must be kept covered.

(ab)   Balanced diet, well cooked, hygienically prepared food using less oil and condiments, should be served hot. Stale, cold and food exposed to flies & insects should not be served.

(ac)   Food items sourced from restaurants / dhabas must not be served.

(v)   **Inoculation and Vaccinations.** Important inoculations & vaccinations are provided free of cost under various Government programmers. These are administered at Primary Health Centers/Hospitals. It not available the same should be administered/ taken from market. Important inoculations and vaccination are as under:-

Name of Vaccine	Disease Prevented
Inj Rabipur	Rabies
Inj TAB	Typhoid
Inj Hepatitis 'B'	Hepatitis 'B'
Inj T T	Tetanus
Oral Polio	Polio

CONCLUSION

9.   Communicable diseases as the name suggests are most easy to prevent if timely measures are taken as recommended above. As these diseases are communicated through some carrier or agent, their spread on occurrence is difficult to control. It is advisable to always follow the prevention measures to save precious human and animal lives national resources and effort.

LESSON PLAN : H 5
FIRST AID IN COMMON MEDICAL EMERGENCIES

Period   -   Two

Type   -   Lec/Demo

Code   -   H 5

Year   -   II (JD/JW)

Training Aids

1.   Computer Slides, Pointer, Black Board and Chalk.

Time Plan

2.   (a)   Introduction   -   03 Min

        (b)   Injuries to Internal Organs   -   07 Min

        (c)   Burns and Scalds   -   05 Min

        (d)   Snake Bite, Scorpion Bite & Rabid Dog Bite -   15 Min

        (e)   Foreign Bodies in Eye, Ear and Nose   -   10 Min

        (f)   Asphyxia   -   15 Min

        (g)   Insensibility or Unconsciousness   -   10 Min

        (h)   Artificial Respiration   -   10 Min

        (i)   Conclusion   -   05 Min

INTRODUCTION

3   There will be number of occasions on which we may be faced with a situation where, we may be required to provide First Aid to the injured, because of an accident or due to any calamity. Therefore it is very important for all cadets to have knowledge of providing basic First Aid in common medical emergencies. In the succeeding paragraphs we will deal with certain medical emergencies and discuss about the methods First Aid to be provided.

PREVIEW

4.   The class will be conducted in the following parts:-

        (a)   Part I   -   Injuries to Internal Organs.

        (b)   Part II   -   Burns and Scalds.

        (c)   Part III   -   Snake Bite, Scorpion Bite & Rabid Dog Bite.

        (d)   Part IV   -   Foreign Bodies in Eye, Ear and Nose.

        (e)   Part V   -   Asphyxia.

(f)   Part VI   -   Insensibility or Unconsciousness.

(g)   Part VII   -   Artificial Respiration.

PART I : INJURIES TO INTERNAL ORGANS

5.   These injuries cannot be seen but can only be suspected, where bleeding instead of coming to the surface occurs into the cavity of chest or abdomen wherein, important organs like heart, lungs, liver or spleen might get ruptured. The following symptoms are observed in case of internal injuries:-

(a)   Cold clammy skin.

(b)   Weak and rapid pulse.

(c)   Shallow sighing and breathing.

(d)   Face pinched and pale.

(e)   Eyes deeply sunken with dark rings around them.

(f)   Patient usually restless and anxious and may lose consciousness.

6.   **First Aid Treatment.**

(a)   Keep the patient warm and lying down with feet raised up and head kept low.

(b)   Apply cold application on the suspected injured region.

(c)   Cheer up the patient.

(d)   Arrange medical attention as soon as possible.

PART II : BURNS AND SCALDS

7.   Burns may be caused by heat either, dry by contact with fire or flame, or wet, as caused by moist heat such as hot water, hot fluids and steam, which is called scalding. Chemical burns may be caused by strong acids or alkalis. .

8.   **First aid Treatment.**

(a)   If the burn is chemical, let water from a pipe or hose flow freely on the burn so that the chemical flows off.

(a)   Protect the burnt area by applying bandage or cover exposed part with clean towel or cloth.

(b)   Give complete rest and plenty of fluids to the patient.

(c)   Re-assure the patient.

(d)   Give him **morphia**, if required.

(f)   Evacuate patient to the nearest hospital or dispensary.

PART III : SNAKE, SCORPION AND DOG BITE

Snake Bite

9.   In Snake bite, the poison is injected by the snake through a pair of hollow and deeply grooved biting fangs. The majority of bites occur on parts of limbs which are exposed like hands, feet and lower legs.

10.   **First Aid Treatment.** All cases of snake bite should be treated as being bitten by poisonous snakes. The First Aid treatment will be as follows:-

(a)   Make the victim lie down comfortably.

(b)   Give convincing reassurance against fear of death.

(c)   Apply a light constricting tourniquet with hand kerchief, bandage or shoe lace above the knee for a bite on the leg and above elbow for a bite on the arm. So that the poison does not flows to all parts of the body.

(d)   Wash with soap and water. Use water freely.

(e)   Incise into the skin 2"X ½" across the fang mark with a blade.

(f)   Suck the blood either with mouth or with a suction pump. Be careful that there is no cut out or ulcer in the mouth.

(g)   Evacuate the patient quickly to the nearest dispensary or hospital.

(h)   If breathing fails, start artificial respiration.

Scorpion Bite

11.   Bite by scorpions should be treated like snake bite.

12.   **First Aid Treatment.** If blood has been drawn, the wound should be cleaned well with antiseptic lotion.

Rabid Dog Bite

13.   Rabies is a very dangerous disease transmitted by a rabid dog. The disease is preventable by giving anti-rabies vaccine.

14.   **First Aid Treatment.**

(a)   Immediately wash the bite area with lots of water and soap.

(b)   Wound should be cleaned with available antiseptic.

(c)   Patient should be sent to hospital for an anti-rabies injection course.

(d)   Dog and the patient should be kept under observation for at least 10 days.

PART IV : FOREIGN BODIES IN EYE, EAR AND NOSE

Foreign Body in Eye

15.   Particles of coal or dust may lodge on the eye-ball or inside the eye lid causing discomfort and damage to the tender structure.

16. **First Aid Treatment.**

   (a)   Ask the patient not to rub the eyes.

   (b)   Wash the eye with water repeatedly for a minute or two.

   (c)   Search for the foreign body by lifting the upper eyelid and parting the lower eyelid down. The patient should face the light. If the foreign body is seen, it can be wiped off with the moistened corner of hand kerchief, cloth or cotton swab.

   (d)   If foreign body is fixed to the eye-ball, patient should be sent to the hospital with a light eye bandage.

Foreign Body in Ear

17.   This is common with children. They often put beads, peas, nuts and other objects into the ear or an insect may get into the ear.

18.   **First Aid Treatment.**   Do not try to remove the foreign body with the help of a pin or forceps as this may push the foreign body further in, causing damage to the ear drum. The patient should be sent to the hospital.

Foreign Body in Nose

19.   This is a common occurrence among children. They might put peas, beads etc in the nostril.

20.   **First Aid Treatment.**

   (a)   Blowing the nose and sneezing may expel the foreign body.

   (b)   Make the casualty breathe through the mouth.

   (c)   Do not try to remove the foreign body.

   (d)   Send the patient to the nearest hospital.

PART V : ASPHYXIA

21.   The tissue and organs of the body are supplied with oxygen through respiration, essential for the functioning of body. Respiration consists of inspiration, expiration and a pause. During inspiration air is drawn inside causing the lungs to expand. During expiration the lungs contract and air is pushed out. The respiratory system consists of the air passage known as respiratory tract and lungs. The actions of muscles concerned with respiration are controlled and regulated by the respiratory centre of the brain.

Asphyxia

22.   **Causes.** Anything which interferes with respiration producing irregularities in breathing, produces a condition known as Asphyxia. The **main causes** of Asphyxia are :-

   (a)   Drowning – due to water entering the air passage.

   (b)   Hanging and Strangulation – due to obstruction to entry of air.

   (c)   **Suffocation.**

      (i)   Due to obstruction to entry of air through the air passage.

(ii)   Foreign body obstruction in air passage.

(iii)   Inhalation of poisonous gases e.g. carbon monoxide.

(d)   Over dosage of drugs such as sleeping pills, morphine, pethedine.

(e)   Electric Shock.

(f)   Diseases e.g. tetanus, epilepsy, rabies.

23.   **Signs and Symptoms of Asphyxia.**

(a)   Dizziness and weakness.

(b)   Shortness of breath rate or breathing increase.

(c)   Rapid pulse.

(d)   Partial loss of consciousness.

(e)   Swelling of the veins of the neck.

(f)   Face, lips, nails, fingers and toes turn blue. '

24.   **General Rules for Treatment of Asphyxia.**

(a)   Remove the cause if possible or the casualty from the cause.

(b)   Ensure that there is a free passage for air.

(c)   Lay the individual on his back. Press the head back-wards supporting the neck on your palm. Lift the tongue clear of the airway. Give mouth to mouth breathing.

25.   **First Aid for Special Cases - Drowning.**

(a)   Wet cloths should be loosened.

(b)   Mouth, throat and nostril should be cleaned of mucus and any foreign body.

(c)   Patient should be made to lie down over his belly, face down, head turned to one side, arms stretched beyond the head, tongue pulled out.

(d)   Artificial respiration should be given till he starts breathing.

(e)   Cover the patient with a blanket.

26.   **First Aid in Case of Strangulation or Hanging.**

(a)   Cut the constriction.

(b)   Clear the air passage.

(c)   Start artificial respiration.

(d)   Give inhalations if possible.

(e)   Make the patient warm and comfortable.

27   **First Aid in Case of Choking.**   Bend the casualty's head and   shoulders forward, to dislodge the obstructions. In case of small child hold him upside down and thump his back hard between the shoulder blades or encourage vomiting by passing two fingers to the back of the throat.

28.   **First Aid in Case of Suffocation by Poisonous Gas.**   Protect yourself and remove the casualty from the gas as early as possible.

29.   **First Aid in Case of Electric Shocks.**

(a)   Switch off or break the current, if possible.

(b)   Remove the casualty from contact with the current, if possible. Stand on some insulating material such as rubber soled shoes or boots or piles of news papers.

(c)   Give artificial respiration.

(d)   Treat for shock and burns.

PART VI : INSENSIBILITY OR UNCONSCIOUSNESS

30.   Insensibility or unconsciousness is caused due to interruption of the action of the brain, through some interference with the functions of the central nervous system.

31.   **Stages of Unconsciousness.**

(a)   1st Stage   -   Delirium – When the restlessness of body and mind are present.

(b)   2nd Stage   -   Patient responds to loud commands, gives maximum response to minimum stimulus.

(c)   3rd Stage   -   Semi- Coma- Patient responds to painful stimuli only (minimum response to maximum stimulus).

(d)   4th Stage   -   When the patient makes no response to any Stimulus.

32.   **Causes of Unconsciousness or Coma.**

(a)   Head injury.

(b)   Hemorrhage from brain.

(c)   Heart failure.

(d)   Diabetic coma, Hepatic coma, Uremic coma.

(e)   Excessive narcotics e.g. sleeping pills, morphine.

(f)   Intracranial or brain infections like meningitis, encephalitis.

(g)   Physical agents such as heat strokes, electric socks.

(h)   Epilepsy.

(i)   Hysteria.

33. **General Rules of First Aid in Casualties of Unconsciousness.**

    (a)   Make the patient lie down with head turned to one side. Pull out his tongue.

    (b)   Loosen the clothing, ensure fresh air.

    (c)   If breathing has stopped or is irregular, start artificial respiration.

    (d)   Keep the air passage clear.

    (e)   Nothing should be given by mouth. Remove false teeth, if any.

PART VII : ARTIFICIAL RESPIRATION.

34. If there is any irregularity in breathing or a cardiac arrest, artificial respiration is given. If it is given correctly and in time, the patient's life can be saved. There are three methods for providing artificial respiration, but we will tell you only about the most common one.

35. **Mouth to Mouth Respiration**. This is the most common and simple method and is given immediately. If given timely, it can save many lives. This can be given by following way:-

    (i)   Casualty should be in supine position.

    (ii)   Clean the mouth and throat to maintain clear air passage.

    (iii)   Extend the neck to straighten the air passage.

    (iv)   Cover the patient's mouth with clean gauze and blow directly and slowly into it. (10 – 12 times per minutes).

CONCLUSION

36. First aid is a very simple and effective method which if known to an NCC cadet can save precious lives under various life threatening situations. The crucial aspects are promptness and correctness in administering first aid. A NCC cadet who reaches the victim must first quickly investigate the cause and type of injury before attempting to administer first aid.

LESSON PLAN : H 6
TREATMENT AND CARE OF WOUNDS

Period   -   One

Type   -   Lec/Demo

Code   -   H 6

Year   -   II (JD/JW)

Training Aids

1.   Computer Slides, Pointer, Black Board and Chalk.

Time Plan

2.   (a)   Introduction   -   03 Min

        (b)   Classification of Wounds   -   10 Min

        (c)   First Aid for Wounds   -   10 Min

        (d)   Dressing of Wounds   -   15 Min

        (e)   Conclusion   -   02 Min

INTRODUCTION

3.   In our daily life, we do suffer from various types of wounds. Proper treatment and care of wounds is extremely important for a healthy life, especially in children because, if some wounds are not treated properly, they may cause serious diseases like gangrene or tetanus.

AIM

4.   To teach the NCC cadets about the Treatment and Care of Wounds.

PREVIEW

5.   The class will be conducted in the following parts:-

        (a)   Part I   -   Classification of Wounds.

        (b)   Part II   -   First Aid for Wounds.

        (c)   Part III   -   Dressing of Wounds.

PART I : CLASSIFICATION OF WOUNDS

6.   **Definition**.   Wounds can be defined as a brake in continuity of the skin or muscles membrane. It is caused by violence.

7.   **Classification.** Wounds can be classified as under:-

        (a)   **Inside Wound.** It is wound caused by a sharp instrument like knife, razor and so on. Its edges are clean.

        (b)   **Lacerated Wound.**   It is caused by blunt instrument. The edges are torn or uneven.

(c)   **Punctured Wound.**   It is a deep narrow wound caused by a pointed instrument like knife, bayonet. The wound is small on the surface but may be very deep causing injuries to internal organs.

(f)   **Contusion.**   A contusion is an injury or a bruise in which some of the tissues or a part is irregularly torn or ruptured but, the skin may not be broken. It is caused by a blow or blunt instrument.

PART II : FIRST AID FOR WOUNDS

8.   The method for giving first aid for different types of wounds are:-

(a)   Place the patient in a comfortable position.

(b)   Stop the bleeding, if any.

(c)   Remove any foreign body, if it is easily visible and can be easily removed.

(d)   Prevent the entry of germs by applying sterilized dressing like first field or shell dressing.

(e)   Give rest to the injured part by sling.

(f)   Immobilize the part, if wound is large or complicated by fracture.

(g)   Treat the patient for shock.

(h)   Send the patient to nearest hospital.

PART III : DRESSING OF WOUNDS

9.   A wound is to be cleaned with antiseptic lotion and covered with cotton or gauze piece with medication, before applying the bandage.

10.   **Aim.**   The aim of dressing a wound is as under:-

(a)   To protect the wound from infection.

(b)   To reduce swelling and early healing.

(c)   To support the effected part.

(d)   To enable the individual to carry out his day to day routine.

(e)   To stop the bleeding.

11.   **Articles Required for Dressing of Wounds.**

(a)   Anti septic (A/S) lotion.

(b)   Cotton / Gauze piece.

(c)   Scissors.

(d)   Bandages of different size and band aid.

(e)   A/S ointment or powder.

12.   **Procedure for Dressing of Wounds.**   The following procedure is to be adopted while dressing of wounds:-

(a)   Reassure the patient and place him in comfortable position.

(b)   Stop the bleeding, remove foreign body and clean the wound with A/S lotion and cotton.

    (c)   Apply A/S ointment or powder and cover it with gauze. Select suitable bandage, Start bandaging clock wise from outer aspect to inner aspect by covering 1/3 of previous lining.

    (d)   Put the knot away from the wound.

    (e)   Bandaging should not be either too tight or loose.

CONCLUSION

13.   Wounds are a common feature among humans who are outdoor oriented. If cared properly during early stage the wounds heal quickly. Resultantly the wounded person suffers less and is available to the society as a healthy and fit person to resume work. NCC cadets by virtue of their routine are prone to injuries and hence must possess this basic knowledge to help fellow cadets or friends in school or at home.

LESSON PLAN : H 7
INTRODUCTION TO YOGA AND EXERCISES

Period   -   Two

Type   -   Lec/Demo/Prac

Code   -   H 7

Year   -   II (JD/JW)

Training Aids

1.   Computer Slides, Charts, Pointer, Black Board and Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

          (b)   Historical Perspective and Purpose of Yoga -   10 Min

          (c)   Potential Benefits of Yoga for Adults   -   10 Min

          (d)   Potential Problems   -   10 Min

          (e)   Asanas   -   40 Min

          (f)   Conclusion   -   05 Min

INTRODUCTION

3.   Yoga is a commonly known activity for physical, mental, and spiritual disciplines which originated in ancient India. Yoga is one of the six orthodox schools of Hindu philosophy. One of the most detailed and thorough expositions on the subject are the Yoga Sutras of Patanjali. Various traditions of yoga are found in Hinduism, Buddhism, Jainism and Sikhism.

AIM

4.   To teach the NCC cadets the practice of Yoga exercises.

PREVIEW

5.   The class will be conducted in the following parts:-

          (a)   Part I   -   Historical Perspective and Purpose of Yoga.

          (b)   Part II   -   Potential Benefits of Yoga for Adults.

          (c)   Part III   -   Potential Problems.

          (b)   Part IV   -   Asanas.

PART I : HISTORICAL PERSPECTIVE AND
PURPOSE OF YOGA

6.   Pre–philosophical speculations and diverse ascetic practices of first millennium BC were systematized into a formal philosophy in early centuries AD by the Yoga Sutras of Patanjali. By the

turn of the first millennium, Hatha Yoga emerged as a prominent tradition of yoga distinct from the Patanjali's Yoga Sutras. While the Yoga Sutras focus on discipline of the mind, Hatha yoga concentrates on health and purity of the body.

7.   Hindu monks, beginning with Swami Vivekananda, brought yoga to the West in the late 19th century. In the 1980s, yoga became popular as a physical system of health exercises across the Western world. Many studies have tried to determine the effectiveness of yoga as a complementary intervention for cancer, schizophrenia, asthma and heart patients.

Definition

8.   The Sanskrit word yoga which is "yoke", "to join", "to unite", or "to attach" from the root yuj, already had a much more figurative sense, where the yoking or harnessing of oxen or horses takes on broader meanings such as "employment, use, application, performance" , "to put something to some use". In Hindu philosophy, the word yoga is used to refer to one of the six orthodox (āstika) schools of Hindu philosophy.

Purpose

9.   Generally put, yoga is a disciplined method utilized for attaining a goal. In this sense, the purpose of yoga depends on the philosophical or theological system with which it is conjugated. In Shaiva theology, yoga is used to unite Kundalini with Shiva. Mahabharata defines the purpose of yoga as the experience of Brahman or Ātman pervading all things. In contemporary times, the physical postures of yoga are used to alleviate health problems, reduce stress and make the spine supple. Yoga is also used as a complete exercise program and physical therapy routine.

PART II : POTENTIAL BENEFITS OF YOGA FOR ADULTS

10.   **Yoga as Exercise or Alternative Medicine.**

(a)   Many yoga practitioners have reported musculoskeletal and mental health improvements, as well as reduced symptoms of asthma in asthmatics. Regular yoga practice increases brain GABA levels and has been shown to improve mood and anxiety more than some other metabolically matched exercises, such as walking.

(b)   The three main focuses of Hatha yoga (exercise, breathing, and meditation) make it beneficial to those suffering from heart disease. Overall, studies of the effects of yoga on heart disease suggest that yoga may reduce high blood pressure, improve symptoms of heart failure, enhance cardiac rehabilitation, and lower cardiovascular risk factors.

(c)   For chronic low back pain, specialist Yoga for Healthy Lower Backs has been found 30% more beneficial.

(d)   There has been an emergence of studies investigating yoga as a complementary intervention for cancer patients. Yoga is used for treatment of cancer patients to decrease depression, insomnia, pain, and fatigue and increase anxiety control.

(e)   **Mindfulness Based Stress Reduction (MBSR)**. This program includes yoga as a mind-body technique to reduce stress. A study found that after seven weeks the group treated with yoga reported significantly less mood disturbance and reduced stress compared to the control group. Another study found that MBSR had showed positive effects on sleep anxiety, quality of life, and spiritual growth.

(f)   Yoga has also been studied as a treatment for schizophrenia. Yoga is found to improve cognitive functions and reduce stress in schizophrenia, a condition associated with cognitive deficits and stress-related relapse.

(g)   The practice of yoga in Hindu tradition also has psychological benefits, allowing one to develop control over one's mind and body. Rather than adapting the sick or mentally ill mind (which is also the primary focus of modern psychology), traditional Hindu psychology focuses on enhancing the normal and healthy mind through the practice of meditative techniques such as yoga.

(h)   Implementation of the Kundalini Yoga Lifestyle has shown to help substance abuse addicts increase their quality of life according to psychological questionnaires like the Behavior and Symptom Identification Scale and the Quality of Recovery Index.

PART III : POTENTIAL PROBLEMS

11.   Certain health problems associated with yoga have been brought to the attention of the general public. Yoga has been criticised for being potentially dangerous and being a cause for a range of serious medical conditions including thoracic outlet syndrome, degenerative arthritis of the cervical spine, spinal injuries, retinal tears, damage to the common fibular nerve, knee injuries, and headaches are common ailments which may result from yoga practice.

12.   Some yoga practitioners do not recommend certain yoga exercises for women during menstruation, for pregnant women, or for nursing mothers. However, mediation and breathing exercises are encouraged.

13.   The main reasons that experts cite for causing negative effects from yoga, beginners' competitiveness and instructors' lack of qualification are foremost. As the demand for yoga classes grows, many people get trained and certified to become yoga instructors. However, not every newly certified instructor can evaluate the condition of every new trainee in their class and recommend refraining from doing certain poses to avoid injuries. In turn, a beginning yoga student can overestimate the abilities of their body and strive to do advanced poses before their body is flexible enough to perform them.

Children and Yoga

14.   Research in the countries which have advanced medical research and development facilities do not recommend , Yoga exercises for children under 16 because their bodies' nervous and glandular systems are still growing, and the effect of Yoga exercises on these systems may interfere with natural growth. However, meditation and simple breathing exercises (without breath-holding) are safe and can help children to manage stress, impulsiveness, and emotional situations.

PART IV : ASANAS

15.   There are innumerable asanas. Some of the asanas useful for curing ailments and maintain good health are as follows:-

(a)   **Padmasana**. Sit on the asan. Spread the legs forward, place your left foot on the join of your right thigh, and right foot on the joint of left thigh in such a way that both heels tough each other below your navel in the middle of abdomen. Place your hands on your knees. Keep the head and spinal column erect. Keep your eyes close or open. Stay in the final position for 1-2 minutes in the initial stage. Later increase the time gradually. This asan is useful for Jaap, Dhyana and Samadhi. This asan also helps in curing diseases like asthama, hysteria and insomnia.

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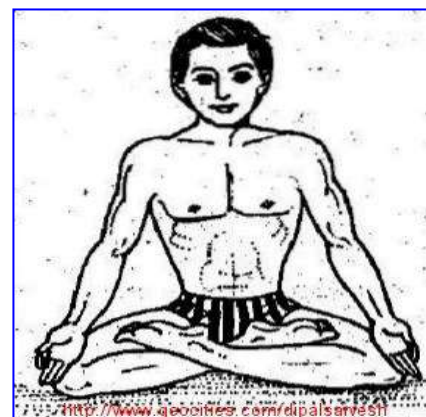
(b) **Baddha Padmasana**. Sit in Padmasana. Try to project the feet as far as possible. Take the hand behind your back. Catch the right toes with your right hand and left toe with your left hand. Keep the back bone straight and fix your eyes on the tip of the nose. This asana improves nervous system and the abdomen. It also cures drowsiness, sleepiness, laziness and night discharge.

Front View   Back View
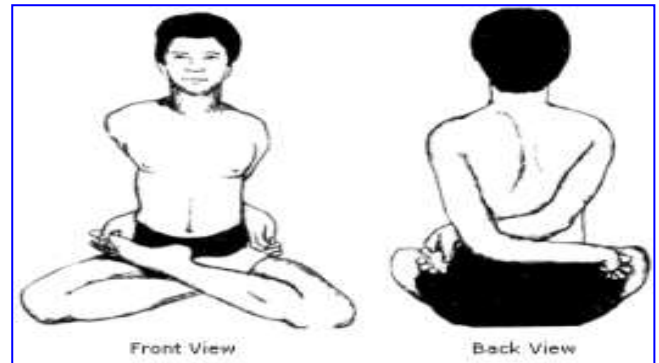
(c) **Siddhasana**. The main function of this asana is to awaken the power of Kundalini. Sit on the carpet. Place the heel of left foot under the testis on the prostrate gland in such a way, that the sole of your foot should be placed at root of genitals. Place the hand on the knees so that palm face upward. This asana helps the mind to be firm, attentive and alert.
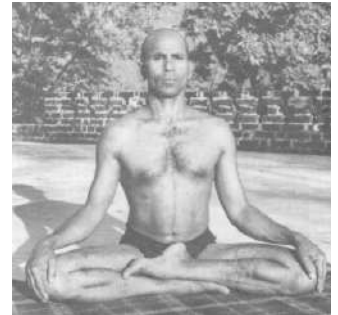
(d) **Gyan Mudra**. Sit in Padmasana or siddhasana. Put your Hands on your knees with palm facing upwards. Bend your index finger and place them at the root of your thumbs. Spread the remaining three fingers forward, all joined together. This asana is most suitable for pranayam and dhyana.

(e) **Trikonasana**. Stand erect keeping the distance between the feet 60 – 75 cm. Raise your right hand towards the sky and look towards its palm. Then bend the truck to the left side and try to touch left toe with the left hand without bending your legs. Repeat this process with your left hand up and right hand down. This asana is useful to the eyes, spinal cord, neek and mental power. Timings 3 – 6 sec. 4 – 6 times.

(f) **Ardha Chandrasana**. Stand erect. Raise your both hands and join them above your head. Bend towards left from the waist. After some time bring they body back in straight position. Repeat this by bending the body towards right. This asana improves the functioning of heart, liver, intestine, stomach, lungs and make the body flexible. Timing 4 - 6 sec, 4 - 5 times.

(g)   **Suryanamaskara.**Suryanamaskara is a combined sequence of 12 positions. By this sequence of 12 positions, the whole body is well exercised. While practicing Suryanamaskara recite the different names of Sun god at each position.

Stage 1:-   Stand in attention. Fold your hands in the centre of your chest. Now recite the first of the twelve mantras.

Stage 2:-   Stretch your hands up and take the body backwards from the waist as far a possible. The hands must remain straight and tough your ears.

Stage 3:-   Now bend down without bending the knees. Try to put the palms on the ground and touch the nose with knees without bending knees.

Stage 4:-   Take left leg back. Bend your right knee, the knee will remain between the two arms, with the hands sticking to the ground, Now bend the neck backward as for as possible. Look forward and hold the breath.

State 5:-   Take right leg back. Put both the toes and the knees together and pull your body up in such a way that it looks like inverted 'V'. Look backward through your legs keeping the head, the waist and the arms in a straight line.

State 6:-   Bend down your body in such a way that your forehead, chest and knees should tough the ground except your hips which should be slightly raised from the ground.

State 7:-   Stretch the arms, Inhale, put the chest forward and move back your neck as much as you can. Look up and hold the breath.

State 8:-   Maintain same position as in Stage 5.

Stage 9:-   Maintain same position as in Stage 4.

Stage 10:-   Maintain same position as in Stage 3.

Stage 11:-   Maintain same position as in stage 2.

Stage 12:-   Maintain same position as in Stage 1 and then take your hand down. Make the rest posture.
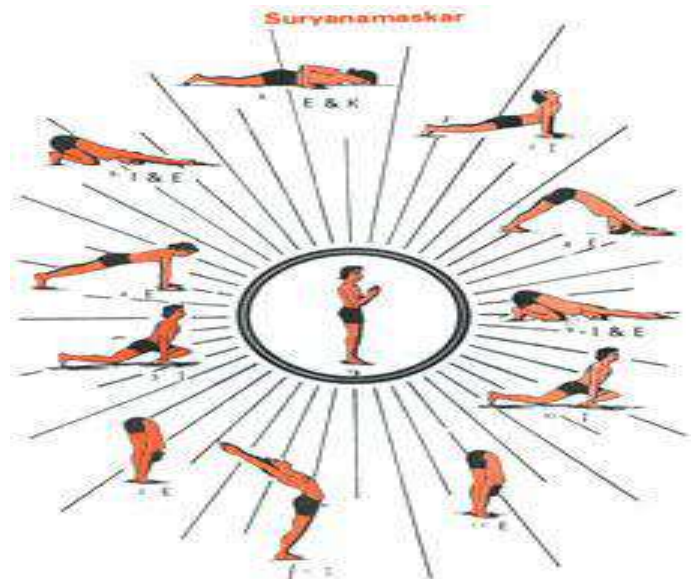
(h)   **Shavasana**.   The main aim of this asana is releasing the mind from the body. By this asana we can achieve relaxation in the shortest possible time. This asana provides relief in disease like blood pressure, weakness of nerves and other ailments. Lie on your back and let your body be relaxed completely. Your feet should be 30-45 cm apart, arms in sides with palm upwards, eyes gently closed with attention on breathing. Keep body in a straight position. For proper blood circulation in the body, the legs, hand and neck should have no curves or
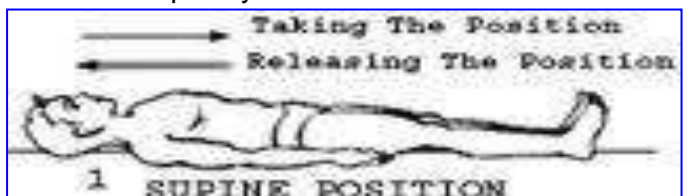
bend. Take a long and deep breath then concentrate on each and every part of your body, putting it in a relaxed state Timing 5-10 minutes.

(j) **Gomukhasana**. Sit on the seat comfortably. Place your left foot heel under your left hip. Now take the right leg over the left buttock in such a manner that the heel of your right foot is placed near your left hip. Take right arm behind back from above and left arm from below, so that fingers of the both hands are interlocked behind the back. Stay in this position for some time. Then repeat this with opposite side. Timings 20-30 seconds, 4-6 times.

Fingers are locked behind the back.
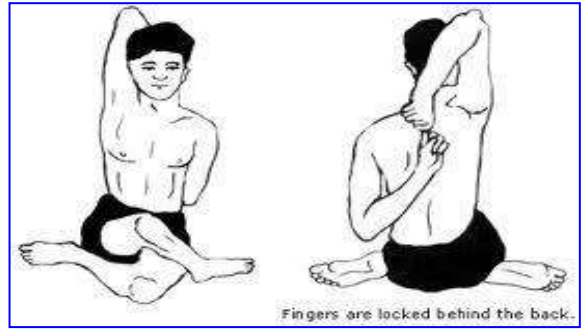
(k) **Vijrasana**. Bend the legs and sit on knees. Place the heels at the sides of the anus in such a way that thighs rest on the legs and the buttock rest on the heels. Stretch the arms and place the hands on the knees. Keep the knees close by. Sit erect. This asana can be done immediately after eating food. This helps digestion and eliminates gas troubles. Timing 1-3 minutes.
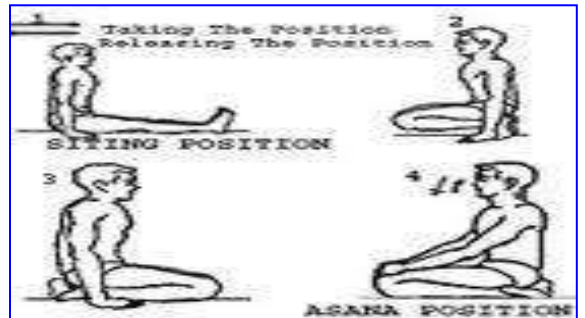
(l) **Dhanurasana.** Lie down on the chest, legs should be folded at the knees and the feet should be grasped with both the hands near the ankles. The thighs and the chest should be raised, making the body appear like a bow. This asana provides good exercise to the abdominal muscles, lower back and thighs, Timing 10-30 seconds, 4-5 times.

(m) **Bhujangasana**. Lie down on the chest. The hands should be below the shoulders with the fingers pointing forward. The legs are kept straight with the feet touching each other and the soles facing up. Raise the head, giving a backward bend to the spine. Try to keep the spine bent backward as much as possible without raising the navel. This asana is good for the spine, the chest, the neck and the head. Timing 20-30 sec. 4-6 times.

(n) **Chakrasana**. Lie down on the back. Bend the legs at the knees. Heels are close to the hips and sole touching the ground. Bend the arms at the elbows and place them on the ground on either side of the head. Place them in such a way that palms should rest on the ground and the direction of the fingers should be towards your feet. First raise your hips and waist, keeping the legs straight. Raise the back as far as possible. This asana helps in making the spine supple. Timing ½ -1 min, 1-2 times.
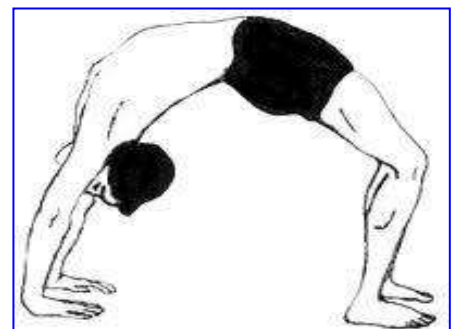
(o)   **Sarvangasana**.   Lie down flat On the back. Raise legs from the hips, push the trunk up until legs are in vertical position. The chin should press against the chest. The hands are giving support to lower ribs. Hold this position upto 2-10 minutes. Come back as slowly as possible. Do not give any jerks to the body. This asana improves circulatory, respiratory and alimentary systems of the body. Timings: ½ -1 minute.
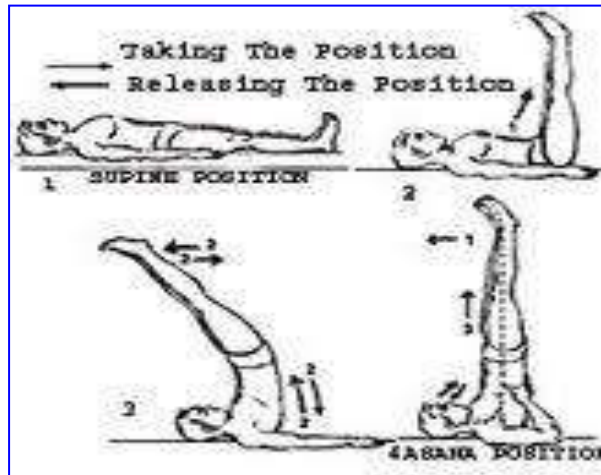
(p)   **Halasana.**   Lie down flat on the back. Place the arms by sides along the hips, palm facing the ground. The legs are raised up in a single motion and put down behind the head keeping knees unbent. The chin should touch the chest. In this exercise, the legs will remain straight and breathing should be normal. Hold this position for 30-50 seconds. This asana stimulates blood circulation and makes the spine flexible and elastic.

CONCLUSION

16.   Yoga is a time tested, well researched, form of exercise having deep religious and medical overtones. The deep and positive effects of yoga on the body and mind of a practitioner can be felt better by doing it under a trained teacher. Once a person initiates himself into the medico-spiritual world of yoga, it is difficult for him to detach himself from it.

INDEX

ENVIORNMENT AWARENESS & CONSERVATION

LESSON PLAN: E 1
NATURAL RESOURCES CONSERVATION & MANAGEMENT

Period   -   One

Type   -   Lecture

Code   -   E 1

Term   -   I (JD / JW)
_____

Training Aids

1.   Computer, Projector, Charts, Pointer, Black Board & Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

            (b)   Type of Natural Resources   -   15 Min

            (c)   Conservation and Management of Resources   -   15 MIn

            (e)   Conclusion   -   05 Min

INTRODUCTION

3.   A **natural resource** is any useful product which is produced by nature and is essential for our survival. Natural resources can be classified in different ways as per their nature or availability or type. A few examples of natural resources are air, water, wood, oil, solar energy, wind energy, fossil fuels, minerals and coal. Refined oil is not a natural resource since humans create it.

AIM

4.   To acquaint the cadets about Natural resources, their conservation and Management.

PREVIEW

5.   The lecture will be conducted in following parts:-

            (a)   Part I   -   Type of Natural Resources.

            (b)   Part II   -   Conservation and management of Natural Resources.

PART I : TYPES OF NATURAL RESOURCES

6.   Natural resources can be classified by various methods, which include source of origin, stage of development and by their renewability. These classifications are described below.

7.   Natural resources are basically classified as either renewable or non-renewable:-

            (a)   **Renewable Resources**.   These are resources which can be replenished naturally. Some of these resources, like sunlight, air, wind, water etc, are continuously available and their quantity is not noticeably affected by human consumption.

(b)   **Non-Renewable Resources.**   These are resources which are formed extremely slowly and those which do not naturally form in the environment. Minerals and Fossil Fuels are the most common resources included in this category.

8.   Resources can be further classified on the basis of origin as under :-

(a)   **Biotic**. Biotic resources are obtained from the biosphere (living and organic material), such as forests and animals and the materials that can be obtained from them. Fossil fuels such as coal and petroleum are also included in this category because they are formed from decayed organic matter.

(b)   **Abiotic**. Abiotic resources are those that come from non-living, non-organic material. Examples of abiotic resources include land, fresh water, air and heavy metals including ores such as gold, iron, copper, silver, etc.

9.   Considering their stage of development, natural resources may be referred to in the following ways:

(a)   **Potential Resources.**   Potential resources are those that exist in a region and may be used in the future. For example, petroleum may exist in many parts of India, having sedimentary rocks but until the time it is actually drilled out and put into use, it remains a potential resource.

(b)   **Actual Resources.**   Actual resources are those that have been surveyed, their quantity and quality determined and are being used in present times. The development of an actual resource, such as wood processing depends upon the technology available and the cost involved.

(c)   **Reserve Resources**. The part of an actual resource which can be developed profitably in the future is called a reserve resource.

(d)   **Stock Resources**.   Stock resources are those that have been surveyed but cannot be used by organisms due to lack of technology. For example, hydrogen.

PART II : CONSERVATION AND MANAGEMENT OF NATURAL RESOURCES

Need for Management and Conservation of Natural Resources

10.   Most of natural resources on earth, especially the non renewable resources, have a finite limit. Excessive use of these may deprive the future generations their use. It is therefore extremely essential that we not only conserve natural resources but also plan their proper management so that the longevity of these resources increases. Some of the major effects of unrestricted use of natural resources are as under:-

(a)   **Ozone Depletion**. This is a process by which the total volume of ozone in the Earth's atmosphere decreases. The major reason for this ozone layer depletion is the production of man-made refrigerants (CFCs, Freon, Halons). Since the ozone layer prevents most harmful UVB wavelengths (280–315 nm) of ultraviolet light (UV light) from passing through the Earth's atmosphere, depletion of the ozone layer has serious damaging effects.

(b)   **Soil Erosion.**   Erosion is the process by which soil and rock are removed from the Earth's surface by natural processes such as, wind or water flow and then transported and deposited at other locations. While erosion is a natural process, human activities such as deforestation and expansion of built up areas have dramatically increased the rate at of soil erosion. Excessive soil erosion causes problems such as desertification, decreases in agricultural productivity due to land degradation, sedimentation of waterways and ecological collapse due to loss of the nutrient rich upper soil layers.

(c)   **Acid Rain**. It is a rain or any other form of precipitation that is unusually acidic, meaning that, it possesses added levels of hydrogen. Acid rain is caused by emissions of harmful chemicals such as sulfur dioxide and nitrogen oxide, which react with the water molecules in the atmosphere to produce acids. Chemicals in the acid rain cause paint to peel, corrosion of steel structures such as bridges and erosion of stone statues, besides causing total destruction to crop.

(d)   **Global Warming**. Global warming is a phenomenon associated with the increase of earth's temperature. One of the major causes of global warming has been excessive production of Greenhouse gases. A greenhouse gas is a gas that absorbs and emits radiation within the thermal infrared range. The primary greenhouse gases in the Earth's atmosphere are water vapour, carbon dioxide, methane, nitrous oxide and ozone. Green house gases have a great affect on the earth's temperature.

Methods of Management and Conservation of Natural Resources

11.   Following methods contribute immensely towards efficient conservation of resources:-

(a)   **Recycling**. This is a method by which some of the resources can be conserved by recycling them or reusing them by adopting certain methods as under:-

    (i)   Recycling of paper will reduce the burden on trees.

    (ii)   Recycling of water including sewage will reduce the burden on sub soil / fresh water for irrigation.

    (iii)   Recycling of metal / plastic waste will conserve metal resources.

(b)   **Water Harvesting**. This method can be used for storing rainwater for use at a later date. In villages, storing of rain water in ponds will increase the level of sub soil water.

(c)   **Aforestation.** Planting more trees and avoid cutting of trees. This will prevent soil erosion as also increase good gases in the environment.

(d)   **Proper Waste Management.** This will prevent pollution of soil and water sources like river, ponds and sea. This not only involves segregation of waste into biodegradable / non biodegradable and its subsequent treatment, but also treatment of industrial / sewage effluents before discharge into the river / sea.

(e)   **Greater Use of Renewable Sources**. Using renewable sources of energy like solar and wind power will help in conserving electricity.

(f)   **Avoid Wastage.** Excessive use / uncontrolled use leads to wastage. Wastage can be prevented by proper education, monitoring and controlled usage.

(g)   **Increasing Energy Efficiency**. Use of energy efficient vehicles or equipment like CFLs will reduce consumption. Also use of alternate sources of energy like solar or wind energy will reduce consumption of electricity.

(h)   **Monitoring and Control.** There is a strong need to put into place strong and stringent control and monitoring organizations so that uncontrolled wastage can be prevented.

Role of NCC in Conservation of Natural Resources

12.   Every cadet can fulfill his obligation towards environment individually or collectively by following means :-

(a)   Avoiding cutting of trees and by Planting more trees.

(b)   Not polluting water sources like river, ponds, sea.

(c)   Avoiding use of plastic.

(d)   Avoiding noise pollution.

(e)   Recycling natural resources to ensure their efficient sustainable use.

(f)   Using renewable sources of energy like solar and wind power.

(g)   Saving energy in small matters like switching off fans, lights and other electric gadgets when not needed.

CONCLUSION

13.   Natural resources are Mother Nature's gift to mankind. These need to be used with discretion. Large scale industrialization, urbanization and massive increase in population are leading to depletion of these meager resources. Natural resources are to be conserved and managed judiciously.

LESSON PLAN: E 2
WATER CONSERVATION & RAINWATER HARVESTING

Period   -   One

Type   -   Lecture

Code   -   E 2

Term   -   I (JD/JW)

_____

Training Aids

1.   Computer, Projector, Charts, Pointer. Black Board& Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

        (b)   Water Conservation   -   15 Min

        (c)   Rain Water Harvesting   -   15 Min

        (d)   Conclusion   -   05 Min

INTRODUCTION

3.   Water is a very important and precious resource for survival of mankind. Water Conservation encompasses policies, strategies and activities to manage fresh water as a sustainable resource, to protect the water environment and to meet current and future human demands. Population growth, household size and affluence affect the quantity of water that is consumed. Factors such as climate change will increase pressures on natural water resources, especially in manufacturing and agricultural irrigation. Water is fast becoming scarce due to increase in population, industries and agricultural activities and due to poor rainfall.

AIM

4.   To acquaint the cadets about Water Conservation and Rain Water Harvesting.

PREVIEW

5.   The lecture will be conducted in following parts:-

        (a)   Part I   -   Water Conservation.

        (b)   Part II   -   Rain water harvesting.

PART I : WATER CONSERVATION

Need for Water Conservation

6.   No other natural resource has had such an overwhelming response on the history of mankind as much as Water. As human population increases, the desire for a better standard of living will increase the demands on fresh water resources.

7.   Much of the world's fresh water is consumed by the agricultural, industrial and domestic sectors. The failure in efficiently managing this resource to meet the increasing water demands of these sectors has resulted in a situation of crisis in many parts of the world. In many parts of India, freshwater crisis already exists.

8.   With only 1% of water available for human consumption, we must treat our water supply with more respect. Water conservation should not be considered an option any longer but is an inescapable necessity. Current circumstances require our full attention, if we hope to thrive as a civilization. Much of the world is currently suffering due to a lack of clean water. Therefore, it is extremely important to seek out, find and start using all the innovative water conservation solutions and methods that are available today.

9.   **Ways to Conserve Water Indoors**. The best place to start Water Conservation is one's own house. Certain measures which can be adopted at home are:-

(a)   Ensure that there are no leaks in your house, in the pipelines, taps and toilets.

(b)   Use water efficient flushes and if possible, toilets with dual flushing systems.

(c)   Close taps while brushing your teeth, shaving or soaping your face.

(d)   Use water from washing of clothes for cleaning floors.

(e)   Use appropriate amount of detergent for washing clothes.

(f)   Close the shower tap whilst soaping your body.

(g)   When washing dishes by hand, don't let the water run while rinsing. Fill one sink with wash water and the other with rinse water.

(h)   Monitor your water bill for unusually high use. Your bill and water meter are tools that can help you discover leaks.

(i)   Water your lawn and garden in the morning or evening when temperatures are cooler to minimize evaporation.

10.   **Water Conservation Practices for Water Utilities**. Common practices used by water supply utilities include metering, leak detection, repairing water lines, well capping, retrofitting programs, pricing, waste-water reuse and developing public education programs and drought management plans.

11.   **Agricultural Water Conservation Practices**. Water saving irrigation practices fall into three categories, field practices, management strategies and system modifications. Practices such as drip irrigation can save large quantities of water. Careful and judicious use of water for irrigation can lead to irrigating much more land.

12.   **Industrial and Commercial Water Conservation Practices**. Industries could save copious amounts of water by installing water recycling systems. 'Cooling Water Recirculation' and 'Wash Water Recycling' are the most widely used water recycling practices.

13.   Other Methods to initiate Water Conservation would include, public outreach programmes, nukkad and community dramas and water audits. Rainwater harvesting is one of the most successful techniques being used in India.

PART II : RAIN WATER HARVESTING

14.   Rainwater harvesting means capturing the runoff of the rainwater in our own house, village, town or city. It basically means accumulation and storage of rainwater for reuse, before it reaches the aquifer. Utilisation includes water for garden, livestock, irrigation, etc. In many places, the

water collected is just redirected to a deep pit with percolation. The harvested water can be used for drinking water also, if the storage is a tank that can be accessed and cleaned when needed.

15.   **Need for Rainwater Harvesting**. India is in a state of water crisis, both in rural and urban areas. Floods and droughts go hand in hand in this country, which causes water scarcity. Rainwater is a pure form of water if stored properly and can greatly reduce the pressures on treated water supply. Rainwater harvesting is therefore extremely essential for the following reasons:-

      (a)   It helps to recharge sub soil and groundwater thus increasing the level of the water table.

      (b)   It helps to create large quantity of pollution free potable water that can be stored in huge tanks or ponds for use later on. In cities, it reduces the dependence on treated water supply to a great extant.

      (c)   It ensures ready supply of water on the land surface thereby reducing dependence on the groundwater.

Types of Rainwater Harvesting Systems

16.   There are a number of ways to harvest rainwater, ranging from very simple to the complex industrial systems. Generally, rainwater is either harvested from the ground or from a roof. The rate at which water can be collected from either system is dependent on the plan area of the system, its efficiency and the intensity of rainfall.

      (a)   **Ground Catchment Systems.** Channelise water from a prepared catchment area into a storage system. Generally, this method is only considered in areas, where rainwater is very scarce and other sources of water are not available. They are more suited to small communities than individual families. If properly designed, ground catchments can collect large quantities of rainwater. This method is ideally suited for villages in rural India.

      (b)   **Roof Catchment Systems**. Roof catchment systems channelise rainwater that falls onto a roof, into a storage tank via a system of pipes. The first flush of rainwater after a dry season, should be allowed to run to waste as, it will be contaminated with dust, bird droppings etc. Rain Water from the subsequent showers can be harvested. Roofs and pipes should have sufficient incline to avoid standing water. They must be strong enough and large enough to carry peak flows. Storage tanks should be covered to prevent mosquito breeding and to reduce evaporation losses, contamination and *alge* growth. Rainwater harvesting systems require regular maintenance and cleaning, to keep the system hygienic and in good working order. This method is most suited for towns and cities.

      (c)   **Subsurface Dyke**.   A subsurface dyke is built in an aquifer to obstruct the natural flow of groundwater, thereby raising the groundwater level and increasing the amount of water stored in the aquifer. Example, the subsurface dyke at Krishi Vigyan Kendra, Kannur under Kerala Agricultural University with the support of ICAR, has become an effective method for ground water conservation by means of rain water harvesting technologies. India. The dyke is now the largest rainwater harvesting system in that region.

17.   **Groundwater Recharge**.   Rainwater may also be used to recharge groundwater where the runoff on the ground is collected and allowed to be absorbed, adding to the groundwater. In India this includes Bawdis and Johads, or Ponds which collect the run-off from small streams in a wide area. In India, reservoirs called tankas were used to store water; typically they were shallow with mud walls. Ancient tankas still exist in some places.

18.   **Advantages In Urban Areas.** Rainwater harvesting in urban areas can have manifold advantages. Some of the reasons why rainwater harvesting can be adopted in cities, is to provide supplemental water for the city's requirements, to increase soil moisture levels for urban greenery,

to increase the ground water table through artificial recharge, to mitigate urban flooding and to improve the quality of groundwater. In urban areas of the developed world, at a household level, harvested rainwater can be used for flushing toilets, washing laundry, showering or bathing. It may however require some treatment before it can be used for drinking.

CONCLUSION

19.   Water is the only resource for which there is no alternative. Earth sustains life primarily because there is water available on the earth. Inefficient management of this important natural resource has caused a situation of crisis in many parts of the worlds including India, therefore it is very important that we conserve this important commodity.

LESSON PLAN: E 3
WASTE MANAGEMENT

Period   -   One

Type   -   Lecture

Code   -   E 3

Term   -   II (JD/JW)
_____

Training Aids

1.   Computer, Projector, Chart, Pointer. Black Board& Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

            (b)   Types of Waste   -   15 Min

            (c)   Disposal and Management of Waste   -   15 Min

            (d)   Conclusion   -   05 Min

INTRODUCTION

3.   Waste Management refers to the collection, transport, processing or disposal, managing and monitoring of waste materials. Waste materials usually relate to materials produced by human activity and the process is generally undertaken to reduce their effect on health, environment or aesthetics. All wastes materials, whether they are solid, liquid, gaseous or radioactive, fall within the gamut of waste management.

AIM

4.   To acquaint the cadets about Types of Waste and its Management.

PREVIEW

5.   The lecture will be conducted in following parts:-

            (a)   Part I   -   Type of Waste.

            (b)   Part II   -   Disposal and Management of Waste.

PART I : TYPES OF WASTE

6.   Waste material can be of following types :-

            (a)   **Solid Waste.** This can be further classified into different types depending on their source as under :-

                        (i)   Household waste is generally classified as municipal.

                        (ii)   Industrial waste as hazardous waste.

                        (iii)   Biomedical waste or hospital waste as infectious waste.

(iv)   Electronic wastes such as TV's, refrigerators and computers.

(b)   **Liquid Waste**. This can be classified into following types:-

(i)   Chemicals released by industries.

(ii)   Waste water released by households through the sever lines.

(c)   **Radioactive Waste**.   These are those wastes that contain radioactive material. Radioactive wastes are usually by-products of nuclear power generation and other applications of nuclear fission or nuclear technology, such as research and medicine. Radioactive waste is hazardous to most forms of life and the environment and is regulated by government agencies in order to protect human health and the environment.

(d)   **Municipal Solid Waste.**   Municipal solid waste consists of household waste, construction and demolition debris, sanitation residue and waste from the streets. This garbage is generated mainly from the residential and commercial complexes. This waste comprises of :-

(i)   Organic waste such as vegetable and fruit peels, leftover foodstuff, etc.

(ii)   Paper.

(iii)   Cotton and Woollen clothes.

(iv)   Wood.

(v)   Plastic Bags.

(vi)   Tin, aluminium and other metal items such as cans.

(vii)   Glass Bottles.

(e)   **Hospital or Bio-Medical Waste.** Hospital waste is generated during the diagnosis, treatment, or immunization of human beings or animals or in research activities in these fields or in the production or testing of biologicals. It may include Soiled Waste, Disposables, Anatomical Waste, Discarded Medicines and Chemical Wastes.

(f)   **E-Waste.** Electronic waste or E-waste as it is popularly called, is a collective terminology for the entire stream of electronic wastes such as Used TV's, Refrigerators, Telephones, Air Conditioners, Computers, Mobile Phones etc.

(g)   **Hazardous Waste.** Sources of hazardous waste mainly include industries like textile, tannery, petrochemicals, pharmaceuticals, pesticides, paint and dye, petroleum, fertilisers, asbestos, caustic soda, inorganic chemicals and general engineering industries. Hazardous wastes contain heavy metals, cyanides, pesticides, complex aromatic compounds (such as PCBs), and other chemicals which are toxic, reactive, corrosive or have a serious damaging effect on the environment.

PART II : MANAGEMENT OF WASTE

Actions by Individuals

7.   Some steps which all individuals can take whilst contributing to the waste management may include:-

(a)   Segregation of household waste into bio-degradable and non-biodegradable.

(b)   Reduce use of plastic bags and replace with paper or jute/cloth bags.

(c)   Recyclable waste such as paper, glass, cloth etc could be segregated and disposed off accordingly.

(d)   Keep the surroundings of your house and around the house clean. Do not dump waste just outside the house on the road.

(e)   Colonies could start vermin-composting and natural composting.

(f)   What is waste for you, is wealth for somebody else. There has been a tradition in India of finding an innovative use for everything - tyres, battery cases, plastic bins and what not. Think of reuse of the thing you would like to discard.

Actions by Civic Bodies

8.   The major functions of civic body may include the following :-

(a)   Prohibiting littering of street.

(b)   Organizing house to house waste collection.

(c)   Conducting awareness programs to disseminate information to public.

(d)   Providing adequate community storage facilities.

(e)   Use of colour code bins and promotion of waste segregation.

(f)   Transport of wastes in covered vehicles.

(g)   Processing of wastes by adopting an appropriate combination of composting, anaerobic digestion, Pellatisation etc.

(h)   Up gradation of the existing dump sites and Disposal of inert wastes in sanitary landfills.

CONCLUSION

9.   Management of waste is an essential and an inescapable requirement today. We as individuals also have to play our part in handling our household waste and help the government in addressing this major problem.

LESSON PLAN: E 4
POLLUTION CONTROL – WATER, SOIL, AIR AND NOISE

Period   -   One

Type   -   Lecture

Code   -   E 4

Term   -   II (JD/JW)

_____

Training Aids

1.   Computer, Projector, Charts, Pointer. Black Board & Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

             (b)   Types Causes of Pollution   -   10 Min

             (c)   Causes & Effects of Pollution   -   10 Min

             (d)   Control Measures   -   10 Min

             (e)   Conclusion   -   05 Min

INTRODUCTION

3.   Pollution means imbalance in the atmosphere caused by pollutants. Air gets polluted with the smoke from homes, factories and vehicles. Water gets polluted by city and factory wastes. Loud noises cause sound pollution. Pollution in fact, spreads diseases and makes life uncomfortable on earth. Man has played a very crucial role in destroying the very essence of life i.e. destruction of forests due to excessive urbanization. Due to increase in population and industrialization, the forests have been exploited for wood from trees and land space. Unscrupulous felling of trees has led to the destruction of the forest cover. Hence the air purifier i.e. the trees which give us oxygen to survive have been depleted. Depletion of greenery and forests and the pollution of the earth's atmosphere have led to reduction of the protective ozone layer and increase in global warming.

AIM

4.   To acquaint the cadets about Types of Pollution and its Control Measures.

PREVIEW

5.   The lecture will be conducted in following parts:-

             (a)   Part I   -   Types of Pollution.

             (b)   Part II   -   Causes and Effects of Pollution.

             (c)   Part III   -   Control Measures.

PART I :TYPES OF POLLUTION

6.   **Soil Pollution**. Today's industrialised society produces a huge amount of garbage, the disposal of such wastes is a major problem, especially in the urban centers. Non-biodegradable wastes such as polythene bags, which cannot be decomposed by natural agents like bacteria have become a menace to the environment besides being health hazards. Use of chemical fertilizers and pesticides containing harmful substances contaminates the soil.   Soil may become deficient in nutrients due to excessive cultivation or if the same crop is grown repeatedly on the same plot.

7.   **Water Pollution**. Waste-water from our homes, hospitals and factories is usually discharged in to the water bodies. Such water contains excreta, disease-causing micro-organisms and harmful chemicals. It makes water unfit for drinking and may even kill aquatic plants and animals. Harmful substances seeping through earth rainwater contaminate groundwater. Plant nutrients derived from fertilizers and organic wastes like dead bodies thrown into water sometimes cause excessive growth of weeds. Many aquatic   organisms die as a result of oil spills from tankers.   Leaking pipelines also pollute water organisms. Many species of birds and fish die from contact with oil as it makes feathers and gills inactive.

8.   **Air Pollution**. Air pollution is caused mainly by harmful substances emitted into the atmosphere by industries and automobiles. It causes respiratory diseases and affects the skin and eyes. Some of the gases emitted by industries dissolve in rainwater to produce acid rain, which can damage vegetation. Atmospheric ozone which protects us from harmful ultra-violet rays is depleted due to release of certain carbon compounds called chlorofluorocarbons (CFCs) into the atmosphere.   This also increases the risk of skin cancer and eye damage in humans.

9.   **Sound Pollution**.   Sound produced from motor vehicles, trains, aero planes, factories, sound during religious and political public meetings, noise produced by the masses and other living creatures also plays an important role in producing sound pollution. It also affects the health of human beings. Loud sound affects the human heart, create auditory problems and causes mental stress.

PART II : CAUSES AND EFFECTS OF POLLUTION

Causes

10.   **Soil & Water Pollution.**

(a)   **Discharge of Domestic Waste**. Discharge of untreated domestic wastes like human excreta, urine, washing of kitchen and laundry wastes directly into reservoirs of water courses. The problem is particularly true of unsewered small towns or cities situated close to the flowing rivers.

(b)   **Discharge of Industrial Waste**. Industrial wastes comprise of organic and inorganic chemical substances in minute or colloidal suspension which undergo microbial decomposition resulting in products odoriferous or unacceptable in tastes or appearance and are harmful to human beings.

(c)   **Discharge of Agricultural Waste**. The agricultural wastes are primarily due to barnyard drainage or washing of chemical fertilizers, insecticides, pesticides and herbicides into surface or ground water sources with the impetus on agricultural development. The increasing use of such chemicals without forethought of health hazard involved is bound to accentuate the pollution problems.

11. **Air Pollution.**

(a)   Smoke is produced due to incomplete combustion of coal in industrial plants, locomotives, furnaces and hearths. About 45% of smoke comes from industrial plants alone.

(b)   Dust, salt particle from oceans, pollens, spores, rust etc remain suspended in air and is affected by large air movement, dispersing them into vast areas.

(c)   Gaseous impurities from chemical manufacturing industries like sulphur dioxide, benzyl, carbon monoxide acid vapour, fumes etc often combine with the aqueous vapour of the air and then intermingle with the smoke already present in the air.

(d)   Chloro Flouro Carbons (CFCs) used in air conditioning is responsible for depletion of ozone layer of atmosphere.

(e)   Automobile exhaust gases in particular, exhaust from trucks and buses, contain products of incomplete combustion, carbon monoxide, hydrogen, methane and unburnt carbon.

12. **Sound Pollution.** This has increased manifold over the years due to following :-

(a)   Increase in number of vehicles on the road, excessive use of horns, increase in number of aircraft in the air.

(b)   Use of Loudspeakers of extremely high wattage at night.

(c)   Excessive use of fire crackers.

(d)   Increase in ultrasonic and electromagnetic sound waves from mobile towers.

Effects of Pollution

13. **Soil & Water Pollution.**

(a)   The principal effect of pollution is to deplete the excessive organic load, the dissolved oxygen content of receiving water to a point that stream becomes incapable of exercising the self purification process. The de-oxygenation may be sufficient to destroy practically all the aquatic life.

(b)   Pollution of stream by causing suspended solids to deposit on the stream bed causing silting, and the organic matter undergoing purification with the solid matters buoyed up by gas rising to the top thus resulting in floating masses of sludge.

(c)   Use of polluted water downstream by communities for their daily requirements may cause the sporadic outbreaks of water borne diseases.

(d)   Polluted waters are also difficult to be treated and it is found that treatment plants have to incur increased costs in handling such waters.

(e)   Agricultural soil becomes unfit for agriculture due to, excessive poisonous chemicals.

(f)   Crop produced in contaminated soil or soil irrigated with contaminated water is unfit for human consumption. If consumed, it has short term as well as long-term serious health effects.

14. **Air Pollution.**

    (a)   Occurrence of diseases like silicosis (respiratory disease), rickets, dental caries.

    (b)   Deterioration of health in the form of nausea, headache, loss of appetite and irritation due to high sulphur dioxide content in air.

    (c)   The incidence of cancer is being increasingly related with the smoke and fumes from industrial plants.

    (d)   Smoke severely interferes with normal course of sunshine and visibility resulting in the possibility of untoward accidents.

    (e)   Due to sound pollution from mobile towers, many birds have like the sparrow have vanished from the cities, disturbing the ecological balance.

Measures to Control Pollution

15.   Measures to control pollution include the following:-

    (a)   To develop consciousness among common people to control all pollution. Plant more and more trees.

    (b)   The use of loud horns or mindless blowing of horns by motor vehicles should be banned.

    (c)   The water bodies should not be used as waste reservoirs.

    (d)   Various sources of drinking water, and water resources should be well protected so that dirty water does not enter these water bodies.

    (e)   Environmental education should be made compulsory in all educational institutions.

    (f)   Excessive use of pesticides and insecticides should be avoided.

    (g)   In all towns and cities there should be proper arrangement of dustbins to collect garbage being produced in the houses.

    (h)   In the factories strict precaution should be instituted to avoid pollution of various types.

    (j)   Running of old and pollution emitting vehicle should be banned.

    (k)   The pollution control Administrative Authorities must have independent powers to implement their decisions

Role of the NCC Cadets in Curbing the Menace of Pollution

16.   NCC being one of the largest youth organisations has to play a significant role towards the pollution control. A youth can guide and contribute by educating others about the dangers of pollution. We have to respect our environment and natural resources and not pollute the same. Rivers and water bodies must be kept clean as water is an essential resource and it cannot be wasted. In fact every drop has to be saved. Cadets can visit villages and guide the farmers regarding the use of natural manure instead of chemical fertilizer produced after generating industrial waste.

CONCLUSION

17.   In order to stop the pollution menace, we need to take help from every individual in society. It is the duty of every NCC cadet, to contribute towards this end through personal example and by educating others about various constitutional rights on the subject of pollution.

LESSON PLAN: E 5
WILDLIFE CONSERVATION PROJECTS IN INDIA

Period   -   One

Type   -   Lecture

Code   -   E 5

Term   -   II (JD/JW)

Training Aids

1.   Computer, Projector, Charts, Pointer. Black Board & Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

            (b)   Wildlife Conservation   -   15 Min

            (c)   Wild Life Projects   -   15 Min

            (d)   Conclusion   -   05 Min

INTRODUCTION

3.   The Indian subcontinent is blessed with a natural habitat of a large and varied wildlife. We can find some of the most magnificent as well as the rarest wildlife species of the world in the country. The beauty and variety we see in the jungles of India is difficult to be expressed in words. However, the past few decades have seen the greed and negligence of human beings leading to large-scale poaching, habitat destruction, resulting in animal - human conflict with rapid decline in the population of most of the wild animals and birds.

4.   Conservation of Wildlife in India has slowly and gradually been understood by all. Today, efforts are being made towards wildlife conservation to preserve this natural wealth. Numerous wildlife conservation projects have been undertaken in India, both, at the government, as well as the individual level, to protect the wildlife of the subcontinent.

AIM

5.   To acquaint the cadets about Wildlife Conservation and Projects in India.

PREVIEW

6.   The lecture will be conducted in following parts:-

            (a)   Part I   -   Wildlife Conservation.

            (b)   Part II   -   Wildlife Projects in India.

PART I : WILDLIFE CONSERVATION

Need for Conservation

7.   **Threats to Wildlife**. The major threats being faced by the wildlife in India are:-

(a)   **Decreasing Capacity.** The wildlife sanctuaries of India have become overcrowded and their capacity has decreased to quite an extent. This is one of the major reasons for the depleting population of wild animals in India.

(b)   **Increasing Fatalities**. Tourism in the national parks of the country is increasing day by day. One of the reasons for this is a rise in the popularity of eco-tourism and adventure tourism. This has led to a growth in vehicle pollution increasing wildlife road fatalities, apart from leading to a damage of the natural habitat of birds and animals.

(c)   **Increasing Forest Fires**. Increase in forest fires due to campfires by visitors or deliberate fires by poachers / villagers has had a damaging effect. These fires not only kill animals, but also destroy their natural habitat.

(d)   **Increased Motor Boat Activity**. The wildlife of coastal areas is constantly disturbed by personal watercrafts, like jet skis or wave runners. These personal watercrafts enter shallow waters and expel nesting birds from their roosts. Such activities are disturbing the mating pattern of birds.

(e)   **Release of Chemicals/Toxins**. Releasing of chemicals and other toxic effluents into the water bodies has led to poisoning of the water. The animals and birds drinking such water face a fatal threat. Even the population of fish, living in such water bodies, is declining at a fast pace.

(f)   **Climate Changes**. The climate changes taking place in the world today, are affecting not only humans, but also the wildlife. The natural habitat as well as migration patterns of the animals and birds is experiencing disturb patterns.

(g)   **Increase in Poaching**. The threat of poaching has been haunting the wildlife of India since ages. Even after the establishment of wildlife sanctuaries and national parks, the threat of poaching has not been totally eliminated.

8.   **Maintenance of Food-Chain**.   Conservation of wildlife is extremely important for sustaining the natural ecosystem. All living organisms of the biosphere are connected to each other by a common factor of food. Animals form a very important part of this food chain and there is a need to maintain equilibrium. Any disruption to this food chain can have major effects. Herbivores and carnivores are required to maintain the appropriate balance of nature. If all lions, tigers and other big cats vanish from the earth, the deer population would increase manifold thus bringing a disastrous effect on the plants and grass. Therefore it is essential that the population of carnivores is maintained through wildlife conservation.

Wildlife Conservation Measures

9.   **Wildlife Projects**. Measures to conserve Indian Wildlife include various Projects such as Project Tiger, Jungle Lodges and Nature Camps. These are the measures taken towards the conservation of Indian wildlife. It also includes reduced cutting of trees, since it is clear that when forests are cut down, wildlife is naturally threatened. Some beautiful and interesting species have already become extinct. Further, measures for conservation of Indian wildlife have been taken for curbing secret poaching and shooting that can lead to the complete extinction of rhinoceros, the famous Royal Bengal tiger and the elephant.

10.   **Expansion of Sanctuary System.** Habitat creation was another important measure, like for instance, various National Parks, Zoological Parks, Botanical Gardens, Sanctuaries and Biosphere Reserves have been constructed that serve as protected areas for the wildlife. They help in conserving the wild life in their state.

11.   **Breeding in captivity** has also helped in the survival of many wild life species.

12.   **Mass Awareness and Education**.   Another important significant measure of conservation of Indian wildlife is mass awareness and education. Awareness about the endangered species and

wildlife is considered essential for protecting them. People are educated and encouraged to participate in preservation processes of wildlife.

13.   **Wildlife Protection Act 1972.**   Hunting has been made punishable by law in many countries including India. In 1972, Wildlife protection Act was passed which provides legal protection to wildlife and endangered species in particular.

PART II : WILDLIFE PROJECTS IN INDIA

14.   **General**. The need to create wild life projects is to preserve the endangered species. It must be understood that some animal species are more endangered than others, because their numbers have fallen to alarming levels due to poaching, reduction of habitat, pollution of water bodies and other man made disturbances like electromagnetic waves from mobile towers. Some of these projects are funded by the World Wildlife Fund (WWF) while, others are funded by the Government.

15.   **Project Tiger**. In order to save the Tiger, the Indian government started the 'Project Tiger' in 1973-74, with the objective of restraining, as well as augmenting the declining population of tigers in the country. Under the project, nine wildlife sanctuaries were taken over and developed into tiger reserves. These reserves were developed as exact replicas of the varied terrains of the country, with their core area being free of any human movement. With time, the number of sanctuaries under the ambit of 'Project Tiger' was increased and by 2003, it had been increased to 27. Project Tiger helped increase the population of these tigers from 1,200 in the 1970s to 1700 in 2011.

16.   **Project Elephant.** Project Elephant (PE), is a centrally sponsored scheme, launched in February 1992, to provide financial and technical support to major elephant bearing States in the country, for protection of elephants, their habitats and corridors. It also seeks to address the issues of human-elephant conflict and welfare of domesticated elephants. The Project is being implemented in 13 States / UTs , viz. Andhra Pradesh , Arunachal Pradesh , Assam , Jharkhand , Karnataka , Kerala , Meghalaya , Nagaland , Orissa , Tamil Nadu , Uttarakhand, Uttar Pradesh and West Bengal. 25 Elephant Reserves (ERs) extending over about 58,000 sq km have been formally notified by various State Governments till now. The estimated population of wild elephants is in excess of 25000.

17.   **Project Hangul**. The Kashmiri stag also called Hangul is a subspecies of Central Asian Red Deer native to Northern India. This deer lives in groups of two to 18 individuals in dense riverine forests, high valleys and mountains of the Kashmir Valley and Northern Chamba, in Himachal Pradesh. In Kashmir, it is found in the Dachigam National Park, at elevations of 3,035 meters. The population of these deers has fallen from 5,000 animals in the beginning of the 20th century to about only about 150 animals by 1970. However, the state of Jammu & Kashmir, along with the IUCN and the WWF prepared a project for the protection of these animals, named as Project Hangul. This brought great results and the population of this species has now increased to over 340 by 1980.

18.   **Crocodile Conservation Project**. The Indian Crocodile Conservation Project is considered among the more successful of conservation initiatives in the world. It has pulled back the once threatened crocodilians from the brink of extinction and placed them on a good path of recovery. The Project has not just produced a large number of crocodiles, but has contributed towards conservation in a number of related fields as well.

19.   **Project Sea Turtle.** A significant proportion of world's Olive Ridley Turtle population migrates every winter to Indian coastal waters, for nesting mainly at Eastern Coast I Orissa. The Ministry of Environment & Forests in 1999 has initiated the Sea Turtle Conservation Project in collaboration with UNDP, with the objective of conservation of Olive Ridley Turtles and other endangered marine turtles. The Wildlife Institute of India, Dehradun has been designated as the Implementing Agency. The project is being implemented in 10 coastal States of the country with special emphasis in the State of Orissa.

20.   **Vulture Conservation in India.** India has nine species of vultures in the world. The population of three species i.e. White-backed Vulture, Slender-billed Vulture and Long- billed Vulture in the wild has declined drastically over the past decade. The decline of Gyps genus in India has been put at 97% by 2005.Due to this evidence, all three vulture species were listed by IUCN, the World Conservation Union, in 2000 as 'Critically Endangered'. The workshop to prepare an Asian Vulture Recovery Plan held at Parwanoo in Himachal Pradesh, India in February 2004 recommended the establishment of captive holding and captive breeding facilities for three species of Gyps vultures at six different places in South Asia, besides implementing a ban on veterinary use of Diclofenac. These centres would serve as source for reintroduction of the birds after removal of the cause of mortality from the environment.

21.   **Indo-Russian Cooperation on Migratory Birds**. MoEF has also signed a protocol with Russian counterpart, for conservation of migratory bird species between the two countries. It has been agreed to develop joint projects of mutual interest on migration and nesting behaviour of Siberian Cranes and common cranes and also to exchange scientific and official information on issues relating to wetland management, conservation of avi-fauna etc.

22.   **Other Projects**. After the success of animal projects, the government has now initiated several new projects for conservation of other endangered animals like, The Himalayan Musk Deer Ecology and Conservation Project, Project Lion, Project Snow Leopard and endangered Birds / Pheasant Projects.

CONCLUSION

23.   The Indian subcontinent is blessed with a natural habitat of a large and varied wildlife. We can find some of the most magnificent as well as the rarest wildlife species of the world in the country.

INDEX

ADVENTURE TRG

Ser No	Lesson Code	Subject	Cat	Page No
1.	ADV 1	Trekking	JD/JW	214
2.	ADV 2	Cycling Expedition	JD/JW	218
3.	ADV 3	Rock Climbing	JD/JW	221

LESSON PLAN : ADV 1
TREKKING

Period   -   Four

Type   -   Lecture/Practice

Code   -   ADV 1

Term   -   I (JD/JW)

_____

Training Aids

1.   Computer Slides, Charts, Pointer, Black board & Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

        (b)   Trekking Gear & Tips   -   15 Min

        (c)   Trekking Safety & Health Tips   -   15 Min

        (d)   Conclusion   -   05 Min

INTRODUCTION

3**.   Trekking** is a long, adventurous journey undertaken on foot, in areas where common means of transport are generally not available. Trekking is not necessarily mountaineering. It is walking for a number of days, usually on uncharted paths, in challenging environments which are likely to be hilly or mountainous. The Himalayan routes are famous for attracting a large number of trekkers.

AIM

4.   To acquaint the cadets about Trekking as a part of Adventure Activity.

PREVIEW

5.   The lecture will be conducted in following parts:-

        (a)   Part I   –   Trekking Gear & Tips.

        (b)   Part II   –   Trekking Safety & Health Tips.

PART II : TREKKING GEAR AND TIPS

Trekking Gear / Material

6.   Each trek teaches oneself how to appreciate the beauty of nature, how to get adjusted with the situation and the importance of planning. A well planned trek will allow you to enjoy it and avoid any inconvenience. A list of items which are essential for such an activity are listed below:-

        (a)   A good rucksack in proper condition.

(b)   Clothing incl wind cheater, woolens as per your requirements of the stay and season in which trek is going to be done.

(c)   Water, food and cooking utensils (if you are going to cook your own food).

(d)   Camera and its accessories (if interested in photography, always carry an extra pair of batteries and camera roll).

(e)   First Aid box.

(f)   Sleeping Matt or Sleeping Bag.

(g)   Oral rehydration solution (ORS).

(h)   Rope.

(i)   A good pair of shoes.

(j)   Cap (preferably of cotton).

(k)   Toiletry items.

(l)   Torch and batteries.

(m)   Marker and chalk.

Useful Tips for Trekking

7.   Before setting out for a trek, following hints and tips are required to be considered during the planning phase carefully:-

(a)   Keep toilet items handy. This will ensure that no germs/infection enters the body through consumption of water or food.

(b)   Carry all possible essentials in the ruck sack with the expedition. Heavy items could be ferried by road.

(c)   Carry sleeping mattress or durrie for night halts.

(d)   Carry adequate woolens for the period of the trek.

(e)   Take off your shoes at drink and lunch halts. This will give relaxation to your feet.

(f)   Take small steps when ascending up slope.

(g)   Ensure good consumption of water at regular intervals.

(h)   Carry essential medicines to cater for minor injuries or disorders.

(j)   Acclimatisation is a must for high altitude marches.

(k)   Wear appropriate clothing to prevent dehydration, sunburn and fatigue.

PART II : SAFETY AND HEALTH MEASURES FOR TREKKING

Safety Measures

8.   To make your trip more adventurous and safe, do follow certain safety guidelines and tips mentioned below:-

(a)   Before heading for your adventure trekking trip, do study weather forecast of that area. Avoid trekking during bad weather or adverse climatic situations.

(b)   Newbie's should always carry a raincoat or windsheeter with them. Climate can change frequently in several trekking points.

(c)   Do carry multi-pocket carry bag engrafted with zipper closure and cushioned shoulder straps, especially for trekking trips. The bag should be spacious enough to carry all the important trekking essentials while trekking.

(d)   Must keep a lighter, Swiss army knife, space blanket, water bottle and winter attire in your carry bag or pocket before heading for trekking.

(e)   To prevent insect bite, do wear full sleeves shirts and full pants.Do carry sleeping bag and trekking rope of about 50 meters of length with you.

(f)   A direction compass and topographical map is must while trekking in mountains.

(g)   An ice cutting axe should always be carried if heading into snowy terrain.

Health Guide For Trekking

9.   Following precautions should be taken for having a trouble free trek:-

(a)   Accessories add grace to your personality. During travel keep such accessories which are easy to carry and may add grace to your overall look.

(b)   While planning your trekking trip, it is preferable to have a medical fitness check up done. It is most essential to be fit and fine before heading for trekking. You may also prefer to have medical precautions against diseases like malaria, cholera, tetanus, typhoid and hepatitis. Do arrange and carry medicines related to ailments from which you are previously suffering.

(c)   If suffering from any kind of ailment, do carry proper prescribed medicines to prevent serious health problem including heatstroke, sever headache, cough, dehydration and hypothermia.

(d)   Always wear proper trekking shoes while trekking. Uncomfortable pair of shoes can harshly hurt your feet and can lead to serious foot injuries while trekking. Therefore do spend some time to arrange proper and comfortable trekking shoes before heading for trekking tour.

(e)   Choose those trekking shoes that are a half-size bigger than your regular shoes to allow space for some swelling caused while trekking and to hold heavier trekking socks.

(f)   Do carry food items which carry larger amount of carbohydrates.

(g)   Always take important medicine and first aid box with you.

(h)   Do always cover your neck area, particularly in frequently changing weather .It can lead to serious neck problems and pains if left uncovered.

(j)   Do wear thick woolen socks or stockings while trekking. Synthetic blended socks can be used for trekking purpose, as these socks are specially designed to preclude feet moisture.

CONCLUSION

10.   Trekking is a very enjoyable and satisfying adventurous activity in which proper health and fitness is an absolute must for every trekker. It instills confidence, sense of achievement and team spirit amongst the trekkers. It also adds to your knowledge and awareness about the nature and environment. This activity can be undertaken by people of all ages, provided you are physically fit.

LESSON PLAN : ADV 2
CYCLE EXPEDITION

Period   -   Four

Type   -   Lecture/Practice

Code   -   ADV 2

Term   -   I (JD/JW)

_____

Training Aids

1.   Computer Slides, Charts, Pointer, Black board & Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

          (b)   Types of Cycling Expeditions   -   15 Min

          (c)   Safety Measures for Cycle Tours / Expeditions   -   15 Min

          (d)   Conclusion   -   05 Min

INTRODUCTION

3.   **Cycling** expedition refers to cycling over long distances – prioritizing pleasure and endurance over utility or speed. Cycling can range from single day rides to multi-day trips. Tours may be planned and organised by the Cadets for themselves and also for organizing rallies for various Social activities to spread awareness as well as to convey a message to people in remote and far flung areas.

AIM

4.   To acquaint the cadets about Cycle Expedition as a part of Adventure Activity.

PREVIEW

5.   The lecture will be conducted in following parts:-

          (b)   Part I   -   Types of Cycling Expeditions / Tours.

          (b)   Part II   -   Safety Measures for Cycle Tours / Expeditions.

PART I : TYPES OF CYCLE EXPEDITIONS / TOURING

6.   In cycling, distances vary considerably. Depending on fitness, speed and the number of stops, the rider usually covers between 50–150 kilometres (30–90 miles) per day. A short tour over a few days may cover as little as 200 kilometres (120 miles) and a long tour may go right across a country or around the world. Various types of expeditions are as follows:-

          (a)   **Lightweight Touring**. Informally called credit-card touring, in this a rider carries a minimum of equipment and a lot of money. Overnight accommodation is in youth hostels hotels, or Bed & Breakfast houses. Food can be bought at cafes, restaurants or markets.

(b) **Ultralight Touring**. This differs from credit card touring in that, the rider is self-sufficient but carries only the bare essentials and no frills.

(c) **Fully Loaded Touring**. Also known as self-supported touring, cyclists carry everything they need, including food, cooking equipment, and a tent for camping. Some cyclists minimize their load, carrying only basic supplies, food, and a Bivouac sack or lightweight tent.

(d) **Expedition Touring.** In this the cyclists travel extensively, often through developing nations or remote areas. The bicycle is loaded with food, spares, tools, and camping equipment so that the traveler is largely self-supporting.

(e) **Mixed Terrain Cycle-Touring**. Also called rough riding, cyclists travel over a variety of surfaces and topography on a single route, with a single bicycle. Focusing on freedom of travel and efficiency over varied surfaces, cyclists often adopt an ultralight camping approach and carry their own minimal gear.

(f) **Supported Touring.** Cyclists are supported by a motor vehicle, which carries most equipment. This can be organized independently by groups of cyclists or commercial holiday companies. These companies sell places on guided tours, including booked lodging, luggage transfers, route planning and often meals and rental bikes.

(g) **Day Touring**. These rides vary highly in their size of the group (from solo cyclists, group rides, to large organized rides with hundreds to thousands of riders), in their length (from a few miles to Century rides of 100 miles — or longer), in their purpose (from riding for pleasure to raising money for a charitable organization) and in their methods of support (from self-supported day rides, to organized rides where cyclists pay for support or accommodations provided by event organizers — including rest and refreshment stops, marshalling to aid safety, and SAG service.

PART II : SAFETY MEASURES DURING CYCLING

7. The following guidelines and procedures are required to be followed for the safe conduct of the cycling or cycling expedition / tours:-

(a) **Qualified Supervision**. All unit, district, council, and national event activities must be supervised by a mature and conscientious adult at least age 21 who understands and knowingly accepts responsibility for the safety of children in his or her care, who is experienced with the skills and equipment involved in the activity, and who is committed to compliance with these BSA safety guidelines.

(b) **Physical Fitness**. Biking is strenuous. Long treks and hill climbing should not be attempted without training and preparation. For scouting activities, all participants must present evidence of fitness with a complete health history from a physician, parent, or legal guardian. The adult supervisor should adjust all supervision, discipline, and protection to anticipate any potential risks associated with individual health conditions. In the event of any significant health conditions, proof of an examination by a physician should be required by the adult leader.

(c) **Helmets and Clothing**. All cyclists must wear a properly sized and fitted helmet approved by either the Snell Memorial Foundation, CPSC, or ASTM standard. Layer your clothing for warmth on cool days so you can avoid chilling or overheating. Cover up for sun protection on clear days.

(d) **Buddy System**. When the program activity is a bicycle expedition or trek, the buddy system must be used. When a program element emphasizes individual performance skills, one buddy observes while the other takes his turn. In competitive activity where the

buddy concept cannot be applied practically, all activity must be directly observed by the adult supervisor. (Youth members should be taught that biking with a buddy is best. When biking alone, apart from scouting activities, youth members should be encouraged to tell someone their route, schedule, and destination before departing).

(e)   **Position in Traffic**. Ride with the traffic flow, as far to the right as is safe. Avoid curbs, storm drains, soft or loose gravel on shoulders, and other hazards.

(f)   **Safety Rules**. Obey all traffic laws, signs, signals, and street markings. Watch for changes in road conditions. Ride only one to a bike. Do not ride after dark. No stunts -- trick riding is only for professionals who use special equipment. Yield to motor vehicles even if you think you have the right-of-way. Never hitch a ride on another vehicle. Keep your head and ears open and do not wear headphones while riding.

(g)   **Turns and Intersections**. Look left, right, back, and ahead before turning. Stop and search all directions when entering a street from a driveway, parking area, sidewalk, or alley. Signal all turns using universal hand signals. Walk your bike through or across busy intersections.

(h)   **Equipment**.   Ride only a bike that fits you. Select a bike that permits you to put both feet on the ground while standing over the top tube. The handgrips should be no higher than your shoulders or lower than your seat.

(i)   **Bicycle Accessories**. Every bike needs a horn or bell and reflectors (front, back, and sides). Items should be carried only in baskets, in saddlebags, or on a rear carrier rack. If you must ride in traffic, a bike- or helmet-mounted mirror is recommended. For long trips, a bike-mounted container for drinking water is recommended.

(j)   **Maintenance**. Keep your bike clean and well maintained, especially the brakes and drive chain.

(k)   **Racing**. Open street racing is dangerous. Race only with supervision on marked courses that have been set up to exclude other vehicle or pedestrian traffic, to eliminate fall hazards and minimize collision risks. Clearly define "start" and "finish" points.

(l)   **Planning**. Plan both the route and timing of bike trips to avoid heavy traffic and hazardous conditions. Biking is unsafe on wet pavement and on windy days. Plan for at least hourly rest stops and a maximum of approximately six hours on the bike per day.

(m)   **Discipline**. All participants should know, understand, and follow the rules and procedures for safe biking, and all participants should conscientiously and carefully follow all directions from the adult supervisor.

CONCLUSION

8.   Cycling is a very efficient and effective mode of transportation optimal for short to moderate distances. Bicycles provide numerous benefits compared to motor vehicles, including exercise, an alternative to the use of fossil fuels, no air or noise pollution, much reduced traffic congestion, easier parking, greater maneuverability, and access to both roads and paths. The advantages are less financial cost to the user, as well as society (negligible damage to roads, and less pavement required).

LESSON PLAN : ADV 3
ROCK CLIMBING

Period   -   Four

Type   -   Lecture -1 / Demo/Practice - 4

Code   -   ADV 3

Term   -   II (JD/JW)

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Training Aids

1.   Computer Slides, Charts, Pointer, Black board & Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

        (b)   Rock Climbing Equipment   -   10 Min

        (c)   Rock Climbing Techniques   -   10 Min

        (d)   Safety Tips   -   10 Min

        (e)   Conclusion   -   05 Min

INTRODUCTION.

3.   **Rock climbing** is an activity in which participants climb up, down or across natural rock formations or artificial rock walls. The goal is to reach the summit of a formation or the endpoint of a pre-defined route without falling. Rock climbing competitions have objectives of completing the route in the quickest possible time or the farthest along an increasingly difficult route.

AIM.

4.   To acquaint the cadets with Rock Climbing as a part of Adventure training.

PREVIEW.

5.   The lecture will be conducted in following parts :-

        (a)   Part I   -   Rock Climbing Equipment.

        (b)   Part II   -   Rock Climbing Techniques.

        (c)   Part III   -   Safety Tips.

PART I : ROCK CLIMBING EQUIPMENT

6.   A Wide Range of Equipment Is Used During Rock Climbing. They are as follows:-

        (a)   **Rope and Webbing**. Ropes used for climbing can be divided into two classes:-

                (i)   **Dynamic Ropes**. These are designed to absorb the energy of a falling climber, and are usually used as Belaying ropes. When a climber falls, the rope stretches, reducing the maximum force experienced by the climber, their belayer.

(ii)   **Low Elongation Ropes**.   Low elongation ropes are also called static ropes which stretch much less, and are usually used in anchoring systems. They are also used for abseiling (rappeling) and as fixed ropes .

(b)   **Webbing Or "Tape" Made Of Nylon**. When webbing is sewn or tied together at the ends, it becomes a sling or runner. Webbing has many uses such as:-

   (i)   Extending the distance between protection and a tie-in point.

   (ii)   An anchor around a tree or rock or an anchor extension or equalization.

   (iii)   Makeshift harnesses.

   (iv)   Carrying equipment (clipped to a sling worn over the shoulder).

   (v)   Protecting a rope that hangs over a sharp edge (tubular webbing).

(c)   **Carabiners**. Carabiners are metal loops with spring-loaded gates (openings), used as connectors and they are primarily made from steel. There are two major varieties: locking and non-locking carabiners.

(d)   **Quickdraws**. Quickdraws (often referred to as "draws") are used by climbers to connect ropes to bolt anchors, or to other traditional protection, allowing the rope to move through the anchoring system with minimal friction.

(d)   **Harnesses**. A harness is a system used for connecting the rope to the climber. There are two loops at the front of the harness where the climber ties into the rope at the working end using a figure eight knot. Most harnesses used in climbing are pre-constructed and are worn around the pelvis and hips, although other types are used occasionally.

(e)   **Belay Devices**. Belay devices are mechanical friction brake devices used to control a rope when belaying. Their main purpose is to allow the rope to be locked off with minimal effort to arrest a climber's fall.

(f)   **Rappel Devices (Descenders).** These devices are friction brakes which are designed for descending ropes. Many belay devices can be used as descenders.

(g)   **Ascenders**.   Ascenders are mechanical devices for ascending on a rope. They are also called Jumars.

(h)   **Helmet**. The climbing helmet is a piece of safety equipment that primarily protects the skull against falling debris.

(j)   **Climbing Shoes**. Specifically designed foot wear is usually worn for climbing to increase the grip of the foot on a climbing wall or rock face.

(k)   **Belay Gloves**. Belay gloves are constructed from either leather or a synthetic substitute. They typically have heat resistant padding on the palm and fingers.

PART II : ROCK CLIMBING TECHNIQUES

7.   A climbing technique is any type or combination of body posture , movement, or hold used in climbing. These are described as follows:-

(a)   **General Terms**

   (i)   **Arm Bar, Elbow Bar.** Jamming an arm into a crack and locking it into place.

(ii) **Bridging or Stemming**. Climbing a corner with the legs apart, one against each face, with the feet relying on friction or very small holds.

(iii) **Campusing**. Campusing arms. The word itself is derived from the power training done on a set of campus boards.

(iv) **Chest Jam**. Jamming the torso into a wide crack, for resting.

(v) **Chimneying**. Climbing between opposing rock faces, with the back and hands against one face, and the feet against the other face, or alternating between both.

(vi) **Crimp or Crimping**. Grabbing on to a hold with the fingertips alone.

(vii) **Dyno**. The term is an abbreviation of dynamic maneuver. Using the momentum of a movement or jump to reach a hold beyond your reach. Ideally, gravity brings the movement to a stop at the "dead point", i.e., when the hands reach the hold. When using this technique, the climber often leaves all contact with the wall.

(viii) **Egyptian, Drop Knee** or **Lolotte**. Method for reducing tension in arms when holding a side grip. One knee ends up in a lower position with the body twisted towards the other leg. It can give a longer reach as the body and shoulders twist towards a hold.

(ix) **Egyptian Bridging**. The same position as bridging, but with one leg in front and one behind the body.

(x) **Extremity Jams**. Jamming involves taking advantage of a body part in a crack for the friction it produces to support a share of body weight.

(xi) **Gaston**. Pulling sideways and outwards, akin to opening a pair of sliding doors. Normally cracks are climbed by jamming hands or fingers—or any part of the body that fits—in the crack to hold oneself.

(xii) **Heel Hook**. Using the back of the heel to apply pressure to a hold, for balance or leverage; this technique requires pulling with the heel of a foot by flexing the hamstring. This technique is notable since in most forms of climbing one uses the toes to push.

(xiii) **Laybacking**. Climbing a vertical edge by side-pulling the edge with both hands and relying on friction or very small holds for the feet.

(xiv) **Manteling or Mantel Shelfing**. Boosting upwards using only the arms and ending with arms fully extended downwards. The motion is akin to getting out of a swimming pool without using the ladder.

(xv) **No-hands Rest**. Method for resting without using the hands, such as standing on footholds, or using a knee bar (jamming a knee into a large crack).

(xvi) **Smearing**. Relying solely upon the friction of a flat surface, usually with the feet, to keep from falling. This is possible primarily due to the sticky rubber soles ubiquitously used in modern climbing shoes.

(xvii) **Toe Hook**. A toe hook is securing the upper side of the toes on a hold. It helps pull the body inwards—towards the wall. The toe hook is often used on overhanging rock where it helps to keep the body from swinging away from the wall.

(b)   **Jams Using Feet**.

    (i)   **Foot Jam**. This technique is also known as the heel-to-toe jam. It involves jamming the foot into a larger crack by twisting the foot into place, the contact with the crack being on the heel and toes.

    (ii)   **Toe jam in a crack**: When the foot is too large, the toe jam is used by locking the toes into a crack and lowering the heel down.

8.   **Flagging**. Where one foot is not placed on a foot hold and the leg is held in a position to maintain balance, rather than to support weight. This is often useful to prevent barn-dooring. The flagging foot may be pressed against the wall or may simply hang in space depending on what will best maintain balance.

9.   **Basic Flagging Positions**.

(a)   **Normal Flag**. Where the flagging foot stays on the same side, (e.g. flagging with the right foot out to the right side of the body).

(b)   **Reverse Inside Flag**. Where the flagging foot is crossed in front of the foot that is on a foot hold.

(c)   **Reverse Outside Flag**. Where the flagging foot is crossed behind the foot that is, on a foot hold.

PART III : SAFETY TIPS

10.   Use the following 10 tips to keep safe when you're out rock climbing:-

(a)   **Always Check Harnesses**. After you've geared up, always check that both the climber's and belayer's harness buckles are doubled back.

(b)   **Always Check Knots**. Before you start climbing, always double check that leader's tie-in knot (usually a Figure-8 Follow-Through) is tied right and finished with a backup knot. Also check that the rope is threaded through both the harness waist loop and the leg loops.

(c)   **Always Wear a Helmet**. A climbing helmet is essential if you want to live long and prosper. Always wear one when climbing or belaying. Helmets protect your head from falling rocks and from the impact of falling.

(d)   **Always Check the Rope and Belay Device**. Before you lead a route, always double check that the rope is properly threaded through the belay device. Also, always make sure the rope and belay device are attached with a locking carabiner to the belayer's harness.

(e)   **Always Use a Long Rope**. Make sure your climbing rope is long enough to reach the anchors and lower back down on a sport route or to reach a belay ledge on multi-pitch routes. When sport climbing, if you have any doubt that the rope is too short, always tie a stopper knot in the tail end to avoid being dropped to the ground.

(f)   **Always Pay Attention**. When you're belaying, always pay attention to the leader above. He's the one taking the risks of a fall. Don't visit with other climbers at the base, talk on a cell phone, or discipline your dog or kids. Never take the leader off belay unless you are absolutely certain he is tied in and safe and he communicates that to you.

(g)   **Always Bring Enough Gear**. Before you climb a route, always eyeball it from the ground and determine what you need to bring. You know best. Don't rely strictly on a

guidebook to tell you what to bring. If it's a sport route, verify visually how many bolts need quick draws. If in doubt—always bring more than you think you need.

(j)   **Always Climb With the Rope Over Your Leg**. When you're leading, always make sure the rope is over your leg rather than between them or behind one. If you fall with the rope in this position, you will flip upside down and hit your head. Wear a helmet for protection.

(k)   **Always Properly Clip the Rope**. Make sure you always clip your rope through carabineers on quick draws correctly. Avoid back clipping, where the rope runs front to back rather than back to front in the carabineer. Make sure the carabineer gate faces opposite your direction of travel, otherwise the rope can come unclipped. Always use locking carabiners on important placements.

(l)   **Always Use Safe Anchors**. At the top of a pitch or route, always use at least two anchors. Three is better. Redundancy keeps you alive. On a sport route, always use locking carabineers if you're lowering down to top-rope off the anchors.

CONCLUSION

11.   Rock climbing is a physically and mentally demanding sport, one that often tests a climber's strength, endurance, agility and balance along with mental control. It can be a dangerous sport and knowledge of proper climbing techniques and usage of specialized climbing equipment is crucial for the safe completion of routes. Because of the wide range and variety of rock formations around the world, rock climbing has been separated into several different styles and sub-disciplines. While not an Olympic event, rock climbing is recognized by the International Olympic Committee as a sport.

INDEX

OBSTACLE TRAINING

LESSON PLAN : OT 1
OBSTACLE TRAINING COURSE

Period   -   One

Type   -   Lecture/Practice

Code   -   OT 1

Term   -   II / II (JD/JW)
_____

Training Aids

1.   Obstacle Course, Chart, Pointer, Black board & Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

      (b)   Obstacle Course   -   15 Min

      (c)   Demo   -   15 Min

      (d)   Conclusion   -   05 Min

INTRODUCTION

3.   The training in negotiating the obstacles by NCC cadets is a very important aspect of NCC curriculum. The obstacle course training not only makes the cadets physically tough but develops a very high degree of confidence and inculcates the qualities of patience and courage to face challenges.

AIM

4.   To acquaint the cadets about Obstacle Course Training.

PREVIEW

5.   The lecture will be conducted in following parts:-

      (a)   Part I   –   Introduction to Obstacles and Method of Negotiation.

      (b)   Part II   –   Practice in Negotiating the Obstacle Course.

PART I : OBSTACLE COURSE

6.   The Standard Obstacle Course that the NCC cadets are required to negotiate consists of ten obstacles. The obstacles, depending upon the structure are constructed of wood, bricks, concrete and mud. Each obstacle is placed at an distance of about 30 feet from each other. The details of each obstacle course are given in the succeeding paragraphs.

      (a)   **Straight Balance**. It is a wooden plank of 3 inches thickness, 4 inches width and 12 ft in length, which is 1 ½ ft above ground level. A cadet crosses this obstacle running, keeping his arms open and balancing his body.
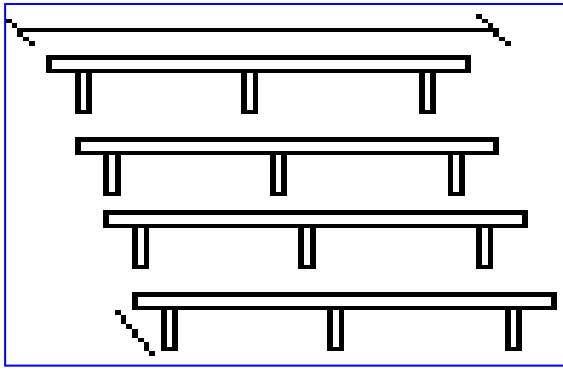
Straight Balance

(c) **Clear Jump**. Its structure is just like a straight beam. This wooden beam is 2 ½ ft from the ground. Cadet has to jump over it without touching or using any part of the body.
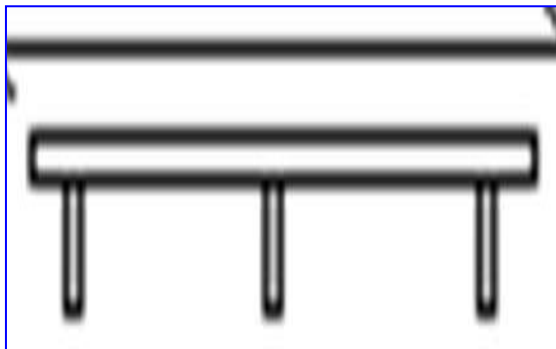
Clear Jump

(d) **Zig-Zag Balance**. It is a Zig-Zag a structure of wooden beam 18 ft in length, with 3 inch width and 1 ½ ft above the ground and is constructed in a zig-zag manner. The Cadet has to cross the obstacle lengthwise with open hands and balancing the body similar to straight balance.
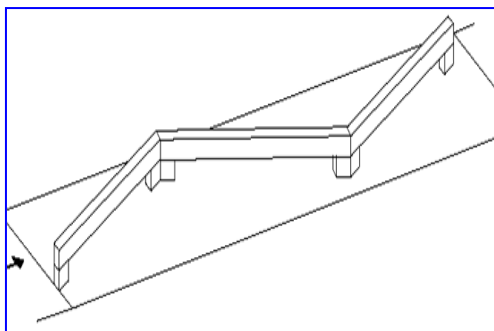
Zig Zag Balance

(e) **High Wall**. It is a 6 feet high and 12 feet long brick wall with plaster on both sides. For crossing this obstacle, a cadet has to run, jump, kick the wall with one leg and take leap putting both hands on the wall and then push his body upwards and jump over the other side.
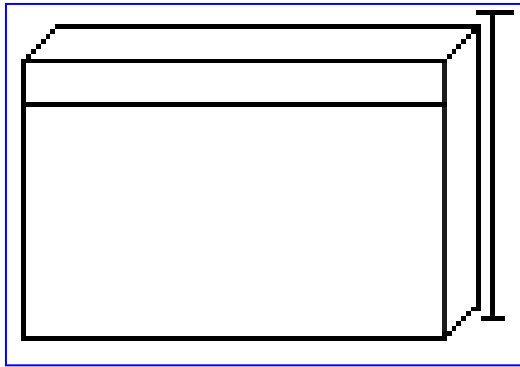
High Wall

(f) **Double Ditch**. The obstacle is composed of two ditches each of approximately 6-8 ft in length, 4-5 ft wide and 3-4 ft deep separated by a small gap of approx 9-12 inch. The Cadet have to jump across the two ditches by jumping over the first ditch, placing one foot on the gap and jumping across the second ditch.
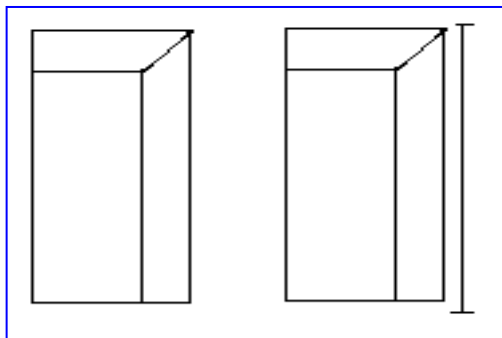
Double Ditch

(f) **Right Hand Vault**. This wooden structure is 3 ½ ft above the ground and 1 ½ feet long. The Cadet is required to jump over using the right hand as support on the beam,throwing both leg up and jump across.
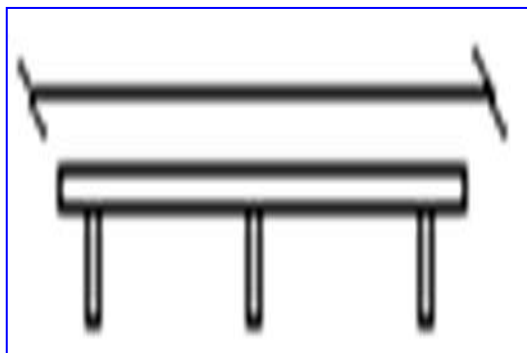
Right Hand Vault

(g)   **Left Hand Vault**. This wooden structure is 3 ½ ft above the ground just like Right Hand Vault. The Cadet is required to jump over using the left hand as support on the beam, throwing both leg up and jump across.
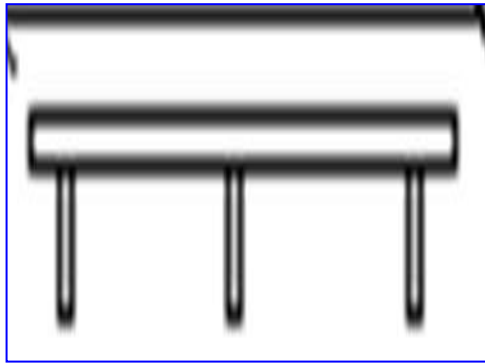
Left Hand Vault

(h)   **Gate Vault**. This is a wooden structure which has two beam at height of 3 ft and 5 ft respectively, both 18 ft long. Once has to cross the gate by holding upper beam with both hands and by putting one's feet on 3 ft gate and jump across.
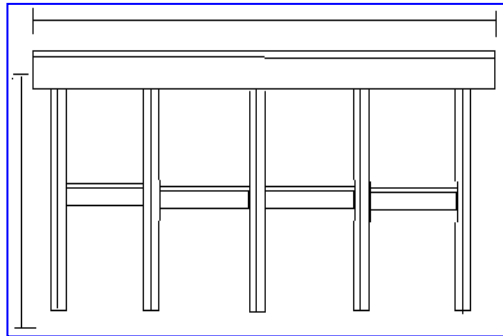
Gate Vault

(i)   **Ramp**. It is a 15 feet long, 18 feet wide and 4 ½ feet high sloppy hillock. For crossing it a cadet ahs to run in and climb over the ramp and take long jump after reaching the top and landing on a pit on both the feet.

Ramp

(j)   **Straight Balance.** It is a wooden plank of 3 inches thickness, 4 inches width and 12 ft in length, which is 1 ½ ft above ground level. A cadet crosses this obstacle running, keeping his arms open and balancing his body.
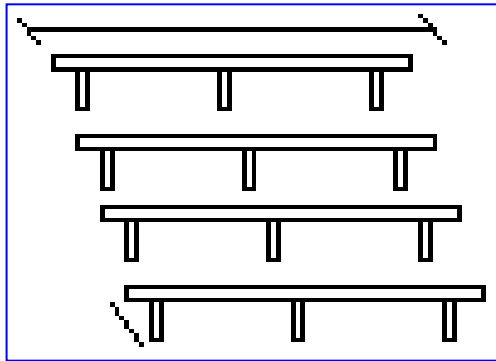

Straight Balance

7.   **Safety Measures.** Following Safety Measures must be ensured during the conduct of Obstacle Course training to cadets

(a)   Suitable and physically fit cadets only to be selected.

(b)   Training to be given first in PT dress, later on with packs and weapon.

(c)   Emphasis to be given on closing of individual timings and later team timings.

(d)   Wet and slippery obstacles and area to be avoided.

(e)   Obstacles to be done under supervision of qualified instructors and correct technique only to be used.

(f)   Arrangement of first aid to be ensured.

8.   **Benefits.** Benefits of Obstacles courses are as under:-

(a)   Ensures physical fitness.

(b)   Ensures agility.

(c)   Ensures mental robustness.

(d)   Coordination and balance of mind and body.

(e)   Improves risk taking ability.

(f)   Evaluating problem solving skills.

(g)   Over all team spirit.

PART II : DEMONSTRATION

9.   The demonstration will be given by a trained cadet under the supervision of PI Staff.

<u>CONCLUSION</u>

10.   The training in NCC is comprehensive. The basic training of regular Defense services (Army, Navy and Air force) is imparted to the students. The cadets receive training throughout the NCC tenure. Intensive training is given to cadets in the camps especially in Thal Saink Camp. Obstacle course is one such training activate conducted for making the NCC cadets physically fit and mentally robust. Obstacle training infuses Courage, patience and makes them physically fit.

INDEX

PERSONALITY DEVELOPMENT AND LEADERSHIP

<u>LESSON PLAN : P 1</u>
<u>INTRODUCTION TO PERSONALITY DEVELOPMENT</u>

Period - One

Type - L/P

Code - P 1

Term - I (JD/JW)

_____

<u>Training Aids</u>

1. Computer Slides, Charts, Marker Pens, Black Board, Chalk.

<u>Time Plan</u>

2. (a) Introduction - 05 Min

  (b) Understanding Various Skills - 15 Min

  (c) Understanding the Concept of Life Skills - 15 Min

  (d) Conclusion - 05 Min

<u>INTRODUCTION</u>

3. An individual's personality is the complex of mental characteristics that makes them unique from other people. It includes all patterns of thought and emotions that cause us to do and say things in particular ways. Personality development is, developing a personality so as to create a strong positive impression about self with the targeted group. It is very important to maintain one's personality to prove in a long run.

<u>AIM</u>

4. To appraise cadets about Personality Development and enhancing the same through application of Life Skills.

<u>PREVIEW</u>

5. The class will be conducted in the following parts:-

  (a) Part I - Life Skills vs Other Skills.

  (b) Part II - Define the Concept of Life Skills.

  (c) Part III - Practical use of Core Skills in daily life.

<u>PART I : LIFE SKILLS VS OTHER SKILLS</u>

6. The class will be introduced to subject by activity method.

7.   **Activity – Skills**.

(a)   **Step1.**   Write the words 'SKILLS' in big bold letters on the flipchart. Ask the participants to name a few skills they are familiar with.

(b)   **Step 2.**   Categorize the responses as Vocational, Functional, Literacy, Language, Numeric skills, Cultural, Recreational and Life Skills.

(c)   **Step 3.**   Initiate a discussion on the following topics:-

(i)   The difference between skilled and unskilled persons.

(ii)   Why is it necessary to have skills?

(iii)   How does one acquire skills?

(iv)   Why should the skills be enhanced?

8.   Based on the brainstorming session the following will be elaborated about the various types of skills:-

(a)   **Literacy Skills**   :   Reading, writing and arithmetic skills.

(b)   **Language Skills**   :   Communicating using a language in writing and speech.

(c)   **Functional Skills**   :   Filling up bank forms to deposit or withdraw money, able to read map, booking railway tickets, fix a fused bulb or leaky tap etc.

(d)   **Vocational Skills**   :   Enhancing livelihood opportunities – carpentry, tailoring. Making handicrafts, fisheries etc.

(e)   **Sports Skills**   :   Capable of playing on the field as part of a team or as a single player.

(f)   **Cultural Skills**   :   Capacity to lighten the spirits of the group he or she belongs to with activities that can break the monotony. For example, use of jokes, energizers etc.

(g)   **Life Skills**   :   Self-awareness, empathy, creative thinking, critical thinking, effective communication, interpersonal relationship, decision making and problem solving, coping with stress, coping with emotions.

PART II : THE CONCEPT OF LIFE SKILLS

9.   Skills are acquired through practice and patience. A skilled person uses less time, energy and resources to do a job and produces quality results. Enhancing Life Skills enables us to adapt to situations and people and helps us to lead a healthy and positive life.

10.   The class will now be introduced to definition by WHO "Life Skills are abilities for adopting positive behaviour that enable individuals to deal effectively with the demands and challenges of everyday life"- WHO.

11.   There are ten core Life skills which helps in enhancing the personality of an individual. They are as follows:-

(a)   **Self Awareness**. Recognition of "self", our character, our strengths and weaknesses, desires, likes and dislikes, and skills. Being aware of the good points about oneself helps young people build a sense of self-esteem and self-confidence. Being aware of their weaknesses will make young people be willing to learn more. This also helps them utilize the opportunities available to them in relation to their abilities. Self-awareness is necessary for developing a positive attitude towards life.

(b)   **Empathy.**   Is the ability to be sensitive to another person`s situation, to understand his/her concerns, worries, fears and needs and how they feel. Empathy works wonders when we apply it to our relationships – with our loved ones, classmates, parents, friends, cousins and colleagues. It helps us move closer to solutions, to resolve conflicts, and enhance our quality of life.

(c)   **Critical Thinking**.   Is the ability to analyze information and experience in an objective manner. It can help us recognize and assess the factors that influence our attitude and behavior, such as media and peer pressure influences.

(d)   **Creative Thinking.** Creativity is the ability to generate new ideas by combining, changing, or reapplying existing ideas. It helps us to look beyond our direct experience, and to respond adaptively and with flexibility to situations in our daily lives.

(e)   **Problem Solving Skills.** Enable us to deal with problems in our lives in a constructive manner. The process of problem solving involves various steps. They are identifying the problem, exploring the available alternative and deciding on the best possible solution.

(f)   **Decision Making**. Decision making is to choose from the varied options based on the existing knowledge of the topic under consideration keeping in mind the positive or negative consequences of each of the option.

(g)   **Interpersonal Relationship**. Ability to establish positive relationships helps us to relate in positive ways with the people we interact with. This means being able to make and maintain friendly relationships, which can be of great importance to our mental and social well being. It may also mean being able to   end   relationships   constructively.   Positive relationships help in the growth of the individuals involved.

(h)   **Effective Communication**.   Is the ability to express, verbally through spoken or written language and non-verbally through gestures and body movements, in ways that are culturally acceptable.

(j)   **Coping with Emotions**. Being aware of the predominant emotion that preoccupies the mind at any point of time, knowing how emotions influence behavior, and being able to respond to emotions appropriately.

(k)   **Coping with Stress.** Means recognizing the source of stress in our lives, recognizing how this affects us physically and emotionally, and acting in ways that help us control our levels of stress, by changing our environment or life style and learning how to relax.

PART III : USE OF CORE SKILLS IN DAILY LIFE

12.   Now the class will be introduced to the practical use of core life skills through a daily life activity.

(a) **Activity – Life Skills In Daily Life.**

(i) **Step 1 - Game Kho-Kho.** Inform the participants that it is time For 'Kho-Kho', a popular game in rural and urban areas. Both teams of boys and girls can play this game. Randomly divide the participants into two teams and ask them to organize the game and play. Observe the process adopted by the groups (who takes the leadership, how they organize themselves, now they interact with each other, whether they function as a team, what decisions are being made, body language used and how they carry on the game etc.).

(ii) **Step 2 - Analysis of the Game for Understanding Life Skills.** On completion of the game, initiate an interactive discussion to understand their experience in the whole process and their feelings while playing the game. The following questions may be asked:-

    (aa)   Who took the lead?

    (ab)   Who gave instructions?

    (ac)   Was there team work?

    (ad)   Was there any pressure on the team to perform? How did the team cope up with that?

    (ae)   Was there a chance for the team to perform better than what they did? If yes, why?

    (af)   How was the communication between the opponents? (Body language, sign language, shouting etc).

    (ag)   Was there any new technique used in the game?

    (ah)   If someone got hurt, how did the others feel about it?

    (aj)   Who resolved problems in the team? (A player not moving fast enough or not actively participating).

    (ak)   Who cheered the team?

    (al)   Who pointed out the shortcoming of the game?

(ii) **Step 3**. On completion, explain the game in terms of Life Skills:-

    (aa)   **Self Awareness**. What strength and weakness each one has – (can run very fast, very strong etc.).

    (ab)   **Empathy**. Response of the team members when one of them gets hurt.

    (ac)   **Critical Thinking**. Think how the opponent is planning the next move; identify the shortcomings of the game.

    (ad)   **Creative Thinking**. Use a new technique to capture a player.

    (ae)   **Effective Communication**. Verbal and non-verbal communication within and between teams.

(af) **Interpersonal Relationship**. Accepting other team members as friend and being with them as a team.

(ag) **Critical Thinking, Problem Solving and Decision Making**. When someone did not play as per team`s requirement to decide to change the strategy immediately.

(ah) **Coping with Stress.** Stress of not being caught, not being eliminated for not following rules or for foul play, to win the game along with others.

(aj) **Coping with Emotions.** Reaction on winning or losing the game.

13. The following story **of "Hunter and Pigeons"** will be narrated to the class and Life skills therein will be internalized through Brain Storming Session.

14. **Story of Hunter and Pigeons.**

(a) A group of pigeons enjoyed the fresh grains in a field every day. One day a hunter spotted them and decided to catch them. He spread a net in the field and waited for them to come. The pigeon were caught in the net. They realized that the hunter will take them away soon. The leader pigeon said, "We have to get out. There must be a way out. Let us think." But they could not find a way out. The net was strong. Each pigeon tried to escape by pulling the net indifferent directions. But it is increased the fear and confusion among them more than helping them.

(b) A young pigeon said, "Why don`t we all try and fly together instead of trying to escape individually? When we pull individually, we waste our energy." The leader pigeon was not in agreement. He said, "No it may be difficult." But the young pigeon insisted that they try it once. The leader finally agreed when he spotted the hunter at a distance. When he said "fly all of them lifted together and flew away with the net. The hunter arrived at the scene to see the pigeons fly away together as one group with his net.

15. **Life Skill Used by the Characters.**

(a) **Self – Awareness**. The pigeons knew that they were in trouble and had to find a way out of the net.

(b) **Creative by the Hunter.** Spreading grains under the net to catch the pigeons.

(c) **Creative Thinking by the Pigeons.** Identified a creative solution of flying together.

(d) **Critical Thinking.** The young pigeon identified that they were wasting energy and time by trying to fly individually.

(e) **Decision Making.** They decided to fly as a group.

(f) **Effective Communication.** The young pigeon assertively communicated his suggestion of flying together.

CONCLUSION

16. Life Skills help in building self-confidence and self–esteem and enable us to adapt to situations and people. Life skills are learnt from our own experience, perceptions, insight, stories, books, parents, teachers, religion, media, culture etc. Life Skills are presents in every individual. To get the best out of them we need to sharpen them regularly.

LESSON PLAN : P 2
FACTORS INFLUENCING / SHAPING PERSONALITY :
PHYSICAL, SOCIAL, PSYCOLOGICAL AND PHILOSOPHICAL

Period   -   Two

Type   -   Lec

Code   -   P 2

Term   -   I (JD/JW)

_____

Training Aids

1.   Computer Slides, Charts, Marker Pens, Black Board, Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

          (b)   Physical and Social Factors   -   35 Min

          (c)   Psycological and Philosophical Factors   -   35 Min

          (d)   Conclusion   -   05 Min

INTRODUCTION

3.   Personality is the characteristics and patterns of feelings, thoughts, and behaviors, which make a person exceptional, one of a kind and exclusive to his or herself. Personality originates within an individual and remains consistent throughout life. People are different from one another is evident. Every person born is unique to his or herself. Including identical twins, they differ in fingerprints and personalities. A healthy self-image is the core determining factor of a strong personality. Your personality is your identity; it is the sum total of your inherent and acquired characteristics. It is not necessarily something you are born with, but something you definitely need to take responsibility for it is primarily you alone, who can shape your personality and create your reality.

AIM

4.   The aim of this class is to acquaint the cadets about the Factors Influencing / Shaping Personality.

PREVIEW

5.   The class will be conducted in the following parts:-

          (a)   Part I   -   Physical and Social Factors Influencing / Shaping Personality

          (b)   Part II   -   Psycological and Philosophical Factors Influencing / Shaping Personality

PART I : PHYSICAL AND SOCIAL FACTORS INFLUENCING / SHAPING PERSONALITY

6.   Traditionally, modern psychological studies suggest that factors such as the ones below have a lasting effect on an individual's personality.

7.   **Hereditary.**   Your personality can be influenced by the genes you may have inherited from either your mother's or your father's side or a combination of both. Apart from inheriting physical attributes, like height, weight and skin/hair colour, psychologists have ascertained that our mental aptitudes and temperaments which have the potential for influencing our personality, are to a certain extent, hereditary.

8.   **Self-Development.** Of the other factors, self-development is the most important factor that can influence one's personality. Self-awareness is the key; it entails believing in oneself and one's capabilities. It implies that despite one's family and environmental background or one's current circumstance, one remains in control/charge of molding his/her personality. Such a person is aware that personality is a changing, evolving process and does everything possible to enhance his/her personality.

9.   **Environment.** Our environment can also play a significant role on our personality. Right from early childhood through all the stages of development, our home and family, our school and teachers, our friends and colleagues at work, all exert influence on the development of our personality. Besides these, the location where we live and the society we associate with, the country of our birth and the culture we have adopted, are all critical factors that influence our personality.

10.   **Education.**   Education falls into two categories; school smarts and street smarts. Thus, the most effective way of shaping one's personality is to have a taste of both types and experience both worlds. School smarts are the knowledge gained from school while street smarts are the learning that came from even the most unlikely sources.

11.   **Life-situations.** Our situations in life are constantly changing and these can affect our personality in varying degrees. Some have greater opportunities in life like better amenities, better schools and greater advantages than others. Learning skills, life skills, communicative skills and language skills although partially latent in some, can only be acquired through personal effort and gained through practice and experience. Hence it is our competence in handling life-situations that can positively influence our personality.

PART II : PSYCOLOGICAL AND PHILOSOPHICAL FACTORS INFLUENCING / SHAPING PERSONALITY

12.   A healthy self-image is the core determining factor of a strong personality. Your personality is your identity; it is the sum total of your inherent and acquired characteristics. It is not necessarily something you are born with, but something you definitely need to take responsibility for it is primarily you alone, who can shape your personality and create your reality.

13.   **Past Experiences.**   Experience is one of the major determinants of personality, it could affect a person either positively or negatively. For instance a person who has harsh experiences of say, being left behind, may display characteristics of distrust and may isolate himself from others. On the other hand, good experiences can fuel us either consciously or subconsciously to be motivated to work towards achieving the same results. People respond depending upon their experiences whether good or bad.

14.   **Dreams and Ambitions.**   Dreams and ambitions shape our personality in a way that it facilitates our goals. We start to set priorities and change the way we are in order for such priorities to be fulfilled. Hence, these aspirations are perhaps the strongest factors that develop our attitude towards work and career.

15.   **Self-Image.**   Each person views himself quite different from how other people perceived him. Thus, one's self-image usually breeds personality characteristics that stick within the self-image. People who feel highly with their selves display a certain aura of confidence and make it always seem that they are a cut above the rest.

16.   **Values.**   Personality of an individual is greatly influenced by the values a person strongly believes in. A person who adheres to high moral standards is a well-respected member of the society. He is known for his integrity and is trusted by not only his family members, but also by his colleagues and friends. The characteristics of such a person having a strong moral fiber ingrained into his character, can have a significant influence on the personality of an individual.

CONCLUSION

17.   In reality, you may be playing many roles i.e. husband/wife, mom/dad, son/daughter, teacher/ student, boss/employee; each of these enact different aspects of your personality and require a different set of behavior and responsibilities. A combination of the roles you play each day, becomes the sum total of your personality. Developing a fine personality can be within anybody's grasp. It can be attained through systematic steps in personal development. It can be the direct result of man's positive attitude combined with all the above factors. In the final analysis, it is your skill in maintaining a balanced approach to making your life healthier and happier.

LESSON PLAN : P 3
SELF AWARENESS - 1

Period   -   Two

Type   -   L/P

Code   -   P 3

Term   -   I (JD/JW)

_____

Training Aids

1.   Flipchart, Marker pens, Pictures of / original gift items, Copies of the stories Hunter and the Pigeons, Crocodile and the Monkeys.

Time Plan

2.   (a)   Introduction   -   05 Min

        (b)   Dimensions of Self Awareness   -   35 Min

        (c)   Self-Exploration and Self-Realization by SWOT Analysis -   35 Min

        (d)   Conclusion   -   05 Min

INTRODUCTION

3.   Self-awareness sounds very simple - after all don't we know ourselves. But if we are blatantly honest with ourselves, we might become uncomfortable and experience stress since we will see our deficiencies and failure. Self-awareness is a unique human capacity. Self-awareness is the concept that one exists as an individual, separate from other people, with private thoughts. Self-awareness is a personal understanding of the very core of one's own identity. Self-awareness includes our recognition of ourselves, our character, strengths, weaknesses, desires and dislikes. It can help us to recognize when we are stressed or feel under pressure. It is often a pre-requisite for effective communications, interpersonal relationship and developing empathy for others.

AIM

4.   The aim of this class is to know various dimensions of self-awareness and to know one self with the help of a Johari Window exercise.

PREVIEW

5.   The class will be conducted in the following parts:-

        (a)   Part I   -   Dimensions of Self Awareness.

        (b)   Part II   -   Self-realization and Self exploration through SWOT Analysis.

PART I : DIMENSIONS OF SELF AWARENESS

6.   Self-awareness involves knowing ourselves and our personality, and accepting oneself in spite of our imperfection. It includes all aspects of our selves – our thoughts, emotions, likes, dislikes, strengths, weaknesses, fears, fantasies, ambitions, values, priorities, goals, desires,

needs, etc. It acknowledges the fact that I may be imperfect, but still I like myself since I am a good human being and possess many qualities. To have complete self awareness one needs to concentrate on two aspects the first being how we perceive ourselves our strengths, weakness, abilities etc and secondly how others perceive us. Both the views together gives a person a complete picture about one self.

7.   Every person perceives oneself in three aspects as:-

(a)   The perceive self--the way we see that part of ourselves,

(b)   The real self--the way we truly are.

(c)   The ideal self--the way we would like to be in that area.

8.   Unhappiness and poor adjustments in persons are mainly because of discrepancies between the perceived and the real or ideal self. These unhappiness and poor adjustments are due to misperceptions of self which there by leads to discontentment.

9.   The following dimensions of Self-awareness will be dwelt with as many people limit their self awareness to their bio-data which is usually things known by everybody. However at a deeper level there is so much inside each one of us that it has many dimensions:-

(a)   **Self Realization.** Self-realization in the ultimate of self-awareness when one realizes one self and the requirement of their existence in the world.

(b)   **Self Knowledge or Self Exploration.** This is a process through which we undo or explore ourselves. This exploration and understanding and knowledge about three important areas Physical self- Knowledge about our own body, Social self – Knowledge about how we relate and interact with society; whether we are social, extroverts or introverts; helping nature; empathetic, etc. Inner self – Knowledge about our goals, dreams, aspirations, secrets, fears, etc.

(c)   **Self Confidence.** Self-confidence builds in from self-esteem and this is possible only one is completely aware about ones abilities and limits. Success, appreciation, care, love etc, are factors that boost up the self-confidence.

(d)   **Self Talk**. These automatic thoughts can be positive or negative. Some of our self-talk comes from logic and reason. Other self-talk may arise from   misconceptions that we create because of lack of information. This is the   endless talks and conversations that runs through our minds through the day. This is also a strategy for raising ones' self-confidence if one practices positive   thinking.

(e)   **Self Motivation**. Self-Motivation is what makes an individual work towards   a   goal or target, not for external reasons but because of his own internal will to do it. It is an important quality required by everybody to do various activities like studying, working, earning and building relationships.

(f)   **Self Esteem.** Self-esteem or self-worth includes a person's subjective appraisal of himself or herself as intrinsically positive or negative to some degree. Developing high self-esteem would improve our self-confidence, the way we look at ourselves, what we can do for ourselves, our well-being, our relationships and our happiness.

(g)   **Self Image.** Self-image is how one perceives himself – positively or negatively. Self-image is important because how one feels and thinks about   himself affects the way he acts. Self-image about our body is called body image,   which is very often a cause for low self-esteem. By body image one is keeping in   mind both internal and external aspects of it.

(h) **Self Control**. The ability to control your thoughts, emotions, urges, desires, fantasies, actions is called self-control. It is part of our will power, and includes delayed gratification.

(j) **Self Purpose.** This is the ability to find a purpose for ourselves in relation to   this world. What are our goals in terms of family, friendships, career, hobbies, interests.   When taken to the extreme –what are our goals in terms of our own selves in this world and universe – that is self-realization.

(k) **Individuality and Uniqueness.** Every single human being is born in this world with different qualities inherent and later they acquire some as they live and learn. This helps individuals to become unique in skills giving them an identity of their own. This describes their individuality and describes each and every person in an different manner.

(l) **Personality**. Personality can be defined as the distinctive and characteristic patterns of thought, emotion and behavior that define an individual's personal style of interacting with the physical and social environment. Our personality has various dimensions, including our openness, conscientiousness, nature, etc. There are numerous courses available for personality development.

(m) **Values.** Value is a concept that describes the beliefs of an individual or culture. Love, care, courage, bravery, respect, integrity and compassion, and respecting our elders are examples of values.

(n) **Attitude.** Attitude is a mindset – the 'way' we think and look at things. All of us, at one time or another, express the three different types of attitudes: positive, negative and neutral. Attitude is the way you look at things. Half a glass of water may appear half empty tone and half full to another.

(o) **Character.** This is defined as the collective qualities or characteristics that distinguish a person, including his reputation, morals and ill power.

<div align="center">

PART II : SELF REALIZATION AND SELF EXPLORATION
THROUGH SWOT ANALYSIS AND JOHARI WINDOW

</div>

10.   An interesting way to become self aware is the use of SWOT analysis. A SWOT analysis focuses on the internal and external environments, examining strengths and weaknesses in the internal environment and opportunities and threats in the external environment. The table below will give you a clear understanding.

INTERNAL	Your Strengths	Your Weaknesses
EXTERNAL	Opportunities in Your Career Field	Threats in Your Career Field

11.　　The purpose of a SWOT is to actively promote the identified strengths, minimize weaknesses by planning them out of existence, exploit the opportunities before the window closes and have contingency plans in place to minimize threats before they materials. While we mention about the strengths we understand – Internal positive aspects that are under control and upon which you may capitalize in planning.

(a)　　Work Experience.

(b)　　Education, including value-added features.

(c)　　Strong technical knowledge within your field (e.g. hardware, software).

(d)　　Specific transferable skills (e.g., communication, teamwork).

(e)　　Personal characteristics (e.g., strong work ethic, self-discipline, creativity, optimism, or a high level of energy).

(f)　　Good contacts/successful networking.

(g)　　Interaction with professional organizations.

12.　　While we are mentioning about our weakness we intend to include – Internal negative aspects that are under your control and that you may plan to improve:-

(a)　　Lack of Work Experience.

(b)　　Low Marks, wrong major.

(c)　　Lack of goals, lack of self-knowledge, lack of specific job knowledge.

(d)　　Weak technical knowledge.

(e)　　Weak skills (leadership, interpersonal, communication, teamwork)

(f)　　Weak job-hunting skills.

(g)　　Negative personal characteristics (e.g., poor work ethic, lack of discipline, lack of motivation, indecisiveness, shyness, too emotional).

13.　　The above mentioned are the internal factors which are to be included in the SWOT analysis in case of the External factors firstly it's the opportunities – Positive external conditions that you do not control but of which you can plan to take advantage.

(a)　　Positive trends in your field that will create more jobs (e.g., growth, globalization, technological advances).

(b)　　Opportunities you could have in the field by enhancing your education.

(c)　　Field is particularly in need of your set of skills.

(d)　　Opportunities for advancement in your field.

(e)　　Career path you've chosen provides unique opportunities.

(f)　　Strong network.

14.   And further while we include threats we should mention – Negative external conditions that you do not control but the effective of which you may be able to lessen:-

    (a)   Negative trends in your field that diminish jobs (downsizing).

    (b)   Competitors with superior skills, experience, knowledge.

    (c)   Competitors who went to colleges with better reputations.

    (d)   Obstacles in your way (e.g, lack of the advanced education).

    (e)   Limited advancement in your field, advancement is cut-throat and competitive.

    (f)   Companies are not hiring people with your degree.

15.   This SWOT analysis would help an individual to not only understand oneself and their present situation but also plan for ahead.

CONCLUSION

16.   Self-Awareness is called the mother of all skills. It is a thinking skill, a social skill and a coping skill. It is one of the most difficult skills to master. Many great saints spend their life meditating and looking inward but only a few like Buddha actually achieve complete self-awareness. Knowing others is wisdom but knowing oneself is enlightenment – Tao Tzu. Awareness about our self is the first step towards creation. This understanding then gives us the opportunity and freedom to change those things you'd like to change about yourself and create the life you want.

LESSON PLAN : P 3
SOCIAL AWARENESS - 2

Period   -   One

Type   -   L/P

Code   -   P 3

Term   -   II (JD/JW)

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Training Aids

1.   Flipchart, Marker pens, Pictures of / original gift items, Copies of the stories-Hunter and the Pigeons, Crocodile and the Monkeys.

Time Plan

2.   (a)   Introduction   -   03 Min

        (b)   Self Awareness through Activity   -   20 Min

        (c)   Self Awareness – Body Image   -   15 Min

        (d)   Conclusion   -   02 Min

INTRODUCTION

3.   Self-Awareness is recognition of "self", our character, our strengths and weaknesses, desires, likes and dislikes, and skills. Being aware of the good points about oneself helps young people build a sense of self-esteem and self-confidence. Being aware of their weaknesses will make young people be willing to learn more. This also helps them utilize the opportunities available to them in relation to their abilities. Self-awareness is necessary for developing a positive attitude towards life.

AIM

4.   The aim of this class is to create Self-Awareness in each cadet of the class and throw light on Body Image.

PREVIEW

5.   The class will be conducted in the following parts:-

        (a)   Part I   -   Self-Awareness through Activity.

        (b)   Part II   -   Body Image.

PART I : SELF-AWARENESS

6.   The Self Awareness class will start with an Activity Method. It is very important to let the class know each other. This will done through a "Warming Up activity".

7. **Activity – Warming Up.**

(a) **Step -1**. Tell the participants to shake hands with others and ask each others names. Encourage each participant to shake hands with as many participants as possible within a minute.

(b) **Step- 2.** Tell the participants to share their feelings during the exercise by asking following questions:-

(i) Did you feel comfortable while shaking hands with others?

(ii) What stopped you to do this exercise?

8. Discuss with the participants that in this exercise, some people would have felt comfortable and some would have been hesitant to shake hands. To know why people feel the way they felt, it is necessary to understand oneself.

9. (**Note**: If shaking hands is not culturally acceptable just finding names and greeting in the traditional way – for example, saying 'namaste' or 'hello' may be sufficient. Modify the other steps accordingly).

10. The Self Awareness life skills will be further internalized by another activity as follows:-

11. **Activity – Open Your Heart.**

(a) **Step-1.** Give each participant an A-4 size paper. Ask them to draw an outline of a heart. Then divide the heart into four sections-
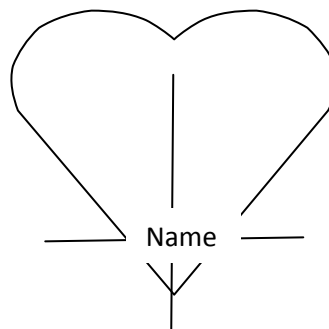
Name

(b) **Step-2.** Encourage them to write down the following inside the heart. Significance / Meaning of their name-in the top left section. If they do not know the meaning of their name, ask them to write their name vertically and then.

PART II : BODY IMAGE

12. The class will be explained about the body image how they have arrived at a particular quality of themselves and all about Body Image.

(a) **What is Body Image?** Body image is the way we perceive our body. It also means how we believe others see our body. It is one of the factors that affects or self-esteem, and influences the way we accept or reject ourselves. It determines whether we feel attractive and confident in society.

(b) **What Decides our Body Image?** Any external factors decide the way we view our body. These may be current fashion fads, role models, comments from parents, media

and peer pressure. By seeing slim models in TV programs, girls get the impression that "thin is in" and therefore try to lose weight and go on diets. With so many fancy advertisements for fairness breams, a dark complexioned boy or girl may have poor body image. Boys may dream of developing muscles like their favourite film heroes. All these concerns are not from their bodies and that of their role model.

(c) **What is Poor Body Image?** A person is said to be suffering from "poor body image" when he/she focuses on the negative (real or imaginary) aspects as perceived by himself or herself about his/her body. The positive aspects ate totally or partially excluded by him/her. He/she thus develops poor self-esteem.

(d) **What are the Harmful Effects of Poor Body Image?**. Poor or negative body image can produce a feeling of inferiority in the minds of adolescents. It can also lead to anxiety, depression, withdrawal, and in extreme cases, suicide. A lot of money is wasted on attempts to change their bodies. Some people indulges in high-risk behavior, to prove that he/she is attractive to others. A desire to look like an adult also arises due to body image concerns. These may include smoking, consumption of alcohol, substance abuse and unsafe sex. Poor body image is also the cause of many eating disorders seen in adolescent girls and boys.

13. **Tackling Poor Body Image.**

(a) **Enhance Self-Esteem.** This can be done by peers, teachers, family and friends. The positive points of the adolescent should be highlighted to him/her. He/she should be motivated to concentrate on personal strength not related to physique, e.g. hard work, determination, patience, courage etc.

(b) **Build Up Critical Thinking.** "Is physical beauty the only criteria for success / popularity?" Even film stars have to work very hard to make a movie successful. Many successful and famous people may not be very good looking.

(c) **Build up Positive Qualities.** Everyone has some positive qualities. These should be identified and highlighted e.g. caring, confident, hardworking etc.

(d) **Understand Cultural Variation.** The colour of skin and shape of body and facial features vary from country to country and even within a country from state to state. The definition of "beauty" also varies from region to region.

(e) **Dispel Myths Like**. "Being thin is in", fair & lovely", "fair & handsome".

(f) **Utilise Life Skills**. Life skills like critical thinking and self-awareness can be utilized to promote or develop a positive body image.

CONCLUSION

14. Being aware of the good points about oneself helps young people build a sense of self-esteem and self-confidence. Being aware of their weaknesses will make young people be willing to learn more. This also helps them utilize the opportunities available to them in relation to their abilities. Self-awareness is necessary for developing a positive attitude towards life.

LESSON PLAN : P 4
CRITICAL AND CREATIVE THINKING

Period   -   One

Type   -   Lec

Code   -   P 4

Term   -   I (JD/JW)

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Training Aids

1.   Flipchart, Marker pens, Pictures of / original gift items, Copies of the stories-Hunter and the Pigeons, Crocodile and the Monkeys.

Time Plan

2.   (a)   Introduction   -   03 Min

        (b)   Critical Thinking   -   20 Min

        (c)   Creative Thinking   -   15 Min

        (d)   Conclusion   -   02 Min

INTRODUCTION

3.   Critical thinking is an ability to analyze information and experiences in an objective manner. It helps us to recognize and assess the factors that influence attitudes and behavior, such as media and peer pressure influences.

4.   Creativity is the ability to imagine or invent something new. Creativity is not the ability to create out of nothing, but the ability to generate new ideas by combining, changing or reapplying existing ideas. Some creative ideas are astonishing and brilliant, whiles others are just simple, good, practical ideas that no one seems to have thought of yet.

AIM

5.   To acquaint the cadets about the concept of Critical Thinking and Creative Thinking

PREVIEW

6.   The class will be conducted in the following parts:-

        (a)   Part I   -   Critical Thinking.

        (a)   Part II   -   Creative Thinking.

PART I : CRITICAL THINKING

7.   Critical thinking is not criticism, it's a link between positive thinking and creative thinking, and are very essential for positive and creative emotions and behavior.

8.   It is the process of determining the authenticity, accuracy, or value of something; characterized by the ability to seek reasons and alternatives, perceive the total situation, and change one's view based evidence. It is also called "logical" thinking and "analytical" thinking. Critical thinking enables us to analyze information and experiences, objectively, and assess the factors that influence the way we think and act. Critical thinking is important for any of our crucial life decisions. – What options do I have? What can each option lead to? Is this really what I want?

9.   It is the process of determining the authenticity, accuracy or value of something; and is characterized by the ability to:-

(a)   Seek reasons and alternatives.

(b)   Perceive the total situation.

(c)   Change one's views based on evidence.

10.   Critical thinking involves logical thinking and reasoning. It also includes skills such as comparison, classification, cause/effect, deductive reasoning, and planning. Critical thinking is essential if we are to get to the root of our problems and develop reasonable solutions. After all, the quality of everything we do is determined by the quality of our thinking. It involves analyzing and judging the information providing, and then weighing the pros and cons and the consequences of any action. Critical thinking consists of mental processes of discernment, analyzing and evaluating. It includes all possible processes of reflecting upon a tangible or intangible item in order to form a solid judgment that reconciles scientific evidence with common sense. Critical thinkers gather information from all senses, verbal and/or written expressions, reflection, observation, experience and reasoning. Critical thinking has its basis in intellectual criteria that go beyond subject-matter divisions and which include: clarity, accuracy, precision, relevance, depth, breadth, and logic.

11.   Critical thinking requires skills in:-

(a)   Analyzing the information - examining it in detail.

(b)   Thinking creatively - thinking about different perspectives and possibilities

(c)   Problem solving - considering available information before making an appropriate decision.

(d)   Reasoning - thinking logically; making links between ideas and information.

(e)   Evaluating - examining information, to assess whether it is useful, relevant, and reliable.

12.   Critical thinking is about following attitudes:-

(a)   Open-mindedness - willing to examine multiple points of views.

(b)   Flexibility - able to change your point of view.

(c)   Persistence - able to follow a line of reasoning.

(d)   Interpersonal sensitivity - willing to respect the opinions of others.

(e)   Intercultural sensitivity - respecting diversity of culture, socioeconomic variations, etc.

13.   Critical thinking is the ability to think clearly and rationally. It includes the ability to do reflective and independent thinking. Critical thinking is the intellectually disciplined process of activity and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action.

14.   **Critical Thinking is not a Matter of Accumulating Information**. A person with a good memory and who knows a lot of facts is not necessarily good at critical thinking. A critical thinker is able to deduce consequences from what he/she knows, seeks additional information from relevant sources, and knows how to make use of the information to solve problems.

15.   **Critical Thinking Promotes Creativity.** To come up with a creative solution to a problem involves not just having ideas. The new ideas being generated must also be useful and relevant to the task at hand. Critical thinking plays a crucial role in evaluating new ideas, selecting the best ones and modifying them if necessary.

16.   **Critical Thinking is Crucial for Self-Reflection**. In order to live a meaningful life and to structure our lives accordingly, we need to justify and reflect on our values and decisions. Critical thinking provides the tools for this process of self-evaluation.

17.   An individual with critical thinking skills is able to do the following:-

(a)   Raise pertinent questions, which are clear and precise.

(b)   Identify the relevance and importance of ideas.

(c)   Understand the logical connections between ideas.

(d)   Assess statement and arguments.

(e)   Detect inconsistencies and common mistake in reasoning.

(f)   Examine belief, assumptions, and opinion and weigh them against facts.

(g)   Listen carefully to others and give feedback.

(h)   Suspend judgment until all facts have been gathered and considered.

(j)   Look for evidence to support assumptions and beliefs.

(k)   Adjust opinion when new facts are found.

(l)   Reject information that is incorrect or irrelevant.

(m)   Interested in finding new solutions.

(n)   Gather and assess relevant information, using abstract ideas to interpret   it effectively. Draw well-reasoned conclusions and solutions after testing them against relevant criteria and standards.

(o)   Solve problems systematically.

PART II : CREATIVE THINKING

18.   Creativity encompasses the following:-

(a)   **An Ability**. Creativity is the ability to imagine or invent something new. Creativity is not the ability to create out of nothing, but the ability to generate new ideas by combining, changing or reapplying existing ideas. Some creative ideas are astonishing and brilliant, whiles others are just simple, good, practical ideas that no one seems to have thought of yet. Everyone has substantial creative ability. Often all that's needed to be creative is to make a commitment to creativity and to take the time for it.

(b)   **An Attitude**. Creativity is also an attitude: the ability to accept change and newness, a willingness to play with ideas and possibilities, a flexibility of   outlook, the habit of enjoying the good, while looking for ways to improve it.

(c)   **A Process**. Creative people work hard continuously to improve ideas and solutions, by making gradual alterations and refinements to their works. Contrary to the mythology surrounding creativity, very few works of creative excellence are produced with single stroke of brilliance or in a frenzy of rapid activity. Much closer to the real truth are the stories of companies who had to take the invention away from the inventor in order to market it because the inventor would be tempted to alter the product in an attempt to make it better. The creative person knows that there is always room for improvement.

19.   **Characteristics of the Creative Person.**   A creative person has the following characteristics:-

(a)   Curious.

(b)   Seeks problems.

(c)   Enjoys challenge.

(d)   Optimistic.

(e)   Able to suspend judgment.

(f)   Comfortable with imagination.

(g)   Sees problems as opportunities.

(i)   Sees problems as interesting.

(j)   Problems are emotionally acceptable.

(k)   Challenges assumptions.

(l)   Doesn't give up easily : perseveres, works hard.

20.   A problem or challenge in question should be completely understood. The causes of the current situation should be analysed as well. Once the probable causes are discussed, the solution to the issue is easy to arrive at. At this stage it is essential to pen down the possible ways of tackling the cause. This requires creative thinking, i.e., thinking out of the box or beyond the usual frame of reference.

21.   Specifically, it means finding solutions beyond our usual or traditional way of reacting to a problem. We are often limited by our past experiences, and we dread to think differently. To go beyond the traditional boundaries of doing things, it is necessary to empower ourselves with more information through newspapers, radio, TV, classmates, teachers, relatives, friends, or even strangers. Research is the key to help us formulate ideas towards finding a creative solution. Creative thinking will enable us to find solution when it looks as if there is no way out.

CONCLUSION

22.   Critical thinking is not criticism, it's a link between positive thinking and creative thinking, and are very essentials for positive and creative emotions and behavior. Creativity is the ability to generate new ideas by combining, changing, or reapplying existing ideas. It helps us to look beyond our direct experience, and to respond adaptively and with flexibility to situations in our daily lives.

LESSON PLAN : P 5
COMMUNICATION SKILLS - 1

Period   -   Two

Type   -   L/P

Code   -   P 5

Term   -   I (JD/JW)

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Training Aids

1.   Computer Slides, Pointer, Charts, Black Board and Chalk.

Time Plan

2.   (a)   Introduction   -   10 Min

         (b)   Understanding Basics of Communication   -   20 Min

         (c)   Styles of Communication   -   20 Min

         (d)   Effective Communication   -   20 Min

         (e)   Conclusion   -   10 Min

INTRODUCTION

3.   Communication is the exchange of information between people, e.g. by means of speaking, writing or by using a common system of signs or behavior. Man is a social animal, and communication is intrinsic to human nature.

4.   Communication may be defined as "A process of sharing facts, ideas, opinions, thoughts and information through speech, writing, gestures or symbols between two or more persons". It is something that is universal and happens all the time. We are communicating all the time with others. While you are reading this, we are trying to communicate to you.

AIM

5.   To understand the basics of styles and ways communication and to effectively communicate with others in an effective manner.

PREVIEW

6.   The class will be conducted in the following parts:-

         (a)   Part I   -   Understanding Basics of Communication.

         (b)   Part II   -   Styles of Communication.

         (c)   Part III   -   Effective Communication.

PART I : UNDERSTANDING BASICS OF COMMUNICATION

7.   Communication is conveying a message – verbally, written or through the use of signs. If we do not talk with others, then they will not know what we are thinking and they will not be able to understand us. One will feel terribly lonely this way. For some people, it is the problem of not knowing how to communicate. For others, it may be that they are too afraid to talk about their problems, share their views, and let others know what is going on in their mind. In fact, without communication, our relationships with others are likely to be dominated by suspicion, guesses, misunderstandings and false assumptions. Empathy creates wonderful results only when we are willing to let others know how we feel.

8.   Lack of communication breeds problems in our relationships. We tend to assume that others know what we want or how we feel. Then when they do not react as we expect they should, we get upset. We are annoyed when others may not know why! We expect people to understand us. The truth is they do not understand us, if we choose to believe that ideas can get across at the unspoken level! All too often, the communication between us and our loved ones, is merely functional – out of necessity. We waste many opportunities to enhance our understanding of each other and improved our relationship.

9.   For instance, if you are used to your mother cooking every day, and assume it is her role to cook so there is no need to feel special about it, she may increasingly find cooking a chore. Do you know each time your mother goes into the kitchen, she puts in her affection into the food by choosing the type of vegetables or ingredients you like? Do you know that each time she dishes out the food; she silently hopes you will enjoy it and tell her how good it was? She may be able to tell from the way you gobble up the dal bhat, but nothing is more powerful than language at that moment if you can simply say: "Mummy, it`s delicious, I love it!" You will make her day! You can do it every day to make her feel appreciated, even though it is not in your culture, or habit.

10.   There are many such moments for us to express affection, especially to our family members. If you simply let those moments slip by, you will realize that the fountain will dry up one day. Relationship, like a reservoir, requires constant nourishment. Imagine what would happen to the reservoir if we keep drawing water from it but there was no rainfall to top it up. Similarly, we cannot draw affection without investing affection. By counting to take relationships for granted, we will come to a crisis one day – when the reservoir has dried up. That is how thing begin to fall apart.

11.   We often find people harbouring grudges against each other for being unhelpful, uncaring, not showing sufficient understanding. Any times we stop talking to people for long durations because of anger. This long silence is like a time bomb, which may explode one day at the slightest provocation. We all have a pert to play in triggering its explosion. If you can reduce your part, you are helping to deaden the bomb. Long silence does not help to resolve problems. On the contrary, it breeds bitterness. When our heart is bitter, we cannot be happy and loving; even though we can suppress the bitterness to pretend we are fine. If you do not begin to make a change though, the silent relationship pattern will go on from generation to generation. It will stay the same with your parents, either your future wife or husband, and children of your own.

12.   We all have fears, worries, and concerns; talking with somebody we trust is an effective way to relieve ourselves of mental stress. If we can share our inner world with others, we may realize that we are not alone – others have the same problems. That makes us feel instantly better.

PART II : STYLES OF COMMUNICATION

13.   There are three styles of communication as under:-

(a)   **Aggressive.**   They believe that everyone should like them; I am never wrong I`ve got rights but you don`t. They have a close mind and are poor listeners. They have

difficulty in seeing the other person point of view, they interrupt and monopolize. They tend to dominate and put down others. They are bossy. While communicating they frown, stare, talk loudly or have a yelling tone of voice.

(b)   **Passive**. In such communication the persons do not express their true feelings; they do not disagree and think that others have more rights than they do. Their communication style is indirect, they always agree and do not speak out and are very hesitant. While communicating they often lack facial expression and stand with down cast eyes.

(c)   **Assertive**. In such communication the person believes those he/she as well as others are valuable. They know that if they have rights then others also have rights. They are active listeners and check on others feelings. They are action oriented, attentive, vocal, expressive, good listeners, aware, supportive, persuasive, fair, open and consistent in behavior. Their expectations are realistic. They have open and natural gestures. They maintain an eye contact while communicating.

14.   **Ways of Communication**.

(a)   **One Way Communication**.   Communication from a single channel. There is no opportunity for clarifying doubts. For example, Principal announces- Saturday is a working day and student can wear colored dresses.

(b)   **Two Way Communication**. Communication between two channels. Opportunity for clarifying doubts. For example, parents deciding on the duration   of the vacation to a hill station after discussion with the children.

PART III : EFFECTIVE COMMUNICATION

15.   Effective Communicative involves:-

(a)   **Verbal Communication**. One person talks and others listens to be able   to   react. The conversation can be informative, in the form of questions, a negotiation, and statement or open ended questions, instruction, etc. And the situation can be formal or informal. In relationships, communication is usually informal. A speaker, to clear up misunderstand of what is said may ask questions to gain information and may repeat in a different way (paraphrase). Speech problem, too long sentences, mumbling, speaking too softly, hearing problems, listeners interrupting the speaker, loud external noises, etc. all hamper proper communication.

(b)   **Non-Verbal Communication**. Non verbal communication is that gives meaning to what is said and may communicate both appreciation and rejection. It includes such things as tone of voice, a nod of head, using silence, frowning, smiling, body posture, touch, shaking of the head to communicate approval or   disapproval, lifting of the eyebrows to show surprise, distance between persons, playing with something in hand instead of focusing etc. The body language communicates a lot in the communication process. Body language can be easy to read, but at the same time easy to misinterpret. It is not only important to observe the non-verbal communication of others and understand how well they receive or reject the communication, but also use proper body language to communicate effectively. Ensure that you appreciate others through body language. React to what others say by nodding, smiling and generally showing you are listening.

(c)   **Listening**. During communication, one person talks and another person listens. The listeners must give attention to all that is said, without interrupting the speaker and react later in a relevant manner. Many people may listen but know what the full message is. Some people react to only half is said. There are people who listen "selectively", who miss much of the message and only focus   on points relevant to him or her. Sometime we

do not listen to our friends and other people; sometimes they do not listen to us. In either situation, there will be a problem in communication and understanding.

16.   How would we know if someone is not listening to us:-

(a)   Looks away.

(b)   Interrupts.

(c)   Looks at the watch.

(d)   Gets up to do something and returns.

(e)   Gives advice.

(f)   Talks to someone else.

(g)   Answers the phone.

(h)   Begins to do some work.

(j)   Does not stop doing work.

(k)   Says that she/he will be back in a minute and does not return.

(l)   Looks bored.

17.   Components of Communication:-

Source	Message	Receiver

←——————————————————————————————→

Channel

Feedback
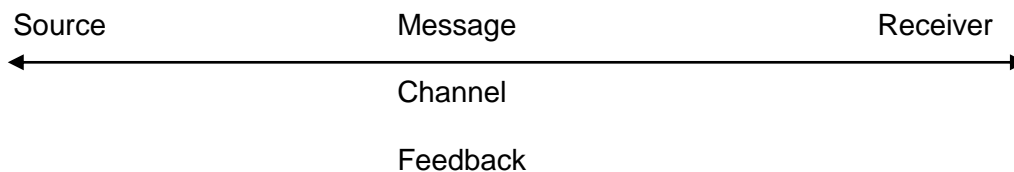
18.   All the components must be present for effective communication.

19.   **Why is Effective Communication Important to Young People**? Adolescence being a period of immense change, communication during this transitional phase of life assumes even more importance. Young people should be equipped to effectively communicate with others regarding their feelings and emotions or decisions. Also, a young person who is in need of advice or who harbours some fears, needs to talk to others and express himself/herself.

CONCLUSION

20.   The ability to effectively communicate with other people is an important skill. Through communication, people reach some understanding of each other, learn to like each other, influence one another, build trust, and learn more about themselves and how people perceive them. People who communicate effectively know how to interact with others flexibly, skillfully, and responsibly, but without sacrificing their own needs and integrity.

LESSON PLAN : P 5
COMMUNICATION SKILLS - 2

Period   -   Two

Type   -   L/P

Code   -   P 5

Term   -   II (JD/JW)
_____

Training Aids

1.   Computer Slides, Charts, Pointer, Black Board and Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

            (b)   Common Barriers to Effective Communication   -   25 Min

            (c)   Barriers of Communication   -   25 Min

            (d)   Communicate Tactfully   -   20 Min

            (e)   Conclusion   -   05 Min

INTRODUCTION

3.   Overcoming the many barriers to communication is more a matter of common sense, practice and effort than any specific skill. Essentially, being an effective communicator means having the skill to recognize if and when there is a barrier to communication and being able to resolve it.

AIM

4.   To understand the components and Barriers to Effective Communication and how to Communicate Tactfully.

PREVIEW

5.   The class will be conducted in the following parts:-

            (a)   Part I   -   Common Barriers to Effective Communication.

            (b)   Part II   -   Barriers of Communication.

            (c)   Part III   -   Communicate Tactfully.

PART I : COMMON BARRIERS TO EFFECTIVE COMMUNICATION

6.   No matter how good and effective a communicator one maybe, yet the fact is that one does face certain barriers, from time to time, which forces them to work on becoming even more effective in their skills to communicate. Given here are the communication barriers that occur while listening, speaking and in the case of non- verbal communications.

7. **Listening Barriers**.

    (a)   Interrupting the speaker.

    (b)   Not maintaining eye contact with the speaker.

    (c)   Rushing the speaker to complete what he has to say.

    (d)   Making the speaker feel as though he is wasting the listener's time.

    (e)   Being distracted by something that is not part of the ongoing communication.

    (f)   Getting ahead of the speaker and completing his thoughts.

    (g)   Ignoring the speaker's requests.

    (h)   Topping the speaker's story with one's own set of examples.

    (j)   Forgetting what is being discussed.

8. **Barriers While Speaking**.

    (a)   Unclear message.

    (b)   Lack of consistency in the communication process.

    (c)   Incomplete sentences or mumbling words and sentences

    (d)   Not understanding the receiver.

    (e)   Poor eye contact.

9. **The Other Barriers Include**.

    (a)   Assumptions, for instance assuming others see a situation same as you or have same feelings as yours.

    (b)   Patterns / reverting to type.

    (c)   Language - different level of meaning.

    (d)   Erroneous transition, value judgment.

    (f)   Use of negative words.

    (g)   Perceptions- depending on mood, the receiver may misinterpret the message.

PART II : BARRIERS OF COMMUNICATION

Barriers of Communication.

10. **Linguistic Barriers**.

    (a)   Language/words.

    (b)   Ambiguous words.

(c)   Lack of clarity.

(d)   Using technical terms.

11.   **Psychological Barriers**.

(a)   Aggression.

(b)   Inferiority.

(c)   Symbol of status.

(d)   Hierarchy.

(e)   Memory.

(f)   Disinterest.

12.   **Environmental Barriers**.

(a)   Disturbance/sound.

(b)   Environmental changes.

(c)   Lack of ventilation.

(d)   Lack of space.

(e)   Distance from participants.

(f)   Time.

(g)   Physical discomfort.

13.   **Sender and Receiver Related**.

(a)   Depends on the mood (angry, happy, sad and depresses).

(b)   Personality type of sender or receiver (soft spoken, harsh with others, impatient, arrogant, not listening to others, cannot take orders, meek, docile, fear   of authority etc.)

(c)   The level of trust one holds for the other person.

(d)   Perception about the other person.

(f)   Value judgment (not effective, clever, hard worker, lazy)

(g)   Lack of empathy (not bothering to understand the situation the other person is in.

14.   **Content Related**.

(a)   Content chosen is sensitive.

(b)   Inappropriate for the receiver.

(c)   Incoherently communicated.

(d)   Use of words (to complex expression, use of unknown language or words, hidden meaning etc.)

15.   **Method Related**.

(a)   Inappropriate method (e.g. use of written text messages with illiterate population).

(b)   Loss in transmission (disturbance/noise).

Causes of Communication Gap.

16.   The factors that causes 'communication gap' are many. They include:-

(a)   The hierarchy (not able to question higher authority for clarification.

(b)   Conflict of interest (e.g. personal interest versus the parental expectations).

(c)   The level of motivation that one holds. (e.g. I do not care, things can wait).

(d)   Perception (e.g. nobody understands me).

(e)   Psychological factors (e.g. fear of authority and power, anger about following rules).

(f)   Stress (e.g. stress due to exams/work/personal pressure and hence misunderstand the communication).

Reducing the Communication Gap.

17.   The following steps will help in reducing the communication gap:-

(a)   Plan ahead.

(b)   Involve others to contribute to planning.

(c)   Listen to the suggestions made by others.

(d)   Speak with purpose and be specific.

(f)   Justify your stand without upsetting others.

(g)   Have sense of humour.

(h)   Have empathy.

(j)   Do not be judgmental.

(k)   Do not underestimate the ability of others to contribute.

(l)   Observe the body language or the non-verbal communication of others.

(m)   Be transparent to inform others of the planned activities and get feedback.

(n)   Make modification in the plan to suit the need.

(o)   The words 'yes' and 'no' are very powerful. Learn to use them appropriately.

PART III : COMMUNICATE TACTFULLY

18.   The ability to deal with others without offending, giving feedback without creating conflict, a keen sense for what is appropriate, this is the skill of tactfulness. If you see the value of being tactful the following suggestions will help.

19.   **Always Communicate Tactfully**.

(a)   T   -   Think before you speak.

(b)   A   -   Assertive communication.

(c)   C   -   Clarity of thoughts and content.

(d)   T   -   Tone and pitch of voice.

(f)   F   -   Focus on interests, needs of the listener.

(g)   U   -   Uncover hidden feelings.

(h)   L   -   Listen for feedback.

CONCLUSION

20.   Communication is a basic skill and forms the foundation of all relationships.   The quality of communication often determines the quality of a relationship. We communicate to give information, express our feelings, solve problems/arguments/ conflicts, to show that we care, etc. Therefore understanding how to communicate and learning how to communicate effectively in different situations protects young people from risks and risky behavior.

LESSON PLAN : P 6
SELF CONFIDENCE, COURAGE AND SELF CONVICTION

Period   -   One

Type   -   Lec

Code   -   P 6

Term   -   I (JD/JW)

_____

Training Aids

1.   Computer Slides, Charts, Pointer, Black Board and Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

        (b)   Self Confidence   -   10 Min

        (c)   Courage   -   10 Min

        (d)   Self Conviction   -   10 Min

        (e)   Conclusion   -   05 Min

INTRODUCTION

3.   Overcoming the many barriers to communication is more a matter of common sense, practice and effort than any specific skill. Essentially, being an effective communicator means having the skill to recognize if and when there is a barrier to communication and being able to resolve it.

AIM

4.   To acquaint the cadets about Self Confidence, Courage and Self Conviction.

PREVIEW

5.   The class will be conducted in the following parts:-

        (a)   Part I   -   Self Confidence.

        (b)   Part II   -   Courage.

        (c)   Part III   -   Self Conviction.

PART I : SELF CONFIDENCE

5.   "Confidence gives you courage and extends your reach. It lets you take greater risks and achieve far more than you ever thought possible". Self-confidence is extremely important in almost every aspect of our lives, yet so many people struggle to find it. People who lack self-confidence can find it difficult to become successful.

6.   **Importance of Self-Confidence and Self-Efficacy.** Self-confidence is the ability and belief in our self to do those tasks that are given to us by our self or by other people in our family or from our employers. It is a kind of mental and physical force to do the job we are assigned to do. For solving day-to-day problems, a moderate amount of self-confidence may be good enough but growing confidence through doing of things can lead to ever-increasing potential to do more and more; and thereby attaining successes throughout our life. Self-confidence is also important because it leads to self-efficacy (the belief in one's capability to perform a task. A leader with high self-efficacy will usually believe that a task is do-able.

7.   **Developing Self-Confidence**. Self-confidence really can be learned and built on. And, whether you're working on your own self-confidence or building the confidence of people around you, it's well-worth the effort! All other things being equal, self-confidence is often the single ingredient that distinguishes a successful person from someone less successful. Self-confidence is generally achieved by succeeding in a variety of situations. Specific methods of boosting self-confidence are given below:-

   (a)   **Write Down Personal Assets and Achievements**. Reflect on what's good about you to increase self-appreciation and therefore self-confidence. A written list of assets is particularly useful. We must have an inventory of our personal attributes. Some examples are as under:-

       (i)   Good listener.

       (ii)   Most people like me.

       (iii)   Good handwriting.

       (iv)   Good posture.

       (v)   Inquisitive mind.

       (vi)   Good at solving problems.

       (vii)   Above-average Internet search skills.

   (b)   **Develop a Solid Knowledge Base**. A bedrock strategy for projecting self-confidence is to develop a base of knowledge that enables a person to provide sensible alternative solutions to problems.

   (c)   **Use Positive Self Talk**. A basic method of building self-confidence is to engage in positive self-talk, saying positive things about oneself to oneself. First, state the incident that casts doubt about self-worth. Second, state what the incident does not mean, followed by third, what it does mean. Fourth, objectively account for the cause of the incident. Fifth, identify ways to prevent the incident from happening again. Sixth, use positive self-talk.

   (d)   **Avoid Negative Self-Talk**. Minimize negative statements about yourself in order to bolster self-confidence. Negative self-statements such as "I may be stupid but..." and "I know I'm usually wrong but..." detract from self-confidence.

   (e))   **Use Positive Visual Imagery**. Again, visualization is important for acquiring human relations skills. Positive visual imagery is picturing a positive outcome in one's mind. The technique is effective for gaining control of an upcoming, challenging situation.

   (f)   **Strive for Peak Performance**. Strive to do the best what you can. Peak performance is the mental state necessary for achieving maximum results from minimum effort.

(i) Experiencing peak performance in various tasks over a long period of time would move a person toward self-actualization.

(ii) It involves extraordinary focus and concentration.

(iii) Peak performers have a mission in their work and personal lives.

(iv) Charles Garfield says that peak performers have a mission in their work and lives, and are therefore fully committed.

(g) **Bounce Back from Setbacks and Embarrassments**. An effective confidence builder is to convince yourself that you can conquer adversity such as setbacks and embarrassments, thus being resilient. Do not take set backs personally.

(h) **Get Past the Emotional Turmoil**. The emotional impact of severe job adversity can rival the loss of a personal relationship, and creates stress. Accept the reality of your problem and do not take the setback personally. Get help from your support network.

(j) **Find a Creative Solution to Your Problem**. To search for creative solutions to the adversity problem, use the problem-solving and decision-making steps learnt in previous lectures.

(k) **Balanced Self-Confidence**. Neither being over-confident nor being under-confidence is good for people. There must be balance between the two extremes. Good self-confidence is about having the right amount of confidence, founded on your true abilities and skills. With the right amount of self-confidence, you will take informed risks and do not stretch yourself unnecessarily. On the other hand, if you are under confident, you'll avoid taking risks and stretching yourself. In this way you will not make use of your potential fully. So, self-confidence is something based on realistic expectations on your skills and experience, for achieving your goals.

PART II : COURAGE

8. **Courage.** Courage is the ability to confront fear, pain, danger, uncertainty, or intimidation. Courage is of two kinds, physical and moral. Courage comes from the strength of mind or will. Physical courage depends on one's physical strength. A weak; and sickly person is hardly seen to be physically courageous, because his ill health does not permit him to take an aggressive view in life, although he may be mentally bold. A person, who is bold and strong, both in body and mind, is normally found to be courageous.

9. **Physical Courage.** Physical courage is courage in the face of physical pain, hardship, death, or threat of death. The question of physical courage arises in the event of any danger or difficulty that suddenly appears, when immediate protection or security from that fear of massacre or destruction demands physical courage. If a sudden fire breaks out in a house, or a dacoit is going to take place, physical courage becomes absolutely necessary in such critical moments. Without physical resistance with indomitable courage, it becomes impossible to save the situation.

10. **Moral Courage**. Moral courage is the ability to act rightly in the face of popular opposition, shame, scandal, or discouragement But moral courage is in no way inferior to the physical courage. It is, on the contrary, more important and glorious to possess moral courage. Moral courage is very rare. It is found in one in a million. There are numerous instances where people have bravely used their physical courage and saved the life of a drowning man, or a house from burning in fire, by jumping courageously into the scene of danger.

11. **Examples.** Noble may be the cause in which physical courage is shown; but nobler is the cause in which moral courage is displayed. Moral courage comes from a firm conviction that the possessor has in him.

(a)   Let us take the case of Pandit Ishwar Chandra Vidyasagar who is known for his noble character and moral courage. The man was highly educated, but hardly with any extraordinary physical strength; yet he was endowed with tremendous moral courage. He did not hesitate to raise his voice of protest or even insult the wicked Europeans who used to rule the country then with enormous power. He had also ignored all sorts of humiliation in the hands of his own countrymen, when he was determined to get the Bill for 'Hindu Widow Re-marriage' passed by the Government. That goes to show his wonderful determination, moral courage and noble character.

(b)   Galileo, the great scientist, had also to suffer imprisonment in his old age for the sake of his conviction. Men of moral courage never barter away their conscience, but put it before liberty, before reputation, even before life. They think of no danger, nor of death, when the alternative is a disgrace. They hate more to live as cowards than to face prosecution, imprisonment or death. It is these men who are the true makers of history. It is they who live in honour, die in glory, and have the privileges of being adored by all.

PART III :SELF CONVICTION

12.   Conviction" is a frequently used word, but what does it really mean? This lecture reflects upon the true meaning of conviction from different standpoints.

13.   **Firstly.**   As it is often used, the word conviction is close in meaning to "self-confidence." To say "have conviction and try your best" to someone facing some kind of challenge means the same thing as telling the person to "have confidence."S elf-confidence means just what it says: to believe in yourself. In other words, it means to believe in your own ability, power and worth. Everyone needs to have some degree of self-confidence. An excess of self-confidence, however, can cause terrible failure or tragedy, and in that sense, confidence in oneself can be a tricky thing. In short, having too much self-confidence is arrogant and turns into conceit. This inevitably leads to self-righteousness and prejudice, and as a result, people's judgment goes awry.

14.   **Secondly.**   Whether your conviction is strong or weak becomes evident at the time you directly face tribulations. Various problems will come up, whether small or large, as long as a person is alive. But if you can resolve these matters with your own powers, they do not really deserve to be called "tribulations." Tribulations (sufferings and hardships) are circumstances that you can't readily overcome even though you try hard to do so. In such situations, the conviction (or self-confidence) that a person had until then, is shaken and becomes battered down. When this happens, people lose their judgment, their ability to surmount situations melts away, and they fall into the three evil paths of Hell, Hunger, and Animality. This is what leads to defeat in life. Mere self-confidence is a fragile thing. The key point to being able to live your life to the fullest in a worthy manner is to have the conviction that you can overcome anything and solve everything, no matter what tribulation you may face. Here is where there is an unmistakable difference between self conviction based on faith in ownself and the conviction based on the self. Self Conviction is what drives you to muster stronger faith than ever before, and to draw out the strength and courage to tackle that difficulty head on.

15.   **Thirdly.** Think about the experiences of others you know. They do not simply overcome their own problems for themselves; the merit they receive is also distributed to the people around them. There is nothing as wonderful as the mysterious benefit received owing to the power faith in ownself ie Self Conviction. Therefore, the more firmly one's faith is based on putting the treasures of the heart first, the stronger one's conviction will be. This conviction becomes increasingly unmovable and solid in proportion to the faith one accumulates. On the other hand, people who just pursue treasures of the storehouse and body will in the end have weak and shallow conviction, even if they are believers. As long as their life produces few and minor obstacles, they appear as if they have conviction. That conviction, however, falls apart easily when their affairs do not progress smoothly and circumstances become difficult. Such people actually have an extremely fragile foundation for life.

16.   **Fourthly**.   With conviction founded in faith, there should never be any danger of this happening. Conviction is born within the process of mustering strong and deep faith. This is why it naturally leads to humility at the same time, by fostering the spirit of self-improvement, the capacity to reflect on oneself. If a person should happen to fall into a state of arrogance or conceit, it means that his or her faith has caved in. In this sense, arrogance is nothing but a cover for a loss of true conviction. True conviction is not conceit, arrogance, or haughtiness. It is neither mere stubbornness nor superficial optimism. It is a pure state of life built by strong faith. It is a wealth of humanity and an indomitable, unyielding life force.

CONCLUSION

17.   Self Confidence, Courage and Self Conviction enable us to adapt to situations and people. These are learnt from our own experience, perceptions, insight, stories, books, parents, teachers, religion, media, culture etc. They are present in every individual. To get the best out of them we need to sharpen them regularly. History is full of excellent examples of Self Confidence, Courage and Self Conviction . Its only for us to read our past history and derive the best lessons from it.

LESSON PLAN : P 7
EFFECTS OF LEADERSHIP WITH HISTORICAL EXAMPLES

Period   -   Two

Type   -   Lec

Code   -   P 7

Term   -   I (JD/JW)

_____

Training Aids

1.   Computer Slides, Pointer, Charts, Black Board and Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

          (b)   Historical Examples Prior to World War II   -   15 Min

          (c)   Historical Examples After World War II   -   15 Min

          (d)   Conclusion   -   05 Min

INTRODUCTION

3.   When we study and analyse outstanding leaders in history, who have done some lasting good to mankind, a nation, a community, an organisation or a cause, we find that they are not similar. They come in all shapes and hues- the flamboyant; the scholarly; the artistic; the ascetic; the gregarious and the recluse. And yet, when we look deeper into their makeup, with common sense, we find something interesting. They have two things in common:-

          (a)   They are all persons of character, propelled by an ideal, or a vision. They also have character.

          (b)   They have an inner structure, which is composed of certain universal qualities.

4   The effect of leadership will be best understood by the various examples available in history.

AIM

5.   To acquaint the cadets about Effects of Good Leadership with Historical Examples.

PREVIEW

6   The class will be conducted in the following parts:-

          (a)   Part I   -   Historical Examples Prior to World War II.

          (b)   Part II   -   Historical Examples After World War II.

          .

PART I : HISTORICAL EXAMPLES PRIOR TO WORLD WAR II

Endurance (Alexander's Leadership)

7.   Alexander, at the head of 30,000 foot-soldiers, with cavalry in the rear, was crossing the dreaded Gedrosian Desert in Asia Minor. It was mid summer and the yellow sands stretched to the horizon, with a few rocks jutting out here and there. It was hot like a furnace. They had completely run out of water. Arian, the most reliable historian of Alexander's conquests, records the incident in the following words:-

> "Alexander, like everyone else, was tormented by thirst, yet he kept on marching on foot, leading his men. It was all he could do to - keep going, but he did so, and the result as always was that the men were better able to endure their misery, when they saw it was equally shared. As they toiled on, a party of light infantry, which had gone off looking for water found some, just a wretched little trickle collected in a shallow gully. They scooped up with difficulty what they could and hurried back, with their priceless treasure, to Alexander, then, just before they reached him, they tripped the water into a helmet and gave it to him. Alexander, with a word of thanks for the gift, took the helmet and, in full view of his troops, poured the water on the ground. So extraordinary was the effect of this action that the water wasted was as good as a drink for every man in the army. I cannot praise this act too highly; it was a proof, if anything was, not only of his power of endurance, but also of his genius for leader-ship".

Character (Wold War-II)

8..   Before we have a look at the universal qualities common to all good leaders, we have to be quite clear in our mind about the frequently used word `Character'. Character is the most important factor which makes effective leaders. However, we have to describe a person of character with some clarity, so that there is a well articulated model, based on historical experience.

9.   Descriptions of a person of character by a seasoned and highly respected war leader, General Mathew B Ridgeway of the US Army should provide the necessary clarity. A veteran of World War II, and a highly decorated officer, he rose to become the Supreme Commander of the UN Forces in Korea, and later was also the Chairman of the Joint Chiefs of Staff. He says:-

> "Character stands for self discipline, loyalty, readiness to accept responsibility, and willingness to admit mistakes. It stands for selflessness, modesty, humility and willingness to sacrifice when necessary and, in my opinion, faith in God. Let me illustrate". "During a critical phase of the 'Battle of the Buldge' in World War II, the Germans launched a counter offensive and nearly broke through the Allied lines in France. While I commanded the 18th Airborne Corps, another Corps Commander just entering the fight next to me remarked, 'I am glad to have you on my flank. It is character that counts'. I had long known him and knew what he meant. I replied 'That goes for me too'. There was no amplification, none was necessary. Each knew that the other would stick, how ever great the pressure; would extend help before it was asked, if he could; and would tell the truth; seek no self glory, and ever lastingly keep his word. Such men breed confidence and success."

Decision Making (Operation Overlord)

10.   The dilemma of the most momentous decision of military history is worth noting. During World War II, Operation Overlord , the Allied amphibious and airborne assault for the bridgehead in Europe was planned for 6 Jun 1944. It was the most complex operation ever attempted in history. The movement of troops, tanks and guns had already started and they were boarding their ships. Suddenly the weather report indicated a severe storm on 6 June. There was a huge cry for postponement of the D Day; to go on would be a disaster, particularly for the air borne operations.

Opinion of the experts was divided. Eisenhower, the supreme Commander, faced the biggest dilemma of his life.

11.   Time was running out . He went away for a while to contemplate in silence. He decided to go on as planned, despite the warnings of a disaster, Before the invasion fleet set out, he wrote the following press release, to be issued if necessary:-

> "Our landings have failed and I have withdrawn the troops.
> My decision to attack at time and place,
> was based on the best information available.
> The troops, the Air and Navy did all that bravely
> and devotion to duty could do.
> If any blame or fault is attached to the attempt, it is mine."

12.   Needless to add - that the operation achieved complete surprise and was a success.

Will Power (Sir Winston Churchill)

13.   'Try, try again' is an age old advice based on the famous poem about Robert Bruce. The value of dogged perseverance was once articulated in a most dramatic manner by Sir Winston Churchill, who was the Prime Minister of the UK during World War II. He came out of the war as one of the tallest leaders in the world. He was invited by his school to be the guest of honour for the celebration of the 150th Anniversary of the school. He was also requested to deliver the keynote address to inspire the students to follow his example and become outstanding leaders in their lives. Churchill accepted the invitation. There was great expectation among all sections of society to listen to the views of Churchill on leadership.

14.   On the appointed day, the hall where the function was being held, was overflowing with people .The media and the scholars had turned up in strength. Everyone was looking forward to Sir Winston revealing the secrets of his leadership.

15.   After the usual courtesies, Churchill was invited to deliver his keynote address. He got up from his chair, walked slowly to the podium took out his small rectangular glasses and wore them. He then took out a small piece of paper, placed it in the podium and peered over his glasses at the audience. There was pin drop silence. He then delivered his address;

<center>"NEVER – NEVER – NEVER – NEVER - GIVE UP"</center>

16.   Having roared these five words, he ambled back to his seat. There was a bewildered hush for a long time. However, his great message soon sank home. People stood up and gave him a long and thunderous ovation. In just five words. Churchill distilled the great secret of his leadership and success.

PART II : HISTORICAL EXAMPLES AFTER WORLD WAR II

Courage and Endurance (Saving Ladakh : 1947-48 War.)

17.   Courage is the most admired human virtue in all societies; to be a man means to be courageous. The most important act of courage for a leader is to make decisions. No action can start unless a decision is made. To make a decision means being accountable for success or failure.

18.   The strategy to save Ladakh was to hold on to Skardu at all cost, so that Pakistan led force may be prevented from reaching Kargil and Leh. Fortunately, we had the right man in Skardu to fulfill the mission. No words can describe the gallantry and leadership of Lieutenant Colonel Sher Jung Thapa, who held on to Skardu, with hardly 250 men, for six long months. It is one of the longest sieges in the annals of modern war. While ordering him to defend Skardu to the last Man

and last round, he was promised reinforcements and supplies. Unfortunately, neither could reach Skardu. Efforts were also made to air drop supplies and ammunition, but much of it fell outside his defences. Lieutenant Colonel Thapa then asked for discontinuing airdrop, as these were merely helping the enemy surrounding him. They held on even when they where on half and quarter day rations. At the end of six months when, he completely ran out of rations and ammunition, he was ordered to surrender. Thapa's response was " I know that I cannot hold out without rations and ammunition. I know the fate, I and my troops will meet after surrendering to the enemy. I cannot do anything now against the enemy, but I will certainly take revenge in my next life". It is officers of this stamp who make great armies and great nations.

Practice What You Preach (1971 War)

19.   In another example, we shall see what happens when we do not practice what we preach. This example is from the 1971 War between India and Pakistan.

20.   Brigadier Mohamed Latif of the Indian Army launched an attack to capture an enemy held hill top, nicknamed 'Baldy'. The hilly terrain surrounding the objective, was covered with dense pine forest. Brigadier Latif selected the Guards battalion for this tough task.

21.   Hardly had the Commanding Officer of the Guards battalion finished reporting his success on the radio, a counter attack was launched by the enemy. The Guards were hardly organized to face a major counter attack. They had fought the whole day, suffered casualties, were short of ammunition and had eaten just one meal. Brigadier Latif warned The Guards to get ready and soon artillery shelling started from both sides. Brigadier Latif was mentally prepared to lose 'Baldy', because it would be a very unequal fight. When the counter attacking forces were about four hundred yards from 'Baldy', the Guards opened up with their machine guns. To the utter surprise and relief of Brigadier Latif, within minutes the entire counter attack petered away.

22.   He could not believe his eyes, but congratulated the Guards for their performance. A little while later, the Guards reported that they had captured two unwounded prisoners.

23.   The prisoners arrived at the command post almost at midnight. Towards the end of his interrogation, the Brigadier enquired from the Corporal "you seem to be a seasoned soldier. How come, you gave yourself up even when you were not wounded; not a very honourable action by a good soldier". The corporal was more than willing to explain and gave out his story, "Our commander was right in front when the counter attack started. Holding his sten in his one hand, he was encouraging us to wipe out your troops and recapture 'Badly'. He was inspiring us by loud talk. His booming voice could be heard all over. He was a towering personality. We were determined and enthusiastic to finish the task. We kept on advancing, even when your shelling started. When your troops opened fire with machine guns, our commander immediately took cover behind the trunk of a huge pine tree. Standing in that sheltered position, he waved his sten gun and ordered us to rush forward. But very soon we also started taking shelter behind the pine trees. I was unlucky to be captured by your patrol before I could slip away like others, down the slope and return to our base."

24.   Here was a sure victory, on the plate, for the counter attacking force, but the commander was unable to set the right example. Good or bad personal example by a leader is most infectious. It is because of this that a Persian saying conveys a very stark truth:-

> "If the king plucks one apple from the public Garden,
> the public will take away even the roots".

Decision Making: Operation Meghdoot (Siachen Glacier)

25.   Northern Command was ordered to prevent Pakistan troops from occupying the Siachen Glacier, to which they laid a claim. They were preparing to move in during the summer of 1984.After detailed discussions and war gaming, a plan was evolved. It had to be heli-borne

operation to neutralize the time and space advantage of Pakistani troops. The tentative D Day was fixed for May 84, a month before the area is normally approachable.

26.   After a more deliberate thought, the Army Commander held a final discussion about the exact D Day. He felt that it should be as long before June as possible, to give the troops enough time to get properly organised before any reaction from the Pakistan side. The Brigade Commander responsible for mounting the operation suggested 13 April. The Army Commander approved the D Day and the plan was sent to Delhi.

27.   Their reaction was that sending troops during the month of April, the month known for blizzards, would be plain murder. Here was typical dilemma. Should the advice of Army Headquarters be accepted or should Army Commander stick to his own judgment. D Day was not changed.

28.   In the event, the first phase troops were ferried by helicopters to their objective on 13 April, without a hitch.   However, by midday the weather packed up and second phase had to be called off. The blizzard that broke out raged for 72 hours. During this period the troops of first phase were completely out of communications.   At 18,000 feet above the sea level, with the temperature at minus 60 degrees centigrade, their batteries froze. Morning and evening " we-told- you-so" calls to Northern Command from Army Headquarters were a nuisance and were totally ignored , because the troops had been properly prepared and equipped to face such an eventuality . No one in Northern Command had any fear about their survival.

29.   On 17 April, the day was spotlessly clear, the first phase troops opened up their radio. The second phase troops were flown in and it was almost a week before the Pakistani troops, still training around Skardu, could reach. They launched a hurried attack, a week later, which was beaten back. The Indian troops are still holding on to the position they occupied in April 84, despite numerous attempts by Pakistani forces to dislodge them.

CONCLUSION

30.   History is full of excellent leadership examples. Its only for us to read our past history and derive the best lessons from it. Napoleon once told his generals " Read, Read and Re – read past campaigns, because every time you read them, you will learn something new".

LESSON PLAN : P 8
PROBLEM SOLVING SKILLS

Period   -   One

Type   -   L/P

Code   -   P 8

Term   -   II (JD/JW)

_____

Training Aids

1.   Computer Slides, Charts, Pointer, Black Board and Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

          (b)   Problem Solving and its Process   -   15 Min

          (c)   Understanding Problem Solving   -   15 Min

          (d)   Conclusion   -   05 Min

INTRODUCTION

3.   Problem solving skills enable us to deal with problems in our lives in a constructive manner. The process of problem solving involves various steps. They are identifying the problem, exploring the available alternative and deciding on the best possible solution.

AIM

4.   To acquaint the cadets about Problem Solving Skills.

PREVIEW

5.   The class will be conducted in the   following parts:-

          (a)   Part I   -   Problem Solving and its Process.

          (b)   Part II   -   Understanding Problem Solving through Cause and Effect.

PART I : PROBLEM SOLVING AND ITS PROCESS

6.   We introduce the topics to the cadets by following activity:-

          (a)   **Step – 1.** Ask the participants usually when someone encounters a problem how does he/she reacts? Tell them that when we encounter a problem, our instinctive reaction is to run away from it. We usually react negatively: Oh! I hate it! I am so unfortunate…

          (b)   **Step – 2.** Tell them that, whenever there is a problem, one should ask himself/herself, "Do I have a problem?" This is the step towards problem solving. If we have not taken actions to solve our problem, our ability remains at the same level, and we will not be able to evolve. Problem-solving provides human beings with opportunities to evolve, and develop his or her full potential. Add information from the Facilitator's Guide 5.1.3.

7.   It is very important for an individual to accept that there is a problem. Denial of the existence of a problem might be attempted with a hope to help us in the denial of the negative feelings associated with the problem. No matter what we feel the problems do not go away by themselves. Many people have difficulty admitting, acknowledging or recognizing their problems. Once convinced about the existence of the problem, it is necessary that we describe the problem. We have to list the important factors including our own needs that could have contributed to the problem on a piece of paper. The problem becomes clear when written down. Then it is easy to find potential solutions.

8.   Defining our problem is a process of helping ourselves to discover the core issue, so that we will not be distracted by insignificant details. When we are able to see what our problem really is and what the causes are, we come very close to the solution. Now what is most important is to continue our analysis by writing down all the possible ways of tackling the causes. This requires creative thinking that is, thinking out of the box or beyond the usual frame of reference. Specifically, it means finding solutions beyond our usual or traditional way of reaching to a problem. We are often limited by our past experiences, and we dare not think differently. To go beyond the traditional boundaries of doing things, we need to empower ourselves with more information through newspapers, radio, TV, classmates, parents, teachers, relatives, friends etc.

9.   We have to envisage the potential consequence of each option, and decide on what we really need to do and what is best for ourselves. Decision-making, based on as much information as we can gather, is always an essential part of problem solving. No solution is   final. Implementing our solution is only part of the process that is, testing whether our idea actually works. If our solution leads to failure, we should not panic. This experience of failure is essential to come up with new and better ideas for a better solution. We have to keep trying. We cannot achieve a breakthrough without failure. Failure is the evidence that we are pushing the boundaries of our experience.

10.   Problems are often opportunities in disguise. When we escape from problems, we give up the opportunity to develop our skills and potentials. Once we resolve our problems, we will find ourselves happier, more fulfilled, and more ready to confront new issues. Tackling problems involves the use of our mind. The process enhances our capacity to solve greater problems.

11.   The problem solving has following process:-
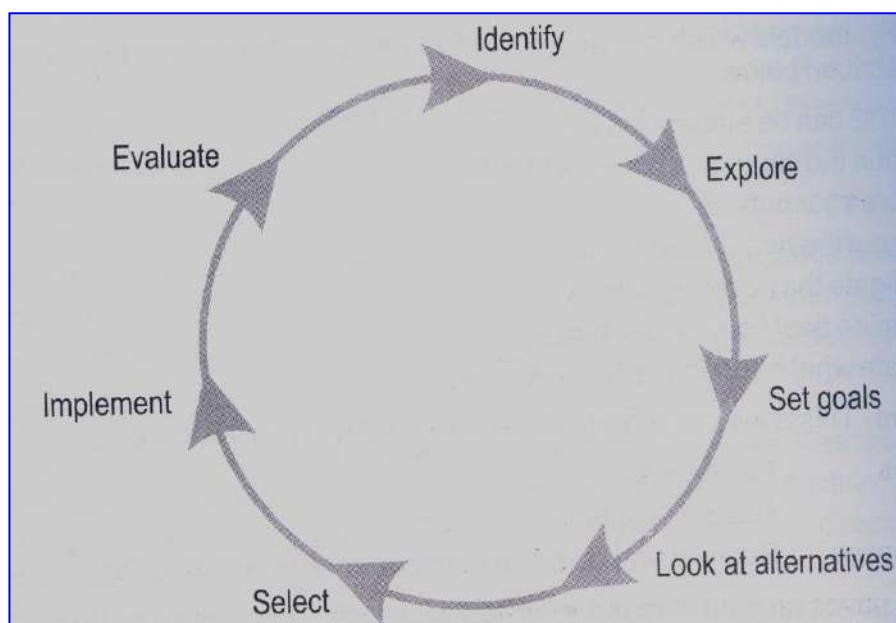
PART II : UNDERSTANDING PROBLEM SOLVING
THROUGH CAUSE AND EFFECT

12.   The class will be open to discussion to understand problem solving with the help of the under mentioned example :-

Shikha wanted to choose Biology in her X class as she wanted to try for medicine and related subjects. Her parents suggested that she could take computer science as it was easy to procure a job these days. Shikha could not take a decision. She jotted down the advantages and disadvantages of each of the choices. She weighed the positive and negative consequences of each of the options before her. Then she decided that she had to choose her subject based on her likes as she would use the knowledge for life.

13.   The cadets will be taught cause and effect relationship for problem solving. The same will be carried out as follows:-

(a)   **Step 1**. Read out the following situation to establish that some causes are chosen, whereas others are not. Emphasize that sometimes we can control effects by choosing causes. For example, I wanted to be a successful professional but by trying drugs just for fun, I have become addicted and cannot focus on my studies, my grades are really bad and I have taken to a life of petty crime to pay for my drugs-If I had known the consequences of trying drugs I would have said "No" more effectively.

(b)   **Step 2**.   Ask the participants to give examples of causes we choose that have good effects. These might include helping each other to complete a task so that an assignment can be completed on time, expressing feelings, taking care of people who are old or ill etc. Contrast each positive example with an alternate cause that would have bad effects. Going to see films instead of completing the assignment on time and consequently failing in the exam due to lack of preparation can be quoted as an example.

CONCLUSION

14.   Problems are not to be avoided or feared. Problems are part of life, and are there for us to solve, not evade. Problems left unsolved can bring mental stress and eventually affects our health. Problem solving skills empower us not only to confront our problems, but can fact turn them into opportunities. We can cause good things to happen by carefully assessing the different options and the possible outcomes of each option before making a final choice.

LESSON PLAN : P 9
INTERVIEW SKILLS

Period   -   One

Type   -   Lec

Code   -   P 9

Term   -   II (JD/JW)

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Training Aids

1.   Computer Slides, Pointer, Charts, Black Board, Chalk, Pen, A-4 Paper.

Time Plan

2.   (a)   Introduction   -   05 Min

          (b)   The Interview   -   30 Min

          (c)   Conclusion   -   05 Min

INTRODUCTION

3.   The interview is the final hurdle most people have to cross in getting a job. Some colleges and scholarship committees also require interviews. Being chosen for an interview means someone is interested in your skills, knowledge and experience. However, a great application or resume can quickly find its way into the garbage if you do not come across well in an interview. You now must become a sales person. The interviewer is the buyer. They want to see if your talents meet their needs for the job or for admission to the college. So you have to prove yourself.

AIM

4.   To acquaint the cadets about facing an Interview - Interview Skills.

PREVIEW

5.   The class will be conducted in the following parts:-

          (a)   Part I   -   Before the Interview.

          (b)   Part III   -   Conducting Yourself during the Interview.

          (c)   Part IV   -   Following through after the Interview.

PART I : BEFORE THE INTERVIEW

6.   **Actions**.

          (a)   Do your homework! Learn as much as you can about the company or college before the interview.

          (b)   Do some research: ask people who work there, go to the library, look on the internet, and make an anonymous call to the secretary. Find out what services/products the

company provides, how long they have been in business, whether the company is growing or downsizing, the company's.

(c)   Reputation, etc. An interviewer will be impressed that you have made an effort to learn about the company or college. Read any material they send you!

(d)   Know where you are going. Drive by the site of the interview a day or two before the interview.

(e)   Arrive 5 - 15 minutes early.

(f)   Be prepared when you go to the interview. Bring extra copies of your resume, your portfolio, a notepad with some questions prepared for the   interview, and a pen.

(g)   Dress for Success! Hair should be clean and combed. Fingernails must be clean with no gaudy polish. Keep perfume, cologne and aftershave to a minimum. Brush your teeth and don't forget deodorant.

> (i)   **Women.** Dress, skirt (not too short), or dress pants with a nice blouse or blazer. No excessive jewelry, make-up, or "big hair."

> (ii)   **Men**: Pants (not jeans!), collared shirt, tie, sport coat and shoes. A suit is not always necessary.

PART II : CONDUCTING YOURSELF DURING THE INTERVIEW

7.   The major points that are important will include the following:

(a)   Try to remember persons' names, and call each person by his or her name.

(b)   Always focus on the person asking the question, but use your peripheral   vision   to observe the facial and other nonverbal expressions of others involved in the interview.

(c)   If you don't have an answer to a specific question, respond honestly that   you don't know much about that topic.

(d)   Be aware of your tone of voice and your body language. Do not, for example, slouch and put your arms on a table. Also, do not display nervous mannerisms   or   speak with a strained voice.

(e)   Don't try to answer a question immediately; if you want to, take a little time to provide a more complete answer.

(f)   Always answer each question honestly, because you will probably have to live with what you present. Being dishonest in your answers may occasionally assist you in obtaining the position you desire, but you will have to live with the dishonesty. If you have presented a false image and you behave differently on the job, you may soon be on your way out.

(g)   Display a good knowledge of the district, based upon all the homework you have done. However, do not bury the interviewers with your knowledge, as you may very well turn them off. Also, if you display greater knowledge of a   variety   of   subjects   than   the interviewers, you may scare them off from your candidacy.

(h)   Don't argue if you disagree with the opinion of an interviewer. If you can,   avoid them.

(j)   At the end of the interview, you will often be asked whether you have any questions for the interviewer(s). It is wise, at this point, to respond:-

(i)   That the interviewers and your homework have provided you with all the information that you feel you need, but ask permission to call to obtain additional information if you think of something important that you missed.

(ii)   Ask if you can take a few minutes to stress why you desire the specific job in the specific district, emphasizing strengths that you will bring to the Position.

(k)   If you have materials that you would like the interviewers to review, do not hand them out prior / during the interview.. If you do this, the interviewers many times will be reading your handout materials rather than paying attention to what is being discussed during the interview.

(l)   At the end, make certain to express your gratitude for being given the opportunity for the interview.

(m)   At the very end, provide an additional copy of your resume to each person conducting the interview. This will probably be taken home and will remind them of   you when they think about a final employment decision. This is especially important if you were fortunate enough to obtain the final interview.

(n)   Throughout the entire interview, respond with sincerity, tact, and a high degree of interest.

(o)   Engage in active listening. Pay attention to the emotional tone of the interviewer, not just the words he or she utters.

(p)   Most important, throughout the entire interview situation, display life, pep, enthusiasm. Let your personality shine and display a high interest for the job for which you are interviewed.

8.   A final recommendation is that you attempt to obtain the final interview if multiple candidates are being interviewed. This has the following advantages:-

(a)   You will be the last person the interviewers will see and the last contact in their memories.

(b)   If the interviewers are not experienced, they will become accustomed to the process and be much more at ease when your turn comes to be interviewed.

(c)   If you can have a friend or someone you know observe the prior interviews and provide you with feedback, you will have attained much valuable information that will assist you when you are interviewed.

PART III : FOLLOWING THROUGH AFTER THE INTERVIEW

9.   Once your interview has been completed and you have returned home, don't forget to follow through with the interviewers. Write a letter of thanks, and inform the interviewers that you would very much like to serve in the administrative position they have announced. Also, if you have picked up on areas of specific interest to a certain member of the interview team, try to find interesting information about that subject and send it to that person. Also, include a note that indicates your high degree of mutual interest in that specific area.

10.   The advantages of this approach are that:-

(a)   It shows courtesy and the fact that you appreciated the interview.

(b)   It allows you a final chance to impress the individual interviewers.

(c)   It gives them a final contact that makes you memorable with the interviewers.

11.   Why People Aren't Hired:-

(a)   Poor personal appearance.

(b)   Inability to communicate clearly, poor voice, and grammar.

(c)   Lack of planning for a career...no purpose or goals.

(d)   Lack of enthusiasm and confidence in the interview.

(e)   Condemning past employers.

(f)   Failure to look the interviewer in the eye.

(g)   Limp handshake.

(h)   Late to the interview.

(j)   Does not thank the interviewer for his/her time.

(k)   Asks no questions.

(l)   Lack of knowledge about the business or the position.

12.   **Likely Interview Questions.**

Questions Often Asked By Employers	Questions Often Asked By Applicants
1. Tell me about yourself.	1. What are the strengths of the organization or department?
2. What are your short-range and long-range career goals, and how are you preparing to achieve them?	2. What are the career opportunities for someone entering this position?
3. Why did you choose this career?	3. What kind of orientation and training is available to new employees?
4. What do you consider to be your greatest strengths? Weaknesses?	4. How large is the company/college? How large is this particular department/major?
5. How would you describe yourself? How would a friend or professor describe you?	5. To whom would I be reporting and what kind of communication channels are there?
6. How has your college experience prepared you for your career?	6. What are the long-range plans for this organization?

7.	Why should I hire you?	7.	How long was my predecessor in this position? Why did he/she leave?
8.	How do you determine or evaluate success?	8.	How will I be evaluated? How often?
9.	In what ways do you think you can make a contribution to our company?	9.	Is there an opportunity to transfer from one division to another?
10.	Describe the relationship that should exist between a supervisor and those reporting to him/her.	10.	What are the prospects for promotion in the future? What are some of the qualities or accomplishments you would consider important for promotion?
11.	Describe your most rewarding high school/college experience.	11.	What is the management philosophy of this organization? What is the general philosophy?
12.	If you were hiring for this position, what qualities would you look for?	12.	In what areas of the organization do you expect growth?
13.	What led you to choose your field or major?	13.	Is continuing education encouraged? Is tuition reimbursement offered?
14.	What have you learned from participation in extracurricular activities?	14.	Can you tell me about the history of this position, and changes anticipated?
15.	How do you work under pressure?	15.	What are your expectations of the person in this position?
16.	Describe the ideal job/college.	16.	Is overtime the norm in this office?
17.	Why did you decide to seek a position with this organization and what do you know about us?	17.	What kind of support staff is available? What is the ratio of support staff to professionals, and how is work distributed?
18.	What major problems have you encountered and how did you deal with it?	18.	Generally, what percentage of time will be devoted to each of my responsibilities?
19.	What criteria are you using to evaluate the company/college for which you hope to work/attend?	19.	Do you work with daily, weekly, monthly, or annual deadlines?
20.	What salary do you want?	20.	Does the organization have a process for sharing creative ideas?

CONCLUSION

13.   Interviewing is one of the most important skills one can have in the workplace. You cannot move in or up without passing the interview. Yet as important as it is, few people ever take the time to study material on the skills needed to master that process. They go in to an interview, answer the questions as best as they can and hope for the best. However, there is a technique to interviewing. It's just as important as your CVs', skills, experience, and accomplishments.

LESSON PLAN : P 10
IMPORTANCE OF GROUP / TEAM WORK

Period   -   Two

Type   -   Lec

Code   -   P 10

Term   -   II (JD/JW)

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Training Aids

1.   Computer Slides, Pointer, Charts, Black Board, Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

        (b)   Types and Characteristics of Groups   -   35 Min

        (c)   Types and Characteristics of Teams   -   35 Min

        (c)   Conclusion   -   05 Min

INTRODUCTION

3*.*   It is a universal truth that teamwork is the ability to work together toward a common vision. It divides the task and multiplies the success. Teamwork is the fuel that allows common people to attain uncommon results. The opportunity to work with others, rather than on your own, can provide distinct benefits. Groups that work well together can achieve much more than individuals working on their own. A broader range of skills can be applied to practical activities and sharing and discussing ideas can play a pivotal role in deepening your understanding of a particular subject area. Being a part of a team will help you develop your interpersonal skills such as speaking and listening as well as team working skills such as leadership, and working with and motivating others.

AIM

4.   To acquaint the cadets of the Importance of Group / Team Work.

PREVIEW

5.   The class will be conducted in the following parts:-

        (a)   Part I   -   Types and Characteristics of Groups.

        (b)   Part III   -   Types and Characteristics of Teams.

PART I : TYPES AND CHARACTERISTICS OF GROUPS

6.   **Definition of a Group.**   A group can be defined as any number of people who share goals, often communicate with one another over a period of time, and are few enough so that each individual may communicate with all the others, person-to-person. Two or more people interacting to achieve a common objective is also called a group.

7.   **Classification / Types of Groups.** Groups can be following types:-

(a)   **Friendship Group.** It evolves informally to meet its members' personal security, esteem and belonging needs.

(b)   **Task Group**. It is created by the management to accomplish certain organization goals. Task group can further be classified as under:-

    (i)   **Formal Groups**. They are established by an organization to facilitate the achievement of the organization goals.

    (ii)   **Informal Group**.   It is one that develops out of the day-to-day activities, interactions and sentiments of the members for the purpose of meeting their social needs.

    (iii)   **Effective Group**.   An effective group is one which has the following characteristics:-

        (aa)   Its members know why the group exists; they have shared goals.

        (ab)   Its members support agreed upon guidelines and procedures for making decisions.

        (ac)   Its members communicate freely among themselves.

        (ad)   Its members have learned to receive help from one another and to give help to one another.

        (ae)   Its members have learned to deal with conflict within the group.

        (af)   Its members have learned to diagnose individual and group processes and improve their own and the group's functioning.

8.   **Importance of a Group.**

(a)   In a group people come together to achieve some common objectives for which they work in a structured fashion and utilise resources to reach pre-determined goals and targets.

(b)   A group carries a lots of power in it. One work which seems impossible, can be done by a group strength very easily. We have a number of examples of group work around us. India is itself a great example of group work. India is probably the only country in the world where people belong to different languages, having different cultures, modes of living, clothing, feeding habits and even different Gods and deities. In spite of all these differences, they live together in harmony and even believe to be the children of one mother called "Mother India".

(c)   We are one large nation with one central authority. In India we have unity in diversity and we work together to make our country a developed country. It is because of the strength of the nation as a group only that India could achieve freedom in 1947.

9.   **Characteristics of a Mature Group.**

(a)   An increasing ability to be self-directed (not dependent on the leader).

(b)   An increased tolerance that progress takes time.

(c)   An increasing sensitivity to their own feelings and those of others.

(d)   Improvement in the ability to withstand tension, frustration and disagreement.

(e)   A perception of the common denominators, which bind the group as well as areas of individual difference.

(f)   A better ability to anticipate realistic results of behavior to channel emotions into more socially acceptable ways of expressing these emotions.

(g)   An increased ability to change plans and methods as new situations develop.

(h)   A decrease in time needed to recover from threatening group situations. Peaks and valleys of emotional group crises become less personal.

(j)   Increased efficiency in locating problems, engaging in problem solving and providing help to individuals as needed.

(k)   A willingness to face one`s own responsibilities and to assist others when help is needed.

(l)   An acceptance of the right of the other person to be different.

PART II : TYPES AND CHARACTERISTICS OF A TEAM

10.   **Definition of a Team.** When two or more people who are interdependent, who share responsibility for outcomes, who see themselves and are seen by others as an intact social entity in a larger social system are called as "Teams". When teams are formed, its member must have (or quickly develop) the right mix of complementary competencies to achieve the team's goals. Also its members need to be able to influence how they will work together to accomplish those goals.

11.   **Types of Teams.**

(a)   **Functional Teams**.   They usually represent individuals who work together daily on a cluster of ongoing and independent tasks. Functional teams often exist within functional departments, marketing, production, finance, auditing, human resources and the like.

(b)   **Problem Solving Teams**. They focus on specific issues in their areas of responsibility, develop potential solutions and are often empowered to take actions within defined limits.

(c)   **Cross - Functional Teams**.   They bring together the knowledge and skills of people from various work areas to identity and solve mutual problems.

(d)   **Self - Managed Teams**.   They normally consist of employees who must work together effectively daily to manufacture entire product (or major identifiable component) or service.

12.   **Importance of a Team.**

(a)   A team is a small number of employees with complementary competencies (abilities, skills and knowledge) who are committed to common performance, goals and working relationship for which they hold themselves mutually accountable.

(b)   A key aim of teamwork is group synergy, namely the achievement of high quality as a result of combined individual contributions . Synergy can help you solve complex problems because you will be working with people who have a wide range of skills and perspective. Students working in teams benefit particularly from brainstorming and bouncing ideas of each other, learning from each other, discussing work in teams outside contact times and checking results.

(c)   In a team we can establish an agreed set of team guidelines. We know team members, their strengths, and preferred ways of working and preferred roles. We can discuss the task problems to arrive at a shared understanding and summarise this shared understanding of any project.

13.   **Characteristics of a Team.**

    (a)   Illusion of invulnerability.

    (b)   Collective rationalization.

    (c)   Unquestioned belief.

    (d)   Stereotypical views.

    (e)   Direct pressure.

    (f)   Self censorship.

    (g)   Shared illusion of unanimity.

CONCLUSION

14.   Working in groups and teams requires a lot of tolerance and time to come to conclusions and make decisions. Cooperation and respect for group / team norms are important in group / team work. Some group / team members may be able to do tasks alone, but success for one group / team member does not mean success for the entire group / team. Group / team members should accomplish a shared task or goal together.

LESSON PLAN : P 11
EFFECTIVE USE OF TIME

Period   -   One

Type   -   Lec

Code   -   P 11

Term   -   II (JD/JW)

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Training Aids

1.   Computer Slides, Pointer, Charts, Black Board and Chalk.

Time Plan

2.   (a)   Introduction   -   03 Min

        (b)   Time Management and Time Wasters   -   20 Min

        (c)   Principles of Time Management   -   15 Min

        (d)   Conclusion   -   02 Min

INTRODUCTION

**"We all have one thing in common — a 24 hour day.
It is how we use our time that makes the difference."**

3.   Time is your most important asset, because it is the only one you can't reorder or renew. Time it is irreplaceable and irreversible. Few things are more important to us than learning how to save time and how to spend it wisely. Paradoxically, to save time you must spend time. Both time and money are limited resources. Therefore time (like money) is a valuable commodity. It cannot be borrowed, saved or squandered. Time is patently not money. You can make money; you can't make time.

4.   An old Chinese proverb says 'An inch of gold cannot buy an inch of time.' Time is really infinitely more precious than money.

AIM

5.   To acquaint the class about the Effective Use of Time and its Management.

PREVIEW

6.   The class will be conducted in the following parts:-

        (a)   Part I   -   Time Management.

        (b)   Part II   -   Time-Wasters.

        (c)   Part III   -   Principles of Time Management.

PART I : TIME MANAGEMENT

7.   Time management is a set of skills, tools, and systems that work together to help you get more value out of your time and use it to accomplish what you want. Successful people use time management to achieve outstanding results, both personally and professionally. The key to time management is to realize that you cannot possibly do everything that there is to do; instead, you have to consciously decide what *you* are going to do with the limited amount of time that you have at your disposal. Look in a mirror and you will see your biggest time waster. Until you come to grips with that reality, few if any of your personal time problems will be overcome.

8.   Time management helps you to: -

(a)   Reduce or eliminate wasted time and effort so you'll have more productive time each day.

(b)   Improve your productivity so you can accomplish more with less effort.

(c)   Focus your time and energy on what is most important & make time for the things you want and value. Thus help you find greater balance and fulfillment.

(d)   Improve your performance while reducing stress.

(e)   Set and achieve your long-term goals.

PART II : TIME WASTERS

9.   Time is like a precious jewel. It must be guarded well and worn with discretion or you will suddenly realize that it has been stolen. Major time-wasters are:-

(a)   **Telephone**. Learn to control the telephone, or it will control you. Regard your telephone as a business tool, not a social one. Practice having quick, to the point conversations.

(b)   **Visitors**. Meet visitors outside. When faced with the question: 'Have you got a minute?' don't fall into the courtesy trap of saying yes when you really want to say no. Learn to give a polite no, and then tell them when they can see you. A complete open-door policy, which has been a popular management technique for some years, is not conducive to good time management. Managers to have at least one or two hours in the day when they can work without interruption. Try some of these techniques if a visitor overstays their time:-

(i)   At the finish of business, stand up.

(ii)   Let the visitor see you looking at your watch.

(iii)   Don't make eye contact with the chatty one. Keep your head down and continue working.

(c)   **Paper**. The best guideline for paperwork is to either file it or toss it. We never use 80% of the paperwork we keep. Computer printers produce over two and a half million pieces of paper every minute throughout the world.

(i)   Try, where possible, to make a decision about each piece of paper when you first handle it.

(ii)   Don't handle your daily mail until you are ready to deal with it properly. If you take a quick look and then go back to it later, you've just doubled those

minutes. Every time you handle something again you increase your distraction time. Can some of it be passed on to others?

      (iii)   Learn to read selectively.

      (iv)   Learn to throw out what you probably won't need.

(d)   **Lack of Planning & Fire Fighting**.   The best way to avoid crises is to anticipate them. Common reasons are lack of planning, unrealistic time frames, and reluctance by subordinates to break bad news. Tips to help you deal with the situation:-

      (i)   Firstly, take time to think. Then ask questions. What is the real problem? Where possible, get input from more than one source. What can you ask others to help with?

      (ii)   Once you've made a decision, get on with it. Whoever hesitates is lost!

      (iii)   What can be done to avoid the same problem happening again?

(e)   **Socializing**. Avoid extended tea-breaks, regular social lunch-hours, and lots of chats in the corridors. Do it outside of work time.

(f)   **Indecision**. Caused by ignorance, fear, or lack of confidence in the facts. Improve your fact-finding procedures, and learn to listen to your intuition. If we can learn to make decisions quickly, we save time. Successful people make decisions quickly. They're not necessarily always right, but they do decide.

(g)   **TV**. Can be a huge time-waster.

(h)   **Procrastination**. Procrastination, which comes from the Latin word for 'tomorrow' is the world's number one time-waster. Procrastination can best be defined as putting off the doing of something that should be done – intentionally & habitually. It you suspect that you are prone to procrastination always ask yourself "Why am I putting this off? " If you can see no good reason – and don't confuse reasons with excuses – brace yourself and take action this day. By off-loading today's work onto tomorrow you are simply storing up work for yourself. Start now by doing something today that you have been putting off. It may be a small or large matter; an overdue apology; a meeting with your boss; or an unpleasant task you know you should tackle.

10.   The best tool to fight time-wasters is a firm decision to concentrate on the few things that, in a day, will make a long-term difference. People and opportunities waiting to waste our time, surround us. Any activity which is not, in some way, moving you in the direction you wish to go, is a time-wasting activity.

PART III : PRINCIPLES OF TIME MANAGEMENT

11.   There are 10 basic principles of time management. These are given in the subsequent paras.

12.   **Develop a Personal Sense of Time**. "Make sure you know where your time goes. Don't depend on memory, it's treacherous"'. Put time under the microscope. You cannot manage time that is past. But you can examine how you managed it in an objective and realistic way.

13.   **Identify Long-Term Goals**. The foundation of good time management is to first, find out what matters deeply to you – what it is you really want to achieve in life. Spend time on considering what are your own personal values? What really matters to you at this stage of your

life? Remember, they must be your values no-one else's. In this, concentrate on four key areas of your life - Self & Well being, Community & Humanity, Home & Family & Business & Career.

14.   **Concentrate on High Return Activities**.   In any organisation there are a few basic functions, which are central to its effective functioning. For a classroom teacher the high-return activity will be enabling the children to learn well. For a principal it will be empowering staff to be effective teachers by having a smoothly running school.   For a landscaper it will be building the right structures as economically as possible. Therefore, identify which activities are going to give you the highest return and concentrate on them.

15.   **Weekly & Daily Planning**.   Traditional time management teaching talks of daily planning, so why change?. If we mainly focus on our daily scheduling, we're looking at what's under our nose & we tend to become immersed in the urgent. Hence, from our monthly goals / objectives, plan a weekly focus. Planning on a weekly basis helps us to take more control of our lives. We paint the picture of our life with broader brush-strokes.

16.   **Make the Best Use of Your Best Time.** The quality of your attention or concentration varies at different times. You may notice that you habitually tend to be more mentally alert, at certain times of the day. 20% of your time produces 80% of your high-quality output. The most important tasks in a day only take about 20 percent of our time and will make 80 percent of the difference to the smooth running of things. So, make sure that you manage well that critical 20% of your time. Learn to focus on the vital few things which will make a long-term difference.

17.   **Make Use of Committed Time**. You may sometimes complain that you lack time. But you have all the time there is for you. At work there is the time which you can choose to spend as you will – and, committed time. Committed time: If you are alert you may find portions of it, which are actually free time. Think of an example of committed time in the last week, where you found unexpectedly that you had at least half an hour to spare. What did you do with it? Could you have put that time to better use? What would you need to have had with you in order to do so?

18.   **Manage Your Health**.

   (a)   Even a few weeks off being avoidably ill is going to involve you in a major waste of productive time. Depending on the nature of your illness, you may be able to use it in some constructive way. To give to your work and to others high quality time you must top up your energy levels.

   (b)   Do you get enough sleep? The norm is eight hours, slightly less as you grow older. You can function on much less, but your creativity is 15% down. Do you apply common sense to diet? The Golden rule is moderation in all things. Do you take exercise? Do you take holidays? Remember that you can do a full year's work in 11 months, but you cannot do it in 12 months. It is a good idea to spend some time just meditating.

CONCLUSION

19.   Time management should be fun. Keep it is simple as possible. The good news is that you will never meet the perfect time manager. You are probably very good - now you could be better. The wonderful thing is that tomorrow's 24 hours now await you – untouched and unwasted. You are now in a position to make more effective use of your time. Always remember, 'NOW' is the keyword of time management. If you want to reap in the future, you have to sow now. And, 'Your Time Starts Now'!

LESSON PLAN : P 12
STRESS MANAGEMENT SKILLS

Period   -   Two

Type   -   Lec

Code   -   P 12

Term   -   II (JD/JW)

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Training Aids

1.   Computer slides, Flip charts , Marker Pens, VIP cards of three different colours, A4 Size paper, Sketch pens – one for each participant, Bag containing cards with names of emotions such as happy, shy, sad, scared, excited, angry, envy, guilty, jealousy, love etc.

Time Plan

2.   (a)   Introduction   -   05 Min

        (b)   Understanding Stress and its impact   -   20 Min

        (c)   Stress Management Techniques   -   25 Min

        (d)   Understanding Emotions and Feelings   -   25 Min

        (e)   Conclusion   -   05 min

INTRODUCTION

3.   Stress is a very common phenomenon and is universal in nature. It is our body's reaction to people and events and to our own thoughts. Some level of stress is normal, such as before a test, stage performance or an athletic event. Coping with stress means recognizing the source of stress in our lives, recognizing how this affects us physically and emotionally, and acting in ways that help us control our levels of stress, by changing our environment or life style and learning how to relax.

AIM

4.   To acquaint the cadets about Stress, its impact and how to Manage Stress.

PREVIEW

5.   The class will be conducted in the following parts:-

        (a)   Part I   -   Understanding Stress and its Impact.

        (b)   Part II   -   Stress Management Techniques.

        (c)   Part III   -   Understanding Emotions and Feelings.

PART I : UNDERSTANDING STRESS AND ITS IMPACT

6.   Stress is unique and personal to each of us. What is relaxing to one person may be stressful to another. But too much stress can have physical and psychological effects that interfere with the health and well-being of an individual. Overtime repeated stress can lower self-esteem, decrease academic performance and create a cycle of self-blame and self-doubt.

7.   The key to reducing stress is to find strategies that help you as an individual. The best way to cope with unhealthy stress is to recognize when your stress levels are building. While we often think of stress as the result of external events, the events themselves are not necessarily stressful. It is the way we react to an event that causes stress.

8.   The class will be introduced to understanding stress and its impact with an activity.

9.   **Activity – Stress and its Impact on Us**.   Distribute three cards, each with one of the following titles:-

        (a)   "Physical," "Emotional and "Behavioral" to each participant.

        (b)   Ask the participants to imagine a stressful situation and write responses to the following questions:-

                (i)   What happens to their body when they are stressed? (Physical-e.g. headache, restless).

                (ii)   How do they feel when they are stressed?

                (iii)   What do they do when are stressed? (Behavioral -e.g. cry, shout at others).

10.   Once they finish writing ask them to paste the card on the wall or board under each category separately.

11.   **Expected Responses**.

        (a)   Effect on the body (Physical) – headache, grinding teeth, trembling.

        (b)   Effect on feelings (Emotional) – depressed, angry, irritated, anxious.

        (c)   Effect on behavior – do not sleep, eat a lot, do not eat, cry, break things,   becomes silent.

12.   The class will be explained that stress signals fall into four categories: thoughts, feelings, behaviours and physical symptoms. While under stress we may experience the following feelings, through, behaviours or physical symptoms:-

        (a)   **Feelings.** Anxiety, irritability, fear, moodiness, embarrassment.

        (b)   **Thoughts.** Self-criticism, difficult concentrating or making decisions, forgetfulness, pre-occupation with the future, repetitive thoughts, fear of failure.

        (c)   **Behaviour.** Stuttering, difficulty speaking, crying, acting impulsive, do not feel like talking to anyone, nervous laughter, yelling at friends and family, grinding teeth, jaw clenching, increased smoking, alcohol or drug use, increased or decreased appetite.

(d)   **Physical Symptoms.** Tight muscles, cold or sweaty hand, headache, back or neck problems, sleep disturbance, abdominal pain, more colds and infections, fatigue, rapid breathing, pounding heart, trembling, dry mouth.

PART II : STRESS MANAGEMENT TECHNIQUES

13.   There are many ways to manage negative stress. Everyone needs to find ways that work best for them.

(a)   **Take Deep Breath.**   Stress often causes us to breathe quickly and this almost always causes more stress. Try to take deep slow breaths. Breathe in through your nose and count as you breathe out through mouth. Inhale enough so your lower abdomen rises and falls.

(b)   **Talk It Out.** When you feel stressed, try to express your feelings. Bottling of feelings can increase stress. Share your feelings. Perhaps a friend, family members, teacher can help you see your problem in a new way. Talking with someone else can help clear your mind of confusion so that you can focus on problem solving. Even if it is slightly embarrassing, asking for help after a problem occurs may avoid serious problems later. Writing down thoughts and feeling can help clarify the situation and give a new perspective.

(c)   **Take A Break.** Recognize when you are most stressed and allow yourself some reasonable break. When things seem especially difficult, take a walk or otherwise change your scenery.

(d)   **Create A Quite Place In Your Mind**. You cannot always run away, but you can dream. Imaging a quite place can you out of a stressful situation. When you have the chance, take a moment to close your eyes and imaging a place where you feel relaxed and comfortable. Notice all the details of your chosen place, including pleasant sounds, smells and temperature.

(e)   **Pay Attention To Physical Comfort.** Be as physically comfortable as the situation will allow. Wear comfortable clothing. If it`s too hot, go somewhere where it`s not. If chair is uncomfortable, move. Do not wait until your discomfort turns into a real problem.

(f)   **Move.** Physical activity can help reduce and prevent stress. When you feel nervous, angry or upset, release the pressure through exercise or physical activity. Try to find something you enjoy and make regular time for it. Running, stretching, walking or dancing can be done anywhere. Working in the garden, cleaning or playing with your younger children can relieve stress, make you relax and energize you.

(g)   **Take Care Of Your Body.** Healthy eating and adequate sleep fuels you mind as well as your body. Avoid eating too much caffeine and sugar. Well-nourished bodies are better able to cope with stress.

(h)   **Laugh**. Maintain your sense of humour, including the ability to laugh at yourself. Share jokes and funny stories with your friends. Laughter is good for you.

(j)   **Mange Your Time.** Plan ahead and make a realistic scheduled for yourself and include time for stress reduction as a regular part of your scheduled. Trying to take care of everything at once can seem overwhelming and may keep you from accomplishing anything. Instead, make a list of what you have to do, then do one at a time, checking them off as you finish. Do the most important ones first. If a particularly unpleasant task faces you, do it early in the day and get over with it; the rest of your day will be less stressful.

(k)   **Know Your Limits.** When in a stressful situation, ask yourself" is this my problem? If it isn`t, leave it alone. If it is, can resolve it now? Once the problem is settled, leave it

alone. Do not agonize over the decision, and try to accept situation you cannot change. There are many circumstances in life beyond your control. If problem is beyond your control and cannot be changed at the moment, learn to accept as it is, for mow, until such time when you can change things.

(l) **Do You Have To Be Right Always**? Do you get upset when things don`t go your way? Consider cooperation or compromise rather than confrontation. It may reduce the strain and help everyone feel more comfortable.

(m) **Have A Good Cry.** It is normal for people of all ages to cry. A good cry during stressful times can be a healthy way to bring relief to your stress, and may prevent a headache or other physical consequences of stress. However, crying daily can be sign of depression.

(n) **Look For The Good Things Around You.** It is easy to see only the negative side when you are stressed. Your thoughts can become like a pair of very dark glasses, allowing you to see very little light or joy in your life. Decide to notice five good things around you. These can be positive or enjoyable moments or interactions. These may seem like small events but as these good things add they can often provide a big lift to energy and spirits and help you begin to see things in a new, more balanced way.

(o) **Talk Less, Listen More**. Listening banishes stress, makes you more popular, more knowledgeable, more sensitive.

PART III : UNDERSTANDING EMOTIONS AND FEELINGS

14. The class will be introduced to various emotions by activity method.

15. **Activity One – Understanding Emotions.**

(a) **Step-1**. Prepare cards with names of some emotions such as happy, shy, scared, excited, angry, envy, guilty, jealously, love etc. etc and put them in a bag. Note: Depending on the number of participants, you can have three-four cards having the same emotion.

(b) **Step-2**. Make the participants sit in a circle and pass the "parcel of emotions" while the music plays. When the music stops, the participant who has the parcel picks up a card fro the bag and acts out the emotion described. No words are to be used. The rest of the participants have to guess the emotion expressed.

(c) **Step-3**. Also ask the participants to say instances where they will feel like the emotion mentioned (like one feels happy when everything goes their way).

(d) **Step-4**. Tell the participants that all emotions are integral part of life. Add information from the Facilitator's Guide 7.1.1.

16. **Activity Two- Mixing and Matching Feelings.**

(a) **Step-1**. Tell the participants that a good way to know our emotions is to understand our associated body language. Understanding how our body reacts to the feelings help us to think about the feeling and express it the way we choose.

(b) **Step-2**. Take one volunteer aside and tell him/her to say the following statement in four different ways sounding happy, fed-up, scared, and angry to the larger group. Ask the participants to identify the emotions he/she is expressing:-

(i) I was asked to go to the Principal's Office – (say it with excitement as if an honour is being given, and you are going to get some good news).

(ii)   I was asked to go to the Principal's Office-(Say it as if you are fed-up of going there, you are bored).

(iii)   I was asked to go the Principal's Office-(Say it as if you are scared, and you have no clue what is going to happen).

(iv)   I was asked to go to the Principal's Office- (Say it as if you are angry at being asked to go-and as if an unfair event is taking place.

(c)   **Alternative Statement**.

(i)   My uncle from the neighbouring village will come to y home tomorrow.

(ii)   I was asked to go to the village Pradhan's house.

(d)   **Step-3**. Explain that with every feeling there is an associated body language, which helps us understand the feeling-If we want to change the consequence, we need to understand the feeling and associated body language.

(e)   **Step-4**. Divide the participants into five groups - Give each group five feeling statements (given below) and place them on the floor/table for each group:-

(i)   When I am angry.

(ii)   When I am very sad.

(iii)   When I am happy.

(iv)   When I am very scared.

(v)   When I am very nervous.

(f)   **Step-5**.   Give each group a set of five body statements that have to be matched with the feeling statements. Give set a first, once they have completed Set A give Set B and following completion give Set C. Shuffle the statement cards before giving to the participants.

(i)   **Set A Body Statements**.

(aa)   I feel a lot of tension in my neck and my shoulders.

(ab)   I feel empty inside.

(ac)   I feel light, like I am flying in the air.

(ad)   I feel weak at my knees.

(ae)   I feel queasy or bad in my stomach.

(i)   **Set B Body Statements**.

(aa)   I breathe shallow and quick.

(ab)   My heart feels heavy.

(ac)   I want to smile.

       (ad)   My heart beats very fast.

       (ae)   I can't sit still.

  (ii)   **Set C Body Statements**.

       (aa)   My head is about to burst and I perspire a lot.

       (ab)   I feel very tired and tears come from my eyes very fast.

       (ac)   I feel energetic.

       (ad)   Palms become very cold.

       (ae)   I have a headache.

17.   An emotional experience is characterized by both external and internal changes in the human being. The external changes are those which are apparent and easily seen by others such as changes in facial expressions, changes in posture. By looking at the facial expressions we can find out if a person is angry, happy or depressed. Internal changes may include rapid pulse and breathing, increased blood pressure, sweating, dry mouth etc.

18.   Individual variations in emotional expressions are primarily due to age and past experiences. Variations in expressions also occur within the individual, No one follows a consistent pattern at all time. How a person reacts to an emotion-provoking stimulus depends on his/her physical condition at that time, on the interests and activities that are preoccupying him/her at that time, on his/her mood, on the social group with which he/she happens to be etc.

CONCLUSION

19.   Coping with stress means recognizing the source of stress in our lives, recognizing how this affects us physically and emotionally, and acting in ways that help us control our levels of stress, by changing our environment or life style and learning how to relax.

LESSON PLAN : P 13
CHARACTER BUILDING

Period   -   One

Type   -   Lec

Code   -   P 13

Term   -   II (JD/JW)

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Training Aids

1.   Computer Slides, Pointer, Charts, Black Board and Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

           (b)   Character Building   -   30 Min

           (c)   Conclusion   -   05 Min

INTRODUCTION

3.   It is a well recognized fact that the future of any nation is largely related to the quality of it's human beings. In this context, development of the youth into confident leaders with requisite character qualities and personal attributes, so that they can take their place as responsible citizens of the country, assumes great importance. In order to achieve this objective the youth needs to be exposed to such activities which can help them in developing their personality and character.

AIM

4.   To acquaint the cadets about importance of Character Building.

CHARACTER AND CHARACTER BUILDING

5.   A man's character is made in the formative years of his life. The young can be compared to clay, which can be moulded in the desired way. In ancient India young boys stayed with great saints and pundits to learn and specialise in various branches of knowledge. It is the qualities of character that make someone popular among the people. Popularity does not depend upon a pretty face or upon being handsome, but upon inner qualities of a true character. These qualities are loved by others. They may be a gentle voice, friendliness or the position of others. A person of a good character excels over others in certain qualities. A good character comprise virtues of having certain qualities of character more pronounced than others. The qualities of a good character bring magnetism in one's personality which comes from a proper adjustment of the many qualities of head and heart such as knowledge, tact, friendship and co- operation. A character of person would have some characteristics inborn as well as developed by experience and judgment such as integrity, moral courage, confidence, justice and highly developed sense of responsibility.

6.   **Determinants of Character Development**. The major determinants of personality and character of an individual are:-

          (a)   **Biological**. Biological factors may be studied under the following heads:-

(i) **Heredity**. Certain characteristics, primarily physical in nature, are inherited from one's parents, transmitted by genes in the chromosomes contribute by each parent.

(ii) **Brain**. Another biological factor that influences personality is the role of the brain of an individual.

(iii) **Physical Features**. Perhaps the most outstanding contribution to personality is the physical stature of an individual. An individual's external appearance makes tremendous effect in his personality.

(b) **Cultural**. Culture largely determines what a person is and what a person will learn. The culture within which a person is brought up is a very important determinant.

(c) **Family and Social Factors**. The contribution of the family and social group in combination with the culture is known as socialisation. Socialisation initially starts with the contact with mother and later on with other members of the family. The social group plays an influential role in shaping an individual's personality.

(d) **Situation**. The home environment influences the personality of an individual. There is substantial evidence to indicate that the overall environment at home created by parents is critical to personality development.

7. **Measures to Improve Character.** Character can be improved with practice. A few of the leadership traits if followed religiously can help to improve character:-.

(a) Courage.

(b) Decisiveness.

(c) Initiative.

(d) Enthusiasm.

(e) Loyalty.

(f) Justice.

(g) Morality.

(h) Sense of Duty.

(j) Patriotism.

8. **Role of NCC in Character Building.** NCC plays a major role in personality/ character development of the cadets. NCC helps in developing the overall personality of cadets through various activities as listed below:-

(a) **Drill**. Personality refers to the physical appearance of a person especially on initial contact. Active participation in drill of the important qualities which help an individual the posture of cadets in a keeps correct position. They will walk more confidently than others. A good physique is an integral part of personality development.

(b) **Interaction of Cadets in Camps**. Being an NCC cadet one can get many good opportunities to interact with cadets from different parts of the country. These camps groom their personality. Here cadets from different states exchange information of each others'

culture and tradition. Thus they learn about the diverse culture of the nation. They become friends resulting in the development of comradeship and personality.

(c)   **Competitions**.   The various competitions held in camps, like preparation of flag area, drill and performing cultural programmes, develop sportsmanship and team spirit among the cadets.

(d)   **Sports / Adventure Activities**.   Sports / adventure activities are important for youth as they teach them a number of useful lessons on comradeship, healthy competition, courage to face challenges art of leadership, team work, grit and determination, all of which will stand them in good stead in their later life.

CONCLUSION

9.   The character of a person is one of the most important aspects of your personality. The development of ones character begins at home under the influence of parents, peers and relatives. It later further builds up at school / college by participating in various individual / group activities.

LESSON PLAN : P 14
SOCIABILITY : SOCIAL SKILLS
ETTIQUETTES AND MANNERISM

Period   -   Two

Type   -   Lec

Code   -   P 14

Term   -   II (JD/JW)

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Training Aids

1.   Computer Slides, Pointer, Charts, Black Board and Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

          (b)   Etiquette &Types of Etiquette   -   25 Min

          (c)   Mannerisms   -   25 Min

          (d)   How to improve your Social Skills   -   20 Min

          (e)   Conclusion   -   05 Min

INTRODUCTION

3.   Etiquette, the manners and forms prescribed by custom, usage, or authority and accepted when people deal with each other, as correct or proper behavior. Etiquette is necessary to have an effective and well groomed personality. It is considered as an everlasting impression on the people you meet. This does not only refer about etiquette but also public mannerism. Mannerism is any exaggerated style, distinctive traits, or behavioral habit of one individual. Etiquette and public mannerism can be good or bad impression depending on how we behave. To have an everlasting good impression on the people we meet, we must possess a qualities to build a personality that is charming, decent, lovable and welcome anywhere & everywhere we go. The question of, why the people having command over English is given preference, the reason lies with the fact that there is only frequent and fluent communication that lets a person explore in a company and enhances his/her own skill bagging much early promotion. Strong etiquettes and good manners always matters much, Etiquettes and mannerism describes an internal personality. Not only an effective communication skill demonstrates a personality but it gives interviewer an overlook as is the applicant really serious about the company or just enhancing his interviewing venues. The real significance of etiquettes and manners lies within the fact that a person's behaviour and his etiquettes matters a lot as a single mal-behaving attitude might destroy the impression of a country.

AIM

4.   To acquaint the class with the importance of Etiquettes and Mannerisms in social life and how to pay compliments as an NCC Cadets.

PREVIEW

5.   The class will be conducted in the following parts:-

(a)   Part I   -   Types of Etiquettes.

(c)   Part II   -   Mannerisms.

(d)   Part III   -   How to improve your Social Skills.

PART I : TYPES OF ETIQUETTE

6.   Etiquette is a code of behaviour that delineates expectations for social behavior according to contemporary conventional norms within a society, social class, or group. Rules of etiquette encompass most aspects of social interaction in any society. The various types of etiquettes is discuss below:-

7.   **Types of Etiquettes**.

(a)   **Social Etiquette.** Social etiquette is important for an individual as it teaches him how to behave in the society.

(b)   **Bathroom Etiquette.** Bathroom etiquette refers to the set of rules which   an individual needs to follow while using public restrooms or office toilets. Make sure you leave the restroom clean and tidy for the other person.

(c)   **Corporate Etiquette.** Corporate Etiquette refers to how an individual should behave while he is at work. Each one needs to maintain the decorum of the organization. Don't loiter around unnecessary or peep into other's cubicles.

(d)   **Wedding Etiquette.** Wedding is a special event in every one's life. Individuals should ensure they behave sensibly at weddings. Never be late to weddings or drink uncontrollably.

(e)   **Meeting Etiquette.** Meeting Etiquette refers to styles one need to adopt   when   he is attending any meeting, seminar, presentation and so on. Listen to what the other person has to say. Never enter meeting room without a notepad and pen. It is important to jot down important points for future reference.

(f)   **Telephone Etiquette.** It is essential to learn how one should interact with the other person over the phone. Telephone etiquette refers to the way an individual should speak on the phone. Never put the other person on long holds. Make sure you greet the other person. Take care of your pitch and tone.

(g)   **Eating Etiquette.** Individuals must follow certain decorum while eating in public. Don't make noise while eating. One should not leave the table unless and until everyone has finished eating.

(h)   **Business Etiquette.** Business Etiquette includes ways to conduct a certain business. Don't ever cheat customers. It is simply unethical.

8.   **Need for Etiquette**.

(a)   Etiquette makes you a cultured individual who leaves his mark wherever he goes.

(b)   Etiquette teaches you the way to talk, walk and most importantly behave in the society.

(c)   Etiquette is essential for an everlasting first impression. The way you interact with your superiors, parents, fellow workers, friends speak a lot about your personality and up- bringing.

(d)   Etiquette enables the individuals to earn respect and appreciation in the society. No one would feel like talking to a person who does not know how to speak or behave in the society. Etiquette inculcates a feeling of trust and loyalty in the individuals. One becomes more responsible and mature. Etiquette helps individuals to value relationships.

PART II : MANNERISMS

9.   Some of the manners we've learned from our parents and teachers who try and implant us the importance of being well-mannered. At some point, our manners are categorized as good or bad depending on the society we live in and on the environment we grew in. Here's a list of some very poor mannerism we observed a lot (actually there's a lot more of them):

(a)   Eating with your mouth open.

(b)   Making loud noise and slurping sound while eating.

(c)   Picking your nose in the public.

(d)   Biting nails.

(e)   Spitting in the public.

(f)   Coughing and yawning and without covering your mouth.

(g)   Sneezing without covering your nose.

(h)   Crossing the road wherever you feel like (ignoring No Jaywalking signs).

(i)   Acting rude and vulgar jokes in front of ladies colleague.

(j)   Not saying please and thank you.

(k)   Not saying "excuse me" when trying to get pass someone.

(l)   Ridiculing someone for his physical limitations and shortcomings.

(m)   Smoking at prohibited places.

(n)   Barging on someone's room without permission.

(o)   Not saying "sorry" when you bump into somebody.

10.   The main reason for making us forget social courtesies is **eccentricity**. And one way to gain respect in the society is to learn to respect also the society. Remember the Golden Rule "Do unto others as you would have others do unto you. All good manners start from home. Though there are times that we learned on what we saw. Some male youth pee on the public post and walls because when they're young they saw grown-ups doing that thing and they think it is ok which is definitely NOT.

11. Having good manners is not just about blending with the best; rather it is more about considering the feelings of others and taking responsibility. Take for example when you eat in the restaurant or in public places, try not to chew with one's mouth open. The unpleasant sound and scene is repelling for others. In public speaking, we must not interrupt when he/she is talking. It is considered highly ill-mannered if you do not complete his sentence. These are just some of the things we should avoid doing.

PART III : HOW TO IMPROVE YOUR SOCIAL SKILLS

13. They say, a human being is a social animal, but the question is, does everyone possess social skills? Most of the people do not know the art of speaking. While some are just inept and incompetent, there are others who lack confidence and yet others who do not havep98 mannerism and etiquettes. Having sound social skills is extremely important in the present times, given to the fact that interaction and conversation forms the basis for everything we do. If you also face difficulty in interacting, remember, it is not the end of the world. You can improve your social skills by just putting in a little effort. However, you cannot be perfect overnight. It would take some time, but believe me; it would be worth the wait. Just focus on qualities listed below and who knows, from being ineffective, you might just turn out to be the 'apple' of the social meets. In the following lines, we have provided tips on how to improve social skills, just for you.

14. **Improving Social Skills**

(a) **Be Yourself**. Only when you are your own self do you feel comfortable. And it is when you are in utmost comfort that you indulge in free conversation and interaction. Do not change your inner self for anything in the world. Remember, humans have this innate quality of discovering whether a person is real or fake. In case you pretend to be someone you are not, trust me, you would be lonelier than ever before.

(b) **Be Responsible**. One of the vital components of social interaction is to know that art of carrying yourself. It is very important for you to know what to do and how to behave in a social gathering. A person behaving in an undesirable and unacceptable manner is usually avoided by people. So, be responsible for your actions and act according to the situation.

(c) **Be Open & Approachable**. Imagine talking to a person who is an absolute introvert or extrovert! Extremes of personality often turn off people. Ideally, you should have a fusion of both the characters. While being too shy and withdrawn is enough to repel people immediately, being too loud and outgoing would not do much good either. Just strike a delicate balance between both the personalities and you would be the 'star' of the social gathering.

(d) **Be Attentive**. The art of listening is a stepping stone for conversation and interaction. Alas! Not many have it in them. If you would have attended a social gathering, you will know that everyone wants to talk, but no one is ready to listen. So, the trick is to be an attentive listener and people would definitely talk to you. Also, do not interrupt or chip in a piece of advice or suggestion just when the other person is in the middle of a subject.

(e) **Be Polite**. Being humble and down-to-earth is an excellent way to break the ice. It sheds off all the apprehensions and nervousness and gives a good impression. It would speak miles about your manners, personality and confidence. Apart from being polite, it is also advisable to be diplomatic. While being honest and forthright definitely pays, sugar-coating the truth is very necessary at times.

(f) **Be Aware**. It is very important to be aware and observant of people's behavior. For instance, watch if the person you are talking to is comfortable with the specific topic. If he looks uncomfortable or is simply disinterested, just move on to the next topic. In case

he/she is not interested in talking to you completely, the best bet would be to move out of the scene.

(g) **Be Cautious**. It is advisable to keep your senses active. Do not shut your eyes, close your ears and numb your senses at the time of interacting. Keep a keen eye on who are your friends and who are your enemies. Do not confront everything to someone you have just met.

CONCLUSION

15. The point of etiquette is not, of course, the rules themselves but the comfort of the people concerned. Exhibiting bad manners and "I don't care a damn" attitude are the ones who are the social outcast. Manners that put a strain on others are not good manners, no matter whose rules they follow. Remember, having good manners and etiquette can gravitate everybody towards you.

LESSON PLAN : P 15
VALUES / CODE OF ETHICS

Period   -   One

Type   -   Lec

Code   -   P 15

Term   -   II (SD/SW)

_____

Training Aids

1.   Computer Slides, Pointer, Charts, Black Board and Chalk.

Time Plan

2.   (a)   Introduction   -   05 Min

          (b)   Values   -   15 Min

          (c)   Code of Ethics   -   15 Min

          (d)   Conclusion   -   05 Min

INTRODUCTION

3.   It is a well accepted fact that the future of any nation is largely related to the quality of its human beings. In this context, development of the youth into confident leaders with requisite character qualities and personal attributes, so that they can take their place as responsible citizens of the country, assumes great importance . In order to achieve this objective the youth needs to be exposed, beside the academics, to such activities which help them in developing their personality and character and in-turn making them a good leader.   Leadership is an important feature of every sphere   of human activity, whether at play, work or at war. In fact, wherever there are two or more people functioning together, there is a   need for a leader. To develop into a good leader,   a person needs certain values in him or one can say he must possess distinctive ethics in his life.

AIM

4.   To acquaint the cadets about the importance of Values and Code of Ethics.

PREVIEW

5.   The class will be conducted in the following parts:-

          (a)   Part I   -   Meaning of Values / Ethics.

          (b)   Part II   -   A Few Important Values.

PART I : VALUES

6.   **Meaning of Value / Ethics**   'Value' means a standard of behaviour and 'Ethics' in turn means a set of   moral principles that govern a persons behaviour. In ancient India young boys and girls learnt the fundamentals of correct behaviour and moral principles under

the tutelage and guidance of saints and gurus in their gurukuls and at a later stage specialized in various fields of knowledge. A person of values excels others in all fields. The values and ethics which drive a person may be inherited from the society they live in, i.e. from the people around them and to a large extent the family they hail from.

7.   Human being is a complex creature, a mixture of good and evil. The evil tendencies in him are of negative nature which ultimately lead to destruction . On the other hand goodness is manifested in brotherhood, unity, co-operation. This goodness can only overcome negative tendencies, if a person either has certain values inherent in him, or he inculcates them.

8.   A leader may be intelligent , knowledgeable and hard-working, but unless he is driven by a set of values which are morally acceptable, he cannot be a good leader. The importance of good behaviour by a leader on all occasions cannot be too strongly emphasized. Behaviour must be beyond reproach. Generally a group in particular and its work and achievements as a whole are judged by the values and the behaviour and good manners of the leader.

PART II : A FEW IMPORTANT VALUES

9.   A person's behaviour is reflected in his conduct. How a person behaves in a particular situation will be an indicator of his potential for leadership. As the old saying goes 'Practice what you preach', as a leader is the person who guides the group, the saying is more applicable to him. Only those values can be preached which a leader himself possesses. Certain values which impress everybody are - Honesty, Truthfulness, Sense of duty, Loyalty, Consideration for the people, giving others their due and to stand by one's own principles. A person who practices good human values and follows a principled code of ethics will essentially stand out as a good leader. A few important values in day to day life are as follows:-

(a)	**Honesty**	-	not to steal, cheat or lie.
(b)	**Integrity**	-	uprightness.
(c)	**Purity**	-	no duplicity, insincerity in thought, word or deed.
(d)	**Discipline**	-	behaviour according to essential rules and norms which is self-imposed.
(e)	**Selflessness**	-	unselfishness, rise above selfish or self-centered individualism, self-sacrifice.
(f)	**Loyalty**	-	true, faithful to duty, love or obligation to person/ institution, faithful in allegiance to the nation or mother country.
(g)	**Fairness**	-	being impartial, give right decision.
(h)	**Equality**	-	treat everyone equally.
(j)	**Trust**	-	firm belief in the reliability, ability, strength of someone or something.
(k)	**Support**	-	give help, encouragement, or approval.
(l)	**Respect**	-	a feeling of admiration for someone because of their qualities.

CONCLUSION

10.   The negative attributes to be guarded against would largely be such as ignorance, ego, i.e. attachment to self or the prominence of 'I' temptations, envy, hate or jealousy, lack of confidence. These have deleterious effects and affects the individual in his thoughts and actions. An individual has to evolve his own mechanism to counter these to become a successful and ideal leader.

NCC CADETS HANDBOOK

JD / JW

2013

INDEX

SPECIALISED SYLLABUS – JD
1. General Service Knowledge (GSK)

Ser No	Code	Subject	1st yr	Type	2nd yr	Type	Total periods
1	GSK-1	Development of Aviation	1	L,F			1
2	GSK-2	History of IAF	1	L,F			1
3	GSK-3	Organisation of Air Force	1	L			1
4	GSK-4	Branches of the IAF	1	L			1
5	GSK-5	Career in the IAF as an Officer/Airman	1	L			1
		Total	**5**				**5**

2. Air Campaigns(AC)

Ser No	Code	Subject	1st yr	Type	2nd yr	Type	Total periods
1	AC-1	Indo Pak War 1971	2	L,F			2
2	AC-2	Op Safed Sagar			2	L,F	2
3	AC-3	Motivational Movies			4	F	4
		Total	**2**		**6**		**8**

3. Aircraft Recognition (ACR)

Ser No	Code	Subject	1st yr	Type	2nd yr	Type	Total periods
1	ACR-1	Helicopters			1	L,P	1
2	ACR-2	Transports			1	L,P	1
3	ACR-3	Fighters			1	L,P	1
		Total			**3**		**3**

PRINCIPLES OF FLIGHT (PF)

Ser No	Code	Subject	1st yr	Type	2nd yr	Type	Total periods
1	PF-1	Introduction	1	L			1
2	PF-2	Glossary of Terms	1	L			1
3	PF-3	Forces on an Aircraft	1	L			1
		Total	3				3

PARTS OF AN AIRCRAFT (PA)

Ser No	Code	Subject	1st yr	Type	2nd yr	Type	Total periods
1	PA-1	Parts of an Aircraft	2	L,P			2
		Total	2				2

AIRCRAFT PARTICULARS (AP)

Ser No	Code	Subject	1st yr	Type	2nd yr	Type	Total periods
1	AP-1	Aircraft Particulars (Type specific	1	L,P			1
		Total	1				1

AIRFIELD LAYOUT (AL)

Ser No	Code	Subject	1st yr	Type	2nd yr	Type	Total periods
1	AL-1	Airfield Layout	1	L			1
		Total	1				1

ATMOSPHERE (MET)

Ser No	Code	Subject	1st yr	Type	2nd yr	Type	Total periods
1	MET-1	Atmosphere			1	L	1
		Total			1		1

MAPS (MP)

Ser No	Code	Subject	1st yr	Type	2nd yr	Type	Total periods
1	MP-1	Maps			1	L	1
		Total			1		1

RT PROCEDURE (RT)

Ser No	Code	Subject	1st yr	Type	2nd yr	Type	Total periods
1	RT-1	RT Procedure	2	L,P			2
		Total	2				2

		AEROMODELLING (AM)					
Ser No	**Code**	**Subject**	**1st yr**	**Type**	**2nd yr**	**Type**	**Total periods**
1	AM-1	History of Aeromodelling	1	L			1
2	AM-2	Materials used in Aeromodelling	1	L			1
3	Am-3	Types of Aeromoels	1	L			1
4	AM-4	Flying/ Building of Aeromodels	16	D,P	24	D,P	40
		Total	19		24		43
		Grand Total	35		35		70

CHAPTER – I
GENERAL SERVICE KNOWLEDGE

DEVELOPMENT OF AVIATION

Period   -   GSK-1

Type   -   Lecture

Term   -   Ist year

Revised By   -

<u>Trg Aids</u>

1. Computer slides, pointer, black board and marker

<u>Time Plan</u>

2.   (a) Introduction   -   05 minutes

        (b) Explanation   -   32 minutes

        (c) Conclusion   -   03 minutes

                Total   **-   40 minutes**

INTRODUCTION

1.   The idea of human flight has engaged the thought of many men since the beginning of history. Tracing the evolution of flight, one gets into a world of myths, religious beliefs and legends, when some of form of flying was visualized in the encounter and affairs of ancient life. There are the Vimanas of flying chariots in Indian mythology, the winged deities from Egypt and Assyria, the magic carpet from Arabia, the winged horse Pegasus and winged cap and heals of Hermes in Roman and Greek mythology. Mythologies aside, the first scientific venture in aviation were the tentative steps made in the fourth century B.C in China that eventually led to invention of the kite by the sixth century B.C, kites had found their way in military applications.

2.   In 1890 LILIENTHAL in Germany started riding the air in gliders and it was his example, which fired the imagination of Wright brothers in America and turned their attention to solving the practical problems of aviation .The Balloon was joined by the parachute in 1797 when the French man, GARAERIN made the first human at PARIS. In 1852 the stream driven Airship became feasible, and also the light pressure ship of SANTOS and DUMONT.

3.   The power airplane took ten years (1895-1905) to emerge from the Glider, which was perfected by the Wright Brothers. In 1906 Wright Flyer 111 emerged which could be banked, turned, circled and flown with ease and which could comfortably stay in the air for more than half an hour at a time.

AIM

4.   To teach the NCC cadets about the development of aviation.

5.   One of the earliest attempts to construct a flying machine was made by Leonardo Da Vinci, the genius of renaissance period, known for his attempt to design a mechanical device using arms and legs which activated flapping wings through system f pulleys and livers. The machine was called Ornithopter which implies **flapping wing.** This was a flapping wing aircraft powered by human body. Leonardo Da Vinci also designed a screw-copter, the first real concept of the modern helicopter, but even he could not achieve much headway.

6.   Francesco Delana-Terzi proposed the first serious project for a lighter aircraft in 1670. It was intended that four thin copper spheres from which all the air had extracted, would lift such an aircraft. Arrival of the balloon as a lighter than air vehicle was a land mark of flight. Two brothers Joseph and Etienne Montgolfier made the first managed lighter than air flight in 1782, while watching a fire in his fire place, Joseph had became interested in the force that caused the spark and smoke to rise. He made a small bag out of silk and lit a fire under the opening at the bottom, so causing it to rise. The brothers thought that such burning created a gas which they called Montgolfier Gas in June 1783. The brothers put on their n first public demonstration using a paper lined linen bag 30 feet in diameter. The balloon rose to an altitude of 6000 feet and travelled for over a mile before landing.

7.   Sir George Cayley, known as the father of aerial navigation designed the first airplane with wings, fuselage, tail unit and a means of propulsion in 1799. In 1804 he flew the first model airplane which had a kite's shaped wing mounted on a pole with a universally jointed tail unit. Five years later he constructed a full sized Glider which was flown successfully, first unmanned and then with a boy just over a few yards. Much experimentation with Gliders kites and various propulsion systems followed in the 19th century until the first successful manned flight by Orville Wright in 17 December 1903. In 1906, a first flight in Europe was made by the Brazilian, Alborto Santos Dumont over the Bagatelle Park in Paris.

8.   Invention of the airship was the next major step in man's endeavours. The LA France, built by Renard and Kareves in 1884. The first flight was in September 1928 and this pioneer passenger travelled over the Atlantic long before air planes was capable of long range flight. The Zeppline of Friedrichsafen in southern Germany built a series of air ship between 1900 and 1936.

9.   At the beginning when Orville Wright first experienced a drift in body velocity and felt the defiance of gravity during his flight on 17 December 1903 at Kitty Hawk North Carolina. He was not merely proving yet another of man scientific endeavors into the

unknown. His brother Wilbur and he had in fact achieved man's aeons old yearning to fly like a bird and defy the laws of gravity and air current elements of nature believed not to be under his control till then. Three flights on covering over a half a mile the Wright flyer had achieved the first over flight by heavier than aircraft in the recorded history. Men's urge to fly goes back to his earliest observation of birds. The effortless act of flying accomplished by the species drew him to the dynamics of gravity and the air.

10.   The first Indian aviator both pilot and aircraft constructor was Prof Venketa Subba Setty of Mysore who was a remarkable person, being the first Indian to fly, and as a pioneer in aeronautical engineer, to design, build and fly an aircraft. This was on 16 June 1912, while he was with A.V Roe and CO (Avro) at Brooklands in the Manchester area of England. VS Setty had joined A.V Roe on 08 May 1911 as a time keeper and within some weeks on 27 May 1911 along with another Indian SV Sippe began to practice for flight in a Gnome powered Farman pusher biplane. Within some months he had rolled (flown) in a 35 H.P Viale engined Avro type D (No.6). On 27 September 1911 Setty had his first flying incident ending up in the sewage farm adjacent to Brooklands which happened frequently to early aviators and Setty ended up there again on 21 February 1912 while flying on Avro type B; but was uninjured. Prof Setty's interests included automobiles, he participated in car races in the U.K and first Indian on a motor cycle born in 1879, this pioneer of aviation only lived till the age of 39, passing away in 1918. There was barely any aviation activity in India during years of the Great War. However a central flying school had been set up in Sitapur on 1 October 1915 under the control of Army HQ with the object of Officers gaining experience under Indian conditions, with some five air planes in service. Individual Indian aviator had, however engaged themselves in aviation pursuits when they managed to enlist in the Royal Flying Course. Lt Hardeep Singh Malik, Lt Indra Lal Roy, D.F.C and Lt SG Welingkar, M.C, where amongst the Indian in the RFC. Although the First World War had disrupted the development of aviation in India, it had given an opportunity for these young pilots to distinguish themselves. Lt Indra Lal Roy was one of the first Indian to receive the king's commission at the age of 18. He was with No.56 Squadron RFC on the western front and No 40 Squadron during July 1918 shooting down several German fighters. Sardar Hardeep Singh Malik who was later to be Indian Ambassador to Paris served in both the RFC and RAF. He had joined the RFC in April 1917, later was in operation with No.28 Squadron and flew Sopwith Camels as a fighter pilot. In 1913 there was about five air machines in India. There was no pilot apart from a few British Officers of the Indian Army who had learned to fly in England in 1915. At the end of the First World War Royal Air Force as the largest bomber in the world.

11.   Civil aviation in India picked up soon when intercontinental flights started between Europe and India. As part of British Empire the initiative for development of the aviation, civil and military in India was naturally the prerogative of the British

government. One of Britain's immediate objectives was to have independent air route to India. With Seften Brancker being director of civil aviation during this period, India naturally became the focus point in British aviation plans. Seften Brancker's ambitious plans for intercontinental air links were realized when, on 17 March 1925, he flew aboard a D.H 50 from Croyvon terminal in London to Rangoon in Burma and returned back, thereby completing an 8000 miles air trip to India and back. This adventures expedition laid the foundation for intercontinental civil air services. However the first proving flight of KLM Royal Dutch Air lines to Java, passed through India even before Brancker took off from London. The KLM flight landed in Karachi on 9 November 1924. The directorate of civil aviation was established in 1927 as an integral part of the department of industries and labour, Lt Col Shelmderdine being appointed as the first director of civil aviation. His first priority was the creation of chain of aerodromes with good permanent hangars incorporating workshops and offices on the Karachi-Calcutta and Karachi-Southern India routes. Another vital task to be accomplished was establishing a wireless communication network and direction finding station, comprising point to point communication on the entire route. Shelmderdine spent considerable time in organizing the state owned India state air services to operate the Indian sector of the entire route between London and Far East. He was also the person pushing for establishing flying clubs across the country as also the aero club of India.

12.   Among the early aviators of India, there was an elite class of incredibly talented flying enthusiastic who contributed majorly to the growth and sustenance of aviation in India. There were A.M Engineer, popularly known as ASPY, Man Mohan Singh and JRD Tata. Born on 15 December 1912, A.M Engineer was, at 17 the youngest Indian pilot of the time. He won the Aga Khan Trophy being the first Indian to fly solo from England to India in a Gypsy Moth. Later, he trained at RAF Cranwel where he was adjudged the best all-round cadet was commissioned in to A Flight of IAF, and flew the Wapitis in the North Western frontier province. No 1 Squadron was formed in July 1938, Engineer was appointed the Flight Commander and flew operations in North Waziristan in May 1939. A flight under Engineer's command carried out 403 hours of flying operation, a feat which was acknowledged as remarkable in view of the small number of aircraft and crew available.

13.   Another distinguished aviator who became a legend in Indian aviation history was Man Mohan Singh a remarkable person. An engineer from Bristol University, he was the first Indian to fly solo from England to India. He had earlier completed a two years course in flying and aeronautical engineering at Bristol on an Indian government scholarship. In 1934-35 Man Mohan Singh accomplished another solo flight in a light aircraft, again the first by an Indian, from England to South Africa.

14.   J.R.D Tata, was the first Indian to secure an A-license within the shortest number of the hours and is perhaps the most acclaimed personality of Indian aviation, the

visionary who laid the foundation for commercial air transport in India. The passion for flying was kindled in him from the legendary Bleriot, the first man to fly across the English Channel. J.R.D's first flight during his childhood days was with a joy-riding pilot in Hardelot. The first entry in his flight logbook was on 22 January 1929 when he made his first flight in a Gypsy Moth at the Bombay flying Club, done remarkable after only 12 days 3 hours and 45 minutes of dual flying experience at the flying club. He lost his air lines service on 15 October 1932 with a Push Moth airmail service to Karachi in 1938 at the age of 34. The pioneering efforts by the house of Tata's ably assisted and nourished by Neville Vintcent, a former RAF pilot who came to India in 1929 and built up the aviation department of Tata Sons as a full fledged domestic air line service which was, two turbulent decades later to evolve into the country's international career, Air India International in 1948.

Lay out of chronological development

Year	Event
1799-1809	George Cayley laid the foundation for the field of Ariel Navigation, Balloons were tried
1890-	Lilienthal discovered gliders
1895-1905	Wright flier 111 was developed
1910	Roe's bi- plane appeared
1919	Rolls –Royce engine was developed
1928	Hele-Shaw –Beachan propeller was designed
1941	Whittle W-1Turbo Jet was developed
1942	Germans V-2Rocket engine
1947	Bristol centaurs engine was designed
1954	Rolls- Royse Vertical test rig was developed

CONCLUSION

15.   We have seen here the chronological development of aviation from beginning to era where man flies with the help of machines.

HISTORY OF IAF

Period   -   GSK-2

Type   -   Lesson

Term   -   Ist year

Revised   -

_____

TRG AIDS

 Computer slides, pointer, black board and marker

TIME PLAN

(a)   Introduction   - 05minutes

(b)   Birth, Growth & expansion of IAF   - 20minutes

(c)   The Indian Air Force Today   - 10minutes

(d)   Conclusion   - 05minutes

         Total   **- 40 Minutes**

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INTRODUCTION

1.   The Indian Air Force is the youngest the three services. Even though young it has a bright history. The bravery, valour and achievement of the officers and airmen of the IAF are integral part of its proud heritage.

AIM

2.   To teach the NCC cadets about the history of Indian Air Force.

PREVIEW

3.   The class will be conducted in following parts.

        (a) Part I   -   Birth, Growth and Expansion of IAF

        (b) Part II   -   The Indian Air Force today

BIRTH OF THE IAF

4.   The origin of the IAF can be traced to the Indian Sandthurst committee known as a Skeeny committee. This committee was setup by the Govt. of India in 1925 with Sir Andrew Skeen, The Chief of General Staff as its chairman to enquire and recommend the rate at which Indians should be recruited for the grant of commissions in the Armed forces. The report was published on 1st April 1927. The Skeeny committee recommended that steps should be taken t create an Air Arm of the Indian Army and till such time facilities for flying training made available in India, its officers should be trained at Royal Air Force(RAF) college, Cranwell. From 1928 onwards 2 seats were reserved at the RAF College, Carnwell for Indians in 1930, six Indians, selected by the government of India enter the college. They were S.C. Sarkar, Subroto Mukharjee, Bhupinder Singh, Awan, Amarjit singh and J.N.Tandon.

5.   The first batch was granted their commission as pilots with the exception of Tandon. He was commissioned in the equipment branch and he became the first equipment officer in Indian Air Force.

6.   22 Airmen were selected on 19 Jan 1932 as a ground staff. They begin their training at Karachi. They were known as hawai sepoys.

7   The Government passed the IAF bill on 4 April 1932. The Indian Air Force came into being with the promulgation of the IAF bill on 8 Oct 1932. The Governor General-in-Council at that time consequently ordered the establishment of Indian Air Force with effect from 8 Oct 1932. The Indian Air force anniversary is celebrated on 8 Oct every year.

8.   No.1 Squadron (A Flight) of the IAF was formed at Drigh Road, Karachi. It consists of 4 wapiti aircraft, 6 Officers and 22 airmen then known as hawai sepoys. The six officers included the two ex-chiefs of the Air Force, Air Marshal S Mukharjee and Air Marshal AM Engineer.

9.   Two more flights (B&C) were formed and added to No.1 Squadron in 1936 and 1939 respectively. Flight lieutenant S Mukharjee took over the command of No.1 Squadron.

10.   When World War II broke out in 1939 the problem was of guarding India's vast coastline across and the IAF took active steps to solve it.

11.   Training of volunteer reserves began in November, 1939. Six coastal defense flights (CDF) were formed at Madras, Bombay, Calcutta, Cochin, Karachi and Vishakapatnam with Wapiti and Atlanta aircraft. Towards the end of 1942, these flights were disbanded and the new squadrons were formed.

GROWTH AND EXPANSION

12.   In its early years expansion of IAF was rather slow. In Sep, 1939 it consisted of only one squadron with a complement of 16 officers and 144 airmen. During World War II the increasing commitments of the RAF in Europe and the impact of Japanese invasion in south-east Asia accelerated the pace of progress.

13.   At the end of March 1941, No.1 Squadron and 3 CDFs gave up their Wapitis which were requisitioned to equip No.2 Squadron raised at Peshawar in the following months and were issued instead with Armstrong Withworth Atlanta transport, used to patrol the Sunder bans Delta area south of Calcutta. No.2 CDF had meanwhile received requisitioned D.H.89 Dragon Rapides for convoy and coastal patrol, while No.5 CDF took on strength a single D.H.86 which it used for convoy and patrol the waters of Cape Comorin and the Malabar Coast. By Oct 1943, the strength rose to 8 full squadrons with 911 officers and 40146 airmen. By the end of war two more squadrons were added to it. The squadrons were equipped with variety of aircrafts, viz., Lysander, Wapiti, Audax, Hurricane, Vengeance and Spitfire.

THE INDIAN AIR FORCE TODAY

14.   There are five operational Air commands, The Western Air Command with headquarters in Delhi being the prime such and responsible for Air operations from Kashmir southwards to Rajasthan and including the capital and the Punjab, with an operational group dedicated for Jammu and Kashmir including Ladakh. Central Air Command based at Allahabad, encompasses most of Indo-Gangetic plain while, Eastern Air Command, from Shillong, is responsible for Bengal, Assam, the Eastern states of Arunachal Pradesh, Meghalaya, Mizoram and the other bordering on Tibet, Bangladesh and Burma.

15.   South Western Air Command, at Gandhinagar, is responsible for air operations in most of Rajasthan, southwards through Gujarat to Saurashtra and the Kutch area. Southern air command was formed in July 1984 with headquarters at Thiruvananthapuram and has, geographically, the largest territory, from the Deccan plateau area to the southern tip of the peninsula and including the islands territories of Lakshadweep and the Andaman and Nicobar islands.

16.   Training command has its headquarters at Bangalore with the majority flying and ground training establishment located in southern India. The Maintenance Command functions in Nagpur in central India.

17.   The five operational commands through administrative wings, control some 45 fixed wings squadrons, 20 helicopter units and numerous surface to air missile squadrons, with unit establishments varying from 12 to 18 aircrafts. This represents total aircrafts strength of 1700 including training and support types, manned by some 170000 personnel.

<u>CONCLUSION</u>

18.   From the raising of Air Force, It has seen various changes and is marching towards the modernization. Since it is the youngest force it has the responsibility of defending the Air territory of our Country.

19.   It is the eye in the sky and has the nature of devastating the enemy of the country. From the organization of the Air force and having a few personnel now it has more than a lakh personnel.

20.   The five operational commands through administrative wings, control some 45 fix wings squadrons, 20 helicopter units and numerous surface to air missile squadrons, with unit establishments varying from 12 to 18 aircrafts. This represents total aircrafts strength of 1700 including training and support types, manned by some 170000 personnel.

ORGANISATION OF IAF

Period   -   GSK-3

Type   -   Lecture

Term   -   Ist Year

Revised By   -

Trg Aids

1.   Computer slides, pointer, black board and marker

Time Plan

2.   (a) Introduction   -   05 minutes

        (b) Explanation   -   30 minutes

        (d) Conclusion   -   05 minutes

        Total   **-   40 Minutes**

INTRODUCTION

        The President is the Supreme Commander of the Armed Forces of Indian Republic. The primary role of the Air Force is the air defence of the country, means Guarding of our air space from enemy intrusion and giving support to the Army and the Navy. Its secondary role is to aid the civil power in maintaining law and order and in providing relief during natural calamities.

AIM

To teach the NCC cadets about the organization of IAF

EXPLANATION

President

(Supreme commander)

↓

Minister of Defence

Army   **Air Force**   **Navy**

↓

Chief of the Air Staff

↓

VCAS   **DCAS**   **AOA**   **AOP**   **AOM**   **IG**

↓

COMMANDS

↓

WINGS/STATION

↓

UNITS

↓

SECTIONS/FLIGHTS
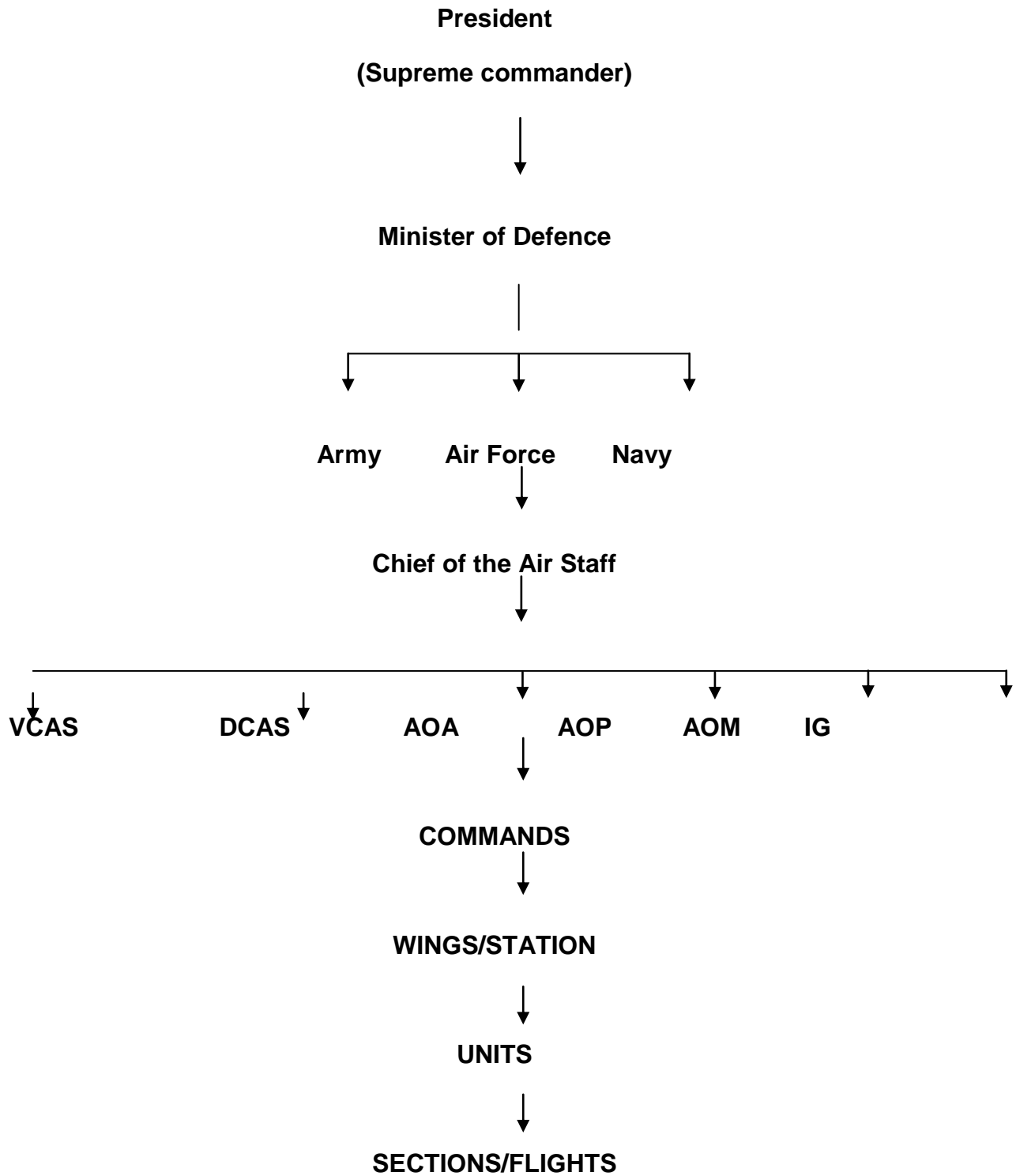
ORGANIZATION CHART OF A WING/STATION

AOC/Station Commander

| Flying Sqns | COO | C Adm O | C Eng O |

Nav   ATC   Met   Ops&Adm   Flt Safety

Accounts Education Catering Security Org&Qtr

Works & Environment Administration Medical

Signal
Armament
Logistics
MCC
Refuelling
Tech Sqn

MT
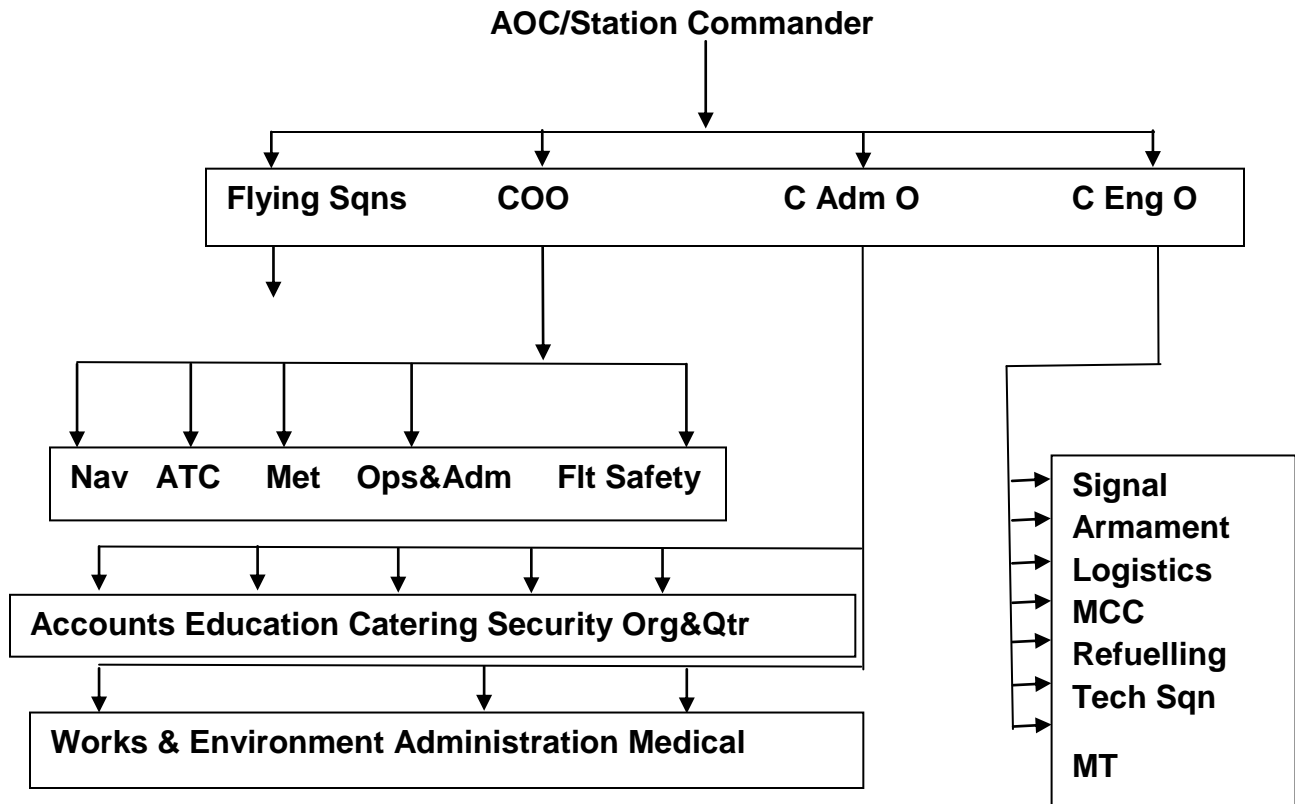
STATION/WING

Station/Wing is always what is called a self accounting unit, i.e it is fully capable and independently responsible for its own administration. A Sqn/lodger units is essentially a non-self accounting unit and it is a lodger to a Wing/Station and depends fully on that Wing/Station for its administration. A Wing/Station exercises its functional and administrative control over its lodger units.

ORGANISATION CHART – OPERATIONAL COMMAND

Air Officer Commanding in Chief

(AOC-in-C)

Senior Air Staff Officer	Senior Officer in Charge Adm	Senior Maint Staff Officer
(SASO)	(SOA)	(SMSO)
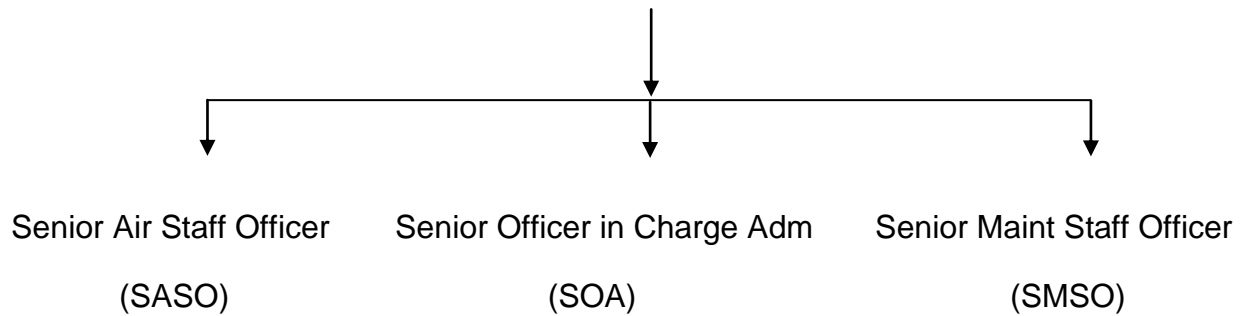
Commands

The Western, Central, Easter, South Western, Southern Air Commands control all operational units. Operational Commands execute the operational roles of the Air Force in war. They also handle the training of paratroopers for airborne operating. Training Command is responsible for training of Officers and Airman in all flying and ground training at various academy/training institution/colleges under it. Maintenance Command is responsible for the maintenance, repair and storage of aircraft, MT, Signal equipment, Armament, Ammunition and explosives etc, and exercise functional and administrative control over Base Repair Depot (BRDs) and Equipment Depot (EDs).

Following are the Air Command with their Head Quarters:-

Southern Air Command	---	Trivandrum
Training Command	---	Bangalore
Eastern Air Command	---	Shillong
Maintenance Command	---	Nagpur
Western Air Command	---	New Delhi
South West Air Command	---	Gandhi Nagar
Central Air Command	---	Allahabad

BRANCHES OF IAF

Period   -   GSK-4

Type   -   Lecture

Term   -   Ist Year

Revised By   -

Trg Aids

Computer slides, pointer, black board and marker

Time Plan

      (a) Introduction   -   05minutes

      (b) Explanation   -   30minutes

      (d) Conclusion   -   05minutes

      Total   **-   40 Minutes**

INTRODUCTION

3.   For smooth functioning of organization different branches among staff is essential. Vast organization like Indian Air Force requires various branches to make the organization successful and flawless. The responsibility of branches like flying, Medical, Administration and so on has got their respective role. In this lesson we will discuss about branches in IAF.

AIM

4.   To teach the NCC cadets about the Branches in IAF

EXPLANATION

Following are the different Branches in the IAF

    (a) Flying Branch
    (b) Navigation Branch
    (c) Education Branch
    (d) Medical Branch
    (e) Administration Branch
    (f) Logistic Branch
    (g) Meteorology Branch
    (h) Engineering Branch

<u>CONCLUSION</u>

5.   In this lesson we learnt about various branches of IAF. The branches among personnel made the organization to function smoothly. The role and responsibilities of the branches in IAF perform their activities selflessly and obediently. Without the co-operation there is no existence of an important defence organization like IAF.

MODES OF ENTRY IN THE IAF

Period   -   GSK-5

Type   -   Lecture

Term   -   Ist Year

Revised By   -

Trg Aids

 Computer slides, pointer, black board and chalk

Time Plan

      (a) Introduction   -   05minutes

      (b) Different types of Entry   -   30minutes

      (d) Conclusion   -   05minutes

      Total   **-   40 Minutes**

AIM

To learn about the Modes of Entry in the IAF & Qualification required to enter in the IAF.

EXPLANATION

3**.** Followings are the essential requirements for entry in the IAF to become Commissioned Officer

Branch/Type of Entry	Educational Qualification	Age Limit	Advertisement Schedule
(A) FLYING BRANCH			
1.National Defence Academy (NDA) For Men only	10+2 With Physics& Math	16 1/2 –19	Mar/Oct
2. Combined Defence Service (CDSE) For Men only	Any Grad. With Physics & Math at 10+2 or BE	19-23	Apr/Sep
3. NCC Special Entry (Through COMMANDING OFFICER unit /DG NCC) For Men only	Any Grad. with Physics & Math at 10+2 or BE&NCC Air Wing Sr Div. "C" Certificate	19-23	Jun/Dec
4. Short Service Commission (For Women only)	Any Grad. With Physics Maths at10+2 or BE	19-23	Mar/Sep
(B) TECHNICAL BRANCH (PC For Men/ SCC For Women)			
1. Aeronautical Engineering (Electronics) 2. Aeronautical Engineering (Mechanical)	First class degree in Engineering or GATE score of 70% & above in Electronics / Mechanical/ Allied subjects as per advertisement	18-28	Feb/Aug
(C) GROUND DUTY BRANCH (PC For Men / SCC For Women			
1. Administration 2. Logistics 3. Accounts	First Class Graduate or PG in subjects as per advertisement	20-23 20-25	Mar/Sep
4. Education 5. Meteorology	PG in subjects as per advertisement	20-25	Mar/Sep

TO BECOME AN AIRMEN

GROUP	*AGE (As on date of Enrolment)	EDUCATIONAL QUALIFICATION
Group 'X' (Technical) Trades	17 - 22 Years	Passed Intermediate / 10+2 / equivalent examination with Mathematics, Physics and English with a minimum of 50% marks in aggregate. OR Three years Diploma course in Engineering (Mechanical / Electrical / Electronics / Automobile / Computer Science / Instrumentation Technology / Information Technology) with at least 50% marks in overall aggregate from a Government recognised Polytechnic Institute.
Group 'X' (Education Instructor) Trade	20-25 Years	Graduate in Arts, Commerce or Science with B. Ed degree/two years teaching experience in a Government recognised School/College. Candidate should have scored a minimum of 50% marks in aggregate in Graduation as well as B. Ed. **OR**
	20-28 Years	Passed MA English / M Sc in Mathematics, Physics, Computer Science / MCA with B Ed degree /2 Years teaching experience in a Government recognised School / College.
Group 'Y' Trades (Except Med Asst and Musician Trade)	17-22 Years	Passed Intermediate /10+2 / equivalent examination with Science, Arts or Commerce subjects or equivalent vocational course with minimum 50% marks in aggregate. Vocational courses should be recognised by Association of Indian Universities. **OR** Three years Diploma in any stream of Engineering from a Government recognised Polytechnic Institute.
Group 'Y' (Med Asst) Trade	17-22 Years	Passed 10+2 / Intermediate / equivalent exam with Physics, Chemistry, Biology and English with a minimum of 50% marks in aggregate.
Group 'Y' (Musician) Trade	17-25 Years	Passed Matriculation /10th class or equivalent with minimum pass marks from any Government recognised School/Boards and should be proficient in playing at least one of the following musical instrument: Trumpet / Bass / Violin / Saxophone / Clarinet / Euphonium / Jazz-Drum / Piccolo / Bass Trombone / Key Board / Guitar / Sarod / Viola / Cello / Contra Bass (String Bass).

 # Age Date on enrolment

CONCLUSION

During the lecture different types of entry have been discussed for entry in the IAF
which including the qualifications and advertisement schedule.

CHAPTER – II

AIR CAMPAIGNS

INDO PAK WAR- 1971

Period   -   AC-1

Type   -   Lecture

Term   -   Ist   year

Revised by   -

****

Trg Aids

1.   Computer slides, pointer, white board and marker pen.

Time Plan

2.   (a)   Introduction   -   05 mins

       (b)   Aggression by Pakistan   -   05 mins

       (c)   Aggression Anticipated   -   05 mins

       (d)   Damage Reported   -   05 mins
               (i)   Civil Areas
               (ii)   Military airfields and aircraft

       (e)   Pakistani Soldiers Surrender   -   02 mins

       (f)   Emergency Declaration   -   03 mins

       (g)   Why Indo Pak War?   -   05 mins

       (h)   Recognition of Bangladesh by India   -   05 mins

       (j)   Summary   -   05 mins

               Total   **-**   **40 Mins**

INTRODUCTION

1.   India's commitment to peace has always been total and irrevocable. This does not, however, mean submission before force or violence. Gandhiji always made the subtle but significant distinction between non violence and cowardice. Hence, when the Pakistan hordes descended on us on the evening of 3rd December, we were left with no option but to give a fitting reply. This is what precisely our defence forces did. In the process the enemy's war machinery was dealt crippling blows. What is more, our armed forces in conjunction with the Mukti Bahini ended the dark night of oppression and brutality in East Bengal and ushered in the new state of Bangladesh. All this was achieved in a remarkably short period of fourteen days. In fact the unconditional surrender by the enemy's one lakh armed forces is unprecedented.

AGGRESSION BY PAKISTAN

2.   Darkness had just fallen on the evening of 3rd December 1971 when air raid alert was sounded at 6 PM in most of the cities in India. With the sounding of siren all lights went off. Everyone including the President, the Cabinet Ministers, the Member of Parliament, the newsmen was taken unaware. The briefing officer told newsmen that the raid alert was a genuine one. Soon people realised the seriousness of the situation. The street lights were never switched ON. The cities were plunged into darkness. The A.I.R then revealed the unfortunate incident of unprovoked aggression by Pakistan.

3.   The military junta of Pakistan seemed to have chosen the hour of attack with some deliberation and care. The Prime Minister Smt Indira Gandhi was away from New Delhi on days visit to Calcutta, where she had just finished speaking to a large gathering on the Pakistani threat to India's security and the liberation struggle in the Bangladesh. The Defence Minister, Shri Jagjivan Ram was at Patna. The Finance Minister YE Chavan left the capital minutes before the Pakistani attack was launched.

4.   The Pakistani Air Force and ground troops following the Israeli type pre-emptive strike had launched a massive attack on the Western front stretching from Jammu & Kashmir to Rajasthan. Pakistani Radio went on the air alleging an Indian attack, when the Pakistani planes were bombing our air fields in sneak raids. Pakistan's friend, philosopher and guide Peking's New China News Agency also broadcasted similar allegations.

5.   In addition to air raids by the Pakistani Air Force the ground forces also launched a massive attack on our border posts.

AGGRESSION ANTICIPATED

6.   Although unprovoked aggression came as a surprise to the people in general, and they were taken unaware, the Govt of India is reported to have anticipated it. The aircraft had been removed from those airfields well in advance. In view of, while damage had been caused to runways or otherwise to some airports, Pakistan's basic strategy failed. The intruding Pakistani fighter planes, despite the persisted raids made on various airfields, could not destroy any Indian aircraft. Necessary steps had been taken by Govt to ensure the safety of our aircraft. Indian anti aircraft guns went into action and IAF Gnats chased the Pakistani planes away. In this process three Pakistani planes had been shot down.

DAMAGE REPORTED

7.   **Civil Areas**:

(a)   In Rajasthan six people were injured, when a Pakistani aircraft dropped two bombs near bus stand.

(b)   In Pathankot one person was killed in the Pakistani bombing.

(c)   Houses in Gandhinagar were rocked by the unprovoked Pakistani shelling.

8.   **Military airfields and aircrafts**

(a)   Aircraft and one 3 tonne vehicle had been hit by Pakistani bombs near Amritsar. In Halwara Pakistani planes dropped four time bombs which exploded after the aircraft fled.

PAKISTANI SOLDIERS SURRENDER

9.   In Akhaura area 12 soldiers of the Pakistani army and 10 personnel from among Pakistani para military troops surrendered to the Indian army.

EMERGENCY DECLARATION

10.   It was felt that a state of emergency be declared in the country in order to combat the aggression. The decision was subsequently endorsed by the full cabinet and within five hours of the Pakistani attack, President VV Giri proclaimed a national emergency at 11 PM under article 353 of the constitution.

WHY INDO-PAK WAR?

11   The main problem was creation of conditions in Bangladesh which would be conducive to the safe and speedy return of 11 million refugees which had crossed our borders from East Bengal. During 1972, the cost of feeding refugees would amount to £290 million as against the international aid of about £190 million. On 5th December 1971, Sunday Times, London reported "one result of India's victory would be the collapse of military rule and the triumph of democracy. It is no paradox therefore, to see that India is fighting to bring freedom to all the people of the sub-continent, who are in the eye of God, one people".

RECOGNITION OF BANGLA DESH BY INDIA

12.   The East Pakistan Rifles and East Bengal Regiment became the Mukti Fouj and later the Mukti Bahini which was joined by thousands of young East Bengal's determined to sacrifice their lives for freedom. Government of Bengla Desh and Government of India unanimously decided to grant recognition to the 'Gana Prajatantra Bangladesh'. The father of the new state became Sheikh Mujibur Rehman, Dhaka became the capital.

SUMMARY

13   In fact the suppression by military junta of Pakistan carried on in Bangladesh and the exemplary courage displayed by the people of Bangladesh in facing such situation is not a secret. It has been recorded in the world press. No one can say that India's decision to recognise Bangladesh is based on emotions and not based on present and future realities. It can also not be said to be a hasty step for recognition was accorded only after Pakistan was unable to exercise any control over the people of Bangladesh. "The will of the nation substantially expressed". The act of according of recognition to Bangladesh is to admit realities, and since history has such precedence, when an emerging colony was accorded independence, recognition Bangladesh, which has been treated as a colony and which was emerged successfully from its parent country, cannot be condemned by any nation. Later on National flag and National song sung by free country Bangladesh 'Amar Sonar Banglatomai ami bhalobasi'.

OPERATION SAFED SAGAR

Period   -   AC -2

Type   -   Lecture

Term   -   Ist   year

Revised By   -

Trg Aids

1. Computer slides, pointer, black board and marker

Time Plan

2.   (a) Introduction   -   05 minutes

        (b) Operation Details   -   30 minutes

        (d) Conclusion   -   05 minutes

              Total   -   40 minutes

INTRODUCTION

1.   Operation Safed Sagar was the codename assigned to the Indian Air Force's strike to support the Ground troops during Operation Vijay that was aimed to flush out Regular and Irregular troops of the Pakistani Army from vacated Indian Positions in the Kargil sector along the Line of Control. It was the first large scale use of air power in the Jammu and Kashmir region since the Indo-Pakistani War of 1971.

AIM

2.   To teach the NCC cadets about the how our country has protected our sovereignty and use military power against infiltration using Air Power.

Ground operations

3.   Initial infiltrations were noticed in Kargil in early May, 1999. Because of the extreme winter weather in Kashmir, it was common practice for the Indian and Pakistan Army to abandon forward posts and reoccupy them in the spring. That particular spring, the Pakistan Army reoccupied the forward posts before the scheduled time not only theirs but also which belonged to India, in a bid to capture Kashmir.

4.   By the second week of May, an ambush on an Indian army patrol acting on a tip-off by a local shepherd in the Batalik sector led to the exposure of the infiltration. Initially

with little knowledge of the nature or extent of the encroachment, the Indian troops in the area initially claimed that they would evict them within a few days. However, soon reports of infiltration elsewhere along the LoC made it clear that the entire plan of attack was on a much bigger scale. India responded with Operation Vijay, a mobilization of 200,000 Indian troops. However, because of the nature of the terrain, division and corps operations could not be mounted; the scale of most fighting was at the regimental or battalion level. In effect, two divisions of the Indian Army numbering 20,000, along with several thousand from the Paramilitary forces of India and the air force were deployed in the conflict zone. the Indian Army moved into the region in full force. Soon, the intruders were found to be well entrenched and while artillery attacks had produced results in certain areas, more remote ones needed the help of the air force.

Air operations

5.   The Indian Air Force (IAF) was first approached to provide air support on 11 May with the use of helicopters. On 21 May a Canberra on a reconnaissance mission was hit by ground fire. The flight was however, recovered safely, and returned to base on one engine. On 25 May, the Cabinet Committee on Security authorized the IAF to mount attacks on the infiltrators without crossing the LoC. Initial indications from the government to the IAF was to operate only Attack helicopters. However, the Chief of Air Staff put forth the argument that in order to create a suitable environment for the helicopters, fighter action was required. On 26 May, the go-ahead was given and the IAF started its strike role . Flying from the Indian airfields of Srinagar, Avantipur and Adampur, ground attack aircraft MiG-21s, MiG-23s, MiG-27s, Jaguars and the Mirage 2000 struck insurgent positions.

6.   The first strikes were launched on the 26 May, when the Indian Air Force struck infiltrator positions with fighter aircraft and helicopter gunships. The initial strikes saw MiG-27s carrying out offensive sorties, with MiG-21s and (later) MiG-29s providing fighter cover. Mil Mi-17 gunships were also deployed in the Tololing sector. Srinagar Airport was at this time closed to civilian air-traffic and dedicated to the Indian Air Force.

7.   However, on 27 May, the first fatalities were suffered when a MiG-21 and a MiG-27 jets were shot down over Batalik Sector by Pakistan Army. The following day, a Mi-17 was lost- with the loss of all four of the crew- when it was hit by three Stinger missiles while on an offensive sortie. These losses forced the Indian Air Force to reassess its strategy. The helicopters were immediately withdrawn from offensive roles as a measure against the man-portable missiles in possession of the infiltrators.

8.   On 30 May, the Indian Air Force called into operation the Mirage 2000 which was deemed the best aircraft capable of optimum performance under the conditions of high-altitude seen in the zone of conflict. Armed initially with 250 kg "dumb" bombs, No.7 Squadron over three days, struck infiltrator positions in Muntho Dhalo, Tiger Hill and Point 4388 in the Drass Sector. The strikes on Muntho Dhalo on 17 June also destroyed logistics and re-supply capabilities of the infiltrators in the Batalik Sector. Through the

last weeks of June, the Mirages, armed with LGBs as well as with "dumbs", repeatedly struck the heavily defended Tiger Hill.

9.   The choppers used were Mi-8 and the Mi-17. The transport planes were Avro, An-32 and IL-76. On May 27, the IAF had sent a MiG-27 on a photo reconnaissance mission over the Indian side of the Line of Control in Kashmir Pilot ejected from MiG-27 after an engine flameout due to Pakistani retaliation.

10.   The next day the Air Force lost an Mi-17 Helicopter to a shoulder fired missile near Tololing, killing the crew of four. This resulted in a change in strategy and technology. With the Israelis providing around 100 Laser-guided bomb kits to the Indian Military, the air force chose to make maximum use of this and retaliated with regular sorties on Pakistani occupied bunkers. The aircraft operated at 10,000 meters AGL (33,000 feet above sea level), well out of MANPADs range, leading to a drop in the accuracy rate of the bombs. The low number of airstrips for take off and landing of the flights also constrained the efficiency of the attacks. Despite this, there were hundreds of sorties on the intruders with no further material or personnel casualties enabling a gradual takeover of the mountain posts by Indian troops. According to IAF the "air strikes against the Pakistani infiltrators, supply camps and other targets yielded rich dividends."

11.   By July all the remaining intruders had withdrawn and the operation was ended, being declared a success by the IAF in having achieved its primary objectives. However there has also been criticism of the methods initially used and the type of planes being unsuitable to the terrain that resulted in early losses. This is believed by many in the air force as coming as a wakeup call to upgrade the aging fleet of craft (especially the attack aircraft and helicopters) to better enable them to fight in the mountainous region. But, in the context of the war and in light of the poor information available on the infiltrations, the Indian Air Force was able to coordinate well with the Army and provide air support to the recapture of most the posts before Pakistan decided to withdraw its remaining troops.

Conclusion

12.   Operation Safed Sagar, as the air operation in the Kargil area was called, was indeed a milestone in the history of military aviation. This was the first time that air power was employed in such an environment. Fighters as well as armed helicopters carried out many hundreds of sorties against the armed intruders who had infiltrated into the Indian Territory. The use of air power in this theatre was instrumental in accelerating the end of the conflict to India's advantage. IAF's air strikes against enemy supply camps and other targets yielded rich dividends. A noteworthy fact is that there was not a single operation on ground that was not preceded by air strikes, each and every action was a result of coordinated planning. The enemy was kept off the backs of the Indian Army. In the area of interdiction of enemy supplies, the successful and incessant attacks on the enemy's logistic machines, over the weeks, culminated in a serious degradation of the enemy's ability to sustain them.

MOTIVATIONAL MOVIES

Period   -   AC-3

Type   -   Movie

Term   -   Ist   year

Revised By   -

Trg Aids

1. Computer , Projector and speakers

Time Plan

2.   (a) Introduction   -   05 minutes

          (b) Branches of IAF   -   05 minutes

          (c) Join IAF   -   25 minutes

          (d) Conclusion   -   05 minutes

CHAPTER – III

AIRCRAFT RECOGNITION

HELICOPTERS
(ACR-1)

Period   -   ACR-1

Type   -   Lecture

Term   -   IInd year

Revised By   -

Trg Aids

1.   Computer slides, pointer, black board and marker

Time Plan

2.   (a) Introduction   -   05minutes

       (b) Identification   -   05minutes

       (c) Salient features   -   25minutes

       (d) Conclusion   -   05minutes

              Total   **-   40 Minutes**

INTRODUCTION

1.   Aircraft Recognition is essential to identify the aircraft during both in peace and war.

Identification of Helicopters

2.   DURING PEACE TIME: Aircraft recognition helps to identify the different types of aircraft possessed by the enemy and assess the strength of the country and prepare for own self defense.

3.   DURING WAR TIME: Aircraft recognition helps the MOP (mobile observation post) to identify while Aircraft is friend or foe. It also helps to know the capability of the aircraft by identifying its type.

SALIENT FEATURES - HELICOPTERS

Chetak (Alouette-III)

Role: General Purpose Light Transport.

Particulars:

Length/ Height--	10.03 /3.09 Metres
Max Take-Off Weight--	2100 Kgs
Fuel Capacity--	575 Litres
Pay Load--	05 Passengers

Performance:

Cruise/Max Speed--	190/210 KMPH
Range--	500 Km
Engine (Power)--	Single Turbo shaft(586 HP)

Special Features

- French design, built under licence by HAL.

- It's other version, Cheetah is lighter by 150 Kg, thus suitable for operations at high altitudes of Leh, Ladakh and Siachen Glacier.

MI-8

Role: Medium Range Lift Helicopter.

Particulars:

Length/Height--	25.24 / 5.65 Metres
Fuel Capacity--	2960 Litres
Pay Load--	24 Combat Troops

Special Features

- It has tail rotor on starboard side of vertical stabiliser.

MI-17

Role: Medium Range Lift Helicopter.

Particulars:

Length/Height--	18.2 / 5.65 Metres
Max Take-Off Weight--	13000 Kgs
Fuel Capacity--	3680 Litres
Pay Load--	3300 Kgs (24 Combat Troops)

Performance:

Cruise/Max Speed--	240/256 KMPH
Range--	950 Km
Engine (Thrust)--	Two Turbo shafts(1900 hp each)

Special Features

- It is an upgraded version of MI-8, with better engine power. It has tail rotor on port side of vertical stabiliser.

- It can carry six pods of 57 mm rockets.

CONCLUSION

The individual has to learn to recognize aircraft. In this lesson we have learnt about how to recognize various helicopter of IAF. Many factors are involved in making an identification of an aircraft and the distance at which it can be positively identified. Some of these are size, viewing angle, visibility, aircraft finish, visual characteristics, colour and external markings

TRANSPORTS

(ACR-2)

Period   -   ACR-2

Type   -   Lecture

Term   -   IInd year

Revised By   -

Trg Aids

1.   Computer slides, pointer, black board and marker

Time Plan

2.   (a) Introduction   -   05minutes

        (b) Identification   -   05minutes

        (c) Salient features   -   25minutes

        (d) Conclusion   -   05minutes

            Total   **-   40 Minutes**

INTRODUCTION

1.   Aircraft Recognition is essential to identify the aircraft during both in peace and war.

Identification of Transport Aircrafts

2.   DURING PEACE TIME: Aircraft recognition helps to identify the different types of aircraft possessed by the enemy and assess the strength of the country and prepare for own self defense.

3.   DURING WAR TIME: Aircraft recognition helps the MOP (mobile observation post) to identify while Aircraft is friend or foe. It also helps to know the capability of the aircraft by identifying its type.

EXPLANATION

There are various methods used to identify the aircrafts:

(a) Wing position   (b) Wing shape   (c) Shape of wing tips
(d) Shape of canopy   (e) Shape of fins and tail plane   (f) Markings

    (a)   <u>Recognition by the wing position</u>:

        (i) High wing   (ii) Shoulder wing   (iii) Mid wing
        (iv) Low mid wing   (v) Low wing   (vi) Parasol wing

High Wing   Shoulder Wing   Mid Wing

Low Mid Wing   Low Wing   Parasol Wing

    (b)   <u>Wing shape</u>:

        (i) Rectangular   (ii) Elliptical   (iii) Forward taper
        (iv) Backward taper   (v) Equitaper   (vi) Delta
        (vii) Crescent   (viii) Swept back   (ix) Swept forward
        (x) Bi-plane   (xi) Mono plane   (xii) Dihedral
        (xiii) Anhedral

    (c)   <u>Shape of wing tip</u>:

        (i) Circular   (ii) Taper   (iii) Pointed   (iv) Square

    (d)   Shape of canopy:

(i) In line canopy   (ii) Submerged canopy   (iii) Tear drop canopy

(v) Glass house canopy   (iv) Bubble canopy

(d)   Shape of fin and tail plane:

        (i) High tail plane   (ii) High mid tail plane   (iii) Mid tail plane
        (iv) Low mid tail plane   (v) Low tail plane

(f)   Markings:
(a) Indian Air Force

    GREEN

    WHITE

    SAFFRON

On fuselage & below wing

SAFFRON	WHITE	GREEN

SALIENT FEATURES - TRANSPORT AIRCRAFTS

DORNIER-228

Role: Utility/Commuter Aircraft.

Particulars:

Length/Span/Height--	16.56 / 16.97/ 4.86 Metres
Max Take-Off Weight--	5980 Kgs
Fuel Capacity--	2380 Litres
Pay Load--	1900 Kgs (upto 19 passengers)

Performance:

Cruise/Max Speed--	428 Kmph
Range--	2700 Km
Engine (Power)--	Two Turbo-props (715 HP each)

Special Features

- For maritime role, it is fitted with high-resolution radar with a scanning range of 475 Km with a capacity of track 32 targets.

- Two under-wing pods for carrying guns for spraying oil binding pollutants in pollution-prevention role.

AVRO (HS-748)

Role: Medium Lift Transport.

Particulars:

Length/Span/Height--	20.42 / 30.02/ 7.57 Metres
Max Take-Off Weight--	21000 Kgs
Fuel Capacity--	6550 Litres
Pay Load--	5220 Kgs

Performance:

Cruise Speed--	452 Kmph
Range--	1482 Km
Engine (Power)--	Two Turbo-props (2280 hp each)

Special Features

- British Aerospace Design, first produced by HAL, Kanpur Division under licence in 1964.
- Used by the IAF, BSF and other agencies in a variety of roles like VIP duties, navigator/signaller training and para-dropping.

AN - 32

Role: Short/Medium Lift Transport.

Particulars:

Length/Span/Height--	23.8 / 29.2/ 8.6 Metres
Max Take-Off Weight--	26000 Kgs
Fuel Capacity--	7000 Litres
Pay Load--	6700 Kgs (upto 39 para-troopers)

Performance:

Cruise Speed--	530 Kmph
Range--	2500 Km
Engine (Power)--	Two Turbo-props (5170 hp each)

Special Features

- It is able to operate from high altitude airfields such as Leh.

<u>CONCLUSION</u>

The individual has to learn to recognize aircraft. In this lesson we have learnt about how to recognize the various transport aircrafts of IAF. Many factors are involved in making an identification of an aircraft and the distance at which it can be positively identified. Some of these are size, viewing angle, visibility, aircraft finish, visual characteristics, colour and external markings

FIGHTERS

(ACR-3)

Period   -   ACR-3

Type   -   Lecture

Term   -   IInd year

Revised By   -

Trg Aids

1. Computer slides, pointer, black board and marker.

Time Plan

2.   (a) Introduction   -   05minutes

      (b) Identification   -   05minutes

      (c) Salient features   -   25minutes

      (d) Conclusion   -   05minutes

.   **Total**   **-**   **40 Minutes**

INTRODUCTION

1.   Aircraft Recognition is essential to identify the aircraft during both in peace and war.

IDENTIFICATION OF FIGHTER AIRCRAFTS

1.   <u>DURING PEACE TIME</u>:   Aircraft recognition helps to identify the different types of aircraft possessed by the enemy and assess the strength of the country and prepare for own self defense.

2.   <u>DURING WAR TIME</u>:   Aircraft recognition helps the MOP (mobile observation post) to identify while Aircraft is friend or foe. It also helps to know the capability of the aircraft by identifying its type.

EXPLANATION

There are various methods used to identify the aircrafts:

(a) Wing position   (b) Wing shape   (c) Shape of wing tips

(d) Shape of canopy   (e) Shape of fins and tail plane   (f) Markings

(a)   Recognition by the wing position:

        (i) High wing   (ii) Shoulder wing   (iii) Mid wing
        (iv) Low mid wing   (v) Low wing   (vi) Parasol wing

High Wing   Shoulder Wing   Mid Wing

Low Mid Wing   Low Wing   Parasol Wing

(b)   Wing shape:

        (i) Rectangular   (ii) Elliptical   (iii) Forward taper
        (iv) Backward taper   (v) Equitaper   (vi) Delta
        (vii) Crescent   (viii) Swept back   (ix) Swept forward
        (x) Bi-plane   (xi) Mono plane   (xii) Dihedral
        (xiii) Anhedral

(c)   Shape of wing tip:

        (i) Circular   (ii) Taper   (iii) Pointed   (iv) Square

(d)   Shape of canopy:

(i) In line canopy   (ii) Submerged canopy   (iii) Tear drop canopy

(v) Glass house canopy   (iv) Bubble canopy

(d)   Shape of fin and tail plane:

        (i) High tail plane   (ii) High mid tail plane   (iii) Mid tail plane
        (iv) Low mid tail plane   (v) Low tail plane

(f)   Markings:
(a) Indian Air Force

On fuselage & below wing

SAFFRON	WHITE	GREEN

SALIENT FEATURES - FIGHTER AIRCRAFTS

KIRAN (HJT-16)

Role: Basic Jet and Armament Trainer

Particulars:

Length/Span/Height--	10.6 / 10.7 / 2.67 Metres
Max Take-Off Weight--	5000 Kgs
Fuel Capacity--	1345+4X255 Litres (Drop Tanks)
Pay Load--	2X250 Kg Bombs (or Rocket Pods) plus 2X7.62 mm Guns

Performance:

Cruise/Max Speed--	600/715 KMPH
Range--	1075 Km
Engine (Thrust)--	Single Turbojet(1900 Kg)

Special Features

- Indigenous design of HAL.MK-II has high powered engine and four (instead of two) hard points for weapons.
- Still in use with the IAF.

MIG- 21 BIS

Role: Single Seater Air Combat/Ground Attack.

Particulars:

Length/Span/Height--	15.0 / 7.15/ 4.13 Metres
Max Take-Off Weight--	10,470 Kgs
Fuel Capacity--	2,885 + 1,780 Litres(Drop Tanks)
Pay Load--	2,020 Kgs including four close combat missiles plus 23 mm twin barrel gun.

Performance:

Cruise / Max Speed--	1,480/2,175 Kmph
Range--	1900 Km
Engine (Thrust)--	Single Turbojet (7500 Kg)

Special Features

- Five hard-points(Four under wings and one under fuselage)
- 125 aircraft shall undergo up gradation at HAL as a result of Rs.1100 crore agreement with Russian design Bureau ANPK-MIG.

CONCLUSION

The individual has to learn to recognize aircraft. In this lesson we have learnt about how to recognize the various fighter aircrafts of IAF. Many factors are involved in making an identification of an aircraft and the distance at which it can be positively identified. Some of these are size, viewing angle, visibility, aircraft finish, visual characteristics, colour and external markings

CHAPTER – IV

PRINCIPLES OF FLIGHT

INTRODUCTION

Period   --   PF-1

Type   --   Lecture

Term   --   I/I

Revised by   --

****

Trg Aids

1.   Computer slides, pointer, black board and chalk.

Time Plan

2.   (a)   Intro   -   05 mins

      (b)   Stalling   -   30 mins

      (c)   Conclusion   -   05 mins

      Total   -   **40 Mins**

"When once you have tasted flight, you will forever walk the earth with your eyes turned skyward, for there you have been, and there you will always long to return." - Leonardo da Vinci

INTRODUCTION (Slide 01)

1.   It is essential to have a basic knowledge of elementary mechanics to understand the various Principles of Flight, because both the aircraft and the atmosphere in which it files are Matters and all matter are subjected to the laws of mechanics. Terms like Mass, Density, Motion, Speed, Velocity, Acceleration, Newton's First Law of Motion, Momentum, Force, Pressure, Newton's Third Law of Motion, Weight, Work, Power, Energy, Law of Conversation of Energy, Moment of a Force, Couple, and Equilibrium.

AIM (Slide 02)

4.   To teach Flying Cadets about elementary mechanics required to understand aerodynamics.

PREVIEW   (Slide 03)

5.   The class will be conducted in the following parts:-

(a)   Mass

(b)   Density

(c)   Speed

(d)   Velocity

(e)   Acceleration

(f)   Newton's First Law of Motion

(g)   Momentum

(h)   Force

(j)   Pressure

(k)   Newton's Second Law of Motion

(l)   Newton's Third Law of Motion

(m)   Weight

(n)   Work

(o)   Power

(p)   Energy

(m)   Law of Conversation of Energy

(n)   Momentum of a Force

(o)   Couple

(p)   Equilibrium

(q)   Centre of Gravity (CG)

(r)   Kinetic Enenrgy

LAWS OF MOTION (Slide 04)

6. **Mass**: Unit - Kilogram (kg) - 'The quantity of matter in a body.' The mass of a body is a measure of how difficult it is to start or stop, ("a body", in this context, means a substance. Any substance a gas, a liquid or a solid).

7. **Density**: It is the mass per unit volume.

8. **Motion**: Motion is said to be there when a body changes its position in relation to its surroundings.

9. **Speed**: Speed is the rate of change of position.

10. **Velocity**: Velocity is speed in particular direction. Velocity is a vector quantity having both magnitude and direction.

11. **Acceleration**: Acceleration is the rate of change of velocity. The change may be in magnitude or direction or in both. Thus a body moving along a circular path at constant speed has acceleration.

$$\textbf{Acceleration} = \frac{\textbf{Force}}{\textbf{Mass}}$$

12. **Newton's First Law of Motion**: A body will continue to be in state of rest or of uniform motion in a straight line unless acted upon by an external force. This property of all bodies is called inertia and a body in such a state is said to be in Equilibrium.

13. **Momentum**: Unit - Mass x Velocity (kg-m/s) - 'The quantity of motion possessed by a body'. The tendency of a body to continue in motion after being placed in motion.

.14. **Force**: Unit - Newton (N) -'A push or a pull'. Thatwhich causes or tends to cause a change in motion of a body.

15. **Pressure**: Pressure is force per unit area.

16. **Newton's Second Law of Motion**: The rate of change of momentum of a body is directly proportional to the applied force and takes place in the direction of the application of the said force.

17. **Newton's Third Law of Motion**: To every action, there is an equal and opposite reaction.

18.**Weight**: (a)   The earth exerts a certain force towards its centre on all objects on its surface. This force is called Weight of the body and is equal to the mass of the body multiplied by the acceleration due to gravity 'g'.Unit - Newton (N) - 'The force due to gravity'. (F = m x g)

19.   **Work**:   Unit - Joule (J) - A force is said to do work on a body when it moves the body in the direction in which the force is acting. The amount of work done on a body is the product of the force applied to the body and the distance moved by that force in the direction in which it is acting. If a force is exerted and no movement takes place, no work has been done.

     e.g. (a) Work = Force x Distance (through which the force is applied)

.20.   **Power**:   Unit - Watt (W) - Power is simply the rate of doing work, (the time taken to do work)

e.g. (a) Power (W) = $\dfrac{\textbf{Force (N) x Distance (m)}}{\textbf{Time (s)}}$

21.   **Energy**:   Unit - Joule (J) - Mass has energy if it has the ability to do work. The amount of energy a body possesses is measured by the amount of work it can do. The unit of energy will therefore be the same as those of work, joules.

.22.   **Law of Conversation of Energy**:   The sum total of all energy in the universe remains constant.

23.   **Momentum of a Force**:   Moment of a force is the turning effect of the force about a point and is measured as the product of the force and the perpendicular distance between the point and the line of action o the force.

24.   **Couple**:   A couple consists of two equal and opposite and parallel forces not acting through the same point. The moment of a couple is equal to the force multiplied by the perpendicular distance between the two lines of action.

25.   **Equilibrium**: A body is said to be in equilibrium when

(i)   Algebric sum of all the forces acting on the body is zero.
(ii)   Clockwise moment is equal to the anticlock wise moment about any point.

26.   **Centre of Gravity (CG):**   The point through which the weight of an aircraft acts.

        (a)   An aircraft in flight is said to rotate around its CG.

        (b)   The CG of an aircraft must remain within certain forward and aft limits, for reasons of both stability and control

27.   **Kinetic Energy:**   Unit - Joule (J) - 'The energy possessed by mass because of its motion'. 'A mass that is moving can do work in coming to rest'.

$$KE = {}^1/2\ m\ V^2 \text{ joules}$$

CONCLUSION

28.   A flying object is a mechanical body in a three dimensional space. The knowledge of above definitions is necessary for effective understating of Principle of Flight.

PRINCIPLE OF FLIGHT - GLOSSARY OF TERMS

Period   --   PF-2

Type   --   Lecture

Term   --   I/II

Revised by   --

****

Trg Aids

1.   Computer slides, pointer, black board and chalk.

Time Plan

2.   (a)   Intro   -   05 mins

        (b)   Stalling   -   30 mins

        (c)   Conclusion   -   05 mins

             Total   -   **40 Mins**

       "Do not let yourself be forced into doing anything before you are ready."- Wilbur Wright

INTRO   (Slide 01)

3.   The following are the Main Glossary of Terms which required for understanding, Principle of Flight. Like Aerofoil, Chord line, Chord length, angle of attack, angle of incidence, total reaction, lift, drag, Thrust and weight.

AIM   (Slide 02)

5.   To teach Flying Cadets about different Glossary of Terms used in aerodynamics.

PREVIEW   (Slide 03)

5.   The class will be conducted in the following parts:-

(a)   Aerofoil

(b)   Chord line

(c)   Chord length

(d)   Angle of Attack

(e)   Angle of Incidence

(f)   Total Reaction

(g)   Lift

(h)   Drag

(j)   Thrust

(k)   Weight

GLOSSARY OF TERMS   (Slide 04)

6.   **Aerofoil:** A body designed to produce more lift than drag. A typical aerofoil section is cambered on top surface and is more or less straight at bottom.

7.   **Chord line**: It is a line joining the centres of curvature of leading and trailing edges of an aerofoil section.

8.   **Chord length**: It is the length of chord line intercepted between the leading and trailing edges.

9.   **Angle of attack:**   It is the angle between the chord line and the relative air flow undisturbed by the presence of aerofoil.
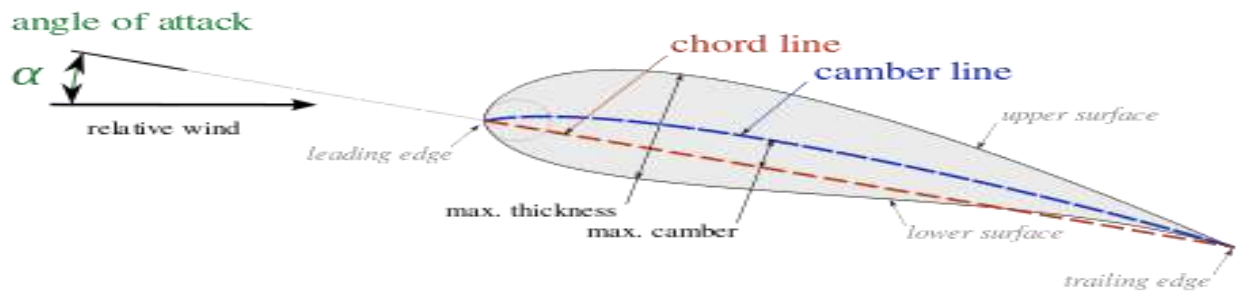
10.   **Angle of incidence**:   The angle between the chord line and the longitudinal axis of the aircraft.

11.   **Total Reaction:**   It is one single force representing all the pressures (force per unit area) over the surface of the aerofoil. It acts through the centre of pressure which is situated on the chord line.

12.   **Lift:**   The vertical component of Total Reaction, resolved at right angles to the relative airflow.

13.   **Drag:** The horizontal component of the Total Reaction acting angles and in the same direction as the relative airflow.

CONCLUSION

14.   The Flying cadets should have thorough understanding of the above definitions for better understanding of Principle of Flight and aerodynamics of flying objects.

FORCES ACTING ON AIRCRAFT

Period   --   PF-3

Type   --   Lecture

Term   --   I/III

Revised by   --

****

Trg Aids

1. Computer slides, pointer, black board and chalk.

Time Plan

2.   (a)   Intro   -   05 mins

       (b)   Stalling   -   30 mins

       (c)   Conclusion   -   05 mins

Total   -   **40 Mins**

"*It is possible to fly without motors, but not without knowledge and skill.*"-

Wilbur Wright

INTRODUCTION (Slide 01)

3.   An Aircraft is considered to be in straight and level flight when it is flying at a constant altitude and speed, maintaining lateral level and direction. Force acting on aircraft and any given movement are Lift, Drag, Thrust and Weight.

AIM (Slide 02)

4.   To teach the flying Cadets about forces acting on aircraft.

PREVIEW   (Slide 03)

5.   The class will be conducted in the following parts:-

   (a)   Lift   (b)   Drag   (c)   Thrust   (d)   Weight

FORCES ACTING ON AIRCRAFT   (Slide 04)

6.   **Lift** is a positive force caused by the difference in air pressure under and above a wing. The higher air pressure beneath a wing creates lift, and is affected by the shape of the wing. Changing a wing's angle of attack affects the speed of the air flowing over the wing and the amount of lift that the wing creates.

7.   **Weight**is the force that causes objects to fall downwards. In flight, the force of weight is countered by the forces of lift and thrust.

8.   **Thrust** is the force that propels an object forward. An engine spinning a propeller or a jet engine expelling hot air out the tailpipe are examples of thrust. In bats, thrust is created by muscles making the wings flap.

9.   **Drag** is the resistance of the air to anything moving through it. Different wing shapes greatly affect drag. Air divides smoothly around a wing's rounded leading edge, and flows neatly off its tapered trailing edge...this is called streamlining.
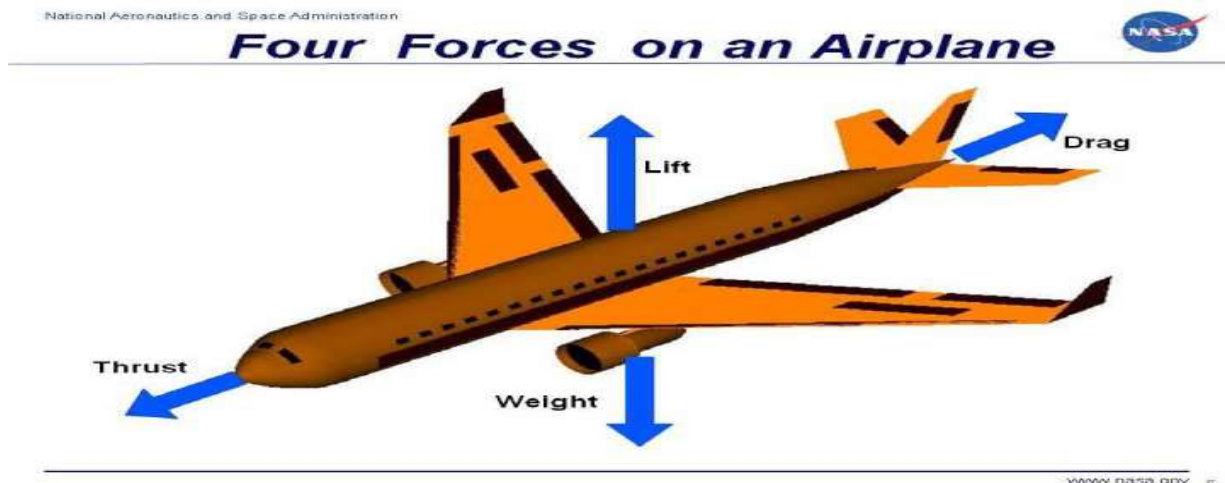
CONCLUSION   -

10.   The flying cadets should thoroughly understanding the above basic concepts of level flight for better understanding of aerodynamics.

CHAPTER – V

PARTS OF AN AIRCRAFT

PARTS OF AN AIRCRAFT

Period   --   PA-1

Type   --   Lecture

Term   --   I/II

Revised by   --

****

Trg Aids

1. Computer slides, pointer, black board and chalk.

Time Plan

2.   (a)   Intro   -   05 mins

       (b)   Parts of an aircraft   -   30 mins

       (c)   Conclusion   -   05 mins

       Total   **-**   **40 Mins**

INTRODUCTION   (Slide 01)

3.   Fuselage is the main body of the aircraft to which all the other components like wings, ailerons, rudders, elevators and undercarriage are attached. It also contains the cockpit from where the pilot controls the aero-plane. It provides the space for the freight and passengers.

AIM   (Slide 02)

4.   To teach about the parts of an aircraft.

BASIC DESIGN OF A FUSELAGE   (Slide 03)

5.   The basic design of fuselage should satisfy the following:

       (a)   Smooth skin of the required aerodynamic form.
       (b)   Sufficient strength to withstand aerodynamic loads.

(c)   Sufficient stiffness to retain its correct shape under all loads.
(d)   Mounting points for engine, armament, fuel tanks and equipment.
(e)   Protection of aircrew and passengers from ambient conditions.

6.   A basic fuselage layout is shown below for easy understanding. As can be seen, it comprises fire wall, wing attachment points, landing gear attachment points, stringers, bulk head/formers and stressed skin.
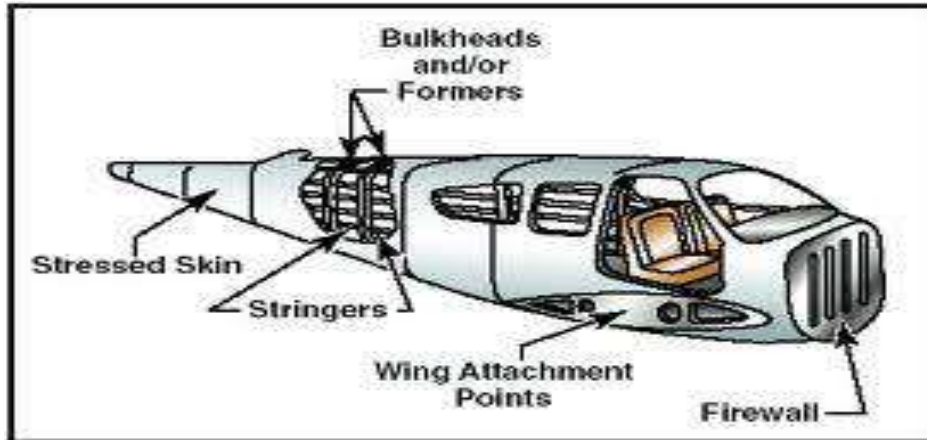
MATERIALS USED

7.   The various types of materials can be classified as follows:

(a)   Wood
(b)   Metals
(c)   Composites

MAIN PLANE AND TAIL PLANE

8.   Main plane and Tail plane play a major role in ensuring effective control of aircraft during its flight.

MAIN PLANE
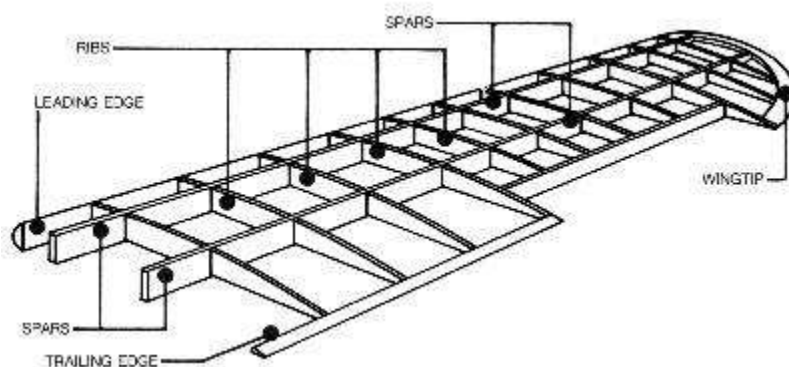
9.   There are various types of wings as shown in figure below. They are as follows:

    (a)   Straight wing
    (b)   Swept back wing
    (c)   Delta wing
    (d)   Tapered wing
    (e)   Variable geometry wing

TAIL PLANE
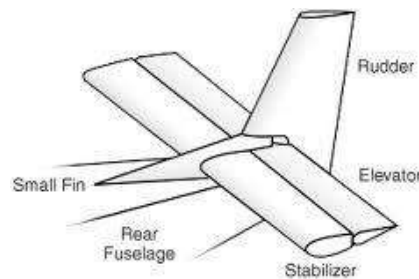
10.   As shown in figure above, a tail plane, also known as horizontal stabilizer is a small lifting surface located on the tail behind the main lifting surfaces of a fixed-wing aircraft as well as other non-fixed wing aircraft such as helicopters. The tail plane serves three purposes: equilibrium, stability and control.

AILERON AND ELEVATORS

11.   The main control surfaces such as Aileron and Elevators of a <u>fixed-wing aircraft</u> are attached to the airframe on hinges or tracks so that they may move and thereby deflect the air stream passing over them.

AILERONS

12.   The figure below shows the position of Aileron and Elevator on an aircraft.
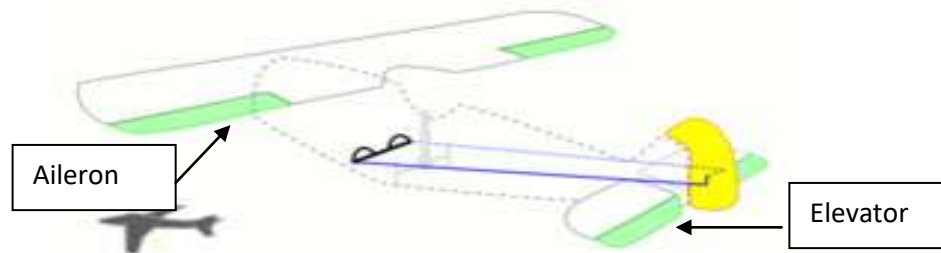
13.   Ailerons are mounted on the trailing edge of each wing near the wingtips and move in opposite directions. When the pilot moves the stick left, the left aileron goes up and the right aileron goes down. A raised aileron reduces lift on that wing and a lowered one increases lift, so moving the stick left causes the left wing to drop and the right wing to rise. This causes the aircraft to roll to the left and begin to turn to the left.

ELEVATORS

14.   An elevator is mounted on the trailing edge of the horizontal stabilizer on each side of the fin in the tail, as shown in the figure above. They move up and down together. When the pilot pulls the stick backward, the elevators go up. Pushing the stick forward causes the elevators to go down. Raised elevators push down on the tail and cause the nose to pitch up.

RUDDERS

15.   The **rudder** is a fundamental control surface in order to provide means of controlling yaw of an airplane about its vertical axis.

16.   A typical view of Rudder is shown below.
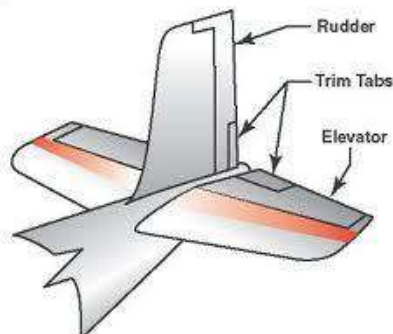
17.   The **rudder** is a control surface which is controlled by pedals rather than at the stick. It is the primary means of controlling yaw-the rotation of an airplane about its vertical axis. On an aircraft, the **rudder** is a directional control surface. The rudder is usually attached to the fin which allows the pilot to control yaw about the vertical axis.

LANDING GEAR

18.   The **undercarriage** or **landing gear** in aviation is the structure that supports an aircraft on the ground and allows it to taxi, take-off and land. Typically wheels are used, but skids, skis, floats or a combination of these and other elements can be deployed, depending on the surface.

TYPES OF LANDING GEAR

19.   A typical landing gear is shown below.

20.   A **Landing gear** can be classified in to two types as follows:

(a)   **Fixed Landing gear**.   A fixed gear always remains extended and has the advantage of simplicity combined with low maintenance.

(b)   **Retractable Landing gear**. To decrease drag in flight, some undercarriages retract into the wings and/or fuselage with wheels flush against the surface or concealed behind doors. This is called retractable gear.

CONCLUSION

21.   The fuselage is an aircraft's main body section that holds crew and passengers or cargo. In single-engine aircraft it will usually contain an engine The fuselage also serves to position control and stabilization surfaces in specific relationships to lifting

surfaces, required for aircraft stability and maneuverability Since fuselage is the main attachment point for wing attachment, landing gear, stringers, bulk head/formers etc, its basic design and selection of materials play a major role in deciding the strength of aircraft.

CHAPTER – VI

AIRCRAFT PARTICULARS

AIRCRAFT PARTICULARS

(AP-1)

Period   --   I

Type   --   Lecture

Term   --   I/I

Revised by   --
****

Trg Aids

1.   Computer slides, pointer, black board and chalk.

Time Plan

2.   (a)   Intro   -   05 mins

      (b)   Aircraft Particulars   -   30 mins

      (c)   Conclusion   -   05 mins

      Total   **-**   **40 Mins**

INTRODUCTION   (Slide 01)

3.   The particulars of some of the aircraft are given in the subsequent paragraphs.

AIM   (Slide 02)

4.   To have better knowledge about the different types Aircraft in use.

MIRAGE 2000

Role: Single Seater Air Combat.

Particulars:

Length/Span/Height--	14.5 / 9.0/ 3.4 Metres
Max Take-Off Weight--	16,500 Kgs
Fuel Capacity--	3800 + 2 X 1700 Litres(Drop Tanks)
Pay Load--	6000 Kgs(Four missiles + 2 X 20 mm DEFA guns)

Performance:

Max Speed--	Mach 2.35 at 11 Km altitude.
Range--	1480 Km
Engine (Thrust)--	One Turbo-fan (9700 kg)

Special Features

- Nine hard-points for pay load, two under each wing and five under fuselage, a rare feature of any combat aircraft.
- French design, inducted into IAF in 1987.

JAGUAR

Role: Deep penetration strike aircraft.

Particulars:

Length/Span/Height--	16.95 /8.7/ 4.8 Metres
Max Take-Off Weight--	15,700 Kgs
Fuel Capacity--	4200 + 3 X 1200 Litres(Drop Tanks)
Pay Load--	4,750 Kgs(2 X 30 mm ADEN guns)

Performance:

Max Speed--	1350 kmph.
Range--	3500 Km

Engine (Thrust)--   Two Turbojet (3810 kg each)

Special Features

- Seven hard-points, four under each wing, one under fuselage and two over wings(a unique feature).
- UK-France design, built under licence by HAL.

LIGHT COMBAT AIRCRAFT (LCA)

Role: Single Seater Multi Role Combat.

Particulars:

Length/Span/Height--   13.2 / 8.2/ 4.4 Metres
Max Take-Off Weight--   8,500 Kgs
Pay Load--   4000 Kgs(Beyond-Visual-Range missiles, Reconnaissance/Electronic Warfare pods and 23 mm GSH gun.

Performance:

- Single engine aircraft expected to be supersonic at all altitude.
- Small size will reduce its chances of detection by enemy radars.
- Capable of Take-off and landing from very short runways.
- Inertial navigation system for accurate navigation and guidance.
- In flight refuelling probe for extended range.

Special Features

- Once in the air, it shall be world's smallest light weight and highly manoeuvrable combat aircraft with seven hard-points.
- It is being developed by aeronautical development agency with contribution from more than 100 government/private agencies.

IL - 76

Role: Heavy Duty, Long Range Transport.

Particulars:

Length/Span/Height--	46.6 / 50.5/ 14.8 Metres
Max Take-Off Weight--	1,70,000 Kgs
Fuel Capacity--	51,300 Litres
Pay Load--	40,000 Kgs(upto 225 para-troopers)

Performance:

Cruise Speed--	850 Kmph
Range--	6,500 Km
Engine (Power)--	Four Turbo-fans (12000 Kg each)

Special Features

- Three IL-76 can airlift an entire infantry battalion with its equipment and ammunition across the sub-continent in a few hours.
  It carries 2 X 23 mm guns in the tail.

EMBRAER(135-BJ)

Role: Passenger version transport aircraft to carry the passengers.

Particulars:

Length/Span--	86.5 /68.92Metres
Fuel Capacity--	8314 Litres

Special Features:

- It can carry 19 passengers.

BOEING-737-200

Role: It is an American Transport aircraft used by the IAC on its internal routes in India to carry the passengers.

Particulars:

Length/Span/Height--	30.48 /28.35/ 11.28 Metres

Fuel Capacity--	26,026Litres
Pay Load--	15544 Kgs

Performance:

Max/Cruise Speed--	940/845 Kmph
Range--	3555 Km
Engine (Power)--	Two Pratt & Whitney Turbo-fans (6575 Kg)

ISpecial Features

- It accommodates up to 119 passengers with a crew of two, or carries 15544kg of cargo in all cargo version.

KAMOV (Ka-25)

Role: Anti-Submarine warfare.

Particulars:

Length/Height--	9.75 / 5.37 Metres
Max Take-Off Weight--	7500 Kgs
Pay Load--	Dipping Sonar, Search radar, Air to Surface guided missiles.

Performance:

Cruise/Max Speed--	193/209 KMPH
Range--	400 Km
Engine (Thrust)--	Two Turbo shafts(900 hp each)

Special Features

- It does not have any tail rotor. Instead it has two sets of main rotor blades rotating in opposite direction.
- Main rotor blades can be folded for ease of storage.

MI-26

Role: Heavy Lift Helicopter.

Particulars:

Length/Height--	33.7 / 8.6 Metres
Max Take-Off Weight--	56000 Kgs
Pay Load--	20000 Kgs (70 Combat Troops)

Performance:

Cruise/Max Speed--	255/295 KMPH
Range--	800 Km
Engine (Thrust)--	Two Turbo shafts(11400 HP each)

Special Features

- Main rotor has eight blades and tail rotor has five blades.
- Normal crew of five consisting of pilot, co-pilot, flight engineer, navigator and load master.

MI-25

Role: Fighter Helicopter.

Particulars:

Length/Height--	17.50 / 6.5 Metres
Fuel Capacity--	2055 Litres

CHAPTER – VII

AIRFIELD LAYOUT

AIRFIELD LAYOUT

(AL-1)

Period   -   I

Type   -   Lecture

Term   -   I Year

Revised by   -

••

Training Aids

1. Computer slides, pointer, black board and chalk.

Time Plan

2. (a)   Introduction   - 05 minute

   (b)   Requirement   -   - 05 minute

   (c)   Different Parts of Runway   - 20 minute

   (d)   Runway markings   - 05 minute

   (e)   Conclusion   - 05 minute

        Total   **40 Minute**

INTRODUCTION

(Slide-1)

1.   The sitting, layout and physical characteristics of an airfield should facilitate safe, orderly and expeditious flow of air traffic. The basic areas associated with physical characteristics have been standardised for all airfields/aerodromes with subsequent amendments from time to time. The standardised physical characteristics have been worked out considering most of the aircraft available today and standardised by DGCA conforming to international rules and regulations.

AIM

(Slide-2)

2.   To teach the cadets about the layout of an Aerodrome and its markings.

LAYOUT OF AERODROMES/AIRFIELDS

(Slide 3-6)

3.   Following are the areas laid down at the airfields to facilitate safe and expeditious conduct of aircraft operations:

(a) **Movement Areas.** Movement areas are that part of an airfield intended for the surface movement of the aircraft. These are paved areas and include runways, taxiways, dispersal areas, aprons.

(b) **Flight Strip.**It is the rectangular portion of an airfield containing the runway and paved over-runs along with the shoulders and cleared zones
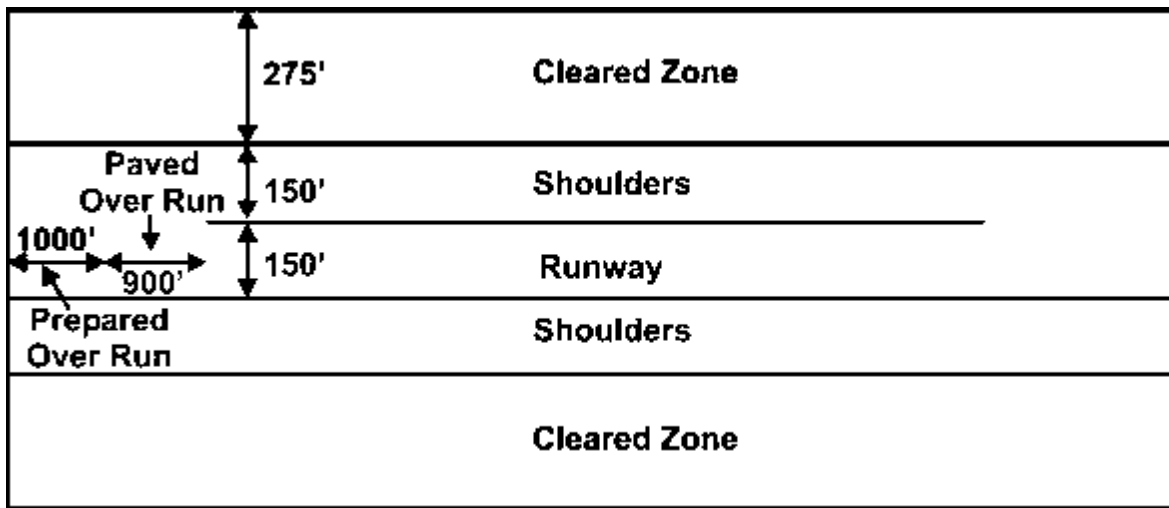
(c) Runways. Runways are paved surfaces intended for take-off and landing run of ac. The number and orientation of runways at an airfield will depend upon the volume of traffic, runway occupancy time and climatological data on surface winds.

(d) **Taxiways.** These are paved surfaces provided for the taxiing of aircraft and intended to provide a link between one part of the aerodrome and another.

(e) **Shoulders.** These are areas immediately adjacent to the edges of the runway, taxiways, over-runs and SGAs prepared for accidental or emergency use in the event of an aircraft running off the paved surface.

(f) **Cleared Zones.** These are those areas of the flight strip adjacent to the shoulders which for safety of aircraft operations, should be levelled and be free of obstructions as far as possible.

(g) **Over-Run Areas.** A defined rectangular area on ground at the end of runway in the direction of take-off prepared as a suitable area in which an aircraft can be stopped in case of abandoned take off, or during a landing emergency.

AERODROME MARKINGS

(Slide 7-10)

4.   Aerodrome markings consist of signs on surface of movement areas to convey aeronautical information.

5.   Aerodrome ground markings shall consist of the following:
         (a) Runway markings.
         (b) Taxiway markings.
         (c) Unserviceability markings.

Runway Markings
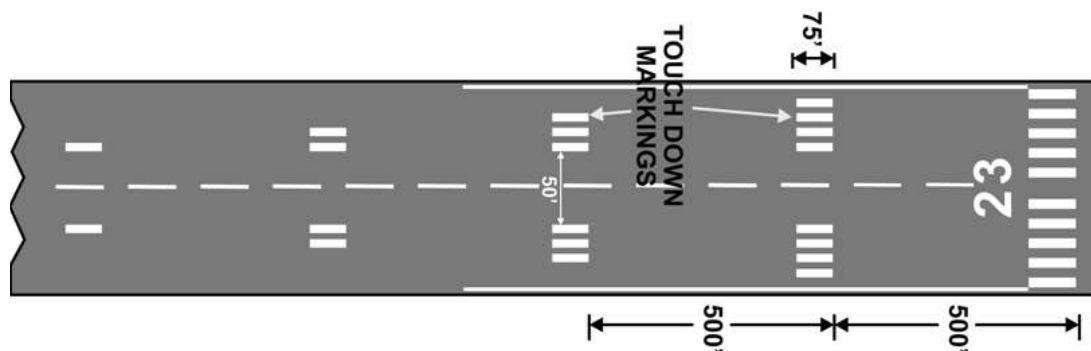
6.   Runway markings shall consist of:

(a) **Runway designation markings.** Runway designation markings shall consist of a two-digit number and on parallel runways shall be supplemented by a letter. The two-digit number shall be the whole number nearest to one tenth of magnetic azimuth of centre line measured clockwise from magnetic North when viewed from direction of approach.

(b) **Runway centre line markings.** Runway centre line markings shall consist of a series of broken longitudinal lines along the runway centre line and extending along the whole length of the runway

(c) **Runway threshold markings.** The markings shall consist of a series of longitudinal strips of uniform dimensions symmetrically placed on both sides of runway centre line and extending laterally to 1.5 m (5 ft) from the edge of runway.

(d) **Runway touch down zone markings.** Touch down zone markings shall be located over the first 600 m (2000 ft) of instrument runways at longitudinal spacing of 150 m (500 ft). These markings shall be provided with distance coding

(i) **Runway side strip markings.** Side strip markings shall be provided on all paved runways. These markings shall consist of two lines extending the whole length of the runway parallel to and equidistant from runway centre line

7.   **Taxiway Markings** These markings shall consist of:
   (a) Taxiway centre line markings.
   (b) Runway holding position markings.
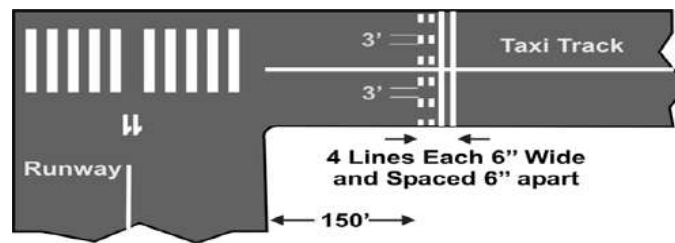
8. **Taxiway Centre Line Markings.** These markings shall be single unbroken lines 0.15 m (6") wide along the centre line of taxiway.

9. **Runway Holding Position Markings.** These markings shall consist of four lines of 0.15 m (6") width each with spacing of 0.15 m (6").

Unserviceability Markings

10. Unserviceability markings shall be displayed on those parts of movement area, which are unfit for landing, take-off or surface movement of aircraft. Unserviceability markings shall be in the form of a cross as given below
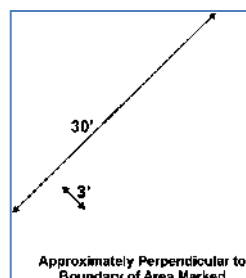
Aerodrome Lighting: there are several types of approach and airfield lighting in use in the service. All permanent installations are normally on the mains electricity supply but also have some alternative arrangements for use in the event of power failure. Aerodrome lighting is considered under two headings.

  (a) **Approach lighting:** this is to assist the pilots to make an approach for landing in poor visibility or at night.

  (b)**Airfield lightings**: modern installation consist of raised high intensity white lights along each side of the runway, beamed towards the landing aircraft. At the

beginning of runway, called the thresh hold, is a bar of green lights going across the full width of the runway.

CONCLUSION

(Slide-11)

11.　　The concept of airfields has changed considerably since the early days of flying. The aircraft of yester years needed comparatively small, level grass areas. When these airfields were built, the number of cross wind landing was reduced by building a triangular pattern of three runways, the longest of which was usually in line with the prevailing winds. But as the aircraft became faster, their landing and take-off runs became longer and the airfields had to be enlarged to meet their ends. With faster approach and landing speeds of aircraft, the lengths of runway became more important factor than the wind direction. The modern tendency, therefore, is for operations to be confined to one or at the most two runways on the each airfield. The longest of these runways is usually designed for instrument landings in bad weather and it is known as instrument runway having full, lighting, radio, radar and instrument landing facilities .Today the runways are even more than 6000 yds long and 200 ft wide and constructed of concrete surface with asphalt to give a clean and smooth operating surface.

CHAPTER – VIII

ATMOSPHERE (MET)

ATMOSPHERE

(MET-1)

Period   -   I

Type   -   Lecture

Year   -   II

Revised by   -

. . . .

Trg Aids

1.   Computer slides, pointer, black board and chalk.

Time Plan

2.   (a)   Intro   -   05 mts

        (b)   Atmosphere – Composition of Air   -   10 mts

        (c)   Layers of atmosphere   -   10 mts

        (d)   Atmospheric pressure   -   10 mts

        (e)   Conclusion   -   05 mts

                Total   40 mts

INTRODUCTION

3.   The invisible and odorless gas which we breathe, which sustains life and produces an infinite variety of phenomena is what we call air. The envelope of air surrounding the earth and extending to great heights is the atmosphere where vast physical processes occur, giving rise to the ever changing weather phenomena.

AIM

4.   To teach the cadets about atmosphere, its air composition, layers of atmosphere and atmospheric pressure.

PREVIEW

5.   The lecture will be conducted in the following parts:-

    (a)   Part-I: Composition of air.

    (b)   Part-II: Layers of atmosphere.

    (c)   Part-III: Atmospheric pressure.

COMPOSITION OF AIR

6.   Air is a mechanical mixture of a variety of gases. The main constituents of this mixture are nitrogen and oxygen, accounting for almost 99% of the whole, with roughly three parts of nitrogen to one part of oxygen. There are small amounts or traces of other gases. This composition is more or less the same upto about 60 kilometers.

7.   The percentage of composition of dry air by volume is in the proportions as shown below:-

Nitrogen	-	78.09 %
Oxygen	-	20.95 %
Argon	-	0.93 %
Carbon dioxide	-	0.03 %

8.   The atmosphere is never completely dry. Water vapours are always present in varying amounts. Water vapours also behave as a gas. It is the change in the amount and state of the water vapours (solid, liquid, gas) which is important in the physics of the weather processes in the atmosphere. Apart from water vapours suspended particles like dust, smoke and other impurities affect the transparency of the atmosphere causing reduction in visibility.

9.   In the higher layers there is a concentration of Ozone between 30 and 50 km.

LAYERS OF ATMOSPHERE

10.   While the pressure and density decrease as the height increases, the variation of temperature is different. Due to this there is a tendency for the atmosphere to be divided into several spheres as mentioned below:-

    (a)   Troposphere   -   Up to about 11-16 km

    (b)   Stratosphere   -   Up to about 50 km above troposphere

(c)   Mesosphere   -   50 to 85 km

(d)   Thermosphere   -   Above 85 km

11.   **Troposphere**: The troposphere is the region nearest to the earth and is generally the region of weather. It has a more or less uniform decrease of temperature with height. The lapse rate is roughly 6.5°c /km (1.98°c /1000feet). The upper boundary of the troposphere is called the tropopause whose height varies from equator to the poles, being highest at the equator (16-18 km) and lowest over poles (8-10 km).

12.   **Stratosphere**: The stratosphere is the layer extending from the tropopause to about 50 km. the temperature in this region is steady or increases with height. In the higher stratosphere the temperature is of the order of 0°c. The upper boundary of the stratosphere is the stratopause.

13.   **Mesosphere**: The layer above the stratosphere is the mesosphere, where the temperature again decreases with height. The boundary of the mesosphere is the mesopause, about 85 km high, where the lowest temperatures in the atmosphere are found (about - 90°c).

14.   **Thermosphere**: Above the mesosphere is the thermosphere. Its upper limit is undefined. However at about 700 km, the gravitational pull of the earth is practically absent and the particles can escape from the atmosphere into space. This region is often referred to as exosphere.

15.   **Ionosphere**: The lower thermosphere is in a highly ionized state and is hence called ionosphere. This layer causes reflection of radio waves and makes long wave radio communication possible.

16.   **International Standard Atmosphere**: A standard average atmosphere has to be specified for various purposes like the design and testing of aircraft, evaluation of aircraft performance, calibration of pressure altimeter etc. For this purpose a standard atmosphere is defined and used as a basis of references. The most widely used atmosphere for reference purposes is the one defined by ICAO, known as International Standard Atmosphere (ISA) whose specifications are :-

Mean Sea level temperature	-	15°c
Mean Sea level pressure	-	1013.25 mb
Surface density	-	1225 g/m3
Acceleration due to gravity	-	980.665 cm / sec2
Rate of fall of temp with height up to 11 km	-	6.5°c /km (1.98°c / 1000)

ATMOSPHERIC PRESSURE

17.   Pressure as weight of the air above: Atmospheric pressure at any level in the atmosphere refers to the weight of the column of air of unit cross section vertically

above the point of observation. In other words air has weight and therefore exerts a pressure which is equivalent to a column of air extending vertically till the total height of atmosphere. This pressure is expressed in various units like millibars, pounds per square inch etc.

18.   When an aircraft climbs away from the earth surface the height of the column of air above it decreases and therefore the weight and pressure exerted by that column decreases (Atmospheric pressure decreases with height). This rate of decrease of atmospheric pressure is found to be 1millibar for every 30 feet of height (and vice-versa).

CONCLUSION

19.   The atmosphere extends from the surface of earth till about 500 miles. Troposphere is the layer closest to earth surface and is most important to aviation. Weather processes occurring in troposphere affects aviation. Atmospheric pressure vary from place to place depending on temperature and cause high pressure and low pressure areas. Air moves from high pressure to low pressure area and this motion of air is called wind. Wind has both direction and speed.

CHAPTER – IX

MAPS

MAPS

(MP-1)

Period - I

Type - Lecture

Year - II

Revised by -

. . . .

Trg Aids

1. Computer slides, pointer, black board, chalk, different scale maps and charts.

Time Plan

2. (a) Intro - 05 mts

(b) Types of maps - 10 mts

(c) Different symbols used in maps - 10 mts

(d) Different scales of topographical maps - 10 mts

(e) Conclusion - 05 mts

Total 40 mts

INTRODUCTION (Slide 1)

3. Topographical map is one in which a good pictorial representation of a country is portrayed and is provided mainly to be used for map reading.

AIM (Slide 2)

4. To teach the cadets about types of maps, different symbols used in maps and different scales of maps.

PREVIEW (Slide 3)

5. The lecture will be conducted in the following parts:-

(a) Part-I : Types of maps

(b)   Part-II :   Symbols used
(c)   Part-III :   Scales of maps
                    TYPES OF MAPS   (Slide 4-6)

6.   The four basic elements required in a map are:

   (a)   Areas will be shown correctly

   (b)   Bearing measurement anywhere on the reduced earth will be identical to
    the measurement on the earth.

   (c)   Shapes will be correct

   (d)   Distances will be measured accurately by use of a graduated scale which
           is provided at the bottom of each map.   The distances are given in
           (1) Kilometers (2) Nautical miles (3) Statute miles

7.   In aviation both maps and charts are used for Navigation. When a projection has
a graticule of latitudes, longitudes and an abundance of ground features it is called a
map. A chart has a projection on which it contains a graticule of latitude and longitude
with very few geographical features.

8.   **Relief :**   Mountains, hills, coast lines and other natural features are of
considerable interest to a pilot as they are valuable landmarks for navigation purpose or
are, sometimes pose dangerous barriers for flight. Relief is indicated on maps and
charts in one or more of five different ways:

   (a)   Spot heights or depths

   (b)   Contours and form lines

   (c)   Layer tints

   (d)   Hachures

   (e)   Hill shading

Spot heights and depths: These are shown against places where the exact height
above sea level or depth below mean sea level has been measured. On some maps,
heights are recorded in feet. On other maps the height is recorded in meters. One has
to be very particular to note the units of heights shown on maps.

Contours and form lines: Contours are lines joining all places having the same
heights above a certain datum level. When these lines are shown approximately then
they are known as form lines. The closeness of the contours on a map shows the

steepness of any hill. Where the changes of height is rapid, the contours will be closer than on slopes where they are spaced.

Layer tints: These are commonly used on maps to show relief. Layers of earth between certain contours are coloured with the tint intensifying with successive increase in height. Thus at a glance, a map will indicate major irregularities in the surface of the country.

Hachures: These are short, tapering lines drawn on maps and they radiate from peaks and high ground. They only serve to show slopes.

Hill shading: This is produced by assuming that a bright light is shining across the map sheet so that shadows are cast by all high ground on its lower side. The effect is to give the map something of a stereoscopic appearance by optical illusion.   These shadows obliterate other details on the map and are not commonly used.

SYMBOLS USED IN MAPS   (Slide 7-9)

9.   The details on topographical maps are shown by symbols. Some of which are pictorial in nature, while others are given by a symbol which is accepted internationally. These symbols are used to denote the details of a map and these are called as conventional signs.

10.   The signs are uniform on all maps but the colour used may vary on different scale maps. Therefore, it is difficult to give a complete list of conventional signs used on various maps. However, all maps have a list of signs marked on the side of map and these should be studied before using the map for reading purposes.

11.   Knowing the amount of details to be expected on maps of different scales and given knowledge of conventional signs by which that detail is indicated, the map reader is in a position to appreciate the relative value of the feature seen on the ground. The beginner is sometimes confused by the amount of detail confronting to his untrained eye.   He must learn to distinguish the more significant features and to remain undistracted by irrelevant back ground. The following may help to indicate the types of which is of value to the map reader.

  (a)   Coast line   (b)   Water Features   (c)   Mountains and hills

  (d)   Towns and Villages (e)   Railways   (f)   Roads

  (g)   Wooded areas.

SCALES OF MAPS   (Slide 10-11)

12.   The scale is the ratio of a distance measured on the map to the corresponding distance on the earth surface.   Scales on a map is represented commonly by (1) representative fraction   (2) graduated scale line or by   (3) statement in words.

13.   Most common maps used in aviation are ¼ million maps, ½ million maps and 1 million maps. ¼ million maps have larger scale than ½ million and ½ million have scale larger than 1 million.   A larger scale map represents comparatively lesser ground distance and consequently more ground details can be inserted.

CONCLUSION   (Slide 12)

14.   Maps and charts are used for plotting and planning purposes in navigation. It is essential to understand various scales, symbols and methods by which relief features are represented in a map for effective planning and subsequent reading.   Before execution of navigation sortie a pilot must thoroughly go through map preparation, distance measurement and other calculations to be able to conclude the sortie accurately.

CHAPTER – X

RT PROCEDURE

RT PROCEDURE
(RT-1)

Period	-	II
Type	-	Lecture
Term	-	I Year
Revised by	-	

. . . .

Training Aids

1. Computer slides pointer, white board, board marker and duster

Time Plan

2.	(a)	Introduction	- 05 minute
	(b)	Definitions	- 10 minute
	(c)	Functions	- 15 minute
	(d)	Pronunciations	-06 minute
	(e)	Conclusion	- 04 minute
		Total	**40 Minute**

INTRODUCTION:

(Slide 1)

1.   As an Air Wing NCC cadet it is must to know about ATC &RT procedure prior to start flying. Timely information of weather, wind speed and position are essential parameters for flying. To access all the timely required information for a safe operation we must know the ATC & RT procedure.

AIM

(Slide 2)

2.   To acquaint the cadets about the ATS definitions, functions, procedure and standard phraseologies used while communication between aircraft and the ground staff.

DEFINITIONS

(Slide 3-7)

3.   **Air Traffic Services.** Services provided for the safe and efficient conduct of flight are termed as air traffic services.

4.   **Objectives of Air Traffic Services.**

(a) To prevent collision between aircraft.
(b) To prevent collision between aircraft on the manoeuvring area and obstructions on that area.
(c) To expedite and maintain an orderly flow of traffic.
(d) To provide advice and information useful for the safe and efficient conduct of flights.
(e) To notify appropriate organisations regarding aircraft in need of search and rescue aid and assist such organisation as required.

5.   **The ATS include the following:**

(a) Air Traffic Control Services:
        (i) Area Control Service.
        (ii) Approach Control Service.
        (iii) Aerodrome Control Service.
(b) Flight Information Service.
(c) Air Traffic Advisory Service.
(d) Alerting Service.

6.   **Air Traffic Control Service.** A service provided for the purpose of:

(a) Preventing collisions between aircraft.
(b) Prevent collisions on the manoeuvring area between aircraft and obstructions.
(c) Expediting and maintaining an orderly flow of air traffic.

7.   **Area Control Service.** ATS service for controlled flights in control areas.

8.   **Approach Control Service.** ATC service for arriving or departing controlled flights.

9.   **Aerodrome Control Service.** ATC service for aerodrome traffic.

10.   **Flight Information Service (FIS).** A service provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights. Flight information service shall include the provision of pertinent information such as: Sigmet information, Nav aids, aerodromes facilities, weather etc.

11.   **Air Traffic Advisory Service.** A service provided within advisory airspace to ensure separation, in so far as possible, between aircraft which are operating in IFR flight plans.

12.   **Alerting Service.** Provided to notify appropriate organisations regarding aircraft in need of search and rescue and assist such organisations when required.

13.   **Air Traffic Service Units.**

(a) **Area Control Centre.** A unit established to provide air traffic control service to controlled flights, in control areas, under its jurisdiction.

(b) **Approach Control Office.** A unit established to provide air traffic control service to controlled flights arriving at or departing from, one or more aerodromes.

(c) **Aerodrome Control Tower.** A unit established to provide air traffic control service to aerodrome traffic.

(d) **Flight Information Centre.** A unit established to provide flight information service.

14.   **Jurisdiction of Various ATS Units.**

(a) **Control Area.** An airspace of defined dimensions extending upwards from specified limit above the earth, within which control service is provided to controlled flights.

(b)   **Control Zone.** An airspace of defined dimensions extending upwards from the surface of the earth to a specified upper limit, within which Air Traffic Control Service is provided to controlled flights.

(c)   **Aerodrome Traffic Zone.** Airspace of defined dimensions established around an aerodrome for the protection of aerodrome traffic.

(d)   **Flight Information Region.** Airspace of defined dimensions with in which flight information service and alerting service are provided.

(e)   **Advisory Airspace.**

(i) **Advisory area.** A designated area within a flight information region where air traffic advisory service is available.

(ii) **Advisory route.** A route within a flight information region along which air traffic advisory service is available.

15. **Responsibilities of the Various A.T.S. Units.** In India the responsibilities of the Area Control Centres are:-

(a) Providing flight information service to aircraft in flights within its region.
(b) Providing Air Traffic Control Service to controlled flights within control areas under its jurisdictions.
(c) Maintaining up-to-date aeronautical information regarding aerodromes and facilities within its region.
(d) Obtaining current weather information.
(e) Handling and assisting diversions of aircraft within its region.
(f) Initiating search and rescue.

16. **Aerodrome Control Tower.** It is responsible for:

(a) Control of all traffic (aircraft vehicular and pedestrian) on the manoeuvring area of the aerodrome.

(b) Control of aircraft flying in the vicinity of the aerodrome in VMC.

17. **Approach Control.** It is the provision of air traffic control service for the parts of the controlled flights associated with arrivals or departures.

18. **Area Control** The organisation responsible to provide ATC service to controlled flights in control area is known as "Area Control Centre" Control areas include airways and TMAs (Terminal Manoeuvring Areas).

19. **Functions of Area Control.**

(a) Issuance of ATC clearance for the purpose of preventing collisions between controlled flights under its control and jurisdiction.
(b) To expedite and maintain an orderly flow of traffic of flights provided with area control service.
(c) To provide flight information service.
(d) To provide air traffic advisory service, if required, in advisory area and routes after proper co-ordination with the concerned FIC.
(e) Alerting service.

Airways Control

(Slide 11-15)

20. Area Control Service provided to controlled flight in their en-route phase is termed as airways control. To extend area control to en-route traffic, controlled airspace in the form of 'Corridors' are established and defined with radio navigational aids. Such Corridors are known as Airways' and have specified lower and upper limits. An airways extends along a track starting from one navigational aid to another or through series of navigational aids. The width or lateral dimension of airways vary from 8 km to 20 km (4 nm to 10 nm) on either side of the track. An airway in 10 nm wide over land and 20 nm wide over sea / oceans. This width depends on the accuracies of the navigational aids available along the route.

TMA

21.   When different airways approach in the vicinity of one more major aerodromes, the resultant terminal airspace is protected and control area is established. Such controlled areas at the confluence of airways are called "Terminal Manoeuvring Areas" (TMA). TMAs are suitably lined with control zones of the aerodromes, located in terminal airspace to facilitate the provision of approach control service for flights arriving at and departing from these aerodromes.

Transfer of Control

23. Transfer of control from one ATCC / ACC to another takes place:

    (a) At an agreed airways reporting point.
    (b) At the estimated time given for FIR boundary
    (c) At any other agreed D/R position / location.

24.   An ATCC transferring control of an aircraft should pass an estimate for the arrival of such aircraft at the transfer point to the next ATCC / ACC 30 minutes ahead of aircraft's actual passage and on subsequent revision to this estimate in excess of 3 minutes.

25.   If 30 minutes prior intimation cannot be given an 'approach acceptance' request shall be made to the ATCC / ACC accepting/taking over control of aircraft.

26.   Instruction regarding the transfer of communication will normally be given to aircraft 5 minutes before the ETA over transfer point.

RT PROCEDURES AND PHRASEOLOGY

28. **Radio Communication Standard Phraseologies.**

(Slide 16-18)

1. **Spelling Alphabets.** When proper names, service abbreviations and words of which the spelling is doubtful are spelled out in Radio Telephony (RT) the following alphabet shall be used: **Letter to be Identified**	**Identifying Word**	**Representation of Pronunciation in English**
A	Alfa	Alphah
B	Bravo	BrahVoh
C	Charlie	Charlee (or Shar Lee)
D	Delta	Dell Tah
E	Echo	Eck Oh
F	Foxtrot	Foks Trot
G	Golf	Golf
H	Hotel	Hoh tell
I	India	In Dee Ah
J	Juliet	Jew Lee Et
K	Kilo	Key Loh
L	Lima	Lee Mah
M	Mike	Mike
N	November	No Vem Bar
O	Oscar	Oss Car
P	Papa	PahPah
Q	Quebec	Qeh Beck
R	Romeo	Row Me Oh
S	Sierra	See Airrah
T	Tango	Tang Go
U	Uniform	You Nee Form
V	Victor	VikTah

W	Whiskey	Wiss Key
X	X-Ray	Ecks Ray
Y	Yankee	Yan Key
Z	Zulu	Zoo Loo

2. **Pronunciation of Numbers.**		
1	One	Wun
2	Two	Too
3	Three	Tree
4	Four	Fower
5	Five	Fife
6	Six	Six
7	Seven	Saveen
8	Eight	Ait
9	Nine	Niner
0	Zero	Zee Row
.	Decimal	Day - See - Mal
1000	Thousand	Tou - sond

3. All numbers except whole thousand will be transmitted by pronouncing each number separately. Whole thousands shall be transmitted by pronouncing each digit in the number of thousand followed by the word thousand. Some of the examples are

Number	**Spoken As**
10	One Zero
75	Seven Five
100	One Zero Zero
583	Five Eight Three
5000	Five Thousand
25000	Two Five Thousand

CONCLUSION

(Slide-19)

51.   Standard phraseology is recommended in the interest of clarity and brevity. The use of standard phrases does provide uniformity in transmission and makes your transmission more readily understood by ground station operator and vice versa. Correct procedure on the part of operators of radio telephony equipment is necessary for the efficient exchange of communication and is particularly important where lives and property are at stake. It is also essential for a sharing of "on the air" time in the crowded radio spectrum.

CHAPTER – XI
AEROMODELLING

HISTORY OF AEROMODELLING

(AM-1)

Period   --   I

Type   --   Lecture

Term   --   I/I

Revised by   --

****

Trg Aids

1.   Computer slides, pointer, black board and chalk.

Time Plan

2.   (a)   Intro   -   05 mins

      (b)   History of Aeromodelling   -   30 mins

      (c)   Conclusion   -   05 mins

           Total   **-**   **40 Mins**

      "When once you have tasted flight, you will forever walk the earth with your eyes turned skyward, for there you have been, and there you will always long to return."   *- Leonardo da Vinci*

INTRODUCTION   (Slide 01)

3.   Aeromodelling is one of the finest & costly hobbies, which is very popular worldwide among people of all ages and professions. It has often been the starting point of many pilot and aero-nautical engineer. The aims of including aeromodelling in the NCC curriculum are to increase the air mindedness in the youth of our country. If taken

on the right lines, it can be extremely thrilling for all, as by constructing the models by one's own hands, will make understanding of various principles of flight and problems of construction etc., very easy, apart from providing great personal satisfaction to the aero-modeler.

<u>AIM</u>   (Slide 02)

4.   To know better knowledge the history of aeromodelling and flying objects.

PREVIEW (Slide 03)

5.   The class will be conducted in the following parts:-

(a)   History of Aeromodelling

HISTORY OF AEROMODELLING (Slide 04)

6.   The history of aeromodelling goes back much further than the history of real aircraft. The successful experiments, however, started in the nineteenth century. Dr. Thomas Young was the first person to discover the 'lifting' property of a cambered surface in comparison to the flat surface. Sir George Caley built a helicopter model, based on a design of Leonardo-da-vinci, in 1796. Another aeromodelling genius was John String fellow, who built, in 1842, a small spring 'Operated model', followed by a number of different and bigger models, powered by 2-stroke as well as steam engines. Another great name amongst the pioneers of aeromodelling is of Alphones Penand, who invented models fitted with tail surfaces and wings with dihedral angles. This gave substantial stability of flight to aero models, which till this time had lasted for very short duration. Next came energy, enthusiasm and tenacity of purpose which earned him the distinction of being the most active champion of glider flying. After this, came the era of miniature petrol-driven engines. In 1878, Professor Langley builds a petrol driven model called 'Aerodrome No.5'. This revolutionalised the concept of aeromodelling, as there was now an ideal power plant small enough for the requirement, available to the enthusiasts. Hundreds of varieties of petrol models were subsequently built. Later, these gave ways to more powerful diesel engines, which are in use even today.

CONCLUSION (Slide 05)

The 'aeromodelling' provides an earnest approach to the understanding of an otherwise highly technical subject, i.e. 'aerodynamics. The 'air-minded' aeromodeller of today is the potential aircraft designer of tomorrow. Although, aeromodelling is a technical hobby and is usually cluttered up with complicated calculations and formulae, it need not necessarily discourage the beginners and the non-technical persons, as they can still derive immense pleasure and satisfaction from this hobby. Aeromodelling is becoming increasingly popular all over the country especially amongst the NCC Air wing cadets.

MATERIALS USED IN AEROMODELLING
(AM-2)

Period   --   I

Type   --   Lecture

Term   --   I/II

Revised by   --
****

Trg Aids

1.   Computer slides, pointer, black board and chalk.

Time Plan

2.   (a)   Intro   -   05 mins

       (b)   Materials used in Aero Modelling   -   30 mins

       (c)   Conclusion   -   05 mins

            Total   **-**   **40 Mins**

"Do not let yourself be forced into doing anything before you are ready."- Wilbur Wright

INTRODUCTION   (Slide 01)

3.   Aeromodelling requires a variety of materials. Selection of correct material and proper use of the same is important factor of Aeromodelling.

AIM   (Slide 02)

4.   To have knowledge of materials and tools used for building miniature flying objects.

PREVIEW   (Slide 03)

5.   The class will be conducted in the following parts:-

       (a)   Materials used in aeromodelling.

MATERIALS USED IN AEROMODELLING   (Slide 04)

6.   The following are the main substances from which the Aeromodels can be made:

i.   Balsa Wood
ii.   Spruce
iii.   Japanica Wood
iv.   Ply wood
v.   Cement
vi.   Fast Setting Epoxy
vii.   Cyanoacrylate Glue (Cyano)
viii.   Putty
ix.   Metal paste
x.   Dope
xi.   Paint
xii.   Sand paper
xiii.   Fiber glass
xiv.   Carbon Fiber
xv.   Silver Foil
xvi   Monokote& etc..

Basic tools

i.   Screw driver
ii.   Hand drill
iii.   Sand paper and pins
iv.   Pliers
v.   Knives with different blades
vi.   Different kind of saw
vii.   Files
viii.   Soldering irons
ix.   RC set (Transmitter, Receiver, Servos) etc.

CONCLUSION   (Slide 05)

    After selection of good materials and required tools one has to handle these tools carefully. Mishandling of tools may cause serious injuries to the Aeromodellers/builders.

TYPES OF AEROMODELS
(AM-3)

Period   --   I

Type   --   Lecture

Term   --   I/I

Revised by   --
****

Trg Aids

1.   Computer slides, pointer, black board and chalk.

Time Plan

2.   (a)   Intro   -   05 mins

        (b)   Types of Aeromodel   -   30 mins

        (c)   Conclusion   -   05 mins

                                                                _____

        Total   -   **40 Mins**
                                                                _____

"It is possible to fly without motors, but not without knowledge and skill."- Wilbur Wright

INTRODUCTION   (Slide 01)

3.   There are quite a number of variants of aeromodels, which are classified according to the role and utility of the particular type. These are static models, gliders, control line models and RC models.

AIM   (Slide 02)

4.   To have a different experimental approach and excavate different aerodynamic models on flying objects.

PREVIEW   (Slide 03)

5.   The class will be conducted in the following parts:-

(a)   Types of Aeromodelling

TYPES OF AEROMODELLING   (Slide04)

The following are the different type of Aeromodels.

6.   **Static Modes**:-These are the miniature replicas of original aircrafts. The following aircrafts can be prepared as static models.
   i.   Fighter aircraft models
   ii.   Transport aircraft models
   iii.   Helicopter models

7.   **Gliders:** - These are the different types of gliders:-
   (i)   Chuck Glider
   (ii)   Catapult Glider
   (iii) Towline Glider
   (iv)   Free flight Glider

8.   **Control Line Models: -**The following are the different types of Control Line model**:-**
   (i)   Control Line Aerobatic Model
   (ii)   Control Line Speed Model

9.   **Radio control Models: -**The following are the different types of Control Line model**:-**
   (i)   Radio Control Power
   (ii)   Radio Control Glider
   (iii)   Radio control Helicopter
   (iv)   Jet Powered Model

CONCLUSION   (Slide 05)

        Building and flying the different types of models would help the aero modeler to improve their aerodynamic knowledge and skills.

FLYING/BUILDING OF AEROMODELS
(AM-4)

Period	--	16
Type	--	Lecture
Term	--	
Revised by	--	

****

Trg Aids

1. Computer slides, pointer, black board and chalk.

Time Plan

2. (a) Intro - 05 mins

   (b) Flying / Building of Aero Models - 30 mins

   (c) Conclusion - 05 mins

   _____

   Total - **40 Mins**

   _____

"What is chiefly needed is skill rather than machinery."- Wilbur Wright

INTRODDUCTION (Slide 01)

3. Individual personally required to build or construct the models by given design or own design and fly the models by using Fly By Wire / Radio Control set.

AIM (Slide 02)

4. Practical knowledge of building and flying the models.

PREVIEW (Slide 03)

5. The class will be conducted in the following parts:-

   (a) Construction of Static Models

(b)   Construction of control line Models

(c)   Construction of remote control Models

(d)   Flying the Models

CONSTRUCTIONS OF STATIC MODELS   (Slide 04)

6.   These are the miniature replicas of original aircrafts, full sized aircraft types and attract the best skill of the model maker. The scope of this particular type is boundless and depends upon the ideas of the individual concerned. It requires only an elementary knowledge of carpentry and involves fitting together of various parts as well as finishing and painting of the models.

7.   Constructions plans are provided normally with all model kits. These should be studied thoroughly. Then follow the shaping of various parts using sandpaper and sand blocks as shown in the blue print. After which the whole plan is fixed on the drawing board. Then the individual parts are placed on the blue print and make sure it is proper as per the blue print. Parts are then assembled together as per the dimensions provided in the blue print. Dope is applied with brush but only in thin coats two to three times. Sand the excess dope using a fine emery paper.

8.   **Painting**: - Apply a coat of surfacer using a brush or spray gun and make sure it has covered all the wooden area. After the surfacer is dried up check for dents and apply putty or metal paste to cover the dents. After it dries up using a wet emery paper, sand the model to get a clean surface till it is suitable for painting. Etch rivet marking as shown in the blue print. Spray a thin layer of base coat and paint the model as per the required colour scheme. Add details, undercarriage, wheels, drop tanks etc& apply lacquer or polish if required.

9.   **Demo and Practical**

CONCLUSION

The construction/building of static models is one of the main event in all India level competitions like AIVSC and RDC. In AIVSC, the given static model has to be built in stipulated time and for RDC competition, three different static models have to be built that is fighter, transport and helicopter.

CONSTRUCTIONS OF CONTROL LINE MODELS   (Slide 05)

10.   Each and every part of a model aero plane is important as it would not function in the absence of even one component. Construction plans are provided normally with all model kits. These should be studied thoroughly. Then follows the actual construction of various parts. The power units are, also available in readymade forms, and are required

to be installed as they are, as per the power/weight combination prescribed by the manufactures

11.   First, the whole plan is fixed on to the drawing board. Then the individual parts are fixed on it with the help of pins parts are then glued together with cement. After drying, the various components are assembled together with correct alignment. Sand papers of various grades are used for smoothening out of edges and curves. Patience and meticulous operation is needed at this point. Assemble the bell crank assembly with the lead outs carefully. Model is then covered with sliver foil, monokote or tissue paper. Dope may be applied with brush, in thin coats two to three times.

12.   Before engine installation, ensure that the engine compartment is properly treated with paint work. While installing the engine, extreme care is needed to be taken to ensure that the thrust line of the propeller is in line with the fuselage. Out of line thrust will result in the model going hay wire and crashing. Engines are mounted either by projection made of hard wood beams or on screws against the plywood.

13.   **Demo and Practical**

CONCLUSION

        The construction of control line model is slightly advanced as compared to tow line glider and free flight models. In this model, there is only one control surface for most control line aircraft; the up and down movement of the elevator on the stabilizer. The rudder is set so the aircraft will always pull away from the flier (to help keep the control line taut)

CONSTRUCTIONS OF REMOTE CONTROL MODELS   (Slide 06)

14.   Each and every part of a model aero plane is important as it would not function in the absence of even one component.

15.   Construction plans are provided normally with all model kits. These should be studied thoroughly. Then follows the actual construction of various parts. The power units are, also available in readymade forms, and are required to be installed as they are, as per the power/weight combination prescribed by the manufactures.

16.   First, the whole plan is fixed on to the drawing board. Then the individual parts are fixed on it with the help of pins parts are then glued together with cement. After drying, the various components are assembled together with correct alignment. Sand papers of various grades are used for smoothening out of edges and curves. Patience and meticulous operation is needed at this point. Model is then covered with sliver foil, monokote or tissue paper. Dope may be applied with brush, in thin coats two to three times.

17.   Before engine installation, ensure that the engine compartment is properly treated with paint work. While installing the engine, extreme care is needed to be taken to ensure that the thrust line of the propeller is in line with the fuselage. Out of line thrust will result in the model going hay wire and crashing. Engines are mounted either by projection made of hard wood beams or on screws against the plywood.

18.   Install the Radio-control servos as per the requirement to make sure the control rods should move freely without causing any disturbance to the other control rods. Wrap the receiver and the battery pack in foam and place it in the model in such a way that the CG of the model is correct as per the marking shown in the plan by the manufacturer of the kit. Then assemble the wing using a pairs of rubber bands or nylon screws.

19.   **Demo and Practical**

CONCLUSION

This type of model is fitted with radio receiver sets of actuators operate the control surfaces of the model. The radio receiver receives signal from the control box which is operated by the "pilot". The control box is nothing, but a transmitter with various channels for operating the respective controls including throttle. This way, the model can be operated without physical contact.

FLYING THE MODELS   (Slide 07)

20.   The necessity of choosing a large field for flying the aero models is obvious. However, trees and wooded areas are the greatest hazards for the aeromodeller. Trees cause air pockets and down-draughts and often 'suck' the model into their branches.

21.   First check the model for correction of alignment. The wing and tail must be checked from the front and rear for setting and must not be warped or out of plane. Testing is carried out during mid-day when there is little or no wind. The model is held on the point of balance i.e. approximately 1/3rd back from leading edge of the wing, and is gently launched into wind slightly nose down attitude. If the model is set properly and trimmed correctly, it will glide forward gracefully and will land on wheels. Use plasticine or lead weight at the nose and tail for balance as required.

22.   Power flight is not advisable till the gliding test is carried out successfully. For trail flight, a small amount of fuel is put into the fuel tank and the engine started by rotating the propeller. And the model launched gently the model should fly short distance and land perfectly.

23.   **Demo and practical (Models and field equipment)**

SAFETY CODE

GENERAL

(i)   I will not fly my model aircraft in competition or in the presence of spectators until it has been proven to be airworthy by having been previously successfully flight tested.

(ii)   I will not fly my model higher than approximately 400 feet within 3 miles of an airport without notifying the airport operator. I will give right of way to, and avoid flying in the proximity of full scale aircraft. Where necessary an observer shall be utilized to supervise flying to avoid having models fly in the proximity of full scale aircraft.

(ii)   Where established, I will abide by the safety rules for the flying site I use, and I will not willfully and deliberately fly my models in a careless, reckless, and/or dangerous manner.

RADIO CONTROL

(i)   I will have completed a successful radio equipment ground range check before the first flight of a new or repaired model.

(ii)   I will not fly my model aircraft in the presence of spectators until I become a qualified flyer, unless assisted by an experienced helper.

(iii)   I will perform my initial turn after takeoff away from the pit, spectator, and parking areas, and I will not thereafter perform maneuvers, flights of any sort, or landing approaches over a pit, spectator, or parking area.

CONTROL LINE

(i)   I will subject my complete control system (including safety thong, where applicable) to an inspection and pull test prior to flying.

(ii)   I will assure that my flying area is safety clear of all utility wires or poles.

(iii)   I will assure that my flying area is safely clear of all non-essential participants and spectators before permitting my engine to be started.

CONCLUSION

The individual has to undergo practically in Aeromodelling workshop to build and in flying field to fly the models

MODERN SCHOOL

KORADI ROAD, NAGPUR

NATIONAL CADET CORPS

II YEAR QUESTION BANK

COMMON SUBJECT (70)

The NCC [2]

1) Write the aims of NCC.
2) Write Motto of NCC.
3) Write the different types of camps?
4) Write the training activities of NCC.
5) State any four centrally organized camp in NCC.
6) What is the full form of NCC ?

National Integration and Awareness [3]

1) Write any two pre-independence and two post independence famous leader of India.
2) Write any one slogan on National Integration.

3) Write main religious of India.
4) Write the necessity of national integration?
5) What do you understand by National Integration?
6) State any two measures to achieve National Integration.
7) What is the problems / challenges of National Integration

Drill [15]

Q) **Write types of drill.**

Tick the correct answer:-
   (a)   How many steps will be taken in quick march in a minute?
          (i) 100   (ii) 120   (iii) 126   (iv) 180

   (b)   Movement Dahine Mur is carried out in how many parts.
          (i) 1   (ii) 2   (iii) 3   (iv) 4

(c)   The command Left salute on the march is given at .
        (i) Right foot   (ii) Left foot
        (iii) Right foot forward   (iv) All wrong

(d)   Write the Hindi word of command of Open order march
        (i) Khuli Line Chal   (ii) Nikat Line Chal   (iii) Tej Chal   (iv) None of these

(e)   How many steps to be taken to front and back.
        (i) 4   (ii) 6   (iii) 5   (iv) 2

(f)   What is the distance between heel to heel in Vishram (Stand at Ease) position?
        (i) 12"   (ii) 24" (iii) 30"   (iv) 18"

(g)   What is the distance between front and rear rank in 'Open-Order-March'?
        i) 12 inches   ii) 50 inches   iii) 100 inches iv) 150 inches

(h)   Write the Hindi word of command of 'Close-Order-March'.
        i) Tej chal   ii) Khuli line chal   iii) Nikat line chal   iv) None of
these
State true or false
        a) You can move lower parts of body in vishram   (   )
        b) Dressing is divided into three parts.   (   )
        c) Heels and toes should be together in Savdhan position. (   )
        d) Hindi word of command stand at ease is aram se. (   )
        e) The order 'Tham' is to be completed on the right foot. (   )

Fill in the blanks
        (a) On the command "Baen Mur" the squad will turn to left at _____ angle.
        (b) The English word of command of Vishram is _____.
        (c) The English word of command of Nikat Line Chal is _____.
        (d) The angle between two toes during sawadhan is _____.
        (e) The length of pace during the side step is _____ inches.
        (f) On command 'Visarjan' the squad will turn to _____ and then dismiss.
        (g) The length pace in Tejchal is _____ inches.
        (h) Dahine mur is carried out in _____ parts
        (i) On the command Dahine mur squad will turn to _____.
        (j) _____ nos of steps will be taken in double march is a minute.
        (k) Dressing is divided in to _____ parts.
        (l) Movement Baen Mur is carried out in _____ part.

Weapon Training [15]

Q.   State True or False: -

    i.   Muzzle velocity of .22" No II MK IV rifle is 1000 feet per second.
    ii.   Target used in .22" firing is 1' X 1'.
    iii.   Magazine capacity of .22" No II MK rifle is 10 Round.
    iv.   Effective range of .22 rifle is 25 Yards.
    v.   Back sight is a part of rifle
    vi.   Rifle is an individual weapon.
    vii.   Magazine capacity of .22" rifle is 7 Rounds.
    viii. There are five circles in a target.
    ix.   Rifle can only be fired in lying position.
    x.   Knox Form is the strongest part of the rifle.
    xi.   Length of .22" No 11 MK iv rifle is 45 inches ....
    xii.   Trigger guard is part of rifle. ....
    xiii. The magazine capacity of .22 No.II MK IV Rifle is _____ rounds.
    xiv. Maximum range of .22 No.II MK IV Rifle is_____.

Q.   Write any five parts of rifle.
Q.   Write any two names of rifles and three parts of rifles.
Q.   Write down the rules of aiming.
Q.   Write down any five viseshtaen of 22 NO II MK IV rifle.
Q.   What are basic essentials of a Good firing?

Personality Development and Leadership [5]

Q.1   List three common barriers to effective communication with one example of each.
Q.2   Explain any two NCC activities which helps in character/personality building.
Q.3   Write any five skills of personality development.
Q.4   Write the Various types of Skills. (Any Five)
Q.5   Write the short note about time management.
Q.6   List the five physical & social factors influencing personality?
Q.7   List the 5 social factor influencing personality ?
Q.8   What are the ten core Life skills?

NI-5 : Unity in Diversity

    1)   What is the importance of National Unity?
    2)   List some of the essentials for National Unit.
    3)   How the NCC cadets help in unifying India?

NI-6 : Famous Leaders of India

1) List any five pre-independence leaders of India.
2) List any five post-independence leaders of India.

NI-8 : Contribution of youth in nation building

1) List some of the measures which youth can take to contribute in nation building.

CA-4 : Civil Administration set up at district, taluka and village level

1) What are the major functions of District Collector?
2) List various administrative organizations below district level.

CA-5 : Fire Fighting

1) What is fire?
2) Mention three elements essential for creation of fire and its continuation.
3) What are the four modes of spread of fire? Explain each.
4) List various measures to prevent kitchen fires (domestic fire).
5) List various measures to prevent other type of fire.
6) List various measures to prevent fire in public places.
7) List and explain the tree main constituents that help in removal of fire.
8) List various types of fire.
9) List various categories of fire fighting extinguisher.

CA-6 : Essential Services and their maintenance

1) List various categories of essential services.
2) List types of maintenance required for essential services.
3) What is the role of NCC cadets in maintaining essential services?

Civil Affairs [3]

1) List & explain any two modes of spread of fire.
2) What is the role NCC cadets in maintaining essential services.(any two)
3) Write any three civil defence services.
4) What is the aim of aid to Civil Authority?
5) How a cadet can help the Civil Authority during natural calamities?
6) Give the examples of Disasters
7) What is the role of NCC cadets during disaster?
8) What is the civil defense services and their duties.
9) Name any three type of Natural disaster ?
10) Write any types of waste ?
11) Write about Natural Disasters.

Social Awareness and Community Development [4]

1) Categories the following drugs as depressents, stimulants or Hallucinogens.
   (a) Dhatura   (b) Nicotine   (c) Caffine   (d) Alcohol
2) List any two measures to prevent deaths/accidents due to drunk driving.
3) Write some important rural development programme in India.
4) Write the reason behind low literacy rate in India.
5) Write the types of Social Services conducted in NCC. (Any Four)
6) Write the rural development programs in India
7) xWhat is the Rural Development? And write it important.
8) What is the contribution of youth towards social welfare?
9) What are the types of social service activities ?
10) What is role of the youth in preventing HIV/ AIDS?

Health and Hygiene [4]

1) Write the first aid treatment for
   a) Electric Shock
   b) Dog bite
2) Write the parts of circulatory system of humane.
3) Write the classification of bones?
4) What are major constitution of Human Body.
5) List any four main components of personal hygiene.
6) What are the main elements of Good Health ?
7) What are the main components of personal hygiene?

Environment Awareness and Conservation [3]
1) Write any three measures to control pollution.

2) How conservation of wild life helps in maintenance of food chain. Explain.
3) List different types of pollution.
4) Write main types of natural resources.
5) Write in details about role of NCC in conservation of Natural resources.
6) Write the types of rain water harvesting.
7) Write the methods of management and conservation of Natural resources.
8) Write the types of Waste
9) Write the causes of Sound Pollution.
10) Write the reasons for increase in energy consumption.
11) Role of NCC in conservation of natural resources.
12) What are role of NCC in Conservation of Natural Resources?
13) How many types of natural resources are there?
14) What is the role of the NCC cadets in curbing the menace of pollution?
15) Explain in brief the role of NCC in conservation of natural resources.
16) What are the types of Pollution?

SPECIAL SUBJECT (30)

General Service Knowledge [5]

Q. **Name the Air Commands in I.A.F with their Head Quarters.**

Q. **Answer in brief:**
i) Motto of I.A.F. …….
ii) Motto of NCC …….
iii) Highest Gallantry Award …….
iv) Supreme commander of Armed forces …….
v) NCC OTA located at …….

Q. **Write the Full Form of the following.**
1) ANO
2) NCC
3) ADG
4) CO
5) DG

Q. **Fill in the blanks.** (02)

	Army	Navy	AIRFORCE
a)	………………………	………………………	Air Marshal
b)	………………………	Captain	………………………

Air Campaigns [2]

Q. Write down the names of aircraft used during 1999 Cargill war by the IAF
Q. Write the short note on Operation Safed Sagar?
Q. What was the reason behind Indo-Pak War?

Q. **Fill in the blanks.**

a) Operation _____ was the codename assigned to the Indian Air Force's strike to support the Ground troops during Operation Vijay that was aimed to flush out Pakistani Army in Kargil along the LOC.

b) Kargil Vijay Diwas is celebrated on _____ every year.

Principle of Flight [3]

Q.   List any four forces acting on a straight & levelled flight.

Q.   What are the three angular motions?

Q.   Define:
1. Motion
2. Velocity
3. Aerofoil
4. Angle of attack
5. Newton's First Law
6. Newton's Second Law
7. Newton's Third Law
8. Work
9. Mass

Q. Fill in the blanks.
a)   .... is the place where pilot board during the flying.
b)   The capacity to do works is called ....

Aircraft Particulars[2]

Q.   Write the performance of LCA.

Q.   Name any two transport aircraft

Q.   What is the methods used to identify the aircraft by Wing position?

Q.   Write name of any two fighters and any two transport aircraft.

Q.   Name any two bomber aircrafts.

Q.   Define the Newton's Third Law of motion.

Q.   Fill in the blanks.
a)   Embraer is a _____ aircraft.
b)   LCA stands for _____

Q.   Write the Indian name of the aircraft
i)   MIG – 27 _____   ii) AN – 32 _____
iii)   Bell – 47G - 3 _____   iv) MI – 17 _____

Air Field layout [1]

Q.   Write any one Aerodrome ground markings.

Q.   What is the meaning of Taxiways?

Q.   What are the different types of Aerodrome Lighting?

Q.   Write the objectives of Air Traffic Services?

Q   What is air field?

Q.   Define Runway
        a) Taxiways
        b) Approach lighting
Q.   Match the following.   (02)
        A   B
    a) 1 JT – 16   i) BADAL
    b) MIG - 29   ii) BAAZ
    c) IL - 76   iii) KIRAN
    d) MIG - 21   iv) GAJRAJ

RT Procedure [2]

Q.   Write any two functions of Area Control.
Q.   Define: Air Traffic Control Service.
Q.   Define signal square.
Q.   Write about objectives of any two Air traffic services.
Q.   What are the responsibilities of ATC (Any Two)?
Q.   Write down the identifying words for the given letters in RT Procedure.
        Letter- A,B,C,D,E.

Aero Modelling

Q.   Write any ten materials used in aero modelling.
Q.   Write basic tools used in aero modelling.
Q.   Write the types of aero models used in NCC.
Q.   What is the purpose of dope which is used in aero modelling?