



एकता और अनुशासन



Class XII

NATIONAL CADET CORPS

UNITY & DISCIPLINE



CENTRAL BOARD OF SECONDARY EDUCATION

Shiksha Kendra, 2, Community Centre, Preet Vihar, Delhi-110 301 India

नया आगाज़

आज समय की माँग पर
आगाज़ नया इक होगा
निरंतर योग्यता के निर्णय से
परिणाम आकलन होगा।

परिवर्तन नियम जीवन का
नियम अब नया बनेगा
अब परिणामों के भय से
नहीं बालक कोई डरेगा

निरंतर योग्यता के निर्णय से
परिणाम आकलन होगा।

बदले शिक्षा का स्वरूप
नई खिले आशा की धूप
अब किसी कोमल-से मन पर
कोई बोझ न होगा

निरंतर योग्यता के निर्णय से
परिणाम आकलन होगा।

नई राह पर चलकर मंज़िल को हमें पाना है
इस नए प्रयास को हमने सफल बनाना है
बेहतर शिक्षा से बदले देश, ऐसे इसे अपनाए
शिक्षक, शिक्षा और शिक्षित
बस आगे बढ़ते जाएँ
बस आगे बढ़ते जाएँ
बस आगे बढ़ते जाएँ.....





NATIONAL CADET CORPS

Class - XII



CENTRAL BOARD OF SECONDARY EDUCATION

Shiksha Kendra, 2, Community Centre, Preet Vihar, Delhi-110 301 India





National Cadet Corps

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भारत का संविधान

उद्देशिका

हम, भारत के लोग, भारत को एक सम्पूर्ण प्रभुत्व-संपन्न समाजवादी पंथनिरपेक्ष लोकतंत्रात्मक गणराज्य बनाने के लिए, तथा उसके समस्त नागरिकों को:

सामाजिक, आर्थिक और राजनैतिक न्याय,
विचार, अभिव्यक्ति, विश्वास, धर्म

और उपासना की स्वतंत्रता,
प्रतिष्ठा और अवसर की समता

प्राप्त कराने के लिए
तथा उन सब में व्यक्ति की गरिमा

और राष्ट्र की एकता और अखंडता
सुनिश्चित करने वाली बंधुता बढ़ाने के लिए

दृढ़संकल्प होकर अपनी इस संविधान सभा में आज तारीख 26 नवम्बर, 1949 ई० को एतद्वारा इस संविधान को अंगीकृत, अधिनियमित और आत्मार्पित करते हैं।

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भाग 4 क

मूल कर्तव्य

51 क. मूल कर्तव्य - भारत के प्रत्येक नागरिक का यह कर्तव्य होगा कि वह -

- (क) संविधान का पालन करे और उसके आदर्शों, संस्थाओं, राष्ट्रध्वज और राष्ट्रगान का आदर करे;
- (ख) स्वतंत्रता के लिए हमारे राष्ट्रीय आंदोलन को प्रेरित करने वाले उच्च आदर्शों को हृदय में संजोए रखे और उनका पालन करे;
- (ग) भारत की प्रभुता, एकता और अखंडता की रक्षा करे और उसे अक्षुण्ण रखे;
- (घ) देश की रक्षा करे और आह्वान किए जाने पर राष्ट्र की सेवा करे;
- (ङ) भारत के सभी लोगों में समरसता और समान भ्रातृत्व की भावना का निर्माण करे जो धर्म, भाषा और प्रदेश या वर्ग पर आधारित सभी भेदभाव से परे हो, ऐसी प्रथाओं का त्याग करे जो स्त्रियों के सम्मान के विरुद्ध हैं;
- (च) हमारी सामासिक संस्कृति की गौरवशाली परंपरा का महत्त्व समझे और उसका परिरक्षण करे;
- (छ) प्राकृतिक पर्यावरण की जिसके अंतर्गत वन, झील, नदी, और वन्य जीव हैं, रक्षा करे और उसका संवर्धन करे तथा प्राणी मात्र के प्रति दयाभाव रखे;
- (ज) वैज्ञानिक दृष्टिकोण, मानववाद और ज्ञानार्जन तथा सुधार की भावना का विकास करे;
- (झ) सार्वजनिक संपत्ति को सुरक्षित रखे और हिंसा से दूर रहे;
- (ञ) व्यक्तिगत और सामूहिक गतिविधियों के सभी क्षेत्रों में उत्कर्ष की ओर बढ़ने का सतत प्रयास करे जिससे राष्ट्र निरंतर बढ़ते हुए प्रयत्न और उपलब्धि की नई उंचाइयों को छू ले;
- (ट) यदि माता-पिता या संरक्षक हैं, छह वर्ष से चौदह वर्ष तक की आयु वाले अपने, यथास्थिति, बालक या प्रतिपाल्य के लिये शिक्षा के अवसर प्रदान करे।

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THE CONSTITUTION OF INDIA

PREAMBLE

WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a '**SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC**' and to secure to all its citizens :

JUSTICE, social, economic and political;

LIBERTY of thought, expression, belief, faith and worship;

EQUALITY of status and of opportunity; and to promote among them all

FRATERNITY assuring the dignity of the individual and the² unity and integrity of the Nation;

IN OUR CONSTITUENT ASSEMBLY this twenty-sixth day of November, 1949, do **HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.**

-
1. Subs. by the Constitution (Forty-Second Amendment) Act, 1976, sec. 2, for "Sovereign Democratic Republic" (w.e.f. 3.1.1977)
 2. Subs. by the Constitution (Forty-Second Amendment) Act, 1976, sec. 2, for "unity of the Nation" (w.e.f. 3.1.1977)
-

THE CONSTITUTION OF INDIA

Chapter IV A

FUNDAMENTAL DUTIES

ARTICLE 51A

Fundamental Duties - It shall be the duty of every citizen of India-

- (a) to abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem;
- (b) to cherish and follow the noble ideals which inspired our national struggle for freedom;
- (c) to uphold and protect the sovereignty, unity and integrity of India;
- (d) to defend the country and render national service when called upon to do so;
- (e) to promote harmony and the spirit of common brotherhood amongst all the people of India transcending religious, linguistic and regional or sectional diversities; to renounce practices derogatory to the dignity of women;
- (f) to value and preserve the rich heritage of our composite culture;
- (g) to protect and improve the natural environment including forests, lakes, rivers, wild life and to have compassion for living creatures;
- (h) to develop the scientific temper, humanism and the spirit of inquiry and reform;
- (i) to safeguard public property and to abjure violence;
- (j) to strive towards excellence in all spheres of individual and collective activity so that the nation constantly rises to higher levels of endeavour and achievement;
- ¹(k) who is a parent or guardian to provide opportunities for education to his/her child or, as the case may be, ward between age of 6 and 14 years.

-
1. Subs. by the Constitution (Eighty - Sixth Amendment) Act, 2002



Preface

The CBSE's National Cadet Corps (NCC) curriculum for classes XI and XII stands out for its strong dynamism. The National Cadet Corps (NCC) came into existence on 15th Jul 1948 under an Act of Parliament. Its motto "*Unity and Discipline*" has guided the NCC in its long-standing effort to mould young volunteers into disciplined and responsible young citizens of India. Over the years, in response to the evolving environment, the NCC's initial military orientation has been augmented by including aspects of social service and adventure training.

National Cadet Corps (NCC) provides a platform for individual upliftment through the process of channelizing the energy of the youth in constructive pursuits. Besides giving thrill and excitement, NCC promotes camaraderie and resilience, and hones cultural skills to preserve the cultural traditions and values of the society. It helps the youth to realise the intimate relationship between an individual and the community, between community and nature, and their inter-dependence.

In a scenario of change and with a focus on holistic development, CBSE strives to induct novel teaching methods, innovative thought processes and practical subjects. To further the dynamism of learning, CBSE has decided to focus on instilling nationalism and patriotism by offering NCC as an optional elective subject at Class XI-XII level. The objective of this elective is to expose the young dynamic youth to serving the nation by adopting various learning from the stream of NCC -National Cadet Corps. This would help inculcate a Defence services work ethos, which is characterized by diligence, perseverance, dedication, a regimented way of life and above all, resilience and humility.

Youth is the major factor that determines the overall success of a nation. An educated and empowered youth would drive a nation towards success. NCC plays a very crucial role in inculcating social ethos in the youth of the country and harnesses their energy towards something useful for them as well as society. They are also taught that, for success in life, one has to be bold to take calculated risks even at great discomfort. At the +2 level, students begin to contemplate and introspect on their choice of subjects for higher studies. For some students, this stage may be the end of their formal education, leading to the world of work and employment; for others, the foundation for higher education.

Teachers handling the course need to inform themselves regarding the effective use of course content, teaching methodology, management of group work and independent individual work, management of large classes, appropriate use of assessment tools, grading and record keeping to benefit their students.

This book would never have been possible but for the sincere effort, devotion and leadership of Dr. (Prof.) Sadhana Parashar, Director [Academics, Research, Training & Innovation], CBSE and Mr. Sandeep Sethi, Education Officer with his team. Any further suggestions are welcome and will be incorporated in the future editions.

Vincent Joshi
Chairman, CBSE



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PROMISING INDIA

When the unity of our shoulders makes them glitter
With fear their oneness makes the enemy quiver
Now all that we have to do is be the flame that melts the river
All that we have to do is to be the mountain and blanket for
those who shiver.

We have come to the fields taking our lives into our hands
Dedication and determination we shall wear as bands
Standing over this soil, we hereby pledge our stand
We belong solely and truly to our dear motherland.

Turning away the hand of death
Enveloping victory in each breath
Facing all the disasters with a smile
Marching forth, protecting our nation against the vile.

Suppressed under the dominance of soils around
Through our freedom struggle, our motherland we found
Steeped in discipline and decorum is the drill so profound.

Weapons are a part of our conquest to survive
Managing disasters appropriately teaches one to strive
Personality development helps to bring the colours alive
Social awareness weaves secrets of society that it hides
Presenting to you, National Cadet Corps- preparing you for
tomorrow and its consequential slides.



UNIT-1

FREEDOM STRUGGLE AND NATIONALIST MOVEMENT IN INDIA

Knowledge	Understanding	Application Skills	Evaluation
India and its past.	The students will understand the importance of the socio-cultural fabric of the country and the spirit of unity in diversity.	The students will apply their understanding on the unit to comprehend the current scenario in the country and appreciate the need for revival of the spirit of oneness and brotherhood	Activities, work sheets and assignments.
The freedom struggle of India and the contribution made by the Indians from all walks of life.	They will appreciate the spirit of oneness and understand what it takes to build a sovereign nation.	The students will apply their understanding on the topic to appreciate different freedom movements undertaken and the specific objective of each.	Activities, work sheets, assignments and role play

India is a free nation with a rich variegated history, an extraordinarily multifaceted cultural diversity and a commitment to democratic values and well-being for all. Its 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 lifestyle. Different tribes with their distinct languages intermingled with various tribes of our country. That is why our culture is described as an example of a composite culture. It is made up of diverse communities, races and religions.



The Britishers came and ruled 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 reached its height 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.

The Indian Mutiny of 1857

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



Sepoy Mutiny

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.

The introduction of the 'zamindari system' by the British, ruined the peasants due to exorbitant charges 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 discontentment 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 teeth, 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.

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 against the British. The Hindus, the Muslims and the Sikhs fought shoulder to shoulder to throw out the British. The revolt was controlled by the British within one year; it began in Meerut on 10 May 1857 and ended in Gwalior on 20 June 1858.

Source: <http://nccindia.nic.in/hand-book-common-subject-sdsw>,
http://www.archive.india.gov.in/knowindia/culture_heritage.php?id=5

End of the East India Company

Consequent to the failure of the Revolt of 1857 Rebellion, it also saw the end of the East India Company's rule 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, chiefs and 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.



*View of the East India Company's
Factory at Cossimbazar*



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 affairs 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.

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.

Raja Rammohan Roy (1772-1833), founded the Brahma 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 the English system of education in India. It was through his effort that *sati* was declared a legal offence by the British.

Swami Vivekananda (1863-1902), the disciple of Ramakrishna Paramahansa, 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 understand the philosophy of Hinduism for the first time.

Source: <http://nccindia.nic.in/hand-book-common-subject-sdsw>,
http://www.archive.india.gov.in/knowindia/culture_heritage.php?id=5

Nationalist Movement in India

Formation of the Indian National Congress (INC)

The foundations of the Indian National Movement were laid by Surendranath 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 the 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 presidentship of Womesh Chandra Banerjee and was attended among others by Badr-uddin Tyabji.

At the turn of the century, the freedom movement reached out to the common unlettered people 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.

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.

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, the Rowlatt Act was passed in 1919, which empowered the Government to put people in jail without trial. This caused widespread indignation, led to massive demonstrations and *hartals*, which the Government repressed with brutal measures like the Jallianwala Bagh massacre, where thousands of unarmed peaceful people were gunned down on the orders of General Dyer.

Source: <http://nccindia.nic.in/hand-book-common-subject-sdsw>,
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Jallianwala Bagh Massacre

The Jallianwala 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 Jallianwala Bagh, adjacent to Golden Temple (Amritsar), to lodge their protest peacefully against the 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 dead, including women and children.

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

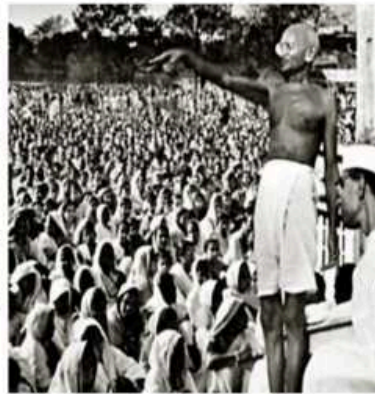
domination'. Gandhi, himself a devout Hindu, also espoused a total moral philosophy of tolerance, brotherhood of all religions, non-violence (*ahimsa*) and of simple living. With this, new leaders like Jawaharlal Nehru and Subhash Chandra Bose also emerged on the scene and advocated the adoption of complete independence as the goal of the National Movement.



Jallianwala Bagh Massacre

The Non-Cooperation Movement

The Non-Cooperation Movement was started under the 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 a 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 success as it gave great encouragement to millions of Indians. This movement almost shook the British authorities.



Simon Commission

Source: <http://nccindia.nic.in/hand-book-common-subject-sdsw>,
http://www.archive.india.gov.in/knowindia/culture_heritage.php?id=5



Simon Commission

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 the 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

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 the Independence Day. 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 and following this, the 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.



Civil Disobedience Movement

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.

Source: <http://ncindia.nic.in/hand-book-common-subject-sdsw>,
http://www.archive.india.gov.in/knowindia/culture_heritage.php?id=5



Quit India Movement

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.



Quit India Movement

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 escaped from the British detention in Calcutta, reached foreign lands and organized the Indian National Army (INA) to overthrow the British from India.

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, by aeroplane to a place of safety but, met with an accident. It was given out that he had died in the air-crash. "Give me blood and I shall give you freedom" - was one of the most popular statements made by him, where he urged Indians to join him in his freedom movement.

Source: <http://nccindia.nic.in/hand-book-common-subject-sdsw>,
http://www.archive.india.gov.in/knowindia/culture_heritage.php?id=5

Partition of India

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 Indians who were calling 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 of 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 pressed for a separate state. Lord Mountbatten, the Viceroy of India, presented a plan for the division of India into India and Pakistan, which the Indian leaders had to accept.

India became free at the stroke of midnight, on 14 August 1947. Since then, every year, India celebrates Independence Day on 15th August. Jawaharlal Nehru became the first Prime Minister 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."

Source: <http://nccindia.nic.in/hand-book-common-subject-sdsw>,
http://www.archive.india.gov.in/knowindia/culture_heritage.php?id=5

National Interests, Objectives, Threats and Opportunities

India has inherited the federal structure from the Government of India Act, 1935, which prescribed a federal type union of autonomous provinces, whose governments were to derive their powers directly from the crown. Such a decision was taken because, during the post-independence era, India was divided into various segments and empowering them could hamper the democratic working of the country. It was also believed that the sound economic development of the country required centralized planning without any hindrance from the state. As India is a multi-lingual, multi-religious and multi-racial country, we Indians should rise above vested partisan interests and strive for the welfare of the country.

National Interests and Objectives

National Interests

Every nation, with whatever form of government, has certain political, social and economic interests and objectives to achieve overall development, prosperity, progress, nationalism and international recognition. To attain such objectives, certain national interests are pre-requisites:





- (a) **Sovereignty:** The foremost interest of the nation is to be autonomous and remain independent.
- (b) **Integrity:** The nation should be full, indivisible and have a well-defined territory.
- (c) **Unity:** The nation should be a secular union of states with political power belonging to a central confederate authority, with united and undivided goals without factional, sectarian or fanatical prejudices. It should be tolerant towards those of other castes, creeds, religions and languages.



- (d) **Security:** The nation must ensure the safety, territorial integrity and protection of the state against external threat or subversion.

National Objectives

India is a developing country. It has made rapid progress in all spheres after its independence, viz., agriculture, industrialisation, urbanization etc. While ultimate objectives and millennium goals of the nation lie ahead, the basic objectives are found in the Directive Principles of State Policy enshrined in the Constitution of India, which took effect when India became Republic. Directive Principles of State Policy lays down a code of conduct for the administrators of India in the discharge of their responsibilities as agents of the sovereign nation. They guide the path which will lead the people of India to achieve the noble ideals which the preamble of the constitution proclaim justice, social, economic and political, liberty, equality and fraternity.

There are 16 articles of the constitution from 36-51, that deal with the Directive Principles of State Policy. Important ones out of these are as follows:-

- (a) To ensure and protect a social order which stands for the welfare of the people.
- (b) Separation of judiciary from the executive.
- (c) Protection of national monuments.
- (d) Protection and improvement in environment, forests and wild life.



- (e) Organise agriculture and animal husbandry on modern and scientific lines.
- (f) Improvement of public health.
- (g) Prohibition of intoxicants like alcoholic drinks and drugs.
- (h) Promotion of educational and economic interests of weaker sections of society.
- (j) To have a uniform code of law, irrespective of caste, creed, colour or religion.
- (k) Participation of workers and labourers in the labour law.
- (l) Promotion of cottage industries.
- (m) Provision of maternity leave.
- (n) Education for all.
- (o) Equal justice for all.
- (p) Equal pay for equal work applicable for men and women.
- (q) Adequate means of livelihood for all citizens.

Apart from the above Directive Principles, the current objectives of our nation are as follows:-

- (a) Self-sufficiency in nuclear- power.
- (b) Reliable power supply for farming and industries.
- (c) Production of goods for world markets.
- (d) Balancing growth in public and private sectors.
- (e) Modernization, linking with roads and provision of electricity to all villages.

Source: <http://nccindia.nic.in/hand-book-common-subject-sdsw>

Measures to Achieve National Integration

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

Religious Tolerance: India is a country with various religious communities. Each community should appreciate the coexistence of other communities and should promote communal harmony by celebrating / observing important days of other communities.

Linguistic Tolerance: India, is a multi-lingual country with linguistic groups speaking different languages. Each linguistic group should respect the language of other groups. Every Indian student should be given the facility to learn his/her own language, wherever he/she is in India



Use of Radio / TV: The services of the radio and TV must be intelligently used. People of different states should be introduced to each other's cultures and ways of life, and common elements should be stressed. Only this will create an atmosphere of goodwill and mutual understanding.

Government Initiative: At the 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 set up so that teachers of one state may serve in another. All healthy cultural movements to foster a national, all-India outlook should be encouraged.

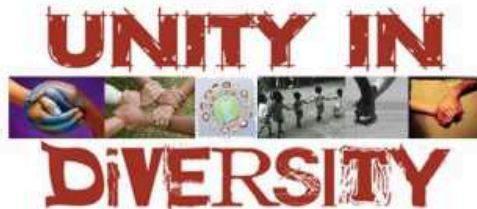
Unity in Diversity

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

Importance and Fundamentals of National Unity

Importance of National Unity

National unity is extremely essential for social peace and harmony. We can enjoy peace and security, if there is mutual trust and goodwill among all sects. Disruptive tendencies and divisive forces destroy the very fabric of national unity.



Fundamentals of Unity

Some essentials for national unity are:

- (a) **Common Language:** Narrow-minded loyalty 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 solution acceptable to all would go a long way in bringing about linguistic unity in the country. Along with regional languages one national language should be fully developed. Languages of different states should be encouraged in the educational institutions.



- (b) **Removal of Casteism:** It is felt in offices and colleges, in politics and in almost in all walks of life, casteism is an offence against humanity and threat to India's unity. Casteism should be tackled with an iron hand. There should be no communal or special constituencies. The minority communities should be given their due share of advancement and communalism should be sternly dealt with.



- (c) **Education:** In India, about half the total population is illiterate. Literacy is an important ingredient for unity. The pattern of education should be so oriented that it encourages tolerance, 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 seeking admission into the universities of other states. It would help to cement the bonds of unity which is an essence of any nation.
- (d) **Removal of Communalism:** Communalism is discriminatory as it endangers the unity of our country. Fundamentalism is the greatest challenge to India's unity. This has to be sternly dealt with. 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 society.
- (e) **Removal of Regionalism:** India is a vast country with regional diversities. People from different parts of the diversified subcontinent should meet under a common wing of national consciousness, forgetting the regional differences, sharing the feeling of togetherness and take the pride in being an Indian.

Source: <http://ncindia.nic.in/hand-book-common-subject-sdsw>



Relevance of NCC in Unifying India

NCC creates awareness among 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 and work in harmony with cadets of other states and strengthens unity through the following means:

- (a) **Ethics and Social Values:** These are values in day-to-day activities 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 the cadets.
- (b) **Cultural and Traditional Values:** Our country is diverse. Therefore, NCC organises camps and group activities where ample opportunity is given to the cadets to closely watch and participate in the cultural and traditional events of other regions. It provides 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 any national cause. NCC can be described as the nation's disciplined, trained and motivated young force, available for national service, to provide assistance everywhere, provide future leadership and participation in all walks of life.

Source: <http://nccindia.nic.in/hand-book-common-subject-sdsw>

SUMMARY

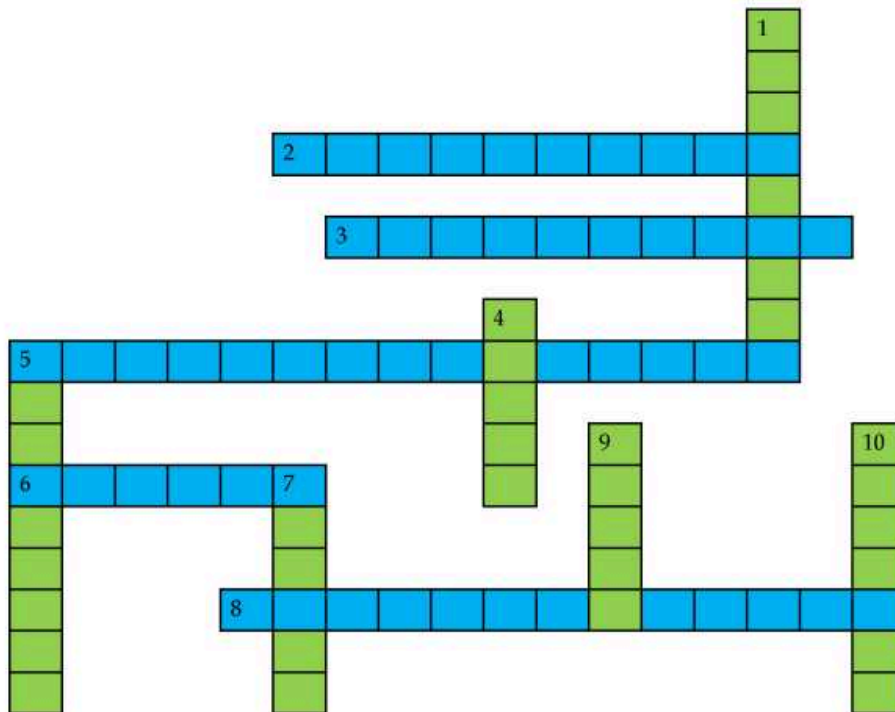
- Earlier, a Constituent Assembly was formed in July 1946, to frame the Constitution of India and Dr Rajendra Prasad was elected its President. The Constitution of India which was adopted by the Constituent Assembly on 26th November 1949. On January 26, 1950, the Constitution came into force and Dr Rajendra Prasad was elected the first President of India.
- India has always been a centre of attraction for people from all over the world.
- The British rule in India was threatened by 1857 mutiny.
- Harsh British policies caused anger and subsequently led to the 1857 mutiny.
- 1857 rebellion was crushed. The British Government decided to strengthen their rule by changing their policy.
- The leadership of the freedom movement passed into the hands of reformists like Raja Rammohan Roy, Bankim Chandra and Ishwar Chandra Vidyasagar.



- The Indian Association was formed in 1876 by Surendranath Banerjee.
- The Swadeshi Movement in 1906 took the freedom movement to the common people.
- The Rowlatt Act of 1919 and Jalianwala Bagh massacre fuelled anger against the British.
- India is a land of the great diversity with at least 18 major languages and over 400 important dialects. It is a land that has given rise to four of the world's major religions. It is a society with over 4,000 ethnic communities or castes or endogamous groups. India is thus a multi-religious, multi-linguistic, multi-ethnic and multi-regional civilization without a parallel. Therefore, in order for our nation to succeed and prosper, national integration is an important tool that this nation needs to embark on.
- It is the duty of every citizen to strive to achieve national unity despite diversity of culture, language and religion. There should be no divisions between any religion or community. There is only one India of which, Indians are the inheritors.

CROSSWORD PUZZLE - 1

Solve the crossword with the given clues:





Across:

2. The practice of training people to obey rules or a code of behaviour
3. Vigorous support for one's country
5. 15th August is celebrated as this day
6. Moral principles that govern a person's behaviour
8. Jawaharlal Nehru was the First _____ of India

Below:

1. The state of being diverse
4. The state of being united
7. The congress session at Calcutta in 1906, presided by Dadabhai Naoroji, gave a call for attainment of
9. Commission sent to India in 1927 by the British government, to suggest further reforms in the structure of the Indian government.
10. A sovereign head of state, especially a king, queen, or emperor

Comprehension Questions

Q.1. Answer the following in about 15 words:

- (i) From where has India inherited the festival structure?
- (ii) Where can we find the basic objectives of a nation?
- (iii) Define 'nation state'.
- (iv) Why do every form of govt. has certain political, social and economic interest and objective?
- (v) Why should all Indians rise above vested partisan interests and strive towards the welfare of the country?
- (vi) What are the various hindrances to the growth of national feeling?
- (vii) What was the consequence of 'divide and rule' policy of the British?
- (viii) Why is the integrity of the Indian nation threatened today?
- (ix) How is India held together despite the diversity in physical features and social systems?
- (x) When cannot a nation progress?



- (xi) Which organization creates awareness amongst the youth about the diverse heritage of our country and foster national integration?

Q.2. Answer the following in about 50 words:

- (i) Write a short note the directive principles of state policy?
- (ii) Explain the threat of casteism for all round integration of our nation?
- (iii) Write about the current objectives of our nation?
- (iv) What are the current objectives of India?
- (v) Why is national unity essential for social peace and harmony?
- (vi) Explain the following two essentials for national unity:
 - a) Language
 - b) Communalism
- (vii) What are the fundamentals of national unity?

Q.3. Answer the following in about 75 words:

- (i) What are the national interests of a Nation?
- (ii) What are the important Directive principles of state Policy?
- (iii) What is the importance of national unity?
- (iv) What is the relevance of NCC in unifying India and what are the important ingredients of national unity?

Q.4. Answer the following in about 150 words:

- (i) What are the pre-requisites for attaining objectives related to the overall development, prosperity, progress, nationalism and international recognition?
- (ii) What are the important directive principles of state policy?
- (iii) What is the relevance of NCC as a unifying for India despite its diversity?
- (iv) Explain the essential fundamentals for national unity.

Q.5. Answer the following in about 250 words

- (i) Explain, the various factors that impede our progress towards national integration?
- (ii) What measures should be taken to achieve national integration?



Let's Discuss

Q.6. HOTS (Higher Order Thinking Skills)

1. "For our nation to succeed and prosper, national integration is an important tool that this nation needs to embark on." Elaborate
2. "Unless we develop a sense of unity and leave our narrow outlook, we might lose our independence". Explain the statement with reference to the need of national integration in the country?
3. "The disgust with the reforms announced in 1909 led to the intensification of the struggle for Swaraj". Elaborate
4. "Excessive affinity to one's own religion transforms into hatred towards other religions." Explain the statement in light of the threat of communalism.
5. "The extremists movements going on in different parts of the country are yet another challenge to national integration." Explain the statement in the light of naxal or Maoist movement in India.
6. "Supporting one's own language against other languages is a major hindrance to unity." Explain the statement.



UNIT-2 | DRILL

Knowledge	Understanding	Application Skills	Evaluation
Drills without weapons	The students will understand the importance of discipline and focus as an indispensable quality to be developed in a cadet.	The students experience the pride and love for the motherland and above all develop a spirit of patriotism.	Activities, work sheets and assignments, mock drills
Drills with weapons	They will understand the responsibility of a cadet while holding the rifle and position of the arms while drills are performed in different categories.	They will develop the grace and confidence to hold the rifle in the correct position while performing a drill	Activities, work sheets and assignments, mock drills
Ceremonial drills	They will understand how to respond on a word command and follow the instructions in synchronization with the squad.	They will develop team spirit and togetherness, i.e. to work at a voice command, with the entire unit, in unison.	Activities, work sheets and assignments, mock drills

Drill is an important part of a cadet's life. It inculcates a sense of discipline, improves bearing, smartness in appearance and turn out, arises self-confidence, develop the quality of immediate and implicit obedience to orders and teamwork. In addition to these qualities, drill brings about the co-ordination between mind and body and serves as the basis for imparting other service training.

Drill is the most efficient way of moving a number of people from one place to the next. Instead of having a group of individuals meandering slowly, we have an organized, efficient team with a clearly defined purpose and direction. Drill is also an extremely good exercise in teamwork. There are no individuals in a team; everyone performs the manoeuvre in exactly the same time, in exactly the same way.



Drill is defined as *being instructed in military exercises which involves marching, saluting and turning*. There are different types of drill including, static drill (which does not involve marching), ceremonial drill and squadron drill.



Synchronized Rifle drill

Drill without Arms

Side Pace, Pace Forward and to the Rear

Side pace:

- a) '*Dahine Ya Baen Bazu Chal*', '*Ya Qadam Dahine Ya Baen Bazu Chal*' (Right or left close march): The side pace (12 inches) used to move the squad, should not be more than 12 paces to a flank, if greater distance is to be covered; the squad should be 'turned' and 'moved' in threes.
- b) Specify the exact number of paces (up to four only): The squad continues to move until halted. For procedure: Right foot is carried to a distance of 12 inches, left foot closer to it by bending the left knee and completing the pace in double time. Shoulders should be square, direction straight to the flank and uniform pause after each pace should be maintained. '*Squad tham*' (Squad halt) is given when number of paces are not specified.



Pace forward and to the rear are always taken in quick time. The basic steps are:

- i) Left foot shot forward or rear up to the required distance.
- ii) If more than one pace, normal marching is adopted, stepping a full pace of 30 inches.
- iii) Maximum number of paces ordered to step forward or rear is three.

Turning on the March and Wheeling

Turning on the March

1. '*Ginti se murna-baen mur-ek*' (Turning by numbers, left turn one (given as the left foot passes the right) : The cadet will freeze with the left foot forward, flat on the ground, the right foot 30 inches to the rear, heel raised; both legs braced, body balanced evenly between them, right arm swung forward and left arm swung back.
2. '*Squad do*' (Squad two): Bring both arms to the side, bend the right knee, foot raised with the toe at least six inches clear of the ground.
3. '*Squad teen*' (Squad three): Straighten the right knee towards new direction. As the foot comes to the ground, shoot the left foot forward 15 inches, hand still on the sides, body in attention position, shoulder back.
4. '*Squad age barh*' (Squad forward) : Lead on in quick time with the left foot, swinging the arms.
5. '*Qadam tolkar murna, baen mur*' (Turning by balance step, left turn): Check the pace with the left foot, cut the hands to the sides, bend the right knee, force the body round to the new direction and as the right foot comes to the ground, shoot the left forward, 'Squad forward', lead on in quick time with the left foot, swinging the arms.
6. '*Ginti se pichhe murna, pichhe mur ek*' (Turning about by numbers, about turn one) (given as the left foot passes the right): Complete the pace with the left foot, take half pace with the right foot and freeze with the left arm forward, right arm back and left heel off the ground.
7. '*Squad do*' (Squad two): Cut the arms to the sides, turn right, bend the left knee to adopt position of attention.
8. '*Squad teen*' (Squad three): Again turn right, parading on the left foot and bend the right knee to adopt the attention position.



9. '*Squad char*' (Squad four): Mark time, once pace with the left foot and resume the position of attention.
10. '*Squad age barh*' (Squad forward): Step off with the right foot and continue marching.

Wheeling

Used when marching in single file or in threes, the inner man wheels on the circumference of a circle four feet in diameter and changes direction through 90 degrees, speed governed by the ability of the outside man to keep pace by stepping out. The inner man adjusts and shortens his pace accordingly. The word of command is '*Dahine/ Baen Ghoom*' (Right/ left wheel).

Saluting on the March

Saluting to the Flank:

- a) '*Ginti se salute-dahine salute ek*' (Saluting by numbers, salute to the right-one, given as left foot touches the ground): The cadet should complete the next pace with the right foot forward, heel on the ground, toe raised, arms at the maximum extent of the swing, shoot and left foot forward, complete the next pace with left foot, heel on the ground, toe raised, bring the right arm smartly to the position of the salute, turn the head and eyes to the right, cut the left hand to the side. As the left foot comes to the ground, the squad will shout 'up'
- b) '*Squad do*' (Squad two): Left arm is kept still to the side, correct position of salute is maintained without swinging the shoulder, the next pace with the right foot is completed with shout 'two'. The order 'two' 'three' 'four' and 'five' may be given in quick succession, one pace being taken on each, and the appropriate number shouted each time.
- c) '*Squad chhe*' (Squad six): The pace is completed with the right foot. As the heel touches the ground, the head and eyes are turned to the front with the cut of right hand away to the side and with a shout 'down'.
- d) '*Squad saat*' (Squad seven): Marching in quick time is continued, the arms are swung with a shout 'swing' on the first pace.
- e) Judging the time-the word of command will be '*Saluting Dahine-ko salute-salute*' (Salute to the right - salute). This is given as the left foot comes to the ground. The cadet should come up to the salute, the next time the left foot touches the ground and cut the hand away on the sixth pace (right foot), cadets will continue to call out each time).



Passing an Officer: When passing an officer, salute on the third pace is done before reaching him and the hand is lowered on the third pace after passing him. During the salute, the cadet should look at the officer full in the face.

Saluting to the front: The word of command given as the right foot passes the left, is as for the halt, salute to the front, wait for regulation pause, salute to the front again, pause, turn about, pause and lead off in quick time.

Eyes Right and Left: A formed body requiring to pay a compliment to a flank, receives the order to march by the desired flank and will then get, '*dahine dekh*' (eyes right). The guide looks to his/her front in order to keep direction. All officers, in command will salute, the remainder will turn their heads. The word of command is given as the left foot touches the ground in quick time and everyone looks right when the left foot next comes to ground. The command '*samne dekh*' (eyes front) is given in a similar manner.

Marking Time, Forward March and Halt in Quick Time

Mark time: Marking time is done in the same cadence as marching. Maintain position of attention.

To Quick Mark Time from Halt: '*Tez qadam tal*' (Quick mark time). The left knee is raised and the top of the thigh parallel with the ground, leg is lowered perpendicular, foot at natural angle, straighten leg again directly, and the position of attention is resumed, bend and the right knee is straightened in a similar manner, body erect, shoulders square to the front and arms to the sides.

Halt: On the command '*Tham*' (halt) the right foot is brought down sharply and the position of attention is firmly resumed.

To Mark Time from Quick Marching: '*Qadam tal*' (Mark time) given with cautionary word well drawn out and executed as the left passes the right. Take short pace of 15 inches with the right foot and begin marking time with the left foot.

To move forward when quick marking time, the word of command is '*Age barh*' (forward). This being given as





the left foot is being raised. The right foot comes to ground, left foot shoots forward and marching is resumed.

Changing Step

- a) Changing step in quick time by numbers: '*Qadam badalna ek*' (Changing step-one) given as the right foot reaches the ground), complete pace with the left foot so that the left foot is flat on the ground and 30 inches in front of the right foot. The right arm is raised in front, and the left arm to the rear of the body.
- b) '*Squad do*' (Squad two): Shoot left foot forward, placing flat on the ground with the hollow in the heel of the left foot and the arms are cut to the sides.
- c) '*Squad teen*' (Squad three): Shoot the left foot forward placing the heel of the left foot on the ground 30 inches in front of the right foot.
- d) Changing step is done with the left foot leading.

Formation of Squad and Squad Drill

Making of a squad while standing: When the squad is standing in threes, on word of command '*halt make left to left squad*' the cadet on the right side, stands still. The rest of the squad will move left. This will be followed by the word of command '*attention*'. After this, the action word of command is '*No 1 file slow march from the front*'. The cadet on the right side will take 3 steps ahead and halt and the two cadets behind him will also cover-up behind the first cadet, counting out one two, one-two. This is followed by word of command '*No 1, file slow march from the front*' followed by '*No 2 file slow marching from the front*'. On this command, next cadet takes 5 steps followed by no 3 file who takes 7 steps, No 4 file takes 9 steps and so on, till the entire squad is formed. After this, the squad marches in threes.

Making Squad without Halting: On word of command '*form up to the left*', the guide keeps standing and rest will turn half left. On word of command '*forms up in squad to the left, slow march from the right*', the squad, according to the file, marches on the spot, starting on the left foot and the squad halts on the word of command '*tham*'.

Drill with Arms

Getting on Parade with Rifle and Dressing at the Order

Getting on parade: When getting on parade with the rifle, the weapon is carried out at '*Tol shastra*' (short trail). As soon as the squad halts, the rifle butt is placed noiselessly on the ground in the correct position of attention.



Sajna (Dressing): In dressing, the front rank raises the left arm instead of the right arm and the rifle is again raised to the position of short trail when moving

Dismissing and falling out: '*Visarjan*(Dismiss): The cadet should turn to the right, salute (if an officer/JCO is present on parade) pause and then step off (ensure squad is in close order).When marching independently, the cadet keeps in step until clear off the parade ground.

'*Line tor*'- Falling out does not signify the end of the parade, but only a break in it. It is different from *Visarjan* in the following points:

- a) Salute is not given
- b) Cadets falling out, should not to leave the vicinity of their place of parade or lines of march

On command '*Line tor*' (Fall out) the squad should turn right, break off in quick time (or in double time as ordered) counting a regulation pause between each movement.

The difference between dismiss and falling out are as follows:-

- a) Falling out
 - i) To leave the ranks temporarily
 - ii) A word of command, to close the drill temporarily is given to a body of cadets required to fall in again after a stipulated period
- b) Dismiss
 - i) A word of command is given for closing drill.
 - ii) Denotes parade is completely terminated.

Note: The procedure of **Dismissing and Falling Out** will be same as above, but rifles will be shouldered before the squad is dismissed.

Present from the Order and Vice-Versa

Present Arms: '*Salami Shastr (r)-ek*': The rifle is thrown upwards with the right hand, catching it with the left hand at the point of balance, thumb of the left hand in the hollow of the right shoulder and the right hand at the small of the butt, thumb to the left, elbow to the rear.

On '*Squad do*' rifle is brought to a perpendicular position in front of the centre of the body. Striking left hand on the side of rifle and small of the butt is held with the right hand simultaneously.



Getting on parade

Present Arms

'Squad teen': The rifle is tilted with the left hand, the rifle is brought down, perpendicularly in front of and about three inches from the centre of the body. Right hand hits the magazine, holding the rifle at the full extent of the right arm, fingers together, slanting downwards meet it smartly with the left hand immediately behind the back sight, in line with the waist belt, outside the selling thumb pointing upwards to the muzzle and on the left of the rifle at the same time place the hollow of the right foot against the left heel with both knees straight. The weight of the rifle is to be supported by the left hand.

Order from the Present: On *'Baju shastr-ek'* hold pistol grip with the right hand and simultaneously the left right foot is placed with the left foot as in the attention position. On *'Squad do'*, carry the rifle to right side and seize it with right hand at the pistol grip. On *'Squad teen'* left hand is cut to attention position.

Formation of Squad and Squad Drill

General: 'Forming of squad' is done to change the formation of the squad or to conserve space.

Making of Squad While Standing: When the squad is standing in threes. On word of command 'halt, make left to left squad'. The cadet on the right side will stand still. Rest of the squad will move left. This will be followed by word of command 'attention'. After this action, word of command is 'No 1- file slow march from the front'. The cadet on the right side will take 3-steps ahead and halt, and the two cadets behind him will also cover-up behind the first cadet counting 'out one-two, one-two'. This will be followed by word of command 'No 1 file slows the march from the front' followed by



'No. 2 file', slow march from the front', on this command next cadet will take 5 steps followed by 'No. 3 file' who will take 7 steps, 'No. 4 file' will -take 9 steps and so on, till the entire squad is formed. After this, the squad marches in threes.

Making Squad without Halting

On word of command 'form up to the left', the guide keeps standing and rest turn half left. On word of command 'form up in squad to the left, slow march from right' . The squad, according to the file, marches on the spot, starting on the left foot and squad halts on word of command '*tham*'.

Short/Long Trail from the Order, and Vice-Versa

Short trail: Slightly, the right arm is bent to raise the butt of the rifle about one inch from the ground. The short trail is normally carried out when getting on parade with rifle and when stepping forward and to the flanks and during dressing. The butt is placed noiselessly on the ground in the correct position of attention as soon as the movement is completed.

Trail from the Order: '*Tol shastr(r)*' (Trail arms): With the flick of the wrist the nozzle is thrown forward and down wards, catching rifle at the point of balance, back of the hand to the right, arm straight so that the rifle is horizontal, muzzle pointing to the front and magazine underneath.

Order from the Trail: '*Bazu Shastr(r)*', (Order arms): With the right hand, butt is forced to the ground and the muzzle is raised to assume the correct position of the order.

Examine Arms

Examine from the Order: '*Janch Shastr(r)*' (Examine arms): The left knee is bent, placing the front of the foot on the ground about 16 inches to the left front and force the muzzle downwards with the left hand keeping the arm slightly bent so that the rifle is in the front of the right thigh. Cocking the rifle and applying holding opening catch with left hand place the right thumb in the charge guide with the nail upper-most and at an angle to reflect and light up the barrel, fingers together on the right of the rifle and extending towards the ground. On '*Chal-wale purze aage kar*'. Pull back and release the cocking handle and on order. The trigger is pressed and the weapon to brought back to the attention position.

The Order from the Examine: '*Bazu Shast(r)-ek*' (Order arms one): The rifle is struck with the right hand in the same place as it is held, at the order, finger and thumb curled round the rifle, fore arm and elbow on the stock, the left knee bent to close the heels.



'Squad Do' (Squad two). The rifle is pulled down to the right side, striking it with the left hand just below the nosecap, as for the second movement of the order from the slope.

'Squad teen' (Squad three): The left hand cuts away as in the third movement of the order from the slope.

Ceremonial Drill

General: In the NCC, the Ceremonial Parade is the culmination of the cadet's training. The Ceremonial Parade may be arranged for the various dignitaries given in NCC orders from time to time.

Compliments

- (a) The national salute is given to the President of India and the Governors of the various states with in their own jurisdiction.
- (b) The general salute is given to dignitaries of the rank of Major General and above.
- (c) All other dignitaries are given the present arms '*Salami Shast(r)*'.

Procedure

The procedures for the Ceremonial Parade:

- (a) The VIP on arrival is received by the Senior Officer serving with the NCC present, and taken to the saluting base.
- (b) The parade Commander on seeing the VIP alighting from the car order '*Parade Savdhan*'.
- (c) After VIP has come to the dais and is ready to take the salute, the parade Commander gives the following words of command:-
 - (i) Parade General '*Salute Degi*'
General Salute '*Salami Shast(r)*'.
or
Parade Rashtriya '*Salute Degi*'
Rashtriya '*Salute Salami Shast(r)*'.
or
Parade '*Salami Degi-Salami Shast(r)*'.
 - (ii) Parade '*Bazu Shast(r)*'
- (d) The parade commander marches up smartly to the saluting base and reports to the VIP '*No. 1 Bn Parade 'ap Ke Nirikshan Ke Lie Hazir Hai Sriman/Srimati Ji*'.



- (e) After the VIP's permission has been obtained to let the parade stand- at-ease and prior to commencement of the inspection, the Parade Commander gives the word of command '*Number one company Khara rahe, Baqui Vishram*'. After the inspection is finished and the VIP has turned to the saluting dais, the following words of command will be given for the march past:-
- i) Parade *Savdhan*.
 - ii) Parade *Nikat Line Chal*.
 - iii) *Bagal shast(r)*.
 - iv) Parade *kooch kalam men manch se guzregi No --- Age*.
 - v) Parade *tin - o - tin kalam men dehine mur*.
- f) The word of command by respective Company Commander in their own turn for the march past. '*Number one Company Baen se tez chal*'.
- g) At the first flag (6 paces of the saluting base), each company commander gives the following words of command, '*Comapany Dahine Dekh*'. After the company has gone past the saluting base, (indicated by the next flag) his word of command is '*Company Samne Dekh*'.
- h) When the parade returns to the inspection line, each company gives the word of Command '*Company Tham*'.
- i) '*Number one company age barhegi- baen mur*', and then remain at Savdhan.
 - ii) The entire parade stands - at-ease by the commander by giving the command '*Parade Vishram*'.
- j) In case the parade is to advance in view order, the following word of command is given by the Parade Commander:-
- i) Parade *Savdhan*
 - ii) Parade *Madhya Se-saj*.
 - iii) Parade *Samne Dekh*.
 - iv) Parade *samiksha karan men Madhya se tez chal*
- k) The parade automatically halts after taking 15 paces. The halt must coincide with stopping of music in case the band is in attendance.
- l) Compliment is paid again accordingly to the status of the VIP. After this stage, stand-at-ease (*Vishram*).



- m) In case the parade is not required to advance in review order, the parade commander gives the words of command '*Vishram*' when the entire parade has reached the inspection line and has been turned to the front.

The Parade Commander then awaits further instructions. When the VIP leaves the Parade ground, the Parade Commander marches off the cadets.

Guard Mounting

General: Personnel detailed turn out by guard mounting NCO on the previous evening for guard practice, (requirement 2+6). The Guard Commander falls in the Guard 15 minutes before the appointment time for Guard and complete the adjustments before the guard mounting NCO falls in the Guard in two ranks. The Guard Commander is on the right and assistant guard commander on the left of the front rank.

The Guard mounting NCO is twelve paces away from the Guard. He/she falls in the Guard and inspects as under:-

- (a) '*Guard-Parade Par*' (Guard get on parade): The guard comes to attention, steps off and falls in the open order, twelve paces away from the guard mounting NCO and stands at ease in succession from the right.
- (b) '*Guard Savdhan*': Guard comes to attention.
- (c) '*Guard Dahine Saj*': The Guard commander turns to his/her right and marches out five paces, halt, turnabout, dress the front rank. He/she then dresses the rear rank and gives the command '*Samne-Dekh*' and returns to his original position.
- (d) '*Guard-Bagal Shast(r)*': Guard does the shoulder arms.
- (e) The Guard Mounting NCO then reports to the Orderly Officer (who has taken position 6 paces behind the guard mounting NCO).
- (f) '*Guard nirikshan ke lie hazir hai*': The guard mounting NCO then falls in on the right of the guard, six paces away from the guard commander.

Orderly Officer: The Orderly Officer will take over, inspect and mount the guard as under:-

- (a) '*Guard-bazu-Shast(r)*' (Guard orders arms): The orderly officer inspects the guard and comes back to his/her original position.
- (b) '*Guard Nirikshan Ke lie Janch Shast(r)*' (Word of command by orderly officer): The guard takes the position of Examine arms. The orderly officer then inspects the arms, commencing from the Guard Commander. After he/she completes the first



person and moves to the second, the guard commander will fall out and accompany the orderly officer. After inspection, the orderly officer returns to his original position and the guard commander to his position.

- (c) '*Guard-Bolt Chhalao*': Guard ease spring and close the bolt. (Word of command by the Orderly Officer).
- (d) '*Guard-Bazu Shast(r)*': Guard orders arms (Word of Command by orderly officer).
- (e) '*Number Samne Ki line-stick orderly-stic orderly Line Tor*'. The Stick Orderly is called out by the Orderly Officer takes a step forward, shoulder arms, turn to the right, quick march and fall in on right of the guard mounting NCO.
- (f) '*Guard-Bagal Shast(r)*': The Guard shoulders arms.
- (g) '*Guard -Apne Duty ke Lie Dahine Se-Tez Chal*': The Guard marches off. The Guard Commander gives '*Dahine Dekh*' to the Orderly Officer and then moves to take over from the old guard.

Procedure at the Guard Room: As soon as the sentry sees the new guard approaching he/she turns out the old guard. The new guard halts at the appointed place. The old guard commander 'falls in' his/her guard fifteen paces in front of the new guard. The old guard presents arms and the new guard returns the compliment. Both guards order arms in momentum and stands at ease. The first relief of the new guard then takes over duties from the old guard sentry. The assistant guard commander of the old guard posts the new sentry. He/she brings the relieved sentry and falls in with the rest of the guard. The old guard moves off for dismissal. The new guard gives present arms and then the old guard returns the compliment with '*Dahine Dekh*' (Eyes right).

Posting and Relieving Sentries: The guard commander marches the sentry upto the post. The new sentry places himself on to left of the old sentry and faces the road, without the word of command. The guard commander will face the road without any word of command . The guard commander places him/herself three paces in front of the sentries. The guard commander then read and explain all orders pertaining to the post of new sentry and will then order transfer of ammunition (not normally held by NCC cadets). He/She will then give the word of command '*Sentries Badli Karo*'. The old sentry will take two steps to the front and the new sentry two steps to his/her right. The new sentry from now on assumes the post. The guard commander then gives the command '*Old - Sentry Tez Chal*' and marches with him/her into the guard room. The sentry on duty, does shoulder arm. He/She halts at the appointed place, faces the road and properly stands at ease.



Guard of Honour

General: The Guard of Honour is provided by National Cadet Corps Units only to the dignitaries mentioned in the succeeding paragraphs. The other dignitaries specially invited as guests of honour to the NCC functions or to visit NCC Units in camps may on special occasion, be given the guard of honour, provided the prior concurrence of the Dy DG National Cadet Corps of the States concerned has been obtained.

Senior Division Units provide guards of honour to the following:-

- (a) The President, Vice President and the Prime Minister.
- (b) The Governors of States and Lt Governor/Chief Commissioners of Union Territories.
- (c) The Defence Minister/Minister in the Ministry of Defence/Deputy Defence Minister.
- (d) The Chief Minister of State.
- (e) The Chief of Army /Naval / Air Staff.
- (f) The Defence Secretary.
- (g) The General Officer commanding-in-Chief of the command in which the Unit is located (Army Wing Units only).
- (h) The Flag officer Commanding-in-chief within their Commands (Naval wing units only).
- (j) The Air Officer Commanding-in-Chief, within their commands (Air Wing Units only).
- (k) The Vice chief of Army/Naval/ Air Staff.
- (l) The Dignitaries addressing the convocation of a University.
- (m) Chancellor of a University (where Governor of the State is not the Chancellor).
- (n) Pro-Chancellor/Vice Chancellor of a University when attending important university functions as the Chief guest in their University.
- (o) Director General, NCC.

Procedure:

- (a) The guard forms up in two ranks, with a distance of 4 paces between the front and the rear ranks. The officers of the Guard and the JCO carrying the colour are two paces in front of the front ranks. The guard commander is 8 paces in front of the centre of the front rank. The distance between cadets is 24 inches.
- (b) The band forms up on the right flank, in line with the guard and 7 paces from the right guard of the guard.



- (c) There is always be two AsDC who stand on either side of the dais, 2 paces on the right and left of its front edge.
- (d) The conducting officer who receives the VIP and conducts him/her to the saluting base will, after conducting the VIP to the dais, positions himself in the centre and rear of the dais and 3 paces, from it.

Composition and Strength

The strength of the Guard of Honour:

- (a) 150 rank and file for the President (formed up in 3 equal divisions).
- (b) 100 rank and file for the Vice President and Prime Minister (formed up in two equal divisions).

Compliments

- (a) **Rashtriya Salute:** The President and the Governors within their own states.
- (b) **General Salute:** Other dignitaries of the rank of Major General and above.
- (c) *Salami Shast(r)* given to all other VIPs.

Inspection

Procedures for the inspection to be observed:-

- (a) The guard commander marches forward and reports to the VIP. He will do so in a suitably loud voice. The report is in Hindi '*Guard (Name of Unit) Samman Guard Nirikshan ke Lie Hazir Hai Sriman (Srimati Ji)*'.
- (b) The VIP comes down from the dais and the Guard Commander will conduct him/her moving on the VIP's left. On reaching the right hand man of the band, Right Guide of the Guard of Honour, the Guard Commander will move to the VIP's right and in line with him/her.
- (c) The AsDC will not march in front of the VIP, except in the case of the President of India.
- (d) The band turns their heads and eyes toward the VIP during the inspection of the band but look straight to the front.
- (e) During inspection all ranks of the Guard turn their heads and eyes towards the VIP and look at him/her, taking time from the first beat of the drum. As the VIP moves on, all ranks of the Guard also move their heads and eyes looking at him/her all the time. The band stop playing as soon as the VIP has finished, the



inspection and the Guard taking the time from the last note of the music will turn their heads and eyes to the front.

- (f) The band will stop playing as soon as the VIP has finished the inspection.
- (g) Only the front rank of the Guard is inspected.
- (h) The VIP is conducted by the Guard Commander towards the conducting officer. The Guard Commander then salutes the VIP. The Guard Commander must be prepared to shake hands with the VIP, should the latter offer to do so.

Dismiss: The Guard Commander returns to his post and after the VIP has proceeded some distance away from the Guard of Honour, he then stands the Guard of Honour, at ease (*Vishram*). The Guard however, does not march off or 'Stand Easy' (*Aarams Se*) till the VIP for whom it is mounted, has left the place of the Guard.

PL / COY Drill

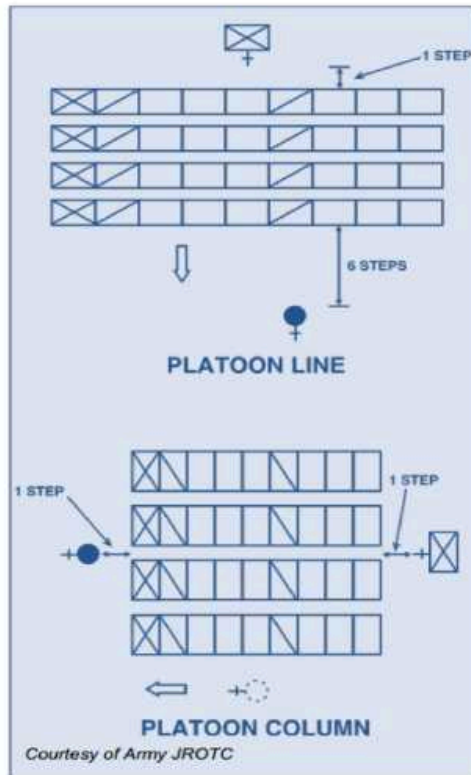
For the most part, platoon drill provides the procedures for executing movements in conjunction with other squads formed in the same formation.

- The platoon has two prescribed formations: line and column; however, the platoon leader may also form the platoon in a column of twos from a column.
- When a platoon forms in a line, its squads are numbered from front to rear; in a column, its squads are numbered from left to right.
- When the platoon drills as a separate unit and is in a line formation, the platoon leader takes a position six steps in front of, and centred on, the platoon. The platoon sergeant's position is centred on the platoon and one step to the rear of the last rank.
- When it drills as a separate unit and is in a column formation, the platoon leader's position is six steps on the left flank, and centred on the platoon. The platoon sergeant's position is one step behind, and centred between the second and third squads.
- When the platoon drills as part of a larger unit:
- And is in a line formation, the platoon leader's position is six steps in front of, and centred on, the platoon. The platoon sergeant's position is one step to the rear, and centred on, the platoon.
- And is in a column formation, the platoon leader's position is one arm's length plus six inches in front of, and centred between, the second and third squad



leaders. The platoon sergeant's position is one step behind, and centred between, the second and third squads.

- The first squad leader serves as the base when the platoon is in a line formation; the fourth squad leader serves as the base, when in a column.



Notes:

- An arrow indicates the direction the platoon is facing and/or moving.
- A circle with an attached cross is the platoon leader; a boxed "X" with an attached cross is the platoon sergeant; boxed "Xs" are squad leaders; boxed slashes are team leaders.
- Platoon sizes may vary with each unit.





SUMMARY

- *Drill is an important part of a cadet's life. It inculcates a sense of discipline, improves bearing, smartness in appearance and turn out, creates self-confidence, develop the quality of immediate and implicit obedience to orders and teamwork.*
- *Drill is defined as being instructed in military exercises which involves marching, saluting and turning.*
- **Side Pace**
The fundamentals are:-
 - i) *Left foot shot forward or rear to the required distance.*
 - ii) *If more than one pace, normal marching is adopted, stepping a full pace of 30 inches.*
 - iii) *Maximum number of paces ordered to step forward or rear will be three.*
- **Turning on the March**
 1. 'Ginti se murna-baen mur-ek'
 2. 'Squad Do'
 3. 'Squad Teen'
 4. 'Squad age barh'
 5. 'Qadam tolkar murna, baen mur'
 6. 'Ginti se pichhe murna, pichhe mur ek'
 7. 'Squad Do'
 8. 'Squad Teen'
 9. 'Squad Char'
 10. 'Squad age barh'
- **Wheeling**
Used when marching in single file or in threes, the inner 'man' wheels on the circumference of a circle, four feet in diameter and changes direction through 90 degrees, speed governed by the ability of the outside 'man' to keep pace by stepping out.
- **Saluting to the Flank**
 - a) 'Ginti se Salute-dahine salute ek'
 - b) 'Squad Do' (Squad two)
 - c) 'Squad Chhe' (Squad six)
 - d) 'Squad Saat' (Squad seven)
 - e) *Judging the time-the word of command will be 'Saluting Dahine-ko salute-salute'*



When Passing an Officer: When passing an officer, salute on the third pace is done before reaching him and the hand is lowered on the third pace after passing him.

Saluting to the front: The word of command given as the right foot passes the left, is as for the halt Halt, salute to the front wait for regulation pause, salute to the front again, pause, turn about, pause and lead off in quick time.

Eyes Right and Left: A formed body requiring to pay a compliment to a flank, receives the order to march by the desired flank and will then get, 'Dahine Dekh' (eyes right) .The guide looks to his front in order to keep direction. All officers, in command will salute , the remainder will turn their heads. The word of command is given as the left foot touches the ground in quick time and everyone looks right when the left foot next comes to ground. The command 'samne Dekh' (eyes front) is given in a similar manner.

Mark time: Marking time is done in the same cadence as marching. The position of attention is maintained.

Halt: On the command 'Tham' (halt) the right foot is brought down sharply and firmly resume the position of attention.

Ceremonial Drill: In the NCC the Ceremonial Parade are the culmination of the cadet's training. The Ceremonial Parade may be arranged for the various dignitaries given in NCC orders from time to time.

Guard Mounting: Personnel detailed is turned out by guard mounting NCO on the previous evening for guard practice, (requirement 2+6). The Guard Commander falls in the Guard 15 minutes before the appointment time for Guard and complete the adjustments before the guard mounting NCO falls in the Guard in two ranks. The guard commander on the right, assistant . The Guard Commander on the left of the front rank.

Guard of Honour: The Guard of Honour will be provided by National Cadet Corps units only to the dignitaries mentioned in the succeeding paragraphs. The other dignitaries specially invited as guests of honour to the NCC functions or to visit NCC Units in camps may on special occasion, be given the guard of honour, provided the prior concurrence of the Dy DG National Cadet Corps of the states concerned has been obtained.

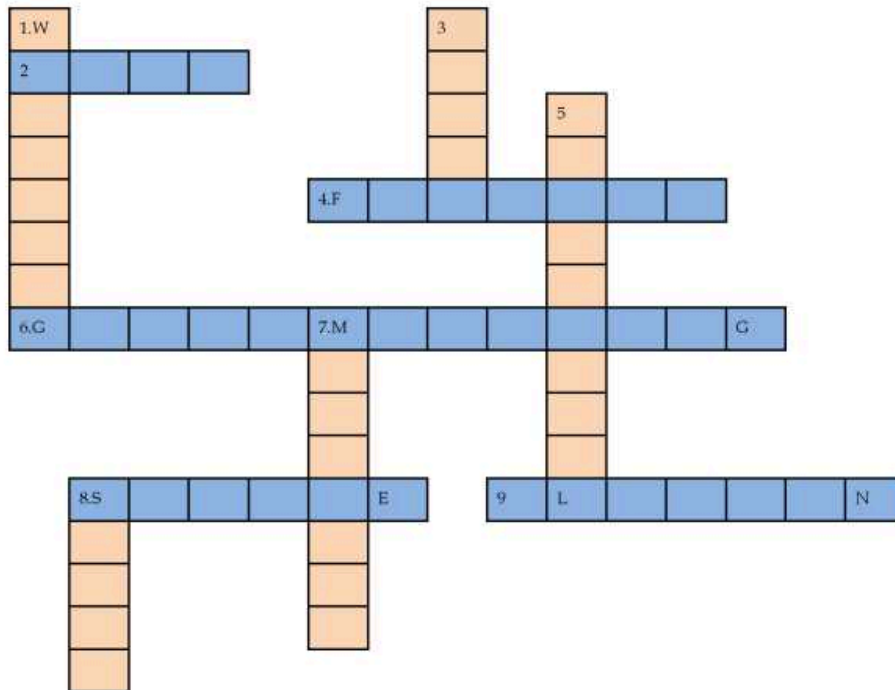
Dismiss: The Guard Commander returns to his post and after the VIP has proceeded some distance away from the Guard of Honour, he may then stand the Guard of Honour, at ease (Vishram). The Guard does however, not march off or 'Stand Easy' (Aarams Se) till the VIP for whom it is mounted, has left the place of the Guard.

Pl / Coy Drill: For the most part, platoon drill provides the procedures for executing movements in conjunction with other squads formed in the same formation.



CROSSWORD PUZZLE - 2

Solve the crossword with the given clues:



Across:

- Also known as '*Tham*'
- Also known as '*Line tor*'
- Personnel detailed is turned out by _____ NCO on the previous evening for guard practice, (requirement 2+6).
- A gesture of respect or polite recognition, especially one made to or by a person when arriving or departing.
- This drill provides the procedures for executing movements in conjunction with other squads formed in the same formation.



Down:

1. Used when marching in single file or in threes, the inner man wheels on the circumference of a circle four feet in diameter and changes direction through 90 degrees
3. Being instructed in military exercises which involves marching, saluting and turning.
5. When getting on parade with the rifle, the weapon is carried out at 'tol shastra' or
7. Done in the same cadence as marching, the position of attention is maintained.
8. A small number of soldiers assembled for drill

Comprehension Questions

Q.1. Answer the following in about 15 words:

- i) Define a 'drill'.
- ii) Make a list of different types of drill.
- iii) Which traits does drill inculcate in a cadet?
- iv) What is used to move a squad?
- v) When is 'wheeling' used?
- vi) How is salute done when passing an officer?
- vii) What do you understand by 'getting on parade' (with a rifle)?
- viii) Why is formation of squad done?
- ix) When is the short trail normally carried out?
- x) To whom is the national and general salute given?

Q.2. Answer the following in about 50 words:

- i) "Drill is the most efficient way of moving a number of people from one place to next." Explain
- ii) When is the command '*squad tham*' (squad halt) is given? And what are the fundamentals of side pace?
- iii) Explain is the procedure of '*dahine dekh*' and '*baye dekh*' when to pay a compliment to a flank while on the march.
- iv) Explain the procedure of 'to mark time' (*qadam tal*) from quick march (*tez qadam tal*)
- iv) Explain the following terms:



- a) *Visarjan*(dismiss)
 - b) *Line tor* (fall out)
 - c) How is '*line tor*' different from '*visarjan*'
- v) How is a squad formed while standing?
 - vi) What is the procedure for the Ceremonial Parade?
 - vii) What does the platoon drill provide for? What are the two prescribed formations of the platoon? Explain the procedure when a platoon forms in a line?
 - viii) Draw the diagram of platoon line and platoon column. Explain the different signs and symbols used in the diagram?

Q.3. Answer the following in about 75 words:

- i) Describe the procedure of changing step in quick time by numbers (*qadam badalna*)
- ii) Describe the procedure of making a squad while standing?
- iii) What is the difference between '*janch shastra*' (examine arms) and *baju shastra* (order arms)?
- iv) What procedure is followed at the guard room? Explain

Q.4. Answer the following in about 150 words:

- i) What are the pre-requisites for attaining the objectives related to overall development, prosperity, progress, nationalism and international recognition?
- ii) Write about the important directive principles of state policy?
- iii) Which opportunities must be exploited to ensure national integration?
- vi) What is the relevance of NCC as a unifying force for unifying India, despite its diversity?
- v) Explain the various fundamentals that are essential for national unity.

Q.5. Answer the following in about 250 words

- i) Describe the procedure followed for Guard of Honour?
- ii) Explain the concept of present arms and order, from the present in detail.

Let's Discuss

Q.6. HOTS (Higher Order Thinking Skills)

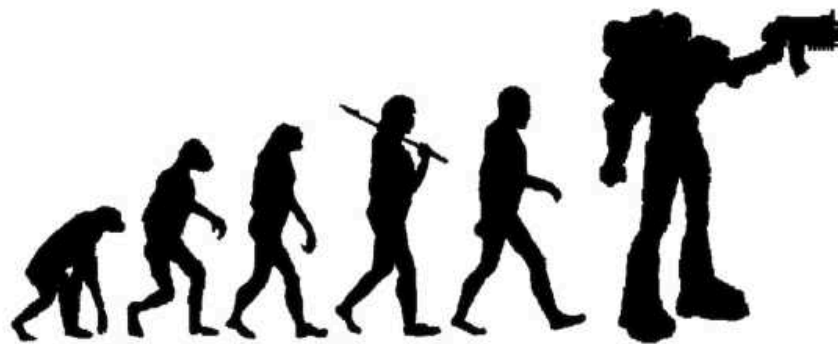
- i) "Drill is an important part of a cadet's life". Elaborate.



UNIT-3 WEAPON TRAINING

Knowledge	Understanding	Application Skills	Evaluation
Elementary knowledge about rifles and shooting.	The students will understand the different positions in which the rifle can be operated; how firing is done; how the trigger is operated; hoe to handle the recoil.	The students will become alert and careful as handling weapons will in still in them a sense of responsibility for their own and others safety.	Activities, work sheets and assignments, mock exercises

Learning to shoot has been man's basic instinct from the early ages. Early men went out into the jungle with bows, arrows and weapons for hunting and also used them to protect themselves from dangerous animals and enemies. As times progressed, more weapons evolved to include, sophisticated blade equipment and, still later, cannons, rifles, machine-guns, tanks, battleships, war planes, rockets - and eventually nuclear weapons have made their way into the modern defence technology.



Advancement of Weapons

Weapons have always played a crucial role in the society, moulding and changing the course of history. They have destroyed civilizations and created new ones. Apart from their employment in warfare and other combat situations, they are also used for the maintenance of law and order and for border security.



Weapon training is a very important component of NCC Programme. Training of shooting with rifles is an integral part of this programme. The fine art of shooting, teaches a person precision, accuracy, co-ordination of body movements, patience and confidence which all help to make him a better man in the public life. The shooting at the ranges helps an individual to master this as a sport and also to learn handling of a weapon for self-protection.



NCC Cadets given arms training

Characteristics of .22 Rifles, Stripping, Assembling, Care and Cleaning and Sight Setting

Characteristics of Rifles

S. 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)	Magazine capacity	10 Rounds	05 Rounds
(d)	Muzzle velocity	2700 per second	2700 per second
(e)	Grooves in the barrel	06	06
(f)	Effective range	25 yards	25 yards
(g)	Max range	1700 yards at 33 angle	1700 yards at 33 angle
(h)	Calibre	.22	.22
(i)	Ammunition	.22	.22
(j)	Rate of fire:	05 rds pm	05 rds pm
	(i) Normal	10-15 rds pm	10-15 rds pm
	(ii) Rapid		



Weapon Training



Rifles



Fig-1: Rifle .22 No 2 MK IV



Fig-2: Rifle .22 Deluxe

Safety Precautions

- a) Pushing forward the safety catch, raising and drawing back the bolt knob and then, examining the chamber and the magazine. When satisfied that both are clear, push the bolt knob forward and then down, press the trigger and apply the safety catch.
- b) Inspecting the drill cartridges and ensuring that there is no live ammunition.

Stripping: Before stripping, a check should be carried out as to whether the number on the left side of the body corresponds with the number on the back side of the lever of the bolt (fig 1). The removal is done in the following sequence:-

- a) Removal of the bolt by raising the leaf back sight and pushing forward the safety catch. The left hand is kept under the magazine with the middle finger on the restraining catch. The bolt is withdrawn to the rear, the bolt head upwards turned and the back sight folded back.
- b) The magazine catch is pressed upwards and the magazine is taken out.



Assembling: The assembling of the rifle is always in the reverse order. The magazine is checked to ensure that the magazine number is the same as that of the rifle. The magazine is inserted at its place and pressed. The cadet should ensure that the magazine is fixed in its place.

While assembling the bolt of the Deluxe .22 rifle, the following have to be borne in mind:

- a) The bolt head should be fully tight.
- b) The bolt head and guide rib as well as cocking piece and steel lug should be in a line.
- c) The number of the bolt should tally with that of the rifle.
- d) The safety catch should be applied.

The bolt is inserted by holding the bolt lever with the right hand and rifle with the left. The bolt is pushed forward until it touches in the charger guide and the bolt head is to be turned towards right till the click sound is heard. Now the trigger is pushed forward and pressed and the safety catch is applied.

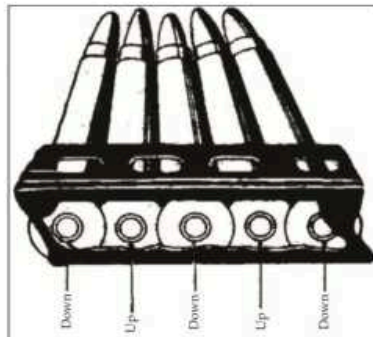
Sight Setting: The sight is set by pressing the thumb spring (Range increasing towards the muzzle side- the thumb spring is adjusted accordingly).

Care and Cleaning: The efficiency of the rifle depends on two factors. The care given to the rifle and the skill of the firer. The rifle is designed to stand up to active service conditions but performance will be considerably affected if it is subjected to unduly harsh conditions. The rifle is stripped, the butt trap is opened and the pull through and the oil bottle is removed for cleaning. The pull-through has three loops, first one is for the gauze, the centre for cleaning the barrel with flannelette and the end one for oiling the barrel and for use of the armourer.

Loading, Cocking and Unloading

In action, the soldiers' life depends as much upon the rapid loading of rifle as upon the accuracy of shooting. This underlines the importance of swiftness in bolt manipulation. The bolt ought to be properly lubricated.

Ammunition and Charger: No charger is provided for the deluxe rifle. The ammunition is loaded one by one in the magazine. It is to be ensured that the ammunition is clean before firing.



Correctly Filled Charger



Loading an Unloading

Loading must be carried out on orders and no action is taken without proper orders. It must be carried out clearly and in a set sequence. Fumbling and lack of determination leads to jamming and delay.

Loading and Unloading in the Lying Position:

The following drill is carried out:-

- a) Lying down, a long pace forward is taken with the left foot and at the same time, the rifle is passed into left hand, grasping it at the point of balance. The right hand is placed on to the ground in line with the left foot. During this movement, the rifle is pushed forward and lowered to the ground. The left arm is extended to the front. The legs to be well apart. Now the rifle can be loaded.
- b) The rifle can be unloaded without further orders. The right hand is placed on the ground below the right shoulder. The left hand is drawn up. Stand up as quickly as possible.

Lying Position and Hold

The lying position is the most comfortable position from which to fire. The three basic essentials of good shooting are:-

- a) The position must be comfortable and hold so firm that the rifles gains a rock like steadiness.
- b) The firer must aim correctly.
- c) The trigger be pressed in such a way that aim is not disturbed.



Position and Hold:

To get a stable position, the firer should get a feeling of being rooted to the ground with:

- a) Legs are opened wide apart and body slanting to the left from the line of the target.
- b) The formation of the two triangles:
 - i) A horizontal triangle is formed by the three points where the chest leaves the ground, the left elbow and the right elbow. (Fig 1)



Fig-1

- ii) The vertical triangle as viewed from the front of firer, two of its sides are formed by the forearms, the base being the ground between elbows. In addition as a quick check, the shoulders should be level (Fig-2)



Fig-2



The Right Hand: Bedded in as per the build of the firer, a firm grip providing steadiness, and the shoulder bent well forward to allow the forefinger between the first and second points to be actually on the trigger. The right hand must pull back the rifle very firmly in the shoulder, and lock it there. The forefinger must take the first pressure on the trigger, whenever the butt is brought into the shoulder.

The Left Hand: The left hand acts as the support to the forward part of the rifle, thereby helping to steady the rifle against the shoulder. The rifle should be held as far forward as possible, well clear of the magazine. No attempt is made to force the left wrist under the rifle. The large pad of the muscle at the base of the left thumb protrudes and automatically be pressing against the left side of the rifle and that is balanced by a similar pressure by the left forefinger on the other side of the rifle. The left hand never pulls the rifle into the shoulder.



Fig-3

The Shoulder: The butt plate is bedded into the shoulder. Improper bedding in will result in a sore shoulder and possible flinching. The butt plate should meet the shoulder on the interior pad of the shoulder muscle joint and not in the 'hollow' of it.

Position of the Head: The weight of the head should press the chin downwards and to the right against the butt. The head should be at such a distance that neither the cocking piece nor the finger, knocks the face during firing.

Breathing: To aim correctly, hold the breath while pressing the trigger.

Aiming I - Range and Targets

Accuracy of the aim is essential for the successful shot. This is by far the most difficult operation, as the eye has certain limitations and there are influences affecting what it



does. Nevertheless, good shooting can only be obtained with consistency of aim. Normally, 25 yards range is used for the Deluxe .22 rifle.

Aiming

The laws of aiming are:

- Focusing on the target so that a clear picture is formed on the retina of the eye and getting true centre of the target. Then with the eye, focus to the foresight.
- Holding the rifle properly and keeping it upright.
- Close the left eye and focus the foresight.
- See the foresight through the black sight 'U'. The foresight is seen right in the centre of the U. The tip of the foresight must be aligned in the centre and in level with the shoulder of the U.

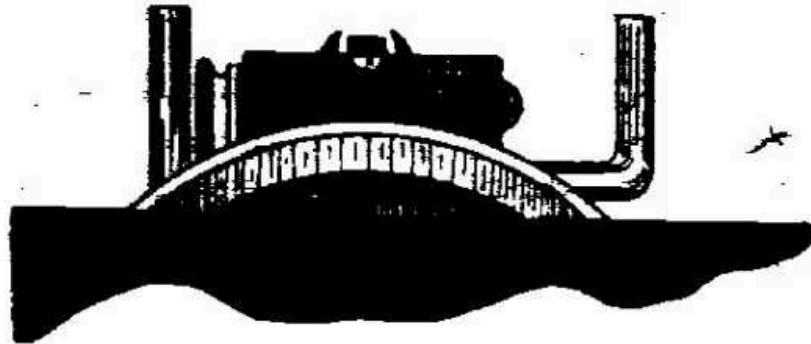


Fig-1: Correct Aim

Elevation is given to counter the force of gravity, while the bullet is in flight. The elevation depends upon the range of the target. This elevation is given automatically by adjusting the back sight.

Targets:

The following targets are generally used by female cadets:

- For application firing 1' x 1' target is used. The aim is to be taken at the bull, which is the black, centre-most circle.
- For grouping, 1' x 1' target with a white patch in the centre of the bull is used.
- For rapid firing, 6 inches figure target is used. The aim is taken at the centre of the figure.



Fig-2



Fig-3

Trigger Control and Firing a Shot

Trigger Control: The third intention for accurate shooting is the trigger operation without disturbing the aim. To achieve this, perfect co-ordination between eye, brain and operation of the forefinger on the trigger is required. To develop this co-ordination, the following exercises have been designated:

Trigger Operation Exercise No.1

Object: To practice independent action of the index finger.

Method: With the exception of the index finger, the right hand grips the left wrist as firmly as possible until the white is visible under the nail tips. The right index finger then press slightly on the wrist, on which action there must not be any increase in pressure from any part of the hand. Avoid wearing a wrist watch during the exercise.

Trigger Operation Exercise No. 2

Object: To practice further muscular control of the hand.

Method: For this, the right knee is held clinched with the right hand, less the index finger, held away in a hooked position as through round trigger. The index finger is made to move through an arc as if pressing the trigger. The only movement should be forming of the middle joint of the index finger to its tip.

Trigger Operation Exercise No. 3

Object: To develop co-ordination between the right eye, brain and right hand index finger and practice muscular control of the hand.



Method: For this the lying position is assumed and the rifle is cocked. The left hand leaves the rifle and supports the head. The left eye is closed. (If the firer cannot close her left eye, she blankets it out with the left hand). The right eye takes a line of vision, eye-foresight-any object on the ground in front of the line of vision when the brain impulse 'on aim' is transmitted by the eye, the index finger instantaneously presses the trigger.

Trigger Operation Exercise No. 4

Object: To introduce an element of 'holding' and the co-ordination between right eye, brain and right index finger.

Method: The exercise is the same as No 2 with slight differences. Hold the rifle with both the hands and take the aim at the target. Now the important thing is restraining the breathing. (This has been already dealt with under 'Holding'). During this exercise, there should not be any round in the chamber.

Trigger Operation Exercise No. 5

Object: To introduce an element of 'holding' and the co-ordination between right eye, brain and right hand index finger.

Method: As for exercise 3, with the important addition of right hand holding, rifle is held steadily and no quiver is allowed. (When the firer attempts this exercise he must bring in the important item of restraining the breathing. This has already been dealt with under 'holding'). During its performance, no discernible movement of the rifle whatsoever is to take place. Magazines must be removed to practice this exercise. When the firer performs this exercise by getting two or three totally correct performances quickly, he/she is a potential 'marksman'.

Firing a Shot:

Determination: Accurate shooting is never achieved without concentration. Each time a shot is fired the firer must be fully determined that it is going to be the perfect one.

Turning the Shot: From the time correct holding is achieved, not more than five seconds should be taken to fire a shot. Dwelling on the aim causes the eye and muscles to tire and results in bad shooting.

Action on Range Being Ordered: When the 'range' is given, the firer adjusts his/her sights and await for indication of the target.

Sequence of Firing a Shot:

Aiming Position: On coming into the aim, the firer must take the first pressure.



Breathing: Just before taking aim, breathing must be gently restrained. It is important to coordinate so that, when the foresight comes to the point of aim, the breath is partially exhaled.

Firing: Immediately on 'correct aim', the second pressure is to be taken and shot fired. For a second or two after firing, there should be no relaxation of the hold or movement of trigger finger or head.

Follow Through The hold and aim must be maintained until the bullet has left the barrel. Better still, fire should allow through until the bullet has reached the target.

Declaration: The firer declares, if the aim at the time of firing is not correct e.g. left, right, high or low. A correct shot should not be declared.

Re-loading in the Shoulder: Immediately after follow through or declaration, reloading at the shoulder is carried out.

Re-alignment: Having reloaded, the firer should realign his sights approximately on the target.

Limber-Up: Before firing any practice, it is advisable to carry out trigger operation exercise No 5 and sequence of action for firing a shot. This is termed as 'limber-up' and its aim is to assist in coordination and tuning up of muscles, eye and brain.

Range Procedure and Safety Precautions

Use of Red Flags: No firing should take place until all the red flags are hoisted and look-out men posted as per the range standing orders. One flag will always be on the top of the butt. Flags are a warning that the range is in use. A red flag displayed on the rifle butt indicates that no firing should take place.

Suspension of Firing: If firing is suspended during the practice, owing to some unforeseen event, weapons are placed on the ground and the firer stands clear.

Inspection of Weapons: The officer in charge of the firing point is responsible for ensuring that all weapons are cleared and inspected before leaving the firing point. A further inspection will be carried out at the conclusion of firing.





During inspection, loading, and unloading, all the rifles must point towards the target. On the command '*Nirikshan ke lie Janchi Shastra*' (Examine Arms) rifles are held parallel to the ground and pointed in the direction of the target.

No one will go to the targets until all weapons have been unloaded, inspected and permission to go has been given by the officer in charge. Only the target papers are brought back to check the results.

Only firers, coaches, the Firing Point Officer and his/her assistants are allowed on the firing point. Waiting details must be at least 10 yards from the firing point or in the shelter provided.

The following is the normal procedure on the firing points:-

- (a) The party to fire is brought within about 100 yards of the firing point.
 - (b) The practices to be fired are explained.
 - (c) Firers are detailed to targets.
 - (d) The coaches, ammunition party and look out men take up their positions.
 - (e) Only the first two details form up behind their targets.
 - (f) On the order of '*Age Barh*' (detail advance) the first detail will take position on the firing point.
 - (g) On the lowering of the red flag at the butt, the officer supervising the firing point may order his red flag to be taken down and give the order of '*Detail Advance*'. The coaches check their positions and correct them if needed, and give the word of command '*Limber up*'.
- On this, the firers must align rifles. The officer gives the order to load and carry on.
- (h) The firing starts only after getting orders from officer-in-charge of firing.
 - (i) On completion of fire, the firers must raise their right hand up, keeping the elbow on the ground.
 - (k) Officer-in-charge gives the word of command '*Khali Kar*' (before this he must ensure that all have finished). On this, the firers take their rifles onto their shoulders and move the bolt twice, press the trigger and stand up.
 - (l) The Officer-in-Charge gives the command '*Detail Report*'. On this the firers would report '*Number ek rifle theek, do theek, teen theek and number char rifle theek*'. The report will be from left to right. (Normally four targets are used on the miniature range).



- (m) The first and last firer will say 'Number ek rifle theek' and the rest will say 'Do theek, teen theek' and so on.
- (n) The details are changed by word of command and the new detail which has been waiting comes up while another detail forms up behind.
- (o) Before the firers leave the range they have a further weapon inspection. Each firer is asked whether he/she has any live ammunition. It is to ensure that they have no live ammunition.

Miniature Ranges: Only .22 ammunition is used on miniature ranges. Scoring is similar to that as laid down for the classification of ranges.

Aiming II - Alteration of Sight

Necessity: If during firing it is found that the elevation of the barrel is not correct i.e when the rifle is fired correctly with correct aim, the shot goes high or low instead of hitting the point of aim, it is necessary, provided the time allows, to read just the setting of the back sight.

Mean Point of Impact (MPI): The central point of area covered by the group of rounds fired with consistent aim and held at the same aiming mark is called MPI.

Elevation: The amount of alteration necessary is given in the following table, which shows the change of MPI when the sight is changed by 100 yards:

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

An alteration of 50 yards in the sight brings half the effect shown above. 200 yards doubles it on the target.

Figure Target: If, while firing at figure targets, the shots are observed to miss, either high or low, the firer should raise or lower his/her sights by one hundred yards, re-aim and fire. If the shot is observed to miss the target, the sight should be altered by a further 100 yards.



Theory of Group and Snap Shooting

The Group and its MPI: In approaching a method for firing, the first essential to understand is that, when firing a series of shots with a supposedly constant aim and under the same conditions, they will not all hit the same spot, however perfect the weapon and its ammunition. A pattern is always formed. The divergence of shots is due to a variety of reasons.

For the purpose of training the group indicate five consecutive well-fired shots, fired with consistent aim at the same aiming mark. The central point of impact is the Mean Point of Impact (MPI) of the group.

Grouping Capacity: The diameter of a circle containing all five shots, fired by a firer to the best of his ability, is known as his grouping capacity.

For the purpose of coaching and scoring, firers are classified into certain grouping capacities and measured at a range of 100 yards. These capacities are represented by the diameter of the circles e.g., 2 inches, 4 inches and so on.

A firer's grouping capacity, while remaining fairly constant at any given range, varies in proportion to the range at which firing is taking place. Thus once a firer's grouping capacity at 100 yards/ 25 yards has been ascertained, his capacity at any other range can be calculated by simple arithmetic. Hence should the group be centrally placed the scores expected on target can also be predicted.

Declaration: It must be appreciated that a group is representative of a firer's capacity, only when a correct aim has been taken for every shot. Should a firer accidentally fire when aim is not correct, he must note very carefully where the sights were pointing at the moment of firing and declare the fact. If on checking it is found that a bullet has gone astray and not at the place declared by the firer, it should be ignored for judging his grouping capacity. For instance if a firer was making a 4 inches group and because of one stray bullet he makes a 12 inches group, his grouping capacity will be considered as 4 inches.

Snap Shooting





Application of the Grouping: Grouping is of immense value to the firer and to his coach and does in fact form the basis of application practices in which the centre of the firer's group is applied to the centre of the target to note very carefully the group of the MPI, making alterations to sighting or to the point of aim where necessary. In the early stages a coach helps the firer for this purpose.

For example; If the position of the first shot is reasonably good and no error is declared, the second shot should be fired with the same aim. If the second shot is within the grouping capacity of the firer the probable MPI is the middle of the two shots. If MPI is too far out it should be adjusted for elevation and deflection; the correction should not be made boldly but with caution. The third shot gives the clear picture. If this MPI is again not central, a further cautious change should be made. After the fourth shot, the MPI position should be known and the fifth shot should be a good one fired with the correctly ascertained elevation and deflection.

Improving Capacity: Once the grouping capacity of the firer is assessed, it will be his duty not only to maintain this capacity, but to improve on it eradicating any faults he has had in the early shoots.

Miniature Range Snap Shooting: After grouping and application fire, the snap shooting should be fired. This is to defeat the time factor. Initially it is done on miniature range to make the firer realize that the exposure of target is enough to get a deliberate round fired and he/she must be perfectly calm and collected throughout. In fact before he/she is made to fire he/she should be given enough practice:

- (a) Concentration
- (b) Speeding up co-ordination between eye and hand.
- (c) Practising in dominating impulse.

The stages of practice is:

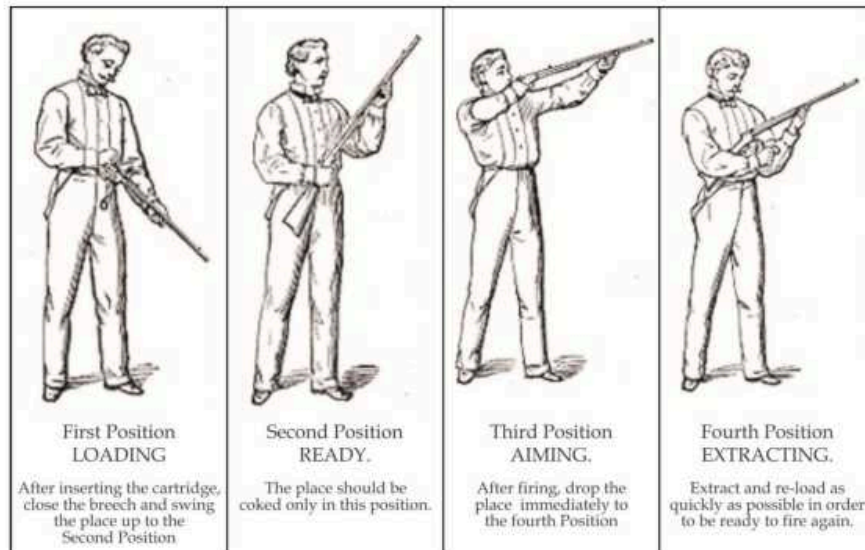
- (a) **Stage-1:** Automatic Alignment: The aiming mark is given at the instructor's eye when the squad is lying in semi-circle with instructor in the centre. The alignment is checked with the help of aiming disc when the individual on the command 'up' aims at the eye of the instructor.
- (b) **Stage-2:** Automatic Alignment with Correct Hold and Trigger Operation: On the command 'up' the firer brings up the rifle, aims, holds the rifle correctly and takes the shot. The firer reloads when the rounds would have left the barrel for certain (It is best to emphasise this by a distinct pause), comes down and declares



his/her shot, if incorrect, to the instructor. There is no time limit initially, only 'accuracy before speed' is insisted. Later in this stage, indication with a finger is given and thus raising of the finger is the signal for the firer to fire his round. Sight impulse thus replaces sound impulse.

- (c) **Stage 3, 4 and 5:** Practice firing is done at figure targets 11, 12 and snap shooting at ranges 100, 200 and 300 yards.
- (d) **Stage 6:** For firing on a miniature range, representative figure targets are used and the time progressively reduced from 7 to 4 seconds. The size of the targets is also reduced. Not more than two practices should be fired in a day. Here again accuracy before speed will be insisted upon. Good holding is essential.
- (e) **In stage 7:** The practice is given at range sighting at figure 11 and 12 targets and in stage 8, the range snap shooting practice is carried out.

Continuous Snap Shooting: It is to take on the targets as they appear. The time comes in battle when the rifleman is confronted with a number of enemies within killing range. The task is to account for as many as possible, before they escape to cover or alternatively get to close quarters. The guiding principle is, always 'shoot to kill'. In this case, having killed one enemy, the firer must at once engage another, firing continuously and methodically as long as the target remains.





The Points to be Observed

- (a) Accuracy is not sacrificed for speed.
- (b) There is no verbal declaration of aim, since this would cause distraction.
- (c) The butt remains in the shoulder in order to save time in re-aiming.
- (d) Perfect bolt manipulation is ensured so that no time is wasted in reloading.
- (e) Firing continues until such time as the command 'stop' is given, or no further fire is required.

Short Range Firing (.22 Rifle)

Practice No	Practice	Target	Range	Round	Instructions	Scoring
1.	Deliberate	1Ft	25 yards	1	(a) Position lying supported (b) One practice of 5 rounds	Bull and Inner-3 points Magpie-2 points Outer-1 points HPS - 15 Points

Long/Short Range 7.62mm Rifle Course (Firing by Cadets of Sd/Sw Ncc)

Practice No	Practice	Target	Range	Round	Instructions	Scoring
1.	Deliberate	4' x 4' / 1' x 1'	100/25 yards	5	(a) Position lying supported (b) Position lying unsupported	Bull and Inner-3 points Magpie-2 points Outer-1 points HPS-15 points Bull and Inner-3 points Magpie-2 points Outer-1 points HPS-15 points

Note: Out of 12 rounds authorized per cadet, 2 rounds are pooled for zeroing and re-classification of failures.



Characteristics: 7.62 mm SLR

1. **Calibre** - 7.62 mm.
2. **Length**
 - a) With short butt - 1126.50 mm (44.35 in).
 - b) With normal butt - 1139.20 mm (44.85 in).
 - c) With long butt - 1151.90 mm (45.35 in).
 - d) Length of rifle with bayonet - 1397.00 mm (55 in).
3. **Weight**
 - a) Rifle only - 4.4 kg.
 - b) Rifle with full mag - 5.1 kg.
 - c) Rifle with full magazines and bayonet - 5.392 kg.
 - d) Bayonet - 0.283 kg.
 - e) Empty Magazine - 0.255 kg.
 - f) Full magazine - 0.709 kg.
4. **Rate of Fire**
 - a) Normal - 5 rds per min.
 - b) Rapid - 20 rds per min.
 - c) Faster than rapid - 60 rds per min.
5. **Range**
 - a) Effective range - 275 m (300 yds).
 - b) Sight range - 200 yds to 600 yds.
6. **Sight Radius** - 533.40 mm (21.77 in).
7. **No of Grooves** - 06 (Six).
8. **Pitch** - 1 turn in 304.8 mm (12 in).
9. **Twist of rifling** - Right hand.

Amn (Cart SA Ball 7.62mm)

10. (a) **Calibre** - 7.62 mm.



(b) Weight of cart	-	23.07gm ± 0.65 gm
(c) Length of cart	-	71.16mm ± .76mm (2.80-0.03 in)
(d) Weight of bullet	-	9.33 ± 0.13 gm (144 ± 2 gm).
(e) Powder charge	-	NC Powder.
(f) Muzzle velocity	-	815m/2700 ft ± 30 ft/S (at 27.43m (90 ft) from muzzle)
(g) Weight of cart case	-	10.89 gm.
(h) Weight of propellant charge	-	2.85 gm.
11. System of operation	-	Gas operation.
12. Magazine capacity	-	20 rds.

Characteristics: 5.56mm INSAS Rif

1. Calibre	-	5.56 mm.
2. Length of rifle without bayonet	-	960 mm.
3. Length of rifle with bayonet	-	1110 mm.
4. Length of barrel	-	464 mm.
5. Weight		
a) Fixed butt with empty magazine	-	3.6 kg.
b) Fixed butt with loaded magazine	-	3.69 kg.
(c) Empty magazine	-	340gm.
d) Full magazine	-	305 gm.
e) Bayonet	-	400 mtr.
6. Effective Range	-	90 gms.
7. Sight Radius	-	470 mm.
8. Muzzle velocity	-	900 m/s.
9. Principle of operation	-	Gas Op.



10. **Penetration** - 3 mm at 700 m.
11. **Mode of fire** - Single shot and three round burst (TRB).
12. **Rate of Fire**
- a) Normal - 60 rds/min.
 - b) TRB - 90 rds/min.
 - (c) Intense - 150 rds /min.
 - (d) Cyclic - 600 to 650 rds/min.
13. **Types of Ammunition**
- a) Ball Rd.
 - b) Tracer Rd.
 - c) Blank Rd.
 - d) HD Cart.

SUMMARY

- *Learning to shoot has been the man's basic instinct from the early ages. Then men went out into jungle with bows, arrows and weapons for hunting.*
- *Weapon training is a very important component of the NCC Programme. Training of shooting with rifles is an integral part of this programme.*
- *Shooting, teaches a person precision, accuracy, co-ordination of body movements, patience and confidence which all help to make him a better man in the public life.*
- *The shooting at the ranges helps an individual to master this as a sport and also to learn handling of a weapon for self-protection.*
- *Rifle .22 No MK-II, MK IV and Deluxe BA have different characteristics in terms of weight, length, magazine capacity, velocity, range, calibre, ammunition and rate of fire.*
- *Precautions should be strictly followed when stripping, assembling, sight setting of the rifle is carried out.*
- *The efficiency of the rifle depends upon its care in terms of cleaning and the skill of the firer.*
- *In action the soldiers' life may depend as much the rapid loading of rifle as the accuracy of shooting.*



- *Lying is the most comfortable position from which to fire. The three basic essentials of good shooting are:-(a) Position must be comfortable and hold so firm that the rifle gains a rock like steadiness. (b) The firer must aim correctly. (c) The trigger be pressed in such a way that the aim is not disturbed.*
- *Accuracy of the aim is essential for a successful shot. This is by far the most difficult operation, as the eye has certain limitations and there are influences affecting what it does. Nevertheless, good shooting can only be achieved with consistency of aim.*
- *The third essential criteria for accurate shooting is trigger operation without disturbing the aim. To achieve this, perfect co-ordination between the eye, brain and operation of the forefinger on the trigger, is required.*
- **The Group and its MPI:** *For the purpose of training, the group implies five consecutive well-fired shots, fired with consistent aim at the same aiming mark. The central point of impact is the Mean Point of Impact (MPI) of the group.*
- **Grouping Capacity:** *The diameter of a circle containing all five shots, fired by a firer to the best of his/her ability, is known as his /her grouping capacity.*
- **Miniature Range Snap Shooting:** *After grouping and application fire has been done, the snap shooting should be fired. This is to defeat the time factor. Initially it should be done on miniature range to make the firer realize that the exposure of target is enough to get a deliberate round fired and he/she must be perfectly calm and collected throughout. In fact before he/she is made to fire she should be given enough practice in the following:*
 - (a) *Concentration.*
 - (b) *Speeding up co-ordination between the eye and hand.*
 - (c) *Practicing in dominating impulse.*

The practice is given in the following stages:

 - (a) *Stage-1: Automatic Alignment*
 - (b) *Stage-2: Automatic Alignment with Correct Hold and Trigger Operation*
 - (c) *Stage 3,4 and 5: Practice firing is done at figure targets 11, 12 and snap shooting at ranges 100, 200 and 300 yards.*

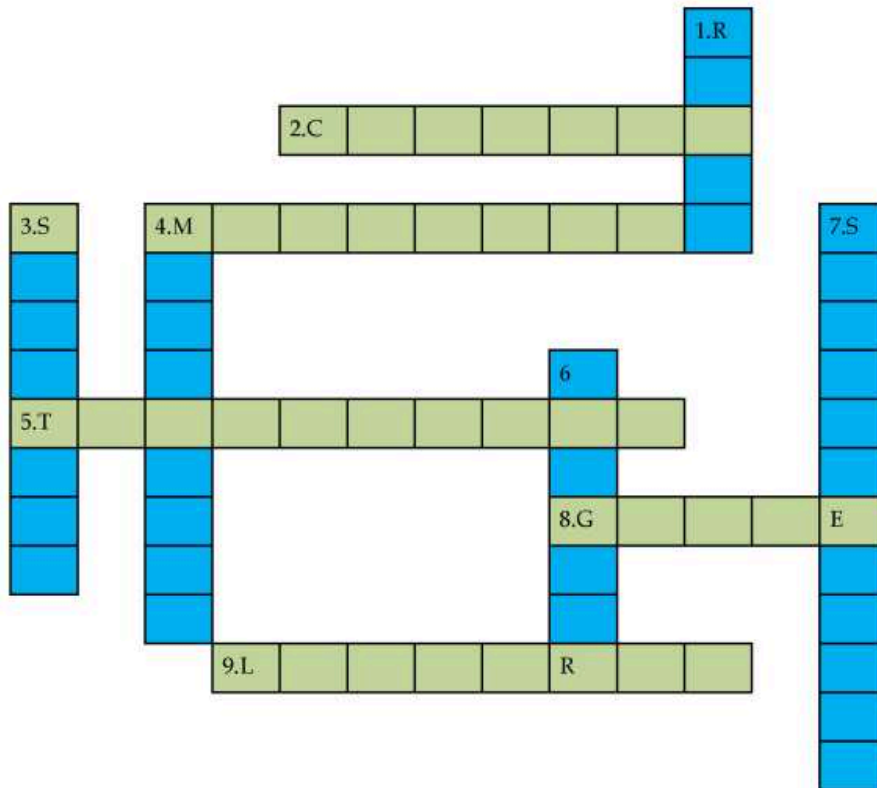
Stage-6: For firing on miniature range representative figure targets are used and the time progressively reduced from 7 to 4 seconds. The size of the targets is also reduced. Not more than two practices should be fired in a day. Here again accuracy before speed will be insisted upon. Good holding is essential.

In stage 7: The practice is given at range sighting at figure 11 and 12 targets and in stage 8, the range snap shooting practice is done.



CROSSWORD PUZZLE - 3

Solve the crossword with the given clues:



Across:

2. The process of raising the cock of (a gun) in order to make it ready for firing
4. Central Point of Impact is also known as
5. Synonym route, flight path, course
8. The pull through has three loops, first one is for the _____
9. The term used for: Before firing any practice, it is advisable to carry out trigger operation exercise No 5 and sequence of action for firing a shot.



Down:

1. Hand used for twist of Rifling (left hand or right hand)
3. The act of firing a shot
4. Point (.) 22 ammunition is used in this range
6. To aim correctly, hold the breath while pressing the _____
7. The adjustment of a gunsight for elevation and windage on a particular range under favorable light conditions

Comprehension Questions

Q1. Answer the following in about 15 words:

- i) Define Trajectory and First Catch.
- ii) When will the rifle will be halfcocked?

Q.2. Answer the following in about 50 words:

- i) What are the basic essentials of a good firer?
- ii) What are the various positions to be taken while firing?
- iii) Name any 10 parts common to all weapons?
- iv) What are the main points to be observed during continuous snap shooting?
- v) Which targets are generally used by female cadets for shooting?

Q.3. Answer the following in about 75 words

- i) Describe the sequences of stripping and assembling of LMG?
- ii) What is a 'Group'? What are the methods of finding the MPI?
- iii) Why is weapon training a very important component of the NCC programme?
- iv) What should the firer do to get a stable position while shooting?
- v) What are the laws of aiming?

Q.4. Answer the following in about 150 words

- i) What parts of a rifle are stripped and cleaned?
- ii) Explain the range procedures and safety precautions under the following heads:
 - a) Use of red flag
 - b) Suspension of firing



- c) Inspection of weapons
- ii) What drill must be carried out for loading and unloading of a rifle, in the lying position?

Q.5. Answer the following in about 250 words

- i) Explain the sequence of firing a shot.
- ii) Explain 'alteration of sight' under the following heads
 - a) Necessity
 - b) Mean point of impact (MPI)
 - c) Figure target

Let's Discuss

Q.6. HOTS (Higher Order Thinking Skills)

"Weapons have always played a crucial role in the society, moulding and changing the course of history". Elaborate.



UNIT-4

PERSONALITY DEVELOPMENT AND LEADERSHIP

Knowledge	Understanding	Application Skills	Evaluation
Overcoming obstacles in life; some man-made and many self-made.	The students will understand the skills.	The students will apply the values to their practical life.	Activities, work sheets and assignments
Leadership techniques, team work, shouldering responsibility and facing challenges.	Becoming responsible and confident in their abilities	They will apply the values to their practical life; time management, communication skills; Interview skills	Activities, work sheets and assignments

Self Awareness

Self-awareness sounds very simple - after all don't we know ourselves. But if we are 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.

Dimensions of Self Awareness

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 good qualities.'*



To have complete self-awareness one needs to concentrate on two aspects: i) how we perceive ourselves - our strengths, weakness, abilities etc., ii) how others perceive us. Both the views give one a complete picture about one self.

Every individual perceives himself/herself in three aspects:

- (a) The perceived self the way one sees oneself.
- (b) The real self-the way one truly are.
- (c) The ideal self-the way one would like to be.

Unhappiness and poor adjustment among people are mainly because of discrepancies between the perceived and the real or ideal self; misperceptions of self leads to discontentment.

"To say 'I love you' one must know first how to say the 'I'."

— Ayn Rand, The Fountainhead

The following dimensions of self-awareness will be dwelt with, as many people limit their self-awareness to their bio-data which is usually what is known to 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 form of self-awareness. It occurs when one understands one's self and the reason for one's existence in the world.
- b) **Self-knowledge or self-exploration:** This is a process through which we undo or explore ourselves. This exploration, understanding and knowledge are regarding three areas:- (i) Physical self- knowledge about our own body; (ii) Social self - knowledge about how we relate and interact with society; whether we are social, extrovert or introvert; helping nature; empathetic, etc. (iii) Inner self-knowledge about our goals, dreams, aspirations, secrets, fears, etc.
- c) **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.
- d) **Self-confidence:** Self-confidence builds on self-esteem and this is possible only when one is completely aware about one's abilities and limits. Success, appreciation, care, love etc., are factors that boost one's self-confidence.



- e) **Self-talk:** There are automatic thoughts that can be positive or negative. There are endless talks and conversations that run through our minds throughout the day. Some of our self-talk comes from logic and reason. Self-talk may also arise from misconceptions that we create because of the lack of information. Self-talk is an important strategy for raising ones' self- confidence, only if one practises positive thinking.
- f) **Self-Motivation:** Self-motivation is what makes an individual work towards a goal or target, not for external reasons, but because of his/her own internal will. It is an important quality required by everybody to do various activities like studying, working, earning and building relationships.
- g) **Self-Image:** Self-image is how one perceives himself/herself – positively or negatively. Self-image is important because, how one feels and thinks about himself/herself effects the way he/she acts. Self-image about one's body is called *body image*, which is very often the cause for low self-esteem. By body image, one keeps in mind both internal and external aspects.
- h) **Self-Control:** The ability to control one's thoughts, emotions, urges, desires, fantasies, actions is called self-control. It is part of will power, and includes delayed gratification.
- i) **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, and interests? When taken to the extreme, what are our goals in terms of our own selves in this world and universe (i.e. self-realization)?
- j) **Individuality and Uniqueness:** Human beings are born with different qualities inherent and later, they acquire some more as they live and learn. This helps individuals to become unique in skills, giving them an identity of their own.
- k) **Personality:** Personality can be defined as the distinctive and characteristic patterns of thought, emotion and behaviour that define an individual's personal style of interacting with the physical and social environment. Personality has various dimensions, including our openness, conscientiousness, attitudes, etc.
- l) **Values:** Value is a concept that describes the beliefs of an individual or culture. Love, care, courage, bravery, respect, integrity and compassion, and respecting elders are examples of values.
- m) **Attitude:** Attitude is a mind-set – 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. Half a glass of water may appear half empty to one individual and half full to another.

- n) **Character:** The collective qualities or characteristics that distinguish a person, including her/his reputation, morals and will power.

Swot Analysis

An interesting way to become self-aware is the use of SWOT analysis which 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 gives a clear understanding.

INTERNAL	Strengths - S	Weaknesses - W
EXTERNAL	Opportunities in your field - O	Threats in your field - T

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 materialise.

By strengths, we understand the internal positive aspects, that are under control and upon which we can capitalize while planning such as:

- Work experience.
- Education, including value-added features.
- Strong technical knowledge within your field (e.g. hardware, software).
- Specific transferable skills (e.g., communication, teamwork).
- Personal characteristics (e.g., strong work ethic, self-discipline, creativity, optimism, or a high level of energy).
- Good contacts/successful networking.
- Interaction with professional organizations.

While we mention our weakness we intend to include – Internal negative aspects that are under our control and that we can plan to improve:

- Lack of work experience.
- Low marks, wrong major.
- Lack of goals, lack of self-knowledge and 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, emotional).

The above 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 one does not have control but of which one can take advantage:

- (a) Positive trends in our field that will create more jobs (e.g., growth, globalization, technological advances).
- (b) Opportunities one could have in the field by enhancing your education.
- (c) Fields which particularly need our set of skills.
- (d) Opportunities for advancement.
- (e) The career path one has chosen which provides unique opportunities.
- (f) A strong network.

And further while we include *threats* we should mention – Negative external conditions that we do not have control upon but, the effect of which we may be able to lessen:

- (a) Negative trends in our field that diminish jobs (downsizing).
- (b) Competitors with superior skills, experience, knowledge.
- (c) Competitors who went to colleges with better reputations.
- (d) Obstacles in the way (e.g., lack of advanced education).
- (e) Limited professional advancement due to cut-throat competition.
- (f) Companies not hiring people with our academic qualification.

This SWOT analysis would help an individual to not only understand oneself and their present situation, but also plan far ahead.

Interpersonal Relationship and Communication

A strong bond between two or more people refers to interpersonal relationship. Attraction between individuals brings them close and eventually results in a strong interpersonal relationship. Communication is said to be the basis of every interpersonal relationship. Infact, effective communication is the key to a healthy and long lasting



relationship and if individuals do not, problems are bound to come. Communication plays a pivotal role in strengthening the bonds of friendship among individuals. A relationship loses its charm if individuals do not express and reciprocate their feelings through various modes of communication. A healthy interaction is essential for a healthy relationship.

Interpersonal Relationship

Forms: An interpersonal relationship can develop between any of the following individuals:

- (a) Colleagues in the same organization.
- (b) Colleagues working in the same team.
- (c) Between a man and a woman (love, marriage).
- (d) With immediate family members and relatives.
- (e) Of a child with his/her parents.
- (f) Between friends.

A relationship can also develop in a group, between students and their teacher, between spiritual guru and disciples and so on.

Essential factors:

- (a) Individuals in an interpersonal relationship must share common goals and objectives. They should have more or less similar interests, and think on the same lines. It is always better if individuals come from similar backgrounds.
- (b) Individuals in an interpersonal relationship must respect each other's views and opinions. Trust is important here.
- (c) Individuals must be friendly for a healthy interpersonal relationship.
- (d) Transparency plays a pivotal role in interpersonal relationship. It is important for an individual to be honest and transparent.

Between a Man and a Woman: A strong interpersonal relationship between a man and a woman leads to friendship, love and finally ends in marriage. A sense of commitment is essential in a relationship marriages. Partners must feel attached to each other and most importantly trust each other. Famous psychologist, Robert Sternberg, proposed the triangular theory of love in interpersonal relationship. According to triangular theory of love following three components lay the foundation in marriages.



The amount of love in any relationship is directly proportional to the above three components. More the three components, stronger is the relationship.

- (a) **Passion:** Passion refers to the physical attraction between two individuals. Individuals must feel physically attracted to each other for the charm to stay in relationship for a much longer period of time.
- (b) **Intimacy:** The amount of closeness between two individuals in a relationship refers to intimacy. Partners must get along well with each other and a strong bond between them is essential.
- (c) **Commitment:** The decision of two individuals to stay together forever is called commitment. Commitment is nothing but two people deciding to be with each other for life.

If any of the above factors is missing from a relationship, love fades in a short span of time, giving rise to troubles and sorrows.

Relationship between Friends:

- (a) Be honest with each other.
- (b) Stand by in times of need.
- (c) Spending quality time together.
- (d) Share problems.
- (e) Respect each other's opinions.

The relationship between children and their parents, brother and sister, immediate family members or relatives revolve around trust, commitment and care.

Role of Communication

It is not always that an individual needs to talk to express his / her feelings. Feelings can be expressed through non-verbal modes of communication as well. Body movements, gestures, facial expressions, hand movements communicate something. Looking happy and contented for the other person to enjoy your presence and not always looking sad and irritated. Eye movements also have an important role to play in relationships. One can make out whether you are angry, unhappy or frustrated by the expression in the eyes.

Being careful of Tone and Pitch: Do not be too loud or too soft. Being loud might hurt the other person. Speak softly in a convincing way. The other person must be able to understand what you intend to communicate.



Choice of Words is Important: Think twice before speaking. Remember one wrong word can change the meaning of an entire conversation. The other person might misinterpret you and spoil the relationship. Be crisp. Express your feelings clearly. Do not try to confuse the other person. Being straightforward helps you in relationships.

Interacting Regularly: An individual must interact with the other person regularly for the relationship to grow and reach the next level. Speaking over the phone, sending text messages are ways of communicating and staying in touch, especially in long distance relationships where individuals hardly meet.

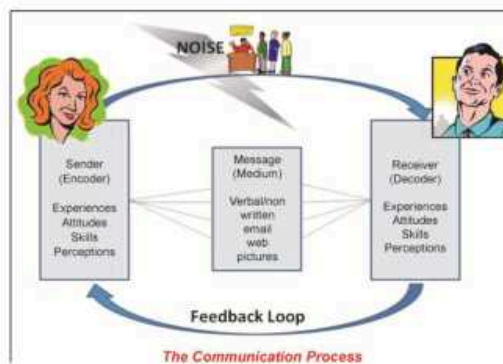
Being Polite: Never ever shout even if he/she has done something wrong. Discuss issues and try to sort out differences amicably. Abusing, fighting, criticizing spoil the relationship and in adverse cases, might end it as well. Being rude is a crime in relationships.

Trying to Understand the other person's point of view as well: Be a patient listener. Unless you listen carefully, you will never be able to communicate effectively.

Communicating through e-mails: If you do not get the time to call your partner/friend regularly, drop him/her a mail. The other person would feel happy and important. e-mails are also an effective mode of communication at workplace. For better relations at workplace, try to communicate through written modes of communication. Be careful about the content of the e-mail and make sure they are self-explanatory. Using capital letters in emails is considered to be rude and loud. Do not share any information with any of your fellow workers verbally. Mark him/her a mail and do keep your boss in the loop. All the related employees must be marked a 'copy' as well. If discussed orally, the other person might refuse later on, creating problems for you.

Communication Skills

Communicative and language skills acquired through personal effort, practice and experience positively influence our personality. Communication is the exchange of information between people, e.g., by means of speaking, writing or by using a common system of signs or behaviour. Communication is intrinsic to human nature.





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.

The Basics of Communication

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.

Lack of communication breeds problems in relationships. We tend to assume that others know what we want or how we feel. When they do not react as we expect they should, we get upset. We expect people to understand us. The truth is they do not understand us, as 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 improve our relationship.

For instance, if a person is used to his/her mother’s cooking every day, and assume it is her role to cook and therefore, there is no need to make her feel special about it, she may increasingly find cooking a chore. In reality, a lot of effort goes into the cooking task. Each time the mother goes into the kitchen, she puts in the effort by choosing the type of vegetables or ingredients her family members like. More often, when she serves the food, she silently hopes that her son/daughter/ other family members will enjoy it and tell her how good it was. She may be able to tell from the way one gobbles up the food, but nothing is more powerful, than a communication through language at that moment if one can simply say: *“Mummy, it’s delicious!”*. This complement will make her day! One can do it every day to make her feel appreciated, even though it is not in our culture, or habit.

There are many such moments for us to express affection, especially to our near and dears. Relationship, like a reservoir, requires constant nourishment. Imagine what



would happen to a reservoir if we keep drawing water from it but there was no rainfall to fill it up. Similarly, we cannot draw affection without investing affection. Things begin to fall apart when relationships are taken for granted.

We often find people harbouring a grudge against each other for being unhelpful, uncaring, not showing sufficient understanding. Many 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. 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 and pretend that we are fine.

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 too. That will make us feel instantly better.

Styles:

- a) **Aggressive:** In this type of communication, people believe that everyone should like them. Aggressive communicators have a close mind and are poor listeners. They have difficulty in seeing other person's 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. Most often, they tend to think 'I am never wrong' or 'I've got rights, but you don't.'
- b) **Passive:** In such a communication, people 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 a communication, the person believes that the views expressed by him/her and others are valuable. He/she knows that, if he/she has the rights to express, then others too have the rights. Here the individuals are active listeners and check on other's feelings. They are action-oriented, attentive, vocal, expressive, good listeners, aware, supportive, persuasive, fair, open and consistent in behaviour. Their expectations are realistic. They have open and natural gestures. They maintain an eye contact while communicating.



Ways of Communication:

- a) **One Way Communication:** Communication from a single channel. There is no opportunity for clarifying doubts. For example, the Principal announces that Saturday is a working day and students need not wear the uniform on that day.
- b) **Two Way Communication:** Communication between two channels. Opportunity for clarifying doubts exists. For example, parents deciding on the duration of the vacation to a hill station after discussion with their children.

Effective Communication

This involves:

- a) **Verbal Communication:** During verbal communication, one person talks and others listen and react. The conversation can be informative, in the form of questions, a negotiation, and statement or open ended questions, instruction, etc. The situation can be formal or informal. In relationships, communication is usually informal. A speaker, to clear up misunderstanding of what has been said may ask questions to gain information and may repeat it in a different way (paraphrase). Speech problem, long sentences, mumbling, speaking too softly, hearing problems, listeners interrupting the speaker, loud external noises, etc. all hamper proper verbal communication.
- b) **Non-Verbal Communication:** Non-verbal communication is that which 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 one must also use proper body language to communicate effectively. We can react to what others say by nodding, smiling and generally showing that we are listening.
- c) **Listening:** During communication, one person talks and the other 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 may not know what the full message is. 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 others; sometimes they do not listen to us. In either situation, there will be a problem in communication and understanding.

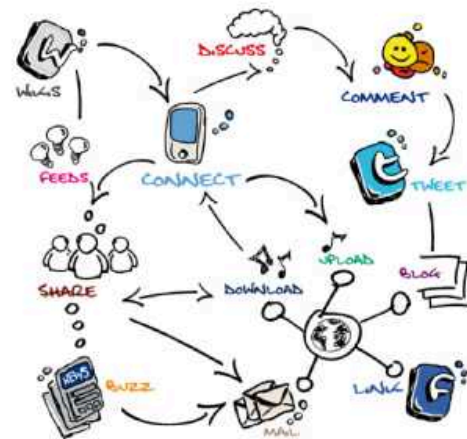
How would we know if someone is not listening properly to us? He/she:

- (a) Looks away.
- (b) Interrupts.
- (c) Looks at the watch.
- (d) Gets up to do something and returns.
- (e) Talks to someone else.
- (f) Answers the phone.
- (g) Begins to do some work.
- (h) Does not stop doing work.
- (i) Says that she/he will be back in a minute and does not return.
- (j) Looks bored.

Components of Effective Communication



Importance of Effective Communication: 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.





Types:

Leadership

Legends and myths about what distinguishes 'great leaders' from 'commoners' seem to have always attracted human beings. Bass writes: 'The study of leadership rivals in age the emergence of civilization, which shaped its leaders as much as it was shaped by them. From its infancy, the study of history has been the study of leaders – what they did and why they did it.' Leadership still fascinates scholars as well as the general public. However, the term 'leadership' means different things to different people. Definitions of leadership vary in terms of emphasis on leader abilities, personality traits, influence relationships, cognitive versus emotional orientation, individual versus group orientation, and appeal to self-versus collective interests. According to House and Shamir, 1993, "leadership is the ability of an individual to motivate others to forego self interest in the interest of a collective vision, and to contribute to the attainment of that vision and to the collective by making significant personal self-sacrifices over and above the call of duty, willingly." (Leadership in Organizations by Deanne N. Den Hartog and Paul. L. Koopman). Generally speaking, leadership is the process whereby one member of a group takes executive control over a group's function and aims. The leader typically has the desired characteristics and qualities. They may be overseen by a group who, while aren't being active in the day-to-day activities, have the final vote in matters of importance - an executive committee.



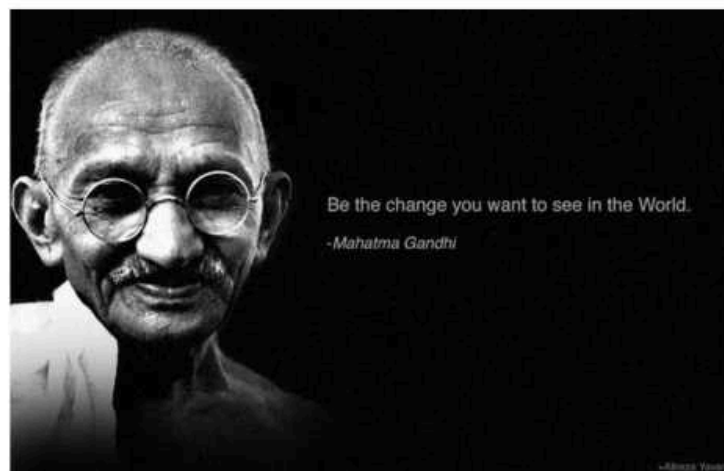
When we study and analyse outstanding leaders in history, who have done some lasting good for mankind, a nation, a community, an organisation or a cause, we find that they are not similar. They come in all shapes and hues- the flamboyant; the scholarly; the artistic; the ascetic; the gregarious and the recluse. And yet, when we look



deeper into their make up, 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.



The effect of leadership will be best understood by the various examples available in history.





Historical Examples Prior To World War II

Endurance: Alexander's Leadership

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 gathered 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 leadership".

Character (World War-II)

Before we have a look at the universal qualities common to all good leaders, we have to be 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.

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 Bulge' 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, however 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

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.

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."

Needless to add, the operation was a complete success.

Will Power: Sir Winston Churchill

'Try, try again' is an age old advice according to the 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 best 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.



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.

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;

“NEVER – NEVER – NEVER – NEVER - GIVE UP”

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.

Historical Examples after World War II

Courage and Endurance: Saving Ladakh: 1947-48 War

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.

The strategy to save Ladakh was to hold on to Skardu at any 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 were 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

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.

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.

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 out.

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.

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 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."*

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)

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.

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.

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.

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.

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.



Time Management

What is time? As far as we know, animals do not experience it. *Tempus fugit – Time flies* – is a universal refrain. But what is time? We all know what we mean by time but we cannot say what it is. If we are travelling at a speed faster than another person, time will go slower for us. The nearest we can come to grasping the concept of time is, to look upon it as a dimension. Being human, we tend to measure time and change in terms of our life span. As we advance in life, we acquire a keener sense of the value of time. For a very old person sitting in hospital waiting to go home, time seems like eternity. Yet for such a person, paradoxically, there may be only days or hours of time left.

Time is our most important asset, because it is the only one we can't re-order or renew. 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 we 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. We can make money; we can't make time.

An old Chinese proverb says '*An inch of gold cannot buy an inch of time.*' Time is really infinitely more precious than money.

Time management is a set of skills, tools, and systems that work together to help us to get more value out of our time and use it to accomplish what we want. Successful people use time management to achieve outstanding results, both personally and professionally. The key to time management is to realize that we cannot possibly do everything that there is to do; instead, we have to consciously decide what we are going to do with the limited amount of time that we have at our disposal.

Time management:

- a) Reduces or eliminate wasted time and effort so we'll have more productive time each day.
- b) Improves our productivity so we can accomplish more with less effort.
- c) Focuses our time and energy on what is most important and make time for the things we want and value. Thus time management helps us to find greater balance and fulfilment.
- d) Improves our performance while reducing stress.
- e) Sets and achieves our long-term goals.



Time Management is all about.....



Time Wasters

Time is like a precious jewel. It must be guarded well and worn with discretion or we will suddenly realize that it has been stolen. Major time-wasters are:

- a) **Telephone/Mobile Phone:** We should learn to control the telephone, or it will control us. We must regard telephone as a business tool, not a social one. We should practice having a quick, to the point conversations.
- b) **Visitors:** Visitors should be met outside. When faced with the question: 'Have you got a minute?', if there is no time, we should respond with a polite 'no', and then tell them when they can see us. A complete open-door policy, which has been a popular management technique for some years, is not conducive to good time management. Managers must 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) Do not make eye contact with the chatty person. Keep your head down and continue working.
- c) **Paper:** The best guideline for paperwork is to either file it or throw it away. 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 first handling it.



- ii) Do not handle daily mail until you are ready to deal with it properly. If you take a quick look and then go back to it later, we have just doubled those minutes.
- iii) Every time something is handled again, distraction time is increased. Can some of it be passed on to others?
- iv) Read selectively.
- v) Throw out what you probably won't need.
- d) **Lack of Planning:** The best way to avoid a crises is to anticipate them. Common reasons are a lack of planning, unrealistic time frames, and reluctance by subordinates to break bad news. Tips to help deal with the situation are:
 - i) Firstly, one must take time to think. Then ask questions: What is the real problem? Where possible, one must get inputs from more than one source. What can one ask others to help with?
 - ii) Once we have made a decision, we should get on with it. Whoever hesitates is lost!
 - iii) What can be done to avoid the same problem happening again?
- e) **Socializing:** As far as possible, one must avoid extended tea-breaks, regular social lunch-hours, and chat in the corridors. Better to do it outside of work time.
- f) **Indecision:** This is caused by ignorance, fear, or lack of confidence in the facts. Improve fact-finding procedures, and listen to your intuition. If you make decisions quickly, you can save time. Successful people make decisions quickly. They're not necessarily always right, but they do decide.
- g) **Television:** 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 - instantly and habitually. If one suspects that he/she is prone to procrastination he/she should always ask "*Why am I putting this off?*" If one can see no good reason one should brace himself/herself and take action the same day. By off-loading today's work to tomorrow we are simply storing up work for ourselves. It may be a small or large matter; an overdue apology; a meeting with one's boss; or an unpleasant task we know we should tackle.

The best tool to fight time-wasters is, a firm decision to concentrate on the few things 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 us in the direction we wish to go, is a time-wasting activity.

Principles of Time Management

There are 10 basic principles of time management:

Develop a Personal Sense of Time: Put time under the microscope. One cannot manage time that is past. But we can examine how we managed it in an objective and realistic way.

- a) **Time Log:** A time log is a record of how one is spending one's time. Time log involves dividing each day for the next week or two into one hour intervals. At the end of each day our record will show how each hour was spent. We may find that our 15 or 30 minute coffee break usually runs into thirty to forty minutes!

After keeping the logs for three or four days we may begin to notice opportunities for improvement. Could some tasks be delegated? What would happen if they were not done at all? Are we giving the really important tasks the correct priority? When looked back at the end of each week, we may be surprised that a comparatively small percentage of our time is actually going on the top-priority tasks on our list. Having identified how our time is truly spent we can then proceed to invest it more beneficially for the future.

- b) Developing a personal sense of time includes developing a personal sense of the value of other people's time.

Long-Term Goals

- a) The foundation of good time management is to first, find out what matters deeply to us— what we really want to achieve in life. In this, we must concentrate on four key areas of our life – self and well being, community and humanity, home and family, business and career. For instance, we may want to join a health club and participate very regularly, because we value keeping fit. We may also want to be upgraded in our teaching post because we value our job. When we analyze the time commitments for both activities, we may have to make a choice because we are so busy that there's only time for one. Thus, in all these key areas, we should learn to focus on the vital few things which will make a long-term difference.
- b) This will tend to give us either a direction (or set of directions) in which we should be going, or a goal (or set of goals). As a principle, the further we look ahead the more likely we will be thinking in terms of directions or aims rather than goals or objectives.



- c) Thereafter, on a monthly basis, in each of the four key areas, consider what two or three main goals (or objectives) we would like to focus on, and record them. For e.g., We can identify five or six key areas of our job. A key area is an area in which our performance will be directly or indirectly measured. In each of these key areas we need next to define or set objectives. That will give us a list of objectives for the middle term. It is often a good idea to make a 'time budget' for our objectives. We have only 168 hours each week. Common mistake is to underestimate the time it will take us to achieve a particular result. With practice and experience we should be able to forecast realistically and accurately how much of our time a job will take. At the end of the month, we must review our performance.

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, we should identify those activities which are going to give us the highest return and concentrate on them.

Weekly and Daily Planning:

- a) **The Mechanics of Weekly Planning:** Planning on a weekly basis helps us to take more control of our lives. This helps us to achieve the things, which really matter Viz. Two or three major goals (or objectives) for each key area. We probably won't want to work on them all every week. So what happens to the ones not chosen this week? They are there to be observed. We must have an awareness of it. For instance, may be an individual wants to start exercising more. This week his/her schedule is full and he/she doesn't have a chance of doing any extra exercise. By observing this reality, the individual is more likely to plan a sensible programme next week.
- b) **Have realistic Planning:** We should not try and bite off more than what we can chew. One has to be realistic. We should base our decision on what else is already planned for the week ahead. The trap that people often fall into is that they try and take on too much, and then give up in disappointment when they don't reach their objectives.

At the beginning or end of each week, we should set about fifteen minutes aside to plan for the coming seven days. We can review our monthly goals and reflectively consider which ones will need some attention this week. In each key area we wish



to work in, we must aim for one or two small goals for the coming week. Review what we have done or not done in the preceding week. We may need to reschedule some things that remain to be done. Now, on our weekly planning sheet, in the time that we can control, we can block in appointments to do the proactive activities we have just decided on (and also keep plenty of uncommitted time, because things always take longer than we think). The things we have blocked in are our high priorities. All the other things need to be listed somewhere so we don't forget them, but treat them as the less important items (may be jot them on the back of our weekly planning sheet). Fewer activities should be scheduled at the end of the week.

- c) **Daily Planning:** The longest journey begins with a single step. We will never achieve an objective if we do not break it down into manageable steps. Each day, we should be able to take a few steps towards the desired result. Do not leave any planning for the last minute.

- i) A simple way for a Daily Plan:
 - a) Write down all the tasks for the day.
 - b) Identify the five most important tasks, and number them in order of priority.
 - c) Start with no 1; finish the task or at least a major portion of it and start on the next item.
 - d) Any new or extra items/task can be dealt with on the same day if necessary/ urgent; otherwise it can be added to the list.
 - e) When the top five items have been completed, or taken as far as possible, the prioritizing process can be repeated, including other items, which have jumped onto the list during the course of the day.
 - f) Practice this system until fully mastered.
- ii) Review each day briefly, identify the successes and analyze the reasons for failures. If the daily planning is not working very well, we should ask 'first am I at least achieving my highest priorities?' If the answer is 'no' or 'doubtful', work through the following checklist:
 - a) Are we trying to accomplish too much in a day?
 - b) Did some tasks not get done because we were not ready at that time to do them?



- c) Was the item or task clearly formulated? Were all the information available?
- d) Was the task abandoned because it was too difficult or too boring?
- iii) A review of this kind can establish whether or not the time budget is realistic in the first place. If it is, then the problem lies in the execution.

Making the Best Use of Time

The quality of our attention or concentration varies at different times. We may notice that we tend to be more mentally alert, habitually, at certain times of the day. We should learn to focus on the vital things which will make a long-term difference:

- a) One should try to find out how much of a 'morning or night person' one is and regularly programme the day so that the 'best time' is given to the highest-grade activities.
- b) One's manual dexterity (the speed and co-ordination with which one performs complicated tasks with one's hands) peaks during the afternoon. Therefore, such activities should be taken up during the afternoon.
- c) Tasks which involve short-term memory and cognitive tasks (things that require the juggling of words and figures in one's head) should be attempted in the morning hours (in fact, one is, about 15% more efficient than at any other time of the day).

Organise Office Work: Office is the place where much of the work is done. Therefore one must concentrate on two key areas - controlling interruptions and organising paper work.

- a) **Controlling Interruption:**
 - i) Set a time limit and stick to it. Get them to the point.
 - ii) With casual droppers - in, remain standing.
 - iii) Avoid small talk when busy.
 - iv) Arrange to meet in the other person's office; one can then determine when to leave.
 - v) Have a clock available where visitors can see it and don't be afraid to glance at it a few times.
- (b) **Organising Paper Work:** One should strive for good order in one's office. We must establish systems for dealing with predictable and maintain them. Then we will



find that we are free for the unpredictable – be they problems, crises or opportunities. A few points can be practised in this regard:

- i) Try to handle each piece of paper only once.
- ii) Sort paperwork into categories in priority order.
- iii) Eliminate unnecessary paperwork, and simplify the remainder where possible.
- iv) Clear the desk of all papers except those relating to the particular job at hand.
- v) Workspace to be organized so that the necessary things are easily recovered.
- vi) Learn to pick out quickly the key points or critical issue in letters and reports.
- vii) Decide well, what must be read through carefully and what can be skimmed.
- viii) Develop a clear and succinct way of writing.

Manage Meetings: Involve others in meetings of all kinds. Therefore, they are a potential time threat. The average person spends three to five years of their life in meetings and about 50 percent of the time is wasted! Points to be borne in mind while organizing / attending meetings are:

- a) Always keep the objectives of meetings clearly in mind.
- b) Plan ahead. Decide who is to be presented and circulate the agenda in advance.
- c) Fix time limits in advance, and start on time.
- d) Budget specific amounts of time for each item on the agenda.
- e) End on a positive note, with a summary of decisions taken and action to be implemented.

We should ask ourselves three fundamental questions while going for a meeting:

- i) Is this meeting really necessary?
- ii) If so, how much of one's time is the subject really worth?
- iii) Will it begin on time and end on time?

Delegate Effectively: Every position or role in an organisation has defined responsibilities or functions, together with the authority to carry them out. Delegation saves time and develops subordinates' skills it improves results by making fuller use of resources. In order to delegate effectively, we should:



- a) Decide what to delegate: Repetitive routine work of an administrative nature, minor decisions, technical or functional specialty activities, projects or tasks can be delegated to the subordinates as per their capabilities and education. This in turn will provide growth opportunities for employees and will give variety or add to job satisfaction.
- b) Demonstrate job, get feedback and comment from the subordinates and then delegate the job and observe. Resist the temptation to get involved. If the subordinates seek any help, try not to provide the answers but help them to find them. The aim is to develop the initiative of the subordinate. However, check progress at agreed points.
- c) Check if one is a good delegator, these questions should be answered: Are there areas of work that one should be delegating, but for some or other reason one is not ready to do so? Does one work for more than nine hours a day? Does one take homework for weekends? Are the delegated tasks clearly defined and does the person who is carrying them out know exactly what is expected of him/her?

Make Use of Committed Time: We may sometimes complain that we lack time. But we have all the time there is for us. At work there is the time which you can choose to spend at your will – a committed time. If we are alert we may find portions of it, which are actually free time. E.g. *Travel time*: It can be put to profitable use for thinking, reading, and writing. *Waiting time* is another committed time which could be put into use. It is healthier and more time efficient to travel by rail. We should remember that a day has a hundred pockets of time if we know where to look for them.

Manage Your Health:

- a) Even taking a few weeks off because of being avoidably ill, is going to involve one in a major waste of productive time. To give to our work and to others high quality time one must top up our energy levels. Therefore, our body, mind and spirit have to be in perfect health for good time management and quality task outcomes.
- b) A good eight hours of sleep, healthy diet, regular exercise, meditation , occasional holidaying together contribute to efficient and effective time management and fruitful outcomes.

Conflict Motives - Resolution

Conflict occurs between people in all kinds of human relationships and in all social settings. Because of the wide range of potential differences among people, the absence of conflict usually signals the absence of meaningful interaction. Conflict by itself is



neither good nor bad. However, the manner in which conflict is handled determines whether it is constructive or destructive. Conflict is defined as an incompatibility of goals or values between two or more parties in a relationship, combined with attempts to control each other and antagonistic feelings towards each other. The incompatibility or difference may exist in reality or may only be perceived by the parties involved. Nonetheless, the opposing actions and the hostile emotions are very real hallmarks of human conflict. Conflict has the potential for either a great deal of destruction or much creativity and positive social change. Therefore, it is essential to understand the basic processes of conflict so that we can work to maximize productive outcomes and minimize destructive ones.



Conflict: Conflict is a condition that exists when two sets of demands, goals, or motives are incompatible or unmatchable. Negotiation is treated as an important way of resolving conflict.

Motives:

- a) **Competition for Limited Resources:** People quarrel because not everybody can get all the resources he or she wants.
- b) **The Generation Gap and Personality Clashes:** Differences in age, or the generation gap, can lead to conflict because members of one generation may not accept the values of another. Disagreements on the job also stem from personality clashes, or antagonistic relationships between two people based on differences in personal attributes, preferences, interests, values, and styles. Clashes sometimes surface after people have been working together harmoniously.
- c) **Aggressive Personalities:** Some workers convert disagreement into an attack. Aggressive personalities are people who verbally, and sometimes physically, attack others frequently. Verbal aggression takes the form of insults, teasing, ridicule, and profanity. Aggressiveness can also lead to violence.
- d) **Culturally Diverse Teams:** Conflict often surfaces as people work in teams whose members vary in many ways. Ethnicity, religion, and gender differences are three of the factors that lead to clashes in viewpoints. Differing educational background and work specialties can also lead to conflict. Yet, with direction, most groups can overcome these conflicts.



- e) **Competing Work and Family Demands:** Balancing the demands of work and family life is a major challenge facing workers at all levels. The challenge of achieving balance is particularly intense for employees who are part of a two-wage earner family. Work-family conflict occurs when the individual has to perform multiple roles: worker, spouse and often parent. Work-family conflict is related to depression and other stress-related health problems. Work/family programmes are aimed directly at reducing conflict stemming from competing work and family demands. These programmes include flexible work schedules, dependent-care programs and compassionate attitudes toward individual needs.
- e) **Gender-based Harassment:** Gender-based harassment is generally defined as unprofessional/inappropriate behavior between males and females at workplaces. Such behaviors result in discomfort and/or interference with the job. Gender-based harassment creates conflict because the harassed person has to make a choice between the job or harassment. Aside from being an illegal and immoral act, gender-based harassment has negative effects on the well-being of its victims. The harassed person may experience-job stress, lowered morale, severe conflict, and lowered productivity.

Merits and Demerits of Conflict:

- a) Conflict has both positive and negative consequences, much like work stress. On the positive side, the right amount of conflict enhances mental and emotional functioning and may lead to improved relationships.
- b) Conflict also helps prevent group thinking (over agreement to achieve cohesion). On the negative side, intense conflict may lead to physical and mental illness, wasted resources, sabotage, excessive fatigue, and workplace violence including homicide. Disgruntled employees may seek

Levels: Conflict can occur at a number of levels of human functioning. Conflict in your mind between opposing motives or ideas is shown by your “internal dialogue” and is at the intrapersonal level. Beyond that, the primary concern here is with social conflict, i.e., conflict between people, whether they are acting as individuals, as members of groups, or as representatives of organizations or nations.

Interpersonal Conflict: Occurs when two people have incompatible needs, goals, or approaches in their relationship. Communication breakdown is often an important source of interpersonal conflict and learning communication skills is valuable in preventing and resolving such difficulties. At the same time, very real differences occur between people that cannot be resolved by any amount of improved communication.



“Personality conflict” refers to very strong differences in motives, values or styles in dealing with people that are not resolvable. For example, if both parties in a relationship have a high need for power and both want to be dominant in the relationship, there is no way for both to be satisfied, and a power struggle ensues. Common tactics used in interpersonal power struggles include the exaggerated use of rewards and punishments, deception and evasion, threats and emotional blackmail, and flattery or ingratiation. Unresolved power conflict usually recycles and escalates to the point of relationship breakdown and termination.

Role Conflict: Involves very real differences in role definitions, expectations or responsibilities between individuals who are interdependent in a social system. If there are ambiguities in role definitions in an organization or unclear boundaries of responsibilities, then the stage is set for interpersonal friction between the persons involved. Unfortunately, the conflict is often misdiagnosed as interpersonal conflict rather than role conflict, and resolution is then complicated and misdirected. The emotional intensity is often quite high in role conflict since people are directly involved as individuals and there is a strong tendency to personalize the conflict.

Intergroup Conflict: Occurs between collections of people such as ethnic or racial groups, departments or levels of decision-making in the same organization, and union and management. Competition for scarce resources is a common source of intergroup conflict, and societies have developed numerous regulatory mechanisms, such as collective bargaining and mediation, for dealing with intergroup conflict in less disruptive ways. Social-psychological processes are very important in intergroup conflict. Group members tend to develop stereotypes (oversimplified negative beliefs) of the opposing group, tend to blame them for their own problems (scapegoating), and practice discrimination against them. These classic symptoms of intergroup conflict can be just as evident in organizations as in race relations in community settings. Intergroup conflict is especially tense and prone to escalation and intractability when group identities are threatened. The costs of destructive intergroup conflict can be extremely high for a society in both economic and social terms.

Multi-party Conflict: This occurs in societies when different interest groups and organizations have varying priorities over resource management and policy development. These complex conflicts typically involve a combination of economic, value and power sources. This complexity is often beyond the reach of traditional authoritative or adversarial procedures, and more collaborative approaches to building consensus are required for resolution.



International Conflict: This occurs between states at the global level. Competition for resources certainly plays a part, but value and power conflict are often intertwined and sometimes predominate. The differences are articulated through the channels of diplomacy in a constant game of give and take, or threat and counter threat, sometimes for the highest of stakes. Mechanisms of propaganda can lead to many of the same social-psychological distortions that characterize inter-personal and inter-group conflict

Methods of Conflict Resolution

Regardless of the level of conflict, there are differing approaches to deal with the incompatibilities that exist. Conflict can result in destructive outcomes or creative ones depending on the approach that is taken. If we can manage conflict creatively, we can often find new solutions that are mutually satisfactory to both parties. Sometimes this will involve a distribution of resources or power that is more equitable than before, or in creating a larger pool of resources or forms of influence than before.

Creative outcomes are more probable when the parties are interdependent, i.e., each having some degree of independence and autonomy from which to influence the other, rather than one party being primarily dependent on the other. Given interdependence, three general strategies have been identified that the parties may take toward dealing with their conflict; win-lose, lose-lose, and win-win.

The Win-Lose Approach: This is very common. People learn the behaviors of destructive conflict early in life – competition, dominance, aggression and defense permeate many of our social relationships from the family to the school playground. The “fixed pie” assumption is made, often incorrectly, that what one party gains, the other loses. The strategy is thus to force the other side to capitulate. Sometimes, this is done through socially acceptable mechanisms such as majority vote, the authority of the leader, or the determination of a judge. Sometimes, it involves secret strategies, threat, innuendo – whatever works is acceptable, i.e., the ends justify the means. There is often a strong we-they distinction accompanied by the classic symptoms of inter-group conflict. The valued outcome is to have a victor who is superior, and a vanquished who withdraws in shame, but who prepares very carefully for the next round. In the long run, everyone loses.

The Lose-Lose Strategy: This is exemplified by smoothing over conflict or by reaching the simplest of compromises. In neither case is the creative potential of productive conflict resolution realized or explored. Disagreement is seen as inevitable, so therefore why not split the difference or smooth over difficulties in as painless a way as possible? Sometimes, this is indeed the reality of the situation, and the costs are less than in the



win-lose approach, at least for the loser. Each party gets some of what it wants, and resigns itself to partial satisfaction. Neither side is aware that by confronting the conflict fully and cooperatively they might have created a more satisfying solution. Or the parties may realistically use this approach to divide limited resources or to forestall a win-lose escalation and outcome.

The Win-Win Approach: It is a conscious and systematic attempt to maximize the goals of both parties through collaborative problem solving. The conflict is seen as a problem to be solved rather than a war to be won. The important distinction is we (both parties) versus the problem, rather than we (one party) versus they (the other party). This method focuses on the needs and constraints of both parties rather than emphasizing strategies designed to conquer. Full problem - the definition, analysis and development of alternatives precedes consensus decisions on mutually agreeable solutions. The parties work toward common and superordinate goals, i.e., ones that can only be attained by both parties pulling together. There is an emphasis on the quality of the long term relationships between the parties, rather than short term accommodations. Communication is open and direct rather than secretive and calculating. Threat and coercion are proscribed. The assumption is made that integrative agreements are possible given the full range of resources existing in the relationship. Attitudes and behaviors are directed toward an increase of trust and acceptance rather than an escalation of suspicion and hostility. The win-win approach requires a very high degree of patience and skill in human relations and problem solving.

Techniques for Resolving Conflicts: Here are some field-tested approaches to conflict resolution. Most of them emphasize a collaborative or win-win philosophy.

a) **Confrontation and Problem Solving Leading to Win-Win.**

- i) The most highly recommended way of resolving conflict is confrontation and problem-solving. The person identifies the true source of conflict and then resolves it systematically using a problem-solving approach.
- ii) Tact is recommended.
- iii) The approach to confrontation and problem solving is for each side to list what the other side should do. The two parties then exchange lists, and select a compromise both sides are willing to accept.
- iv) The intent of confrontation and problem solving is to arrive at a collaborative solution to conflict.



- v) The collaborative style is based on an underlying philosophy of win-win, the belief that after conflict has been resolved, both sides should gain something of value.
- b) **Disarm the Opposition:** Disarm the opposition is a method of conflict resolution in which you disarm the criticizer by agreeing with his or her criticism of you. The act of agreeing is disarming if you agree with the criticism, the criticizer no longer has reason to use his or her armament. Disarming generally works more effectively than counter attacking a person with whom you are in conflict.
- c) **Cognitive Restructuring:** According to the technique of cognitive restructuring, you mentally convert negative aspects into positive ones by looking for positive elements in a situation. If your search for the beneficial elements in a situation, there will be less area for dispute.
- d) **Appeal to Third Party:** If you cannot resolve the problem yourself, make a formal appeal to a higher-level official or authority. Virtually all employers have some sort of appeal process. A labor union represents another method of appealing to a third party.
- e) **The Grievance Procedure:** The formal process of filing a complaint and resolving a dispute is the grievance procedure. It can also be regarded as a third-party method of resolving conflict. The steps in the grievance procedure may vary from one to six, as follows:
 - i) Initiation of the formal grievance.
 - ii) Second-level of management.
 - iii) A higher-level manager and the local union president
 - iv) Arbitration. (Only about 1 percent of grievances go all the way to arbitration.)

Sociability: Social Skills Etiquette

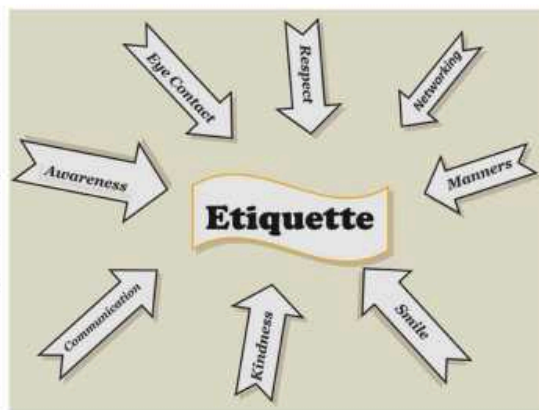
Etiquette, the manners and forms prescribed by custom, usage, or authority and accepted when people deal with each other, as correct or proper behavior. Etiquette is necessary to have an effective and well groomed personality. It is considered as an everlasting impression on the people you meet. This does not only refer about etiquette but also public mannerism. 'Mannerism' is any exaggerated style, distinctive trait, 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 and everywhere we go. The question of, why



the people having command over English is given preference, the reason lies in 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 an early promotion. Strong etiquettes and good manners always matters much, etiquette and manners describe 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/her etiquette matters a lot as a single mal-behaving attitude might destroy the impression of a country.

Etiquette

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 etiquette is discussed below:



Types:

- 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/she is at work. Each one needs to maintain the decorum of the organization. Don't loiter around unnecessarily or peep into other's cubicles.
- d) **Wedding Etiquette:** Wedding is a special event in everyone's life. Individuals should ensure they behave sensibly at weddings. Never be late to weddings, over-eat.



- e) **Meeting Etiquette:** Meeting Etiquette refers to the styles one needs to adopt when he/she is attending a meeting, seminar, presentation and so on. Listen to what the other person has to say. Never enter a 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 to interact with the others 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 eat nosily. 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 very unethical.

Need for Etiquette:

- a) Makes you a cultured individual, who leaves his/her mark wherever he goes.
- b) Teaches you the way to talk, walk and most importantly, behave in society.



- c) 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) 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. It helps individuals to value relationships.

Manners

Some of the manners we have learned from our parents and teachers. At some point, our manners are categorized as good or bad, depending on the society we live in and on the environment we grew up. 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/drinking.
- c) Picking your nose in the public.
- d) Biting nails.
- e) Spitting in public.
- f) Coughing and yawning without covering your mouth.
- g) Sneezing without covering your nose.



- h) Acting rudely and cracking vulgar jokes in the workplace.
- i) Not saying 'please' and 'thank you'.
- j) Not saying 'excuse me' when trying to get pass someone.
- k) Ridiculing someone for his/her physical limitations and shortcomings.
- l) Barging into someone's room without knocking on the door.
- m) Not saying 'sorry' when you bump into someone.

One way to gain respect in the society is to learn to respect others. 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 from what we see, do and watch.

Improve Your Social Skills

They say, a human being is a social animal, but the question is, does everyone possess social skills? Most of the people do not practice the art of speaking. While some are just inept and incompetent, there are others who lack confidence and yet others who do not have manners and etiquette. Having sound social skills is extremely important in the present times, given the fact that interaction and conversation form 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 with 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 'favourite' of the social meets. Here are some tips on how to improve social skills.

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, you would find yourself 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 and 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 gathering.
- d) **Be Attentive:** The art of listening is a stepping stone for good conversation and interaction. But not many have them. If you would have attended a social gathering, you will notice 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 give 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 make friends. It sheds 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/she looks uncomfortable or is simply disinterested, just move on to the next topic. In case the person 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. Be alert to who are your friends and who are your enemies. Do not share personal information with someone you have just met.

Values or Code of Ethics

It is an accepted fact that the future of a 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 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.

Values or Ethics

'Values' means a standard of behaviour and 'ethics' in turn means a set of moral principles that govern a person's 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 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.

A human being is a complex creature, a mixture of good and evil. The evil tendencies in him/her are of negative nature which ultimately lead to destruction. On the other hand, goodness is manifested in fellowship, unity and co-operation. This goodness can only overcome negative tendencies, if a person either has certain values inherent in him/her or he/she inculcates them.

A leader may be intelligent, knowledgeable and hard-working, but unless he/she 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, good behaviour and the good manners of the leader.

Important Values

A person's behaviour is reflected in his/her conduct. How a person behaves in a particular situation will be an indicator of his/her 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/herself possesses. Certain values which impress everybody are - honesty, truthfulness, sense of duty, loyalty, consideration for others, giving others their due and to stand by one's own principles. A person who practices 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:



- (a) **Honesty:** not to steal, cheat or lie.
- (b) **Integrity:** uprightness.
- (c) **Purity:** without duplicity, insincerity of word or deed.
- (d) **Discipline:** behaviour according to essential rules and norms, which are self-imposed.
- (e) **Selflessness:** unselfishness, rising above selfish or self-centered individualism, self-sacrifice.
- (f) **Loyalty:** being true, faithful/good to duty, love or obligation to person/ institution and allegiance to the nation or mother.
- (g) **Fairness:** being impartial, making the right decision.
- (h) **Equality:** treating everyone equally.
- (i) **Trust:** being firm belief in the reliability, ability, strength of someone or something.
- (k) **Support:** giving help, encouragement, or approval.
- (l) **Respect:** admiring someone because of their qualities.

SUMMARY

In reality, we may be playing many roles. i.e. Husband/wife, mother/father, son/daughter, teacher/student, boss/employee; each of these roles elicits different aspects of our personality and require a different set of behaviour and responsibilities. A combination of the roles we play each day, becomes the sum total of our 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 our skill in maintaining a balanced approach to making our life healthier and happier.

'Self-Awareness' is called the mother of all skills. It is a thinking social and coping skill. It is one



of the most difficult skills to master. Many great saints spent their life meditating and looking inward but only a few actually achieved complete self-awareness. Awareness about our self is the first step towards creation. This understanding then gives us the opportunity and freedom to change those things we would like to change about ourselves and create the life we want.

'Interpersonal relationship' refers to a strong association between individuals sharing common interests and goals. A sense of trust, loyalty and commitment is essential in a relationship. Individuals need to trust and respect their partners to avoid misunderstandings and conflicts in relationship. Through communication in interpersonal relationship, 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.

In a battle, there is no substitute for good, sound and robust leadership. What needs attention is the cultivation of these qualities and their application. Essentially a leader must gain and keep whatever the circumstances, the respect and confidence of his troops so that they willingly accomplish the mission. Leadership is a mixture of personal example, persuasion and compulsion. It is by discipline that an Army is formed into a fighting machine; it is by leadership that the men and machines are led to victory.

The trait principle concept gives us an insight into our behaviour and by knowing about it we can cash on the strong point. Since in the Army, we are basically concerned both with mission accomplishment and welfare of those under our command, we must be aware of our style of leadership. It is not always possible to equally balance the two needs, yet we can learn to reach one through the other.

History is full of excellent leadership examples. It's upto us to read and derive the best lessons from them. Napoleon once told his generals "Read, Read and Re-read past campaigns, because every time you read them, you will learn something new".

Time management should be fun. It should be kept as simple as possible. We can make more effective use of our time. We must always remember the keyword of time management which is 'NOW'. If we want to reap good dividends in the future, we have to sow now. And, 'Our Time Starts Now'!

Knowledge about conflict motives and their resolution is extremely important and helpful in dealing with personal challenges. It helps in self-growth as also growth of the organization. We must, therefore, continuously focus on methods of conflict resolution.

The point of etiquette is not, of course, the rules themselves but the comfort of the people concerned. Exhibiting bad manners will make one a social outcast. Manners that put a strain on others are not good manners, no matter whose rules they follow. Remember, observing good



manners and etiquette can gravitate everybody towards you.

The negative attributes to guarded against would largely include ignorance, ego, temptations, envy, hate or jealousy, lack of confidence. These have a deleterious effect and thus affect the individual in his/her thoughts and actions. An individual has to evolve his/her own mechanism to counter these to become a successful and an ideal leader.

CROSSWORD PUZZLE - 4

Solve the crossword with the given clues:

The crossword puzzle grid consists of blue and green cells. The clues are as follows:

- 2.L: Horizontal word starting at row 2, column 2.
- 3: Vertical word starting at row 1, column 3.
- 4.E: Horizontal word starting at row 4, column 3.
- 5.C: Horizontal word starting at row 5, column 2.
- 6.M: Vertical word starting at row 3, column 6.
- 7.A: Vertical word starting at row 4, column 7.
- 8: Horizontal word starting at row 8, column 3.
- 9: Horizontal word starting at row 9, column 3.



Across:

2. The person who leads or commands a group
4. The ability to endure an unpleasant or difficult process or situation without giving way.
5. Quality of being dedicated to a cause, activity
8. Uprightness
9. In such a communication, people do not express their true feelings; they do not disagree and think that others have more rights than they do.

Down:

1. The process of making plans
3. A standard of behaviour
5. The collective qualities or characteristics that distinguish a person, including her/his reputation, morals and will power.
6. A person responsible for administering an organization
7. A mind-set – the ‘way’ we think and look at things

Comprehension Questions

Q.1. Answer the following in about 15 words:

- i) What is etiquette? Why is etiquette necessary?
- ii) What should one possess to make a strong impression on others?
- iii) What is the significance of etiquette and manners?
- iv) Why is it important to have sound social skills?
- v) What do you understand by expression ‘self-awareness’?
- vi) In what ways does self-awareness help us?
- vii) What is the cause of unhappiness and poor adjustments among people?
- viii) What do you understand by interpersonal relationship?
- ix) What are the non-verbal modes of communication?
- x) Define ‘communication’.
- xi) Why is time a valuable commodity?



Q.2. Answer the following in about 50 words:

- i) Explain the following etiquettes:
 - a) Telephone etiquette
 - b) Corporate etiquette
 - c) Meeting etiquette
- ii) What is the importance of values in a person's life.
- iii) *'Human being is a complex and creative, a mixture of good and evil'*? Explain
- iv) Give the definition of leadership according to House and Shamir.
- v) What do you understand by time management?
- vi) What points should be borne in mind while organizing/attending meetings?
- vii) What do you understand by the term 'conflict'?
- viii) What steps should be taken for controlling interruptions to make the best use of our 'best time'?
- ix) Explain the two ways of communication?
- x) Explain how we would know if someone is not listening to us? Explain.

Q.3. Answer the following in about 75 words:

- i) *"Having good manners is not just blending with the best, rather it is more about considering the feelings of others and taking responsibility"*. Explain
- ii) What are the 'must haves' in an inter-personal relationship?
- iii) Bring out the difference between a manager and a leader.
- iv) In what ways does time management help?
- v) What are the mechanics of 'weekly planning'?
- vi) What are the merits and demerits of conflict?

Q.4. Answer the following in about 150 words:

- i) Explain why there is a need for etiquette.
- ii) How can you improve your social skills? Give some suggestions.
- iii) What is the purpose of SWOT? How can we capitalize in planning with the internal positive aspects of strength that is under control.
- vi) Explain the three styles of communication?



- v) Explain the characteristic of courage and endurance in a leader, with the example of gallantry and leadership of Lt. Colonel Sher Jung Thapa, with respect to Operation Saving Laddakh: 1947-48 war.
- vi) Explain what is an inter-group conflict.
- vii) Explain the techniques for resolving conflicts with reference to confrontation and problem solving, leading to a 'win-win' situation.

Q.5. Answer the following in about 250 words

- i) *"A person's behavior is reflected in his/her conduct."* Justify the statement with the help of suitable example
- ii) Discuss the important values in day to day life with suitable examples.
- iii) What are the dimensions of self-awareness? Explain any six.
- iv) What is the role of verbal communication, non-verbal communication and listening, in making communication effective? Explain.
- v) What are the major time wasters? Explain any six.
- vi) Explain what are the motives for conflict?

Let's Discuss

Q.6. HOTS (Higher Order Thinking Skills)

- i) *"Having good manners and etiquette can gravitate everybody towards you"*. Explain the statement with examples from your own real life experiences.
- ii) *"A healthy interaction is essential for a healthy relationship"*. Explain the statement in the light of inter-personal relationships and communication.



UNIT-5 | DISASTER MANAGEMENT

Knowledge	Understanding	Application Skills	Evaluation
Meaning of disaster and the preparedness required to overcome the disaster. Assisting civic authorities during a disaster.	They will understand the technique for fire fighting and the elementary precautions to combat and tragedy.	They will apply the training in practical situations.	Mock exercises

Fire Fighting

These days a fire is a major cause for the destruction of property/lives. Due to the rise in the standard of living, electrical goods, air conditioners and cooking gas are found in most of the houses. Also, most offices, shopping malls and hospitals have air conditioners. With the influx of these electrical gadgets of low quality, 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 fire fighting.

Causes and Prevention of Fire

What is a Fire?

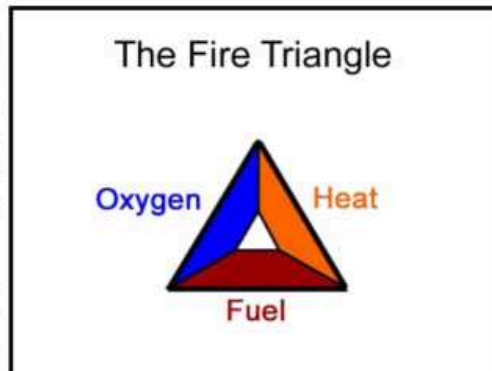
Fire is the outcome of either heating or over heating of a combustible substance to the required temperature or igniting an inflammable material. The following three elements are essential for creation of fire and its continuation:-

- Oxygen.
- Sufficient heat to raise the temperature of fuel to its burning point or ignition.
- Combustible or burnable material (solid, liquid or gas).



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: 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 the ceiling or roof is reached, after which they spread sideways in a mushroom and ignite combustible materials located at higher levels than the original fire e.g. fire spreading to the 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: The following measures must be taken to prevent occurrence of fire incidents:-

a) Domestic:

- i) **Kitchen Fires:** These fires can be prevented by taking certain precautions:-



- Don't keep any inflammable material like petrol, kerosene or clothing near the fire or gas.
- 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.
- Before lighting the gas, ensure there is no gas leakage.
- Keep children away from gas or fire stoves.
- Before leaving the kitchen, ensure that the gas and kerosene stoves are switched off and there are no burning embers in the 'chula'.

ii) **Others:**

- Ensure that no electrical circuit is 'overloaded'.
- Ensure that good quality electrical appliances/gadgets are used.
- Ensure that all electrical gadgets are switched off when not in use, eg TV, Air Conditioners, room heater or iron.
- Ensure that smokers do not leave any burning cigarettes or stubs in ashtrays near inflammable material.
- Don't light fire crackers inside the house.



b) **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 light fire crackers near petrol pumps, in crowded markets, near inflammable material or inside malls.

Constituents of Fire Fighting: 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:** The removal of fuel combustible material and it can be achieved by either segregation of fire and unburnt fuel by removing either of them e.g. removing unburnt 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:** 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:** '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 with inert gas.

Fire Fighting Parties: To carry out the above methods, the fire services and fire parties are organized in every city, town and important establishments.

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.

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





- (a) Fire extinguishers.
- (b) Stirrup pumps.
- (c) Buckets.
- (d) Fire beaters and hooks.



Fire Fighting Equipments

Fire Extinguisher: For the convenience of study, these could be grouped as:

- (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.

Fire Extinguisher Chart

Extinguisher		Type of Fire				
Colour	Type	Solids (wood, paper, cloth, etc)	Flammable Liquids	Flammable Gasses	Electrical Equipment	Cooking Oils & Fats
	Water	✓ Yes	✗ No	✗ No	✗ No	✗ No
	Foam	✓ Yes	✓ Yes	✗ No	✗ No	✓ Yes



	Dry Powder	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✗ No
	Carbon Dioxide (CO2)	✗ No	✓ Yes	✗ No	✓ Yes	✓ Yes

(d) The main advantages of these extinguishers are:-

- i) Easy to operate.
- ii) Need only one man to operate and carriage to another place.
- iii) 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 is prohibitive.
- iii) Require constant care and careful maintenance.

Stirrup Pumps: The stirrup pump is an excellent piece of first aid fire fighting 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 $\frac{3}{4}$ gallons per minute.

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.

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 materials, and extinguishing by beating the small fires.





Types: Since the dawn of civilization, the society, natural environment and disasters have been closely interlinked. Natural disasters and the increasing environmental degradation world-wide are serious threats to development. Natural disasters threaten all three dimensions of development 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.



Types of Natural Disaster

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.

Classification

Disasters can be classified based on the nature of onset (rapid/ slow), natural and manmade:-

a) Natural disasters:

- 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:
 - 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 manmade.
 - 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.

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.

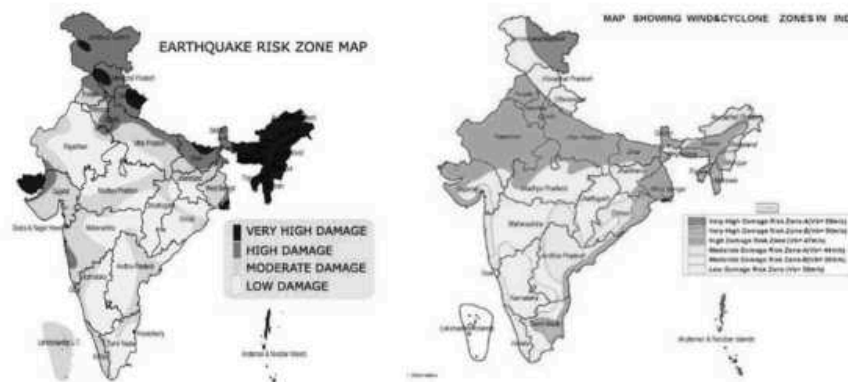
Types:

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 gets burnt or melts. 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 up from the top of the volcano can be carried hundreds of miles by wind. Volcanoes can be both, active or dormant volcanoes and can be found both, on land or under the sea.



Landslides: They 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. They 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 sometimes causing death.

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 and Cyclone Zone, India

Tsunami: "*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 have 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.

Hurricane: Sometimes called 'tropical cyclones', 'typhoons', or 'willy-willies', it 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 air over the oceans, where the temperature is more than 27°C (80°F). At first, the ring of low pressure at the centre of the storm, called the 'eye', can be more than 300 km (185 miles) across and winds only gale force. But as the eye narrows to about 50 km (30 miles) across, the winds begin to swirl around it at a hurricane 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.

Floods: They 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.

Droughts: If, over about two weeks, there is less than 0.2 mm (1/100 in) 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.

Assistance during Natural and other Calamities

India is a large land form with peculiarity of varied geographical features. It has many rivers flowing through it and is surrounded by sea on its three sides and the high mountain ranges to its North. Though this makes India unique it also brings along vagaries of climatic and weather changes and other geographical phenomenon. Floods, cyclones, earthquakes and Tsunamis have occurred in the country from time to time. These natural disasters cause unimaginable damage to people and property,



devastating lives of large number of our countrymen. It is, therefore, imperative that management during natural disasters be given utmost importance.



After - effects of Natural and Other Calamities:

- (a) Excessive loss of life/injuries.
- (b) Inundation of cities/towns/villages/country side, displacing hundreds of people, making them homeless or migrate to safer places.
- (c) Marooning of villages/houses/people.
- (d) Destruction /collapsing of houses/buildings in villages/towns.
- (e) Total disruption of all essential services like communications, electricity, water and health services.
- (f) Severe damage to road/rail network, including damage to bridges.
- (g) Displacement/loss of domestic and wild animals.
- (h) Destruction of crop/livelihood.

The following types of assistance will be required during natural/other calamities:

- (a) Setting up of information centres/reactivation of telecommunication services.
- (b) Re-establishment of road/rail communication.



- (c) Establishment of relief camps/shelters.
- (d) Casualty evacuation and rescue.
- (e) Establishment of medical camp and providing first aid.
- (f) Establishment of sanitation services.
- (g) Establishment and distribution of relief material including, food and water.
- (h) Carcass disposal.
- (i) Patrolling and liaison.
- (j) Searching for casualties/survivors of air crash accidents in remote areas.



Assistance by NCC during natural and other calamities

The organisation for providing assistance during natural and other calamities will be the existing organisation of NCC. To carry out disaster rescue and emergency relief operations readily with utmost speed, the state ADG/DDG will be the decision maker, who will act autonomously, keeping DG NCC informed. The executors will be the Group Commanders/Unit Commanders who will maintain close liaison with the DDMA authorities.

Method of Providing NCC Assistance

Immediately on receiving any requisition for providing NCC assistance from the district authorities, the CO Unit / Group Commander will take the following actions :-

- (a) Muster adequate number of SD/JD cadets along with the ANOs and PI Staff. All means of communication should be used for the collection of cadets. The ANOs must ensure that their cadets are assembled in the shortest possible time.
- (b) Organise various action groups of 20-30 cadets under an ANO and a PI Staff.
- (c) Carryout proper briefing of the cadets about the impending task.
- (d) Allocate and handover the action groups to the various agencies for providing assistance.

Creation of Groups

- (a) **Traffic Control Group:** This group provides assistance to traffic police.



- (b) **Relief Group:** This group provides assistance to collect and distribute relief materiel such as food supply, cloth, kerosene, diesel, utensils etc. and coordinate all the relief requirement of the other action groups.
- (c) **Shelter Management Group:** This group will be employed for establishment or looking after shelters and safe houses providing the evacuees with food, water and medication requirements. This group can also coordinate with the government authorities to ensure that, the health and nutrition facilities are available for the extra vulnerable groups like women and children.
- (d) **Evacuation and Rescue Groups:** The members of this group have to be physically strong (both SD and SW), and should be trained in basic evacuation and rescue methods. The members of this group should coordinate with the state government to get facilities for rescue and evacuation in terms of rescue training, rescue infrastructure and equipment.
- (e) **First Aid Medical Groups:** There should be equal number of JD/SD and JW/SW cadets in this group. Those with some knowledge of nursing will be preferable. The members will have to go through intensive training and drills for first aid.
- (f) **Sanitation Groups:** This group can consist of female and male cadets, who will look after the sanitation responsibilities, both at the shelter as well as outdoors.
- (g) **Carcass Disposal Groups:** Rotting and undisputed carcasses create unhygienic conditions and have to be disposed off immediately. Their disposal becomes an extremely important task. The members of this group have to be psychologically and physically able to carry out this task and should have been medically protected. They will be imparted appropriate training for carrying out this task. If possible the Civil Defence Volunteers, members from the NSS\ boys Scouts can be included in this group. These groups are:
 - i) **Command and Control:** The overall command and control of the operation rests with the Group Commander. The Group Commander constantly provides feedback to the ADG / DDG who will be monitoring this from the directorate. Group Commander has to nominate a unit to coordinate the operation with one or more flood/cyclone control liaison officers. Telephonic communication will be severely affected in the event of floods. Therefore it is imperative that alternate source of communications are identified and included in the operation.
 - ii) **Honours and Incentives:** Undertaking tasks in the event of the natural /other calamities is voluntary and organisation driven. It is a service performed



outside call of one's duty and therefore, it requires due recognition. It is encouraging and stimulating to the NCC volunteers to be recognised by the media during their dedicated work. Therefore, the liaison officer must be in constant liaison with the local and national press and electronic media and to ensure wide coverage.

SUMMARY

It is therefore extremely essential for all to be aware of the causes of fires and how to prevent fires or carryout fire fighting in homes and public places.

Elements are essential for creation of fire:

- *Oxygen.*
- *Sufficient heat to raise the temperature of fuel to its burning point or ignition.*
- *Combustible or burnable material (Solid, Liquid or Gas).*

Modes of Spread: *The fire spreads by the transmission of heat in one or any combination of the following four ways:*

- *Conduction*
- *Convection*
- *Radiation*
- *Direct Burning*

Fire can thus be extinguished by:

- *Starvation*
- *Cooling*
- *Smothering*

Fire Fighting Equipment

- *Fire extinguishers.*
- *Stirrup pumps.*
- *Buckets*
- *Fire beaters and hooks.*

On 23 December 2005, the Government of India took a defining step by enacting the Disaster Management Act of India, which envisaged the creation of the National Disaster Management Authority (NDMA), headed by the Prime Minister.

Classification of Disasters:



i) **Natural disasters:**

- Wind related
- Water related
- Earth related

ii) **Manmade disasters**

- Accidents
- Industrial mishaps
- Fires
- Forest Fires
- Contamination/Poisoning
- Terrorists Activities
- Ecological
- Warfare

Smothering means 'choking' or restricting the supply of oxygen (air) to the burning material.

Natural disasters and the increasing environment degradation world-wide are serious threats to development. Natural disasters threaten all three dimensions of development which include economic, social and environmental. Natural calamities have killed millions of people, inflicted injury, disease, homelessness and misery on a billion of 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.

Natural and other calamities which occur without much notice, cause excessive damage to life and property. However, if we are well organized and prepared, then the losses in human lives can be reduced by providing timely assistance to the needy.

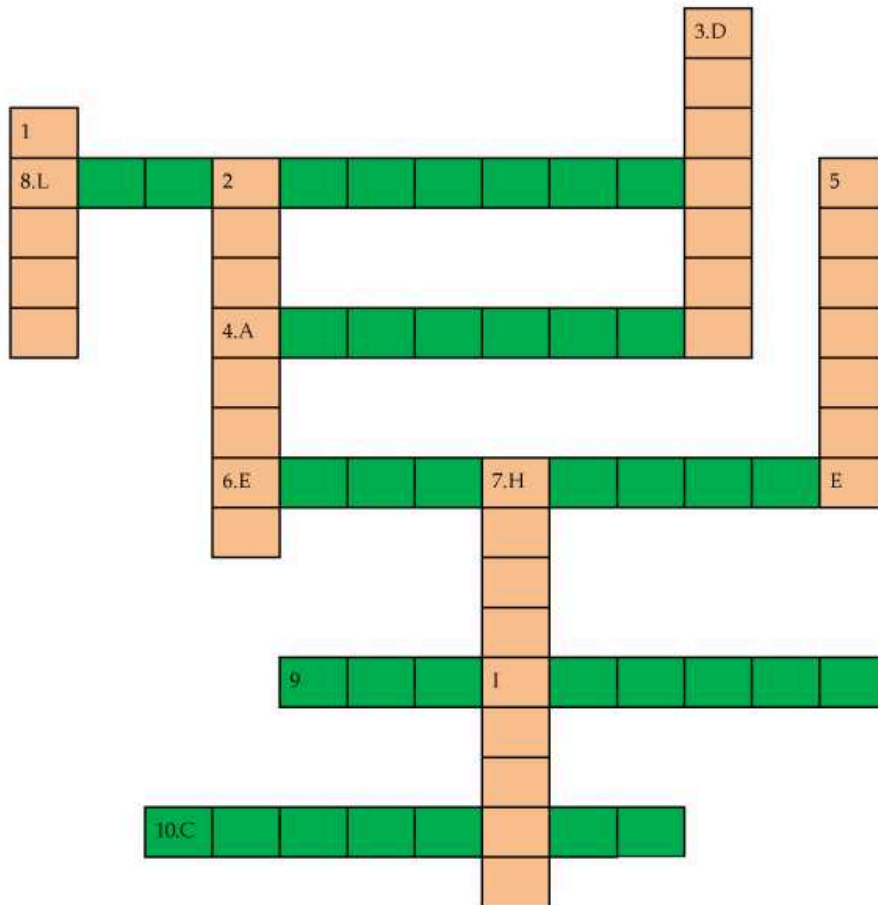
Types of Natural Disaster:

- Volcanoes
- Landslides
- Earthquakes
- Tsunamis
- Hurricanes
- Floods
- Droughts



CROSSWORD PUZZLE - 5

Solve the crossword with the given clues:



Across:

- 4. Synonym of 'mishap'
- 6. A sudden violent shaking of the ground as a result of movements within the earth's crust





8. A collapse of a mass of earth or rock from a mountain or cliff.
9. Transfer of heat from the source of fire, without heating the midway media e.g.,air.
10. It implies the removal of heat to lower the temperature of burning material to a point below its ignition point

Down:

1. An overflow of a large amount of water beyond its normal limits, especially over what is normally dry land.
2. A sudden accident or a natural catastrophe that causes great damage or loss of life
3. A prolonged period of abnormally low rainfall, leading to a shortage of water.
5. The activities involved in war or conflict
7. Synonym of 'cyclone', 'typhoon'

Comprehensions Questions

Q.1. Answer the following in about 15 words:

- i) What is the major cause of destruction of property and lives these days?
- ii) What is 'fire'? Why have the fire accidents increased manifold?
- iii) What are the three elements essential for creation of fire and its continuation?
- iv) What are the four categories of fire fighting equipment?
- v) What is an affective method to contact NCC cadets to be available for any assistance during calamities?

Q.2. Answer the following in about 50 words:

- i) What are the three elements that cause a fire?
- ii) What are the different types of fire extinguishers? Explain any one of them?
- iii) Write two ways of preventing a fire in public places?
- iv) Explain the role of 'house fire parties'?
- v) Write short notes on
 - a) Bucket
 - b) Fire beaters/hooks

Q.3. Answer the following in about 75 words:

- i) What are the various categories of 'firefighting appliances'?



- ii) What are the modes of spread of fire?
- iii) What are the roles of NCC cadets during natural disasters?

Q.4. Answer the following in about 150 words:

- i) What are advantages and disadvantages of using extinguishers?
- ii) What are the modes of spread of fire?
- iii) What steps should be taken to prevent kitchen fires?
- iv) Why is the stirrup pump piece of first fires fighting equipment designed for use on small fires?
- v) What is the assistance required during a flood/cyclone?
- vi) What is the impact of earthquakes?
- vii) What are the problem areas which need particular attention during relief operations?

Q.5. Answer the following in about 250 words:

- i) Fire can be extinguished if any one or more of the three main constituents' i.e. oxygen, heat and combustible material are removed from the scene of fire." Explain the statement in the light of ways of extinguishing the fire.
- ii) What are the various points for consideration while employing NCC cadets for disaster management?
- iii) Describe as to how the assistance will be provided during any flood/cyclone by NCC cadets?
- iv) What are the important points to be kept in mind by resident of quake prone area?

Let's Discuss

Q.6. HOTS (Higher Order Thinking Skills)

- i) What precautions should be taken in schools to educate students about floods?
- ii) Which life skills are enhanced by working as responsible volunteers during any calamity?
- iii) What will be your effective strategy to make a group of NCC cadets work in an efficient way, during the call of emergency?
- iv) What will be your effective strategy to make children understand the preventive measures to be taken during the occurrence of fire?



UNIT-6

Social Awareness and Community Development

Knowledge	Understanding	Application Skills	Evaluation
Importance of voluntary social service and the role of an NCC Cadet in community building.	Students will understand social services and its need in the development of the society.	Students will develop a strong value system and become responsible citizens.	Activities, work sheets and assignments
The importance of NGOs in community service.	They will understand about the role of NGO's in providing social service towards the development of society.	They will appreciate the role of NGO and their selfless service to society.	Activities, work sheets and assignments
Different social ills and vices and the effect they have on the youth, drug trafficking, female foeticide, child abuse, intoxication.	They will understand the causes and learn how to overcome these problems	They will develop a strong value system and become responsible citizens.	Activities, work sheets, assignments and street plays

NGOs - Role and Contribution

The term 'Social Service' is defined broadly as, the provisions made by governmental or voluntary effort to meet income, maintenance, medical care, housing, education and recreational needs and provisions, for the care and protection of recognised special groups.

Social service characterises a formalised way of helping people, to help themselves. There are a large number of Non-Governmental Organisations (NGOs) which are actively involved in social service today.



Working with the "Third Sector"



What are NGOs?

Non-Government Organisations

- (a) These are organisations which are controlled by members of a society, who form a group or groups and, work towards social welfare and nation building. People with common objective and aspirations, together make organisations called Non-Government Organisation (NGOs) and get them registered.
- (b) An NGO is a non-profit group or association that acts outside of institutionalised, political structures and pursue matters of interest to its members by lobbying, persuasion, or direct action.
- (c) NGOs firstly survey various problems, collect information about them, organize various demonstrations, give speeches and wherever action needs to be taken, they take it up with enthusiasm. They understand social problems, the causes, affects and create necessary infrastructure to overcome them.
- (d) NGOs are primarily non-commercial. They collect funds both from individual and the government. NGOs usually gain a portion of their funding from private sources. Major sources of NGO funding include membership dues, grant from international institutions or national governments and private donations.



Types of NGOs: NGOs can be of following types:

- (a) INGO : International NGOs.
- (b) BINGO : Business oriented - International NGOs.
- (c) RINGO : Religious International NGOs.
- (d) ENGO : Environmental NGO.

Some of the examples of important NGOs are:

- (a) Shri Niketan Yojna - Rabindranath Tagore.
- (b) Seva Gram Yojna - Gandhiji.
- (c) Gram Yojna - Vinoba Bhave.
- (d) Child Relief and You (CRY).
- (e) Helpage India.
- (f) People for Animals (PFA) and Society for Prevention of Cruelty to Animals (SPCA).
- (g) International Red Cross and Red Crescent Movement are the world's largest group of humanitarian NGOs.

Contribution:

Activities undertaken by them:

- (a) Blood donation.
- (b) Adult literacy.
- (c) Anti-dowry drive.
- (d) Anti-leprosy drive.
- (e) Anti-drug drive.
- (f) Tree plantation.
- (g) Environmental programmes.
- (h) Help in natural calamities such as flood, earth-quake.
- (j) Educating people about the ill-effects of AIDS and education for prevention of the same.
- (k) Family planning programmes.



- (l) Community development work.
- (m) Promotion of social-equality.
- (n) Wildlife and animal care.
- (o) Human rights.
- (p) Awareness campaign.
- (q) Child care.
- (r) Polio eradication drive.
- (s) Providing schooling facilities, especially in remote villages and rural areas.
- (t) Creating and providing health and hygiene infrastructure and facilities to reduce diseases and help in creating a healthy and fit population.
- (u) Cottage industry.
- (v) Orphanage and old age homes.

Drug Abuse and Drug Trafficking

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.



Types: 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. Those 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 greatly deal, so it is impossible to predict how they affect a particular person at a particular time. Hallucinogens include:-
- (i) Dhatura
 - (ii) Ketamine

Legal Drugs: These are those where laws and regulations control the availability, quality and price of the legal drugs. For example, tobacco must not be sold to persons below the age of 18 years.

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.



Drug Abuse and Trafficking

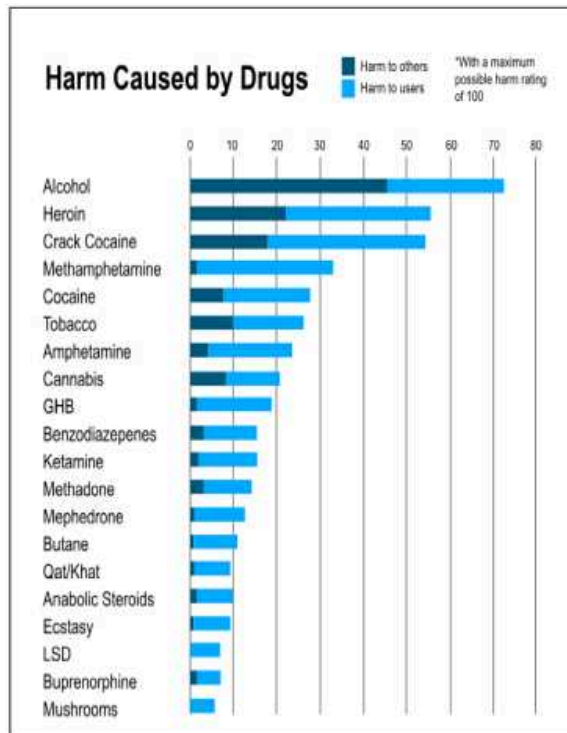
Drug Abuse

Drug abuse 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.

It was found that all addicts either take cannabis or heroin. 72% 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.

Drug addiction is found to be the most common in peer groups. 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 have no significant effect on the habit. The problem of drug addiction appears to be common among youths (20-24 yrs), which may be due to their emotional immaturity.





Drug Trafficking

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.

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 crime and theft. The drug syndicates often use poor people, especially youth to carry their illicit products from one place to another which makes the youth fall for easy money. The youth do not understand the dangers of this illegal activity.

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 years rigorous imprisonment (RI) 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 the detention of persons indulging in trafficking of narcotic drugs for 1 to 2 years by an executive order.

Corruption

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 a phenomenon such as bribery is 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 past 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.

Corruption

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.

Types:

- (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.

Different Sectors of Corruption: Corruption can occur in many different economic sectors whether it be public or private, industry or even NGOs:

- (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 judgement 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.

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.



- (a) **Bribery:** 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:** 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 centres 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 officials using their discretion to allow a banned substance through a port of entry.
- (e) **Favouritism and nepotism:** 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.

Prevention: Removing corruption from 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 must not be tolerated.
- (b) Don't give bribes 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.

Social Evils: Female Foeticide, Dowry, Child Abuse and Trafficking

India is a large heterogeneous society with varied castes, cultural, religion and economic strata. Due to various customs, a large number 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.

Female Foeticide

Definition: Female foeticide is the selective abortion / elimination of the girl in the womb, 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.

Causes:

- a) **Desire / preference for a male child:**
Elimination / removal of girls from the family tree, even before they are born, clearly indicate 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 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 a female foetus.

- c) **Lack of 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 profitable industry.
- d) **Dowry System:** In India, the age old custom of 'dowry' dampens parents' spirits who are 'blessed' with a girl child. Right then they 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) **Low status of women:** Centuries of repression has created a sense of 'inferiority' among women. They willingly embrace the role of the meek, submissive, docile individual, who works relentlessly to cater to the whims of her family. Female foeticide happens with the explicit consent of the mother.

Effects:

- (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 year 1981, the sex ratio has plummeted to an all-time low of only 914 girls for 1000 boys in 2011.
- (b) **Female trafficking:** The steep decline in the number of girls makes them scarce for the 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.



Measures to Prevent Female Foeticide:

The prominent steps are:

- (a) Cancellation / permanent termination of the doctor's license who participates 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 equipment 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 foeticide. 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, friends and wives.
- (e) High incentives for the education of the girl child, employment etc.
- (f) Equal rights for women in the property of the parents / husband.

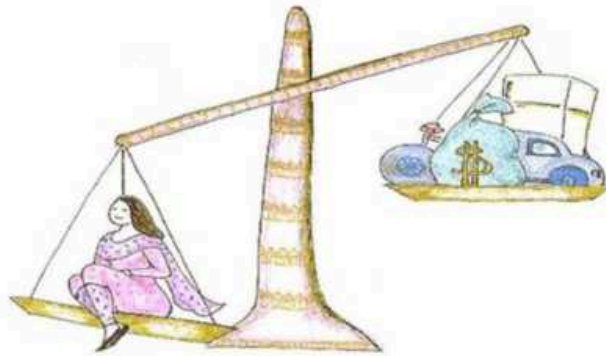
Dowry

In India, **dowry** is the payment in cash or 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. According to one study, more than 50 million female children have been murdered as a result of ancient 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.”*

DOWRY-THE CANCER OF SOCIETY



Causes:

- (a) **Divine Sanction:** Dowry is one of the most ancient practices of India. A dowry was given by the bride's family to the groom.
- (b) **Growing economic inequality:** This fuels the desire to ask for more and more cash or gifts to pursue a lavish life style or other ventures.
- (c) **Increasing unemployment of males:** In order to prove their status, unemployed males demand more and more dowry to fulfil their desires.
- (d) **Social compulsions:** In order to find a good match for their daughter, well-to-do parents offer a huge dowry. This adds fuel to the growing demand for dowry.

Effects:

- (a) Increase in domestic violence.
- (b) Increase in mortgage and loans.
- (c) Female foeticide.
- (d) Female trafficking.
- (e) False dowry allegations.



Prevention: Society, and as a member of the society one can do a lot to prevent offences related to dowry by taking the following steps:-

- (a) Start practising dowry prohibition in the family. Don't ask for 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 the family and is entitled to all the rights and privileges a man enjoys. Educate your family and your neighbors to respect women's rights and privileges.
- (d) Encourage women to raise their voice for their rights and to fight the dowry system.

Child Abuse

- (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. In a country like India with its multicultural, multi-ethnic and multi-religious population, the problems of socially marginalized and economically backward groups are immense. Within such groups, the most vulnerable section is always the children.
- (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.

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.”*





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, verbal, mental, 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 behaviour of an adult with a child.
- (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 a child's 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.

Child Abuse in India: A National Study on Child Abuse 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:

- (a) It is young children, in the 5-12 age groups who are most at risk of abuse and exploitation.
- (b) **Physical Abuse:**
 - Two out of every three children were physically abused.
 - Out of 69% children physically abused, 54.68% were boys.



- Over 50% children were being subjected to one or the other form of physical abuse.
- 88.6% children were physically abused by parents.
- 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:**

- 53.22% children reported having faced one or more forms of sexual abuse.
- 21.90% child respondents reported facing severe forms of sexual abuse and 50.76% other forms of sexual abuse.
- 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.
- 7.50% abuses are persons known to the child or in a position of trust and responsibility.
- Most children did not report the matter to anyone.

(d) **Emotional Abuse and Girl Child Neglect:**

- Every second child reported facing emotional abuse. Equal percentage of both girls and boys reported facing emotional abuse.
- In 83% of the cases, parents were the abusers.
- 48.4% of girls wished they were boys.

Anti-Drunken Driving and Traffic Control Organization

Expansion of 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.

Traffic Control Organisations

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.
- (f) Conduct vehicle based patrolling of roads / highways.
- (g) Manning of road intersections, one way routes and check posts.
- (h) Manning of PRC vans.
- (j) Investigation of road accidents, making of accident reports and evacuation of injured to hospitals.
- (k) Clearing of road blockages due to accidents or any other reason.
- (l) Educating general public on road safety rules.
- (m) Conduct of road safety seminars or training.
- (n) Speed monitoring dets.

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.



Anti-Drunken Driving

An act of drunken driving can be described as driving a vehicle (including wheelchairs) under the influence of alcohol. Drunken driving is an offence in India, like in 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 driver mowing down footpath dwellers. With statistics saying that almost 78% of all road accidents in India are the driver's fault. Drunken driving is the cause of approximately 39% of all casualties.

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, the offender 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.

According to 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 percent, respectively.



The most common violators by drunken driving have been identified as under:

- (a) Children between 16-25 years of age.
- (b) Most truck drivers.
- (c) Most people returning from parties in cities.
- (d) After New Year parties or festival celebrations.



Prevention

The following measures can prevent deaths / accidents due to drunken driving:

- (a) Don't drive after consuming alcoholic drinks under any circumstance.
- (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 drunken driving to police.

SUMMARY

NGOs are the true example of selfless service and teamwork. Employees are highly committed to the aims and the principles of the organisation. They share equal contribution with government organisation and social welfare programme. Though government on its part has introduced a number of programmes, however government cannot be entirely successful without the active participation by every member of society. NGOs provide the necessary platform towards this end.

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 the effective control of drug abuse.

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.

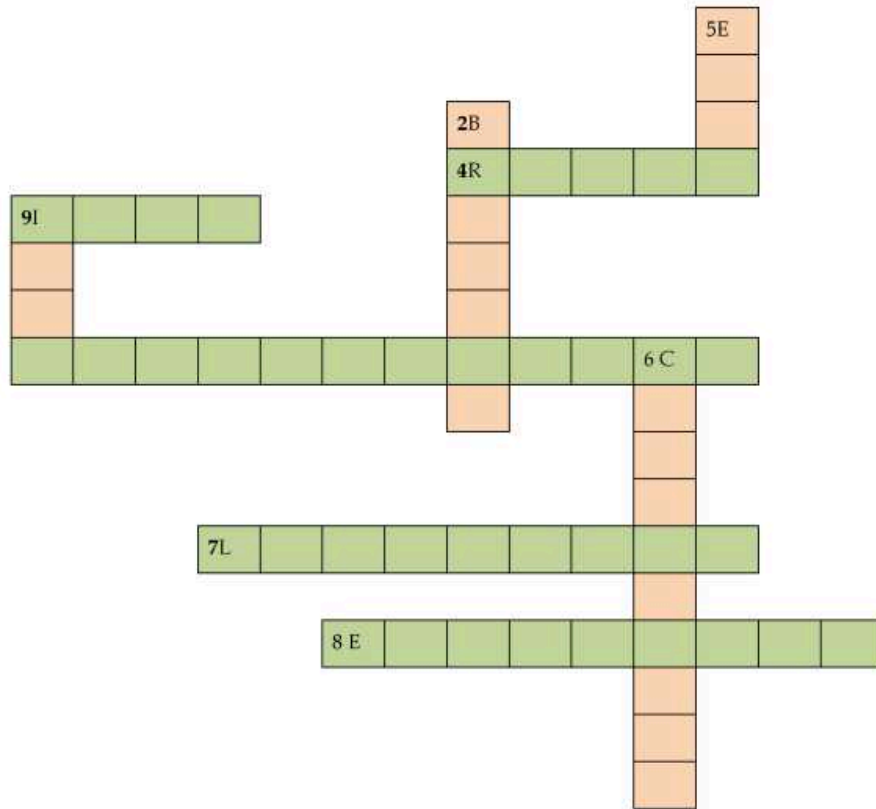
Social Evils are mostly born due to poor education, misplaced beliefs, unemployment and inequitable distribution of wealth. Social Evils are a disease on the society and have disastrous long term effects. We need to take concerted action to eradicate these evils from society. Although many laws / legislations 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 from society.

The role of alcohol in traffic accidents has produced more controversies than any other issue. After drinking, the judgment power of the driver gets impaired - a threat to road safety. Due to its effects, a drunken 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 a crash increases with the rising blood alcohol levels. Thus, we must ensure that neither do we drive after drinking alcohol nor do we allow others to do this.



CROSSWORD PUZZLE - 6

Solve the crossword with the given clues:



Across:

1. Business oriented International NGOs
3. This characterises a formalised way of helping people, to help themselves
4. Religious International NGOs
7. These are those drugs where laws and regulations control the availability, quality and price
8. The practice of obtaining something, especially money, through force or threats



Down:

2. Also known as kickbacks or *baksheesh*
5. Environmental NGOs
6. The abuse of entrusted power for private gains
9. International NGOs

Comprehension Questions

Q1. Answer the following in about 15 words

- (i) What do social service characterise?
- (ii) Give the full form of NGO.
- (iii) Give the full forms of PFA and SPCA.
- (iv) What are the world's largest group of humanitarian NGOs?
- (v) What does BINGO stand for?
- (vi) What is a 'drug'?
- (vii) What are 'psychoactive drugs'?
- (viii) What are considered a greater problem than drug consumption?
- (ix) What are 'legal' drugs?
- (x) What should government and NGOs emphasize?
- (xi) Name the anti-corruption organisation.
- (xii) What erodes the assumption of legitimate political authority and the efficacy of the ball box in India?
- (xiii) Define 'corruption'?
- (xiv) What are the factors that encourage 'systemic' corruption?
- (xv) Give one example of favoritism that you have come across?
- (xvi) What has given birth to various kinds of social evils in India?
- (xvii) What is the full form of MTP?
- (xviii) How many states, children, young adults and stakeholders were covered by the national study on child abuse in the year 2005?
- (xix) What are 'road accidents'?
- (xx) What contributes towards increasing the number of road accidents?



- (xxi) What is the responsibility of the traffic police department?
- (xxii) Why is 'drunken driving' made an offence under law?
- (xxiii) Who can be booked under the 'first offense'?

Q.2. Answer the following in about 50 words

- (i) Write the names of any three NGOs and who established them?
- (ii) Describe the types of NGOs?
- (iii) Give any three types of 'depressants'? What do they include?
- (iv) What are 'illegal drugs'?
- (v) What characterizes the Indian drug market?
- (vi) Write short note on:
 - a) Petty corruption.
 - b) Abuse of discretion.
- (vii) What are the methods by which corruption can be reduced?
- (viii) What is 'female foeticide'?
- (ix) Write a note on the Dowry Prohibition Act 1961.
- (x) What is 'child abuse'?

Q.3. Answer the following in about 75 words

- (i) What is the role of "Narcotic Drugs and Psychotropic Substances (NDPS) Act and Rules"?
- (ii) What are the effects of the dowry system?
- (iii) Who are most common violators of drunk driving?
- (iv) What measures can be taken to prevent deaths/accidents due to drunk driving?

Q4. Answer the following in about 150 words

- (i) What are NGOs? Explain citing any four characteristics.
- (ii) What contributions are made by NGOs? Explain them with reference to various activities undertaken by the NGOs?
- (iii) Write short notes on
 - a) stimulants
 - b) hallucinogens



- (iv) What is drug abuse? Explain.
- (v) What is drug trafficking? Explain.
- (vi) What role does the law play in control over utilization of opium and all matters relating to narcotic drugs and psychotropic substances?
- (vii) What are the different types of corruption? Explain them.
- (viii) What are different economic sectors where corruption can occur? Explain any 5 of them.
- (ix) What are the main causes/reasons for female feticides? (Any 4 points)
- (x) What are the causes of dowry system practiced in India.
- (xi) What are the various forms of child abuse? (Explain any 4)
- (xii) Explain the effects of female feticide (Any 4 points)
- (xiii) Explain traffic organization with the help of a flow chart.
- (xiv) What tasks does the traffic police carry out?
- (xv) What do you understand by 'drunk driving'? Write about the course of law in the case of drunken driving.

Q.5. Answer the following in about 250 words:

- (i) What are the various methods of corruption? Explain them with the help of suitable examples.
- (ii) What measures can be taken to prevent female foeticide?
- (iii) Explain 'child abuse' and 'girl child neglect'.
- (iv) What are the various types of drugs and name the common drugs in each category?

Let's Discuss

Q.6. HOTS (Higher Order Thinking Skills)

- (i) "NGOs are an example of selfless service and team work." Explain.
- (ii) "Drug trafficking and consumption has become a global menace? Explain with suitable examples.
- (iii) "The role of alcohol in traffic safety has caused the greatest threat to safety" Explain.



UNIT-7

Health & Hygiene

Knowledge	Understanding	Application Skills	Evaluation
The importance of personal hygiene and sanitation.	The students will understand the basics of personal hygiene.	The students will understand and practice the sanitation and hygiene.	Activities, work sheets and assignments, street plays
Dealing with fractures, wounds, cuts and bruises.	They will understand the basics of first aid and how to provide the same in any such situation.	They will apply the training in practical situations.	Activities, work sheets and assignments, street plays

Health is a positive state of well-being, where every part of the body and mind is in harmony and in proper functioning balance with every other part. In other words, when every organ of the body is functioning normally, the state of physical well-being is known as health. It has been well said that only that person can be called really healthy who has a sound mind in a sound body. Health is the characteristic of life that enables a person to live longer. According to the World Health Organisation (WHO): *“Health is the state of complete physical, mental, spiritual and social well-being and not merely absence of disease”*. If a person is disease free or in a good physical state, but under stress, tension, anger, greed etc. than that person is not considered as a healthy person. Hence, in addition to physical health, we must consider the mental and emotional health also, only than spiritual and social health can be achieved and people can progress for the well-being of the society.

Hygiene and sanitation are fields of medical science which aim 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, their community most efficiently and develop habits of healthy living.



Hygiene and Sanitation

Hygiene is defined as the science and art of preserving and improving health. The purpose of hygiene is to allow man to live in healthy relationship with his environment. It deals both with an individual and a community as a whole. In order to be healthy one must realize that hygiene and sanitation play a very important role. This field has nothing to do with religion or social customs, but it is based on scientific requirements. 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/she serve the community and the country well.



Personal Hygiene



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 maintaining:-

- (a) good and clean physique.
- (b) good muscle strength.
- (c) clean mouth and teeth.
- (d) perfect physical, mental and social health.

Main Components:

- (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 the individual age. The average requirement of sleep is about 7 to 8 hours a day.
- (b) **Bathing:** Keeping the skin clean and healthy 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 lead to cuts /fungal infection.
- (c) **Eating and Drinking:** Properly cooked food with its full nutrient value is beneficial for health. Food should be eaten slowly and chewed well. It should not be swallowed hastily. Plenty of water should be consumed between meals and strenuous exercise should be avoided 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, causing bad breath. Teeth should be regularly brushed after the last meal at night and early in the morning. Insufficient vitamins C and D are the cause of dental decay.
- (e) **Exercise:** Organized games and physical exercise are necessary for proper development of the body and mind.

Water Supply and Its Purification:

- (a) **Main Sources of water supply:**
 - (i) **Rain water:** Most of the fresh water on earth comes from rain. However, most of this water is not fit for consumption due to impurities in 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 waste into it.
 - (iii) **Underground streams:** Borewells 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 or smell, undesirable color and germs. The following methods are used for water purification:-
- (i) **Boiling and filtering:** 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 through filter beds of gravel and sand or through properly sterilized filters.
 - (iii) **Sterilization:** This is done using chlorine gas or bleaching powder.
 - (iv) **Pinking:** During cholera epidemic, potassium permanganate is mostly used for pinking of wells.
 - (v) **Precipitation:** Adding alum or some similar chemical to water which makes all impurities accumulate at the bottom and leaves pure water. The purified water is then passed through a filter.

Food Hygiene: 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.

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.

Precautions:

- (i) The animal and its surroundings should be healthy and clean. The animal should be properly washed before milking.





- (ii) The 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 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.
- (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 animal 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 slimy. Good meat should be elastic to touch and should have an agreeable colour.
- (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 cause 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 cause for the spread of pathogenic organisms, protozoan and helminths. Fruits and vegetables to be consumed raw must be washed well.
- (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, with adequate lighting.
 - (iv) Perishable and non-perishable items should be stored separately.

MISSED SPOTS WHEN HAND-WASHING



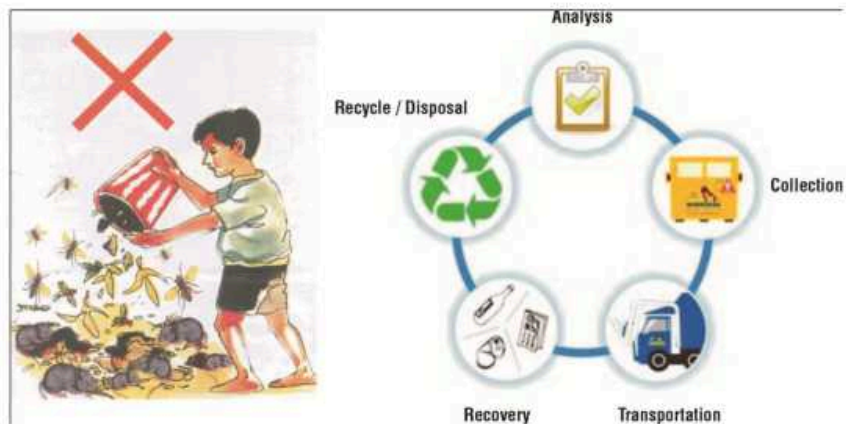
- MOST FREQUENTLY MISSED
- LESS FREQUENTLY MISSED
- NOT MISSED



- (v) Furniture should be 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 to be done at the time of employment.
 - (ii) Regular health check-ups should be done.
 - (iii) 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 while cooking.

Sanitation

Sanitation means keeping the living area and its surroundings neat and clean. This involves removal of waste and refuse.



Waste or Refuse

- (a) Human excreta - faeces and urine.
- (b) Stable litter - horses and cow dung.
- (c) Dry refuse and garbage - household, municipality, industrial and agricultural.



- (d) Liquid wastes: household spillage, municipal and industrial effluents.
- (e) Trade waste.
- (f) Carcasses and offal of slaughtered animals.

Sources:

- (a) **Street Refuse:** Refuse that is collected by street cleaning service or scavenging is called street refuse e.g., leaves, straw, paper etc.
- (b) **Market Refuse:** Refuse that is collected from markets is called market refuse. E.g., spoiled vegetable and animal matter.
- (c) **Stable Litter:** It contains mainly animal dropping and left over animal feed.
- (d) **Industrial Refuse:** Industrial refuse comprises of a wide variety of waste.
- (e) **Domestic Refuse:** Domestic refuse consists of ash, rubbish and garbage.

Collection and Removal:

- (a) **Household Refuse:** Covered galvanized iron bins are placed on brick / cement platforms at convenient distances from the house. These should be used for dumping household refuse. This refuse is then collected in covered wheel barrows or municipal vans to prevent blowing out by wind.
- (b) **Special Refuse:** From stables and cowsheds. It is collected in carts and taken to the disposal ground at frequent intervals.
- (c) **Street Refuse:** Covered dustbins should be placed at suitable intervals along the street and all the sweeping should be dumped in it. It is then collected early in the morning in covered vans.

Disposal of Waste Products or Refuse:

- (a) **Filling:** In this method, the refuse is generally utilized in filling up pits, unsanitary tanks or in reclaiming low land. The area selected should be at least 100-150 feet away from any habitation. No refuse should be left uncovered for more than 72 hrs.
- (b) **Controlled Tipping:** Controlled tipping or sanitary landfill is the most satisfactory method of refuse disposal where suitable land is available. Chemical, bacteriological and physical changes occur in buried refuse.
- (c) **Incineration:** Hospital refuse, which is particularly dangerous, is best disposed of by incineration.



- (d) **Composting:** A method of combined disposal of refuse and night soil or sludge.
- (e) **Manure Pits:** The garbage, cattle dung, straw and leaves are dumped into the manure pits and covered with earth, after each day's dumping.
- (f) **Burial:** This method is suitable for small camps. A trench 1-5m wide and 2m deep is excavated. When the level in the trench is 40 cm from ground level, the trench is filled with earth and compacted and a new trench is dug out. The contents may be taken out after 4-6 months and used in the fields.
- (g) **Sorting:** This method consists of sorting refuse in three separate parts for easy disposal:-
 - (i) **Breeze:** Cinders and pieces of coal are used for making bricks.
 - (ii) **Soft Core:** Animal and vegetable organic matter, is used as manure.
 - (iii) **Hard Core:** Broken bottles and crockery is used for metaling of roads.

Disposal of Human Waste: Proper disposal of human waste/ excreta are very essential for the prevention of various communicable diseases and also to prevent pollution / contamination of soil, water or food (through flies). Various methods are available for disposal of human waste / excreta as per the type of area i.e., area with a proper sewage system (sewered areas) and areas without proper sewage system (unsewered areas).

- (a) **Sewered Areas:** The latrines used in such areas are mainly the Flush Latrines. It implies that ample supply of water is available to flush the night soil. It is simple and hygienic.
- (b) **Unsewered Areas:** There are various types of latrine for such areas:-
 - (i) **Domestic Latrines:** These are those latrines which are used in houses in areas not having a sewage system. These are of following types:-
 - (a) **Bore hole latrine:** The latrine consists of a circular hole 30-40 cm in diameter dug vertically in the ground to a depth of 4 to 8 mtr. In loose sandy soil, the hole is lined with bamboo matting or earthenware lining.
 - (b) **Dug well latrine:** A circular pit about 75 cm in diameter and 3 to 5 cm deep is dug into the ground for the reception of the night soil . In sandy soil, the depth of the pit may be reduced to 1.5 to 2 mtrs.
 - (c) **Water seal latrine:** The water seal performs two important functions e.g. it prevents access to flies and it prevents escape of foul odour. Out of many designs of water seal latrines, the RCA type is widely adopted.



(ii) **Camp Latrines:**

Types

- (a) **Deep trench latrines:** A pit three feet wide, at least eight feet deep and of a length suitable to the requirement is constructed and wooden seats placed over it with proper partitions and curtains. Soil may necessitate reverting of sides with sand bags, bamboos or wire netting. On vacation of camp, these are filled with soil to assist in disintegration and prevent breeding of flies.
 - (b) **Shallow trench latrines:** For camps of less than a week's duration, a row of trenches in parallel is dug, each trench being 3 feet long, 1 foot wide and 2 feet deep. Each trench should be 2 feet apart. The ratio is 5 trenches for the first hundred users and three for each subsequent hundred. After defecation, the excreta is covered with loose earth with a shovel or a scoop. These trenches are filled up after 24 hours and new trenches are dug.
 - (c) **Urinals:** The most common urinal used for camps is the funnel urinals which are constructed over a simple soakage pit.
- (iii) **Soakage Pits:** These are essential for the disposal of liquid refuse like greasy water from kitchen and waste water from bathrooms. A pit of 4 feet by 4 feet and 5 feet to 6 feet deep is dug. It is filled with small stones and broken bricks. The top is covered with oiled sacking and earth or sand is put 6 inches above. In the centre, a perforated empty tin of kerosene oil is kept. This tin is filled with layers of gravel or sand and gravel. In this pit the strainer is removed daily and replaced with fresh one.
- (iv) **Disposal of Garbage:** Disposal of solid refuse like kitchen garbage, bones etc. is done by burial or burning. The household refuse should be deposited in a covered bin placed outside. Improvised kerosene/oil tins are not advisable. Further disposal should be done under municipal arrangements.
- v) **Disposal of Sewage:** Proper disposal and treatment of sewage has assumed great importance today. The disposal of sewage involves treatment and disposal as under:-
- (a) **Treatment:** Treatment of sewage is brought about by the action of anaerobic and aerobic bacteria. The different steps involved in this process are:-
 - (i) Screening.
 - (ii) Chambering.



- (iii) Primary sedimentation.
 - (iv) Trickling filter.
 - (v) Activated sludge process.
 - (vi) Sludge digestion.
 - (vii) Disposal of effluent.
- (b) **Disposal:** The sewage is collected by the water carriage system and where no treatment facility is available can be disposed of by:
- (i) **Sea out fall:** The sewage is drained into the sea. This is applicable mostly for coastal cities / towns.
 - (ii) **River out fall:** The sewage is drained into the river. This is applicable mostly for cities / towns situated along the rivers or connected by drains.
 - (iii) **Land treatment:** Here the sewage is allowed to drain out on the earmarked land / pits. This is mostly applicable to small villages.
 - (iv) **Oxidation pond:** A pond that contains partially treated waste water which is then left to allow the growth of algae and bacteria, which decompose the rest of the waste.

First Aid in Common Medical Emergencies

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.

Basic First-Aid Treatment

Injuries to Internal Organs: 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:-

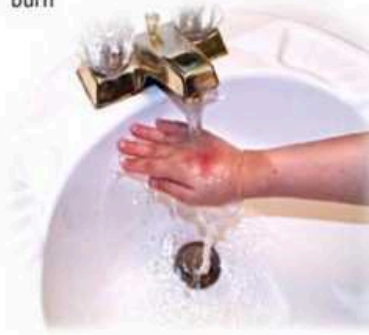
- (a) Cold clammy skin.
- (b) Weak and rapid pulse.
- (c) Shallow sighing and breathing.
- (d) Face pinched and pale.
- (e) Eyes deeply sunken with dark rings around them.
- (f) Patient is usually restless and anxious and may lose consciousness.

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.

Burns and Scalds: 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.

Run cool water
over area of
burn



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.
- (b) Protect the burnt area by applying a bandage or cover exposed part with a clean towel or cloth.
- (c) Give complete rest and plenty of fluids to the patient.
- (d) Re-assure the patient.
- (e) Give him/her morphia, if required.
- (f) Evacuate patient to the nearest hospital or dispensary.



Snake, Scorpion and Dog Bite

Snake Bite: 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.

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 flow to all parts of the body.
- (d) Wash with soap and water. Use water freely.
- (e) Incise into the skin 2" X 1/2" 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 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: To be treated like snake bite.

Treatment: If blood has been drawn, the wound should be cleaned well with antiseptic lotion.

Rabid Dog Bite: Rabies is a very dangerous disease transmitted by a rabid dog. The disease is preventable by giving anti-rabies vaccine.

Treatment

- (a) Immediately wash the bite area with lots of water and soap.
- (b) The wound should be cleaned with available antiseptic.
- (c) The 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.

Foreign Bodies in Eye, Ear and Nose

Foreign body in the eye: Particles of coal or dust may lodge on the eye-ball or inside the eye lid causing discomfort and damage to the tender structure.



First Aid Treatment

- (a) Direct 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 the ear: 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.

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 the nose: This is a common occurrence among children. They might put peas, beads etc. in the nostril.

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.

Asphyxia

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.

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 the entry of air.



- (c) Suffocation due to deprived of oxygen.
 - (i) Due to obstruction to the entry of air through the air passage.
 - (ii) Foreign body obstruction in the air passage.
 - (iii) Inhalation of poisonous gases e.g., carbon monoxide.
- (d) Over dosage of drugs such as sleeping pills, morphine, pethedine etc.
- (e) Electric shock.
- (f) Diseases e.g., tetanus, epilepsy, rabies etc.

Signs and Symptoms

- (a) Dizziness and weakness.
- (b) Shortness of breath.
- (c) Rapid pulse rate.
- (d) Partial loss of consciousness.
- (e) Swelling of the veins of the neck.
- (f) Face, lips, nails, fingers and toes turn blue.

General Rules Treatment

- (a) Remove the cause if possible or the casualty from the cause.
- (b) Ensure free passage for air.
- (c) Lay the individual on his/her back. Press the head back-wards supporting the neck on your palm. Lift the tongue clear of the airway. Give mouth to mouth respiration/ breathing.

First Aid for Special Cases

Drowning

- (a) Wet clothes 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/her stomach, face down, head turned to one side, arms stretched beyond the head, tongue pulled out.
- (d) Artificial respiration should be given till he/she starts breathing.
- (e) Cover the patient with a blanket.



Strangulation or hanging

- (a) Cut the constriction.
- (b) Clear the air passage.
- (c) Start artificial respiration.
- (d) Give inhalation if possible.
- (e) Make the patient warm and comfortable.

Choking: Bend the casualty's head and shoulders forward, to dislodge the obstructions. In case of small child hold him/her upside down and thump his back hard between the shoulder blades or induce vomiting by passing two fingers to the back of the throat.

Suffocation by poisonous gas: Protect yourself and remove the casualty from the gas as early as possible.

Electric shock

- (a) Switch off or break the current, if possible.
- (b) Remove the casualty from contact with the current, if possible. Stand on insulating material such as rubber soled shoes or boots or piles of newspaper.
- (c) Give artificial respiration.
- (d) Treat for shock and burns.

Insensibility or Unconsciousness

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.

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.

Causes

- (a) Head injury.



- (b) Haemorrhage from brain.
- (c) Heart failure.
- (d) Diabetic coma, hepatic coma, uremic coma.
- (e) Excessive narcotics e.g., sleeping pills, morphine etc.
- (f) Intracranial or brain infections like meningitis, encephalitis etc.
- (g) Physical agents such as heat strokes, electric shock etc.
- (h) Epilepsy.
- (i) Hysteria.

Treatment in Casualties of Unconsciousness

- (a) Make the patient lie down with head turned to one side. Pull out 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.

Artificial Respiration

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.

Types

- (a) **Holger-Nielson Method:** Keep the casualty in prone position.
 - (i) **Movement 1:** Go down on the left opposite side of the casualty's head, placing the right foot on the ground. Place the casualty's arm carefully above his/her head and keep them there during the turn. Grasp his/her right upper arm and turn his face to one side. The mouth and nose must be unobstructed. The operator should be 6" to 12" from the top of his/her head. Place the hands on casualties back with the heel of the hand on the lower part of the shoulder blade, the thumb on spine and fingers pointing to casualty's feet. Keeping the arms straight rock gently forward until the arms are almost vertical, depending on the build of the casualty using no special force. The movement takes 2 seconds counting one, two. This pressure causes expiration.
 - (ii) **Movement 2:** The operator now rocks back, counting 3 for one second and slides his/her hand and grips the upper arms near the elbow. He/She raises



and pulls on the arms for 2 seconds counting 4, 5. He/She should take care not to raise the chest from the ground. This movement causes inspiration. Counting 6 the operator lowers the casualty's arm. The movements should be rhythmic in character and continued until breathing recommences. When the casualty begins to show signs of breathing the operator should continue with movement 2 only. For children, the pressure on the shoulder blade should be considerably reduced or applied with fingers. The ratio should be 12 times in a minute.

(b) Schaefer's Method

- (i) **Position of the Casualty:** Lay the casualty in prone position with hand one over other under his head, the head turned to one side, mouth and nose unobstructed.
- (ii) **Position of the Operator:** Face the casualty's head; kneel on both knees at the side of casualty just below his hip joint. Sit back on your heels, place your hands on the loins of the casualty, one on each side of back bone with wrists almost touching, and thumbs as far forward as possible without strain, and fingers together.
- (iii) **Movement 1:** Without bending your elbows swing slowly forward by unbending the knees until the thighs are in almost upright position, allowing the weight from your body to be communicated to the casualty's loins. This causes abdominal organ compression against the ground and up against the diaphragm. Air is forced out of the lungs, thus expiration takes places.
- (iv) **Movement 2:** Swing back slowly on to your heels, thus relaxing the pressure. This causes the abdominal organs to fall back and the diaphragm to come down thus inducing inspiration. These 2 movements must be carried out smoothly and rhythmically and should take 5 seconds (i.e. 12 times per minutes). Artificial respiration must be continued until natural breathing is restored, or unless a doctor decides that further efforts will be of no use.

(c) Mouth to Mouth Respiration:

- (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 minute).



Treatment and Care of Wounds

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.

Definition: Wounds can be defined as a break in continuity of the skin or muscles membrane. It is caused by violence.

Classification: Wounds can be classified as:

- (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.
- (d) **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 of a blunt instrument.

Treatment for Wounds

- (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) Rest to the injured part with a sling.
- (f) Immobilize the part, if wound is large or complicated by fracture.
- (g) Treat the patient for shock.
- (h) Send the patient to the nearest hospital.

Dressing

A wound is to be cleaned with antiseptic lotion and covered with cotton or gauze piece with medication, before applying the bandage.



Aim: The aim of dressing a wound is:

- (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/her day to day routine. (e) To stop the bleeding.

Articles for Dressing of Wounds:

- (a) Antiseptic (A/S) lotion.
- (b) Cotton / gauze piece.
- (c) A pair of Scissors.
- (d) Bandages of different size and band aid plaster. (e) A/S ointment or powder.

Procedure: The following procedure is to be adopted while dressing of wounds:-

- (a) Reassure the patient and place him/her 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 a suitable bandage, start bandaging clock wise from outer aspect to inner aspect by covering 1/3 of previous lining.
- (d) Make the knot away from the wound.
- (e) Bandaging should not be either too tight or loose.

SUMMARY

Hygiene and sanitation are two sides of the same coin, which must be ensured together for best results. There 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.

Components of Personal Hygiene:

- Sleep
- Bathing
- Eating and drinking
- Care and cleanliness of skin, hair and teeth
- Exercise

Water Supply and Its Purification:

- (a) Main sources of water supply:



- Rain water
- Surface water
- Underground streams

(b) *Purification of Water*

- Boiling and filtering water
- Clarification
- Sterilization
- Pinking
- Precipitation

First aid is a very simple and effective method which, a trained 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.

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.

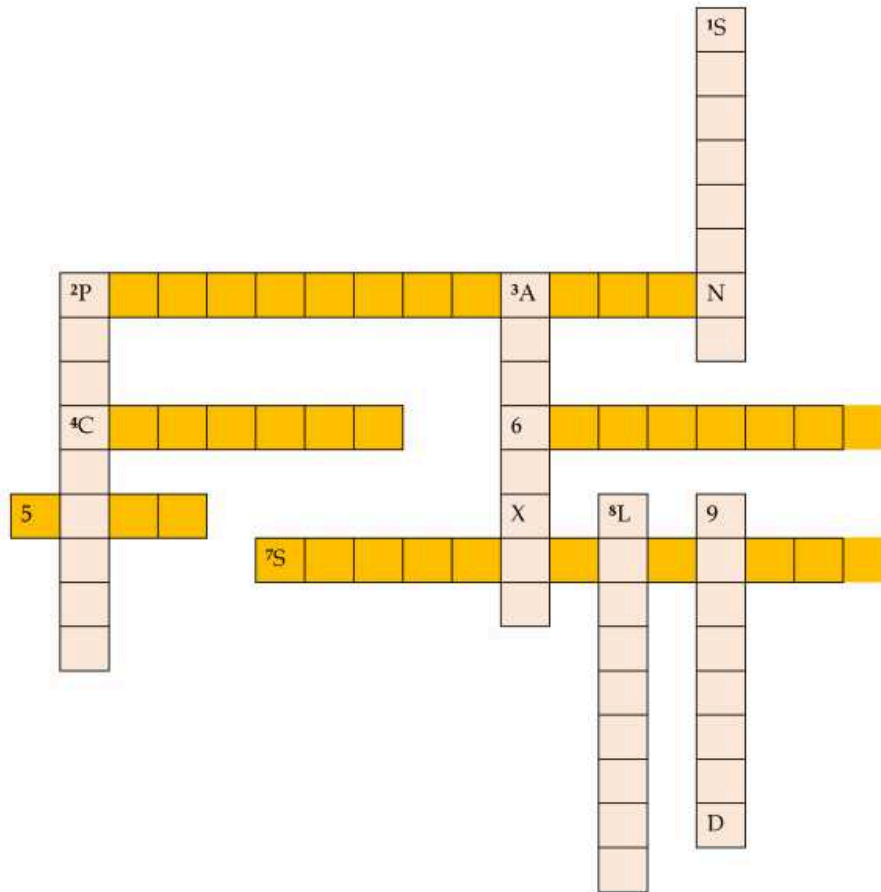
Classification of Wounds

- Inside wound
- Lacerated wound
- Puncture wound
- Contusion



CROSSWORD PUZZLE - 7

Solve the crossword with the given clues:



Across:

2. The heating of milk to such temperature and for such periods of time, as required to destroy any pathogens without destruction of nutritive value.
4. Have severe difficulty in breathing because of a constricted or obstructed throat or a lack of air.



5. An injury caused by exposure to heat or flame
6. Synonym of cleanliness, sanitation, personal hygiene
7. A process that eliminates transmissible agents (such as fungi, bacteria, viruses etc.) present on a surface

Down:

1. Caused by moist heat such as hot water, hot fluids and steam
2. A deep narrow wound caused by a pointed instrument like knife, bayonet.
3. Anything which interferes with respiration producing irregularities in breathing, produces a condition known as
8. Wound caused by a blunt instrument
9. Help given to a sick or injured person until full medical treatment is available

Comprehension Questions

Q.1. Answer the following in about 15 words:

- (i) What is personal and food hygiene necessary?
- (ii) What is the aim of study of personal and food hygiene?
- (iii) What is personal hygiene?
- (iv) What do you understand by 'purification' of water?
- (v) How does contamination of milk take place?
- (vi) What diseases are transmitted through meat?
- (vii) What is 'pasteurization'?
- (viii) Why is it very important for all cadets to have knowledge of providing basic first aid in common medical emergencies?
- (ix) Which internal organs would get ruptured by injuries?
- (x) What is 'rabies'?
- (xi) When is 'artificial respiration' given?
- (xii) Why is proper treatment and care of wounds extremely important?
- (xiii) What is a 'wound'?
- (xiv) What articles are required for dressing of wounds?



(xv) What is the aim of dressing a wound?

Q.2. Answer the following in about 50 words

- (i) Why is the maintenance of personal hygiene important?
- (ii) Why is food a potential source of infection?
- (iii) What should be done to obtain clean and safe milk?
- (iv) What do you understand by fish and egg hygiene?
- (v) Write a short note on meat hygiene.
- (vi) What are the general rules of first aid in casualties of unconsciousness?
- (vii) What first aid can be administered in case of 'electric shock'?
- (viii) What first aid should be given in the case of:
 - a) Strangulation or hanging
 - b) Choking
- (ix) What are the rules for treatment of asphyxia?
- (x) What first aid and treatment should be given in case of a foreign body in the:
 - a) ear
 - b) nose
- (xi) What first aid should be given in the case of a rabid dog bite?
- (xii) What are the symptoms in case of internal injuries?
- (xiii) List causes of unconsciousness or coma.

Q.3. Answer the following in about 75 words

- (i) What should be done to maintain hygiene by food handlers?

Q.4. Answer the following in about 150 words

- (i) What do you understand by the process of 'purification of water'? What methods are used?
- (ii) What are the sources of water supply?
- (iii) How can we maintain the hygiene of eating places?
- (iv) What do you understand by 'hygiene of food handlers'?
- (v) What first aid treatment would you give to a patient of burns and scalds?



- (vi) How should all snake bites be treated? What kind of first aid should be administered to the victim?
- (vii) Explain mouth to mouth respiration.
- (viii) What do you understand by insensibility or unconsciousness? What are the stages of unconsciousness?
- (ix) What first aid treatment can be given in the following cases:
 - a) Snake bite
 - b) Foreign body in nose
 - c) Drowning
- (x) What are the causes of:
 - a) Unconsciousness coma
 - b) Asphyxia
- (xi) What procedures should be adopted while dressing of wounds?
- (xii) Write in detail about the classification of wounds.
- (xiii) What procedure should be followed for the dressing of wounds?

Q.5. Answer the following in about 250 words

- (i) What are the main components of personal hygiene?
- (ii) Explain in detail the types of artificial respiration?

Let's Discuss

Q.6. HOTS (Higher Order Thinking Skills)

- (i) *"Personal and food hygiene are two sides of the same coin, which must be ensured together for best results". Explain the statement with the help of suitable examples.*
- (ii) *"First aid is a very simple and effective method by which trained NCC cadet can save precious lives under various threatening situations", explain the statement in the light of the crucial role played by the cadet with the help of appropriate examples.*
- (iii) *"NCC cadets by virtue of their routine are prone to injuries and hence must possess the basic knowledge of first aid". Explain the statement with appropriate examples from your own real experiences.*



UNIT-8

ADVENTURE AND OBSTACLE TRAINING

Knowledge	Understanding	Application Skills	Evaluation
Outdoor adventures: i. Para sailing ii. Rock climbing	The students will develop courage, self-confidence, determination and control.	The students will imbibe a sense of adventure.	Mock exercises
Practical training to overcome the physical barriers.	They will understand how to win in such a situation.	Students will be able to perform the task during obstacle training.	Training on standard obstacles.

Adventure activities have been incorporated in NCC training with the aim of inculcating and strengthening leadership traits among the cadets. These activities in NCC can be broadly divided into:

1. Land Based: mountaineering, rock climbing, trekking.
2. Water Based: sailing expedition, white water rafting, scuba diving, river crossing.
3. Air Based: parasailing

Parasailing is also known as 'parascending' or parakiting, is a recreational kiting activity where a person is towed behind a vehicle or a boat while being attached to a specially designed canopy wing that reminds one of a parachute, known as parasail wing. On land or over water, the manned kite's moving anchor may be a car, truck or a boat. Parasailing just by kiting in heavy winds should be discouraged. The vehicle pulling the parasail should have enough pulling power. The 'parascender' has little or no control over the parachute.



Parasailing

There are six parts to a parasail. The harness attaches the person to the parasail, which is connected to the vehicle by the tow rope. The sport should not be confused with



paragliding. The first international competitions were held in the mid 80's and they continue.

Parasailing Gear

One of the most popular recreational activities today. If you have researched parasailing and you have decided that this is something that you would like to pursue there are many details that you should know prior to making your first launch. One of the most important things that you should consider is the appropriate gear that is involved to perform in parasailing activities. It is also important to have the will and nerve to take the first launch in parasailing. However, with appropriate parasailing gear, parasailing can be easy for anyone who wishes to pursue it. Parasailing gear include:-



An NCC cadet shows off his/her parasailing skills

- (a) The clothes that you choose to wear while performing this activity. While you have the freedom to wear whatever you want, it is very important that you select clothing that is comfortable and easy to manoeuvre in. You can buy jumpsuits and clothing that are appropriate for parasailing.
- (b) Another important piece of parasailing gear is the actual paraglide. Basically, this is a parachute that has the added features of a bar that can be used to help you fly effectively in parasailing.
- (c) When you perform in parasailing activities, you should have a harness that you strap that will attach you to the paraglide. This way, if you slip or lose contact with your hands, the harness will hold you in place.
- (d) A pair of gloves is necessary to hold the paraglide to ensure that your hands are protected while you are parasailing.
- (e) A helmet is necessary during parasailing. Many accidents can occur and it is extremely important to wear a helmet. The head should be properly protected.



- (f) Ensure that the boat that is pulling you along in the air has a experienced driver and the correct amount of fuel. It is important that the boat that pulls you while you are parasailing is sturdy, dependable and is fuelled.
- (g) It is important that you make sure that the proper gear is in order. Ensuring preparation and safety, is the single most important aspect of parasailing gear.
- (h) The parasailing equipment mainly consists of a glider, which in its inflated firm offers resistance to the wind and the air, Then there is a harness which is attached to the paraglide and the pilot for safety purpose. A helmet and an extra parachute provided for the safety and emergency landing of the pilot, a Variometer is the main instrument for gauging the ascent and the descent of the pilot.

Types of Parasailing and Parasailing Safety Tips

- (a) **Winch Boat Parasailing:** In this parasailing, the ascent and descent of the parasail or takes place from the boat itself. The boat in the sea is well equipped with parasailing equipment's. It has a parasail inflation system and hydraulic winch powered by the main drive engine, these two help in launching and retrieving the parasail from the flight deck.
- (b) **Beach Parasailing:** As the name suggests, the beach is the main ground for the ascent and descent of the parasail. It is much more complicated than parasailing. Even the most experienced parasailors need to seek prior permission.



A cadet prepares for the parasailing training on the Muzhapplangad beach



- (c) **Platform Parasailing:** In this parasailing, one flies under the winds which are below 5 to 15 mph, away from the rough ocean and poor weather conditions and other objects in proximity.

Safety tips: given by the Parasail Safety Council are

- (a) **Licensing:** Make sure you parasail with a fully licensed (state and local) company operating from a well-established location insured by a licensed insurance company. Don't pay for your ride on the boat. This operator may not have a license or be insured.
- (b) **Established Operators:** Only parasail with established business operators. Ask how long they have been in business, if there business permits are current with the city and if the operator on-board is a licensed Captain.
- (c) **High Winds:** Avoid parasailing in high wind conditions (over 15 knots at sea level) due to an increased difficulty and complications during emergency water landings.
- (d) **Visibility:** Never go up in rain, fog or an approaching storm.
- (e) **Passenger Age and Weight Restrictions:** Parasailing is not recommended for individuals under the age of 16 or exceed 300 lbs.
- (f) **Types of Equipment:** Make certain that you get adequate safety briefing prior to your flight. This safety briefing should include, a) a description of the activity itself, b) safety procedures in the event of an unexpected emergencies, c) the proper use of signals, while landing fire or capsizing e) precluding any participant who appears to be afraid or intimidated prior to his/her aerial excursion.
- (g) **Altitude:** Parasailing at an altitude of more than 600 feet is discouraged, especially in close proximity to the shoreline or other objects. The recommended altitude for using hand signals and recovery during water landings over open ocean is 600, and 300 feet over small lakes bays or sounds (figures based on ideal wind and sea conditions with limited traffic).
- (h) **Ask Questions:** Ask all the right questions: How long have you been in business? Do you have Insurance by a licensed agent in this state? Is it a good flying weather today?
- (i) **Release Form:** Read the release form carefully before you sign it. Parasailing does have physical requirements, especially in the event of a water landing.



Rock Climbing

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.



NCC cadets climb a rock as part of training

Rock Climbing Equipment



Rock Climbing Equipment



A wide range of equipment is used during rock climbing

(a) **Rope and Webbing:**

- (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 bilayer.
- (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 (rappelling) 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.

Uses:

- (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 (as 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.
- (e) **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.
- (f) **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.
- (g) **Rappel Devices (Descenders):** These devices are friction brakes which are designed for descending ropes. Many belay devices can be used as descenders.



- (h) **Ascenders:** Ascenders are mechanical devices for ascending on a rope. They are also called jumars.
- (i) **Helmet:** The climbing helmet is a piece of safety equipment that primarily protects the head from 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.

Rock Climbing Techniques

A climbing technique is any type or combination of body posture, movement, or hold used in climbing.

- (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) **Campus:** 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 to 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 Shelving:** 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 usually 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.
- (c) **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 best maintains balance.



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.

Ten Safety Tips

- (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 carabineer 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 who is the one taking the risks of a fall. Don't visit with other climbers at the base, talk on a cell phone, or call out instructions. Never take the leader off belay unless it is absolutely certain that the leader is tied in and safe and communicates that to you.
- (g) **Always Bring Enough Gear:** Before climbing a route, always eyeball it from the ground and determine what is needed. You know best. Don't rely strictly on a guidebook 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 the Leg:** When leading, always make sure the rope is over your leg rather than between them or behind one. If falling with the rope in this position, flip upside down and hit the head. Wear a helmet for protection.
- (k) **Always Clip the Rope Properly:** Make sure that the climber is always clipped to the 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 the climber's 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 the climber alive. On a sport route, always use locking carabineers if lowering down to top-rope off the anchors.

Obstacle Training Course: 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.

Obstacle Course: 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 a distance of about 30 feet from each other. The details of each obstacle course are:

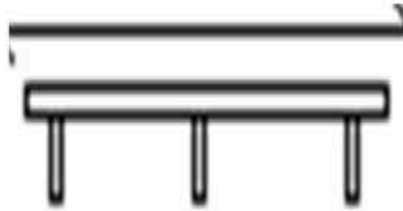
- (a) **Straight Balance** It is a wooden plank of 3 inches thickness, 4 inches width and 12 feet in length, which is 1 ½ feet above ground level. A cadet crosses this obstacle running, keeping his/her arms open and balancing the body.



Straight Balance



- (b) **Clear Jump:** Its structure is just like a straight beam. This wooden beam is 2 ½ feet from the ground. The cadet has to jump over it without touching or using any part of the body.

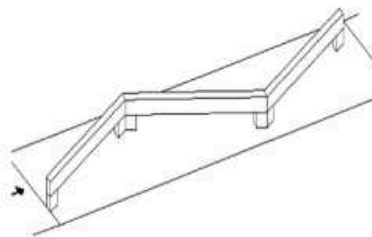


Clear Jump



National Cadet Corps cadets displaying their skills at a training facility for 'Obstacle Course'

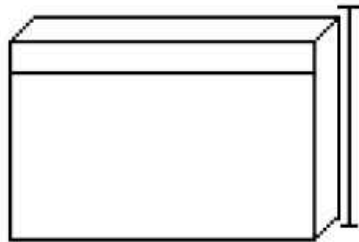
- (c) **Zig-Zag Balance:** A zig-zag structure of wooden beam 18 feet long, with 3 inches wide and 1 ½ feet above the ground, and is constructed in a zig-zag manner. The cadet has to cross the obstacle lengthwise with open hands and balancing the body similar to straight balance.



Zig Zag Balance

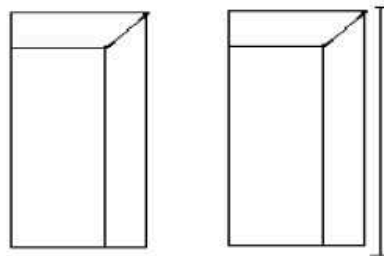


- (d) **High Wall:** It is a 6 feet high and 12 feet long brick wall with plaster on both sides. For crossing this obstacle, a cadet has to run, jump, kick the wall with one leg and take leap putting both hands on the wall and then push his body upwards and jump over the other side.



High Wall

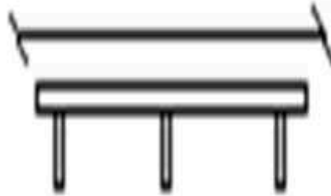
- (e) **Double Ditch:** The obstacle is composed of two ditches each of approximately 6-8 feet in length, 4-5 feet wide and 3-4 feet deep separated by a small gap of approx 9-12 inch. The Cadet have to jump across the two ditches by jumping over the first ditch, placing one foot on the gap and jumping across the second ditch.



Double Ditch

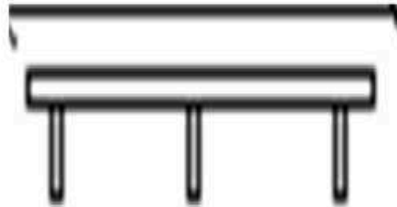


- (f) **Right Hand Vault:** This wooden structure is 3 ½ feet above the ground and 1 ½ feet long. The cadet is required to jump over using the right hand as support on the beam, throwing both legs up and jumping across.



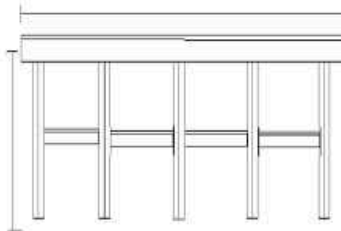
Right Hand Vault

- (g) **Left Hand Vault:** This wooden structure is 3 ½ feet above the ground just like the Right Hand Vault. The Cadet is required to jump over using the left hand as support on the beam, throwing both legs up and jump across.



Left Hand Vault

- (h) **Gate Vault:** This is a wooden structure which has two beams at the height of 3 feet and 5 feet respectively, both 18 feet long. One has to cross the gate by holding the upper beam with both hands and by putting one's feet on 3 feet gate and jumping across.



Gate Vault

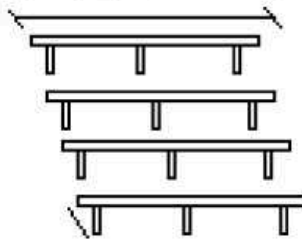


- (i) **Ramp:** 15 feet long, 18 feet wide and 4 ½ feet high sloppy hillock. For crossing it, a cadet has to run in and climb over the ramp and take long jump after reaching the top and landing on a pit on both feet.



Ramp

- (j) **Straight Balance:** It is a wooden plank of 3 inches thickness, 4 inches width and 12 feet length, which is 1 ½ feet above ground level. A cadet crosses this obstacle running, keeping his/her arms open and balancing his/her body.



Straight Balance

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 at first in PT dress and later, 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 the supervision of qualified instructors and correct technique to be used.
- (f) Arrangement for first aid to be ensured.



Benefits: Benefits of obstacles course training:

- (a) Physical fitness.
- (b) Agility
- (c) 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.

Demonstration: The demonstration will be given by a trained cadet under the supervision of PI Staff.



Training Activities



SUMMARY

Adventure activities have been incorporated in NCC training with the aim of inculcating and strengthening leadership traits amongst the cadets. These activities in NCC can be broadly divided into following:

- *Land based*
- *Water based*
- *Air based*

A special parachute with wing like extensions that lifts a rider in its harness up and through the air when towed by an automobile or motorboat gives an absolutely thrilling experience. It also instils adventurous spirit and develops courage to face the challenges.

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.

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.*

Basic flagging positions:

- *Normal flag*
- *Reverse side flag*
- *Reverse outside flag*

Ten Safety Tips

Always;

- *Check harnesses*
- *Check knots*
- *Wear a helmet*
- *Check the rope and belay device*
- *Use a long rope*
- *Pay attention*
- *Bring enough gear*
- *Climb with the rope over the leg*



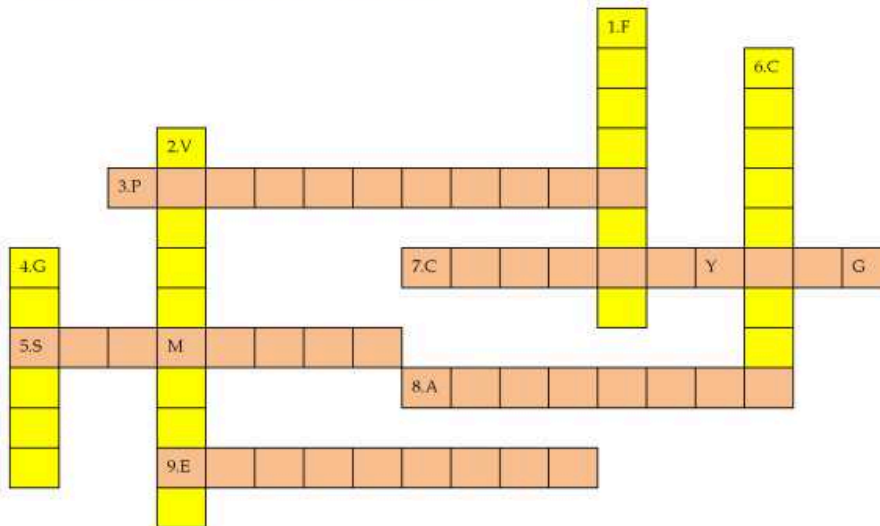
- Clip the rope properly
- Use safety anchors

The obstacle course is a training to make the NCC cadets physically fit and mentally robust. Obstacle training infuses courage, patience and makes them physically fit.

- (a) Straight balance
- (b) Clear jump
- (c) Zig-zag balance
- (d) High wall
- (e) Double ditch
- (f) Right hand vault
- (g) Left hand vault
- (h) Gate vault
- (i) Ramp
- (j) Straight balance

CROSSWORD PUZZLE - 8

Solve the crossword with the given clues:





Across:

3. Also known as parascending or parakiting
5. Also known as bridging, climbing a corner with the legs apart, one against each face, with the feet relying on friction or very small holds.
7. Climbing between opposing rock faces, with the back and hands against one face, and the feet against the other face, or alternating between both.
8. Mechanical devices for ascending on a rope, they are also called Jumars.
9. This type of jamming involves taking advantage of a body part in a crack for the friction it produces to support a share of body weight.

Down:

1. The following are normal _____ positions: Normal Flag, Reverse Inside Flag, Reverse Outside Flag
2. The main instrument for gauging the ascent and the descent of the pilot.
4. Pulling sideways and outwards, akin to opening a pair of sliding doors.
6. Metal loops with spring-loaded gates (openings), used as connectors and they are primarily made from steel.

Comprehension Questions

Q1. Answer the following in about 15 words:

- (i) What are the other terms used for parasailing?
- (ii) When were the first parasailing international competition held?
- (iii) What is the appropriate wear for parasailing?
- (iv) What do you understand by platform parasailing?
- (v) What is a variometer? What is it used for?
- (vi) What is rock climbing?
- (vii) What is the goal of rock climbing?
- (viii) What is the objective of rock 'climbing competitions'?
- (ix) What do you understand by climbing technique?
- (x) What are 'belay gloves'?
- (xi) How many obstacles are there in the standard obstacle course?
- (xii) What is a clear jump?



Q. 2. Answer the following in about 50 words:

- (i) Which three types of parasailing are the most popular in India? Explain.
- (ii) What does the parasailing equipment mainly consists of?
- (iii) What types of ropes are used for rock climbing?
- (iv) Explain the following terms
 - a) Extremity
 - b) Chest jam
 - c) Chimneying
- (v) What are the basic flagging positions?
- (vi) What are the different uses of webbing in rock climbing?
- (vii) What is the difference between belay devices and rappel devices?
- (viii) Write a note on 'winch boat parasailing'?
- (ix) What things should you consider before making your parasailing launch?
- (x) Write about the three types of vaults?
- (xi) Write about any two obstacle courses?

Q.3. Answer the following in about 75 words

- (i) Write about the parasailing equipment?
- (ii) What is parasailing gear? Describe any four.
- (iii) What are the benefits of obstacle courses?
- (iv) How do you differentiate between right hand vault and left hand vault?

Q.4. Answer the following in about 150 words

- (i) Write in detail about the gear required to parasail?
- (ii) What are the safety tips advised by the Parasail Safety Council? Explain any five of them?
- (iii) Explain any five pieces of equipment used in rock climbing?
- (iv) Explain any five climbing techniques?
- (v) What safety measures must be ensured during the conduct of an 'obstacle course' training for cadets?



Q.5. Answer the following in about 250 words

- (i) Write about any six safety tips to keep you safe during rock climbing?
- (ii) Write in detail about the safety tips advised by the Parasail Safety Council?
- (iii) Write in detail about the different types of obstacle courses?

Let's Discuss

Q.6. HOTS (Higher Order Thinking Skills)

- (i) *"Rock climbing is a physically and mentally demanding sport"*. Explain the statement in light of how rock climbing can shape one's personality
- (ii) How does rock climbing develop leadership traits? What are the traits?
- (iii) *Obstacle training prepares cadets to face challenges of life*. How far do you agree with the statement? Support your answer with suitable example
- (iv) What values did you learn or reflect on during the performance of various obstacle courses? Discuss any four.

Values Based Question

- (i) What values did you learn or imbibe during the performance of various obstacle courses? Discuss any four values.

Activities

- (i) A group of students from your school wish to join NCC. Tell them about the obstacle training course and obstacles you have learnt to overcome?
- (ii) NCC cadets are given intense training to overcome obstacles. Make models of any two obstacles you have learnt using waste material.



UNIT-9

ENVIRONMENT AWARENESS AND CONSERVATION

Knowledge	Understanding	Application Skills	Evaluation
The issues that affect the ecological balance and environment.	The students will understand the importance of waste management and water conservation.	The students will apply the skills and techniques for waste management and rain water harvesting.	Activities, work sheets and assignments
Pollution and its control mechanism.	They will understand the causes for pollution and his role to prevent it as a responsible citizen.	They will appreciate and apply the methods for keeping the pollution at bay.	Activities, work sheets and assignments





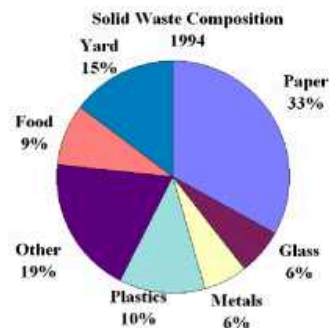
Waste Management



'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 waste materials, whether they are solid, liquid, gaseous or radioactive, fall within the gamut of waste management

Types

- (a) **Solid Waste:** This can be further classified into different types depending on their source as under:
- Household waste is generally classified as 'municipal'.
 - Industrial waste is hazardous waste.
 - Biomedical waste or hospital waste is infectious waste.
 - Electronic wastes such as TV's, refrigerators and computers.



- (b) **Liquid Waste:** This can be classified into following types:-
- Chemicals released by industries.



(ii) Waste water released by households through the sewer lines.

- (c) **Radioactive Waste:** These are wastes that contain radioactive material. Radioactive wastes are usually the 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.

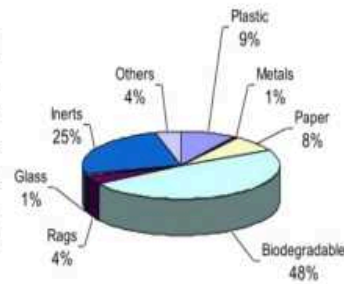


- (d) **Municipal Solid Waste:** Municipal solid waste consists of household waste, construction and demolition debris, sanitation residue and waste from the streets. This garbage is generated mainly from the residential and commercial complexes which comprises of:

- (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 biological testing. It may includes 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.



Household Hazardous Waste (HHW)



Process of Waste Management



Actions by Individuals: 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 or cloth bags.
- (c) Recyclable waste such as paper, glass, cloth etc. should be segregated and disposed accordingly.
- (d) Keep the surroundings of the house clean. Do not dump waste outside the house or 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 reusing discarded objects.

Actions by Civic Bodies: The major functions of civic body may include the following:

- (a) Prohibiting littering the street.
- (b) Organizing house to house waste collection.
- (c) Conducting awareness programmes 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 waste in covered vehicles.
- (g) Processing of wastes by adopting an appropriate combination of composting, anaerobic digestion, palletisation etc.
- (h) Upgradation of the existing dump sites and disposal of inert wastes in sanitary landfills.

Pollution Control - Water, Soil, Air and Noise

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. Human beings have 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.

Types

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 centres'. 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 that contaminate the soil. Soil may also become deficient in nutrients due to excessive cultivation or if the same crop is grown repeatedly on the same plot.

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 bodies. Many species of birds and fish die from contact with oil as it makes feathers and gills inactive.





Causes of Contamination

Types

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.

Sound Pollution: Sound produced from motor vehicles, trains, aero planes, factories, and 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.

Causes

- (a) **Discharge of Domestic Waste:** Discharge of untreated domestic wastes like human excreta, urine, washing of kitchen and laundry flow 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.

Air

- Smoke is produced due to incomplete combustion of coal in industrial plants, locomotives, furnaces etc. About 45% of smoke comes from industrial plants alone.
- 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.
- 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.
- Chlorofluorocarbons (CFCs) used in air conditioning is responsible for depletion of ozone layer of atmosphere.
- Automobile exhaust gases in particular, exhaust from trucks and buses, contain products of incomplete combustion, carbon monoxide, hydrogen, methane and unburnt carbon.

Sound

- Increase in number of vehicles on the road, excessive use of horns, increase in number of aircraft in the air.
- Use of loudspeakers of extremely high wattage at night.
- Excessive use of fire crackers.
- Increase in ultrasonic and electromagnetic sound waves from mobile towers.

CAUSES



EFFECTS

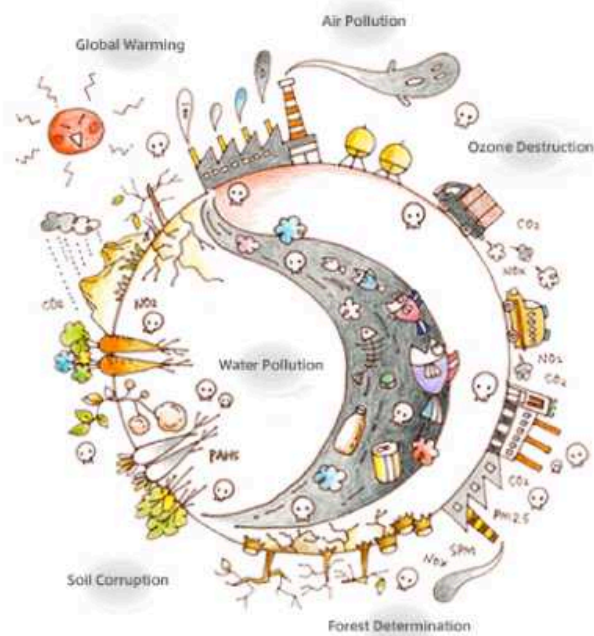


Effects of Pollution

- The principal effect of pollution depletion of the excessive organic load, the dissolved oxygen content of receiving water to a point that the 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 streams by causing suspended solids to deposit on the stream bed leading to silting, and the organic matter undergoing purification with the solid matter 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 causes 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.



Cycle of Contamination

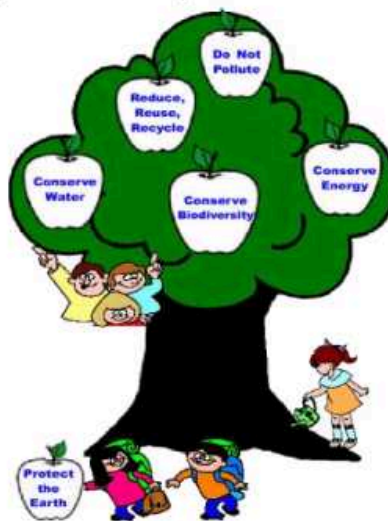


Air

- (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 like the sparrows have vanished from the cities, disturbing the ecological balance.

Measures to Control Pollution:

- (a) Develop consciousness among public people to control all pollution. Plant more and more trees.
- (b) Ban the use of loud horns or mindless blowing of horns by motor vehicles to be banned.
- (c) The water bodies not to be used as waste reservoirs.
- (d) Various sources of drinking water, and water resources to be well protected so that dirty water does not enter these water bodies.
- (e) Environmental education to be made compulsory in all educational institutions.
- (f) The excessive use of pesticides and insecticides should be avoided.
- (g) In all towns and cities, to have proper arrangement of dustbins to collect household waste.
- (h) Strict precaution should be instituted to avoid pollution of various types in factories.
- (j) Ban running of old and pollution emitting vehicle.
- (k) The pollution control authorities must have independent powers to implement penalties.





Role of the NCC Cadets in Curbing of Pollution: 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 fertilizers produced from industrial waste.

SUMMARY

Waste Management refers to the collection, transport, processing or disposal, managing and monitoring of waste materials.

Types of Waste

- Solid waste
- Liquid waste
- Radioactive waste
- Municipal solid waste
- Bio-medical waste
- e-Waste
- Hazardous waste

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.

- Actions by individuals
- Actions by civic bodies

Pollution means imbalance in the atmosphere caused by pollutants. 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.

Types of Pollution

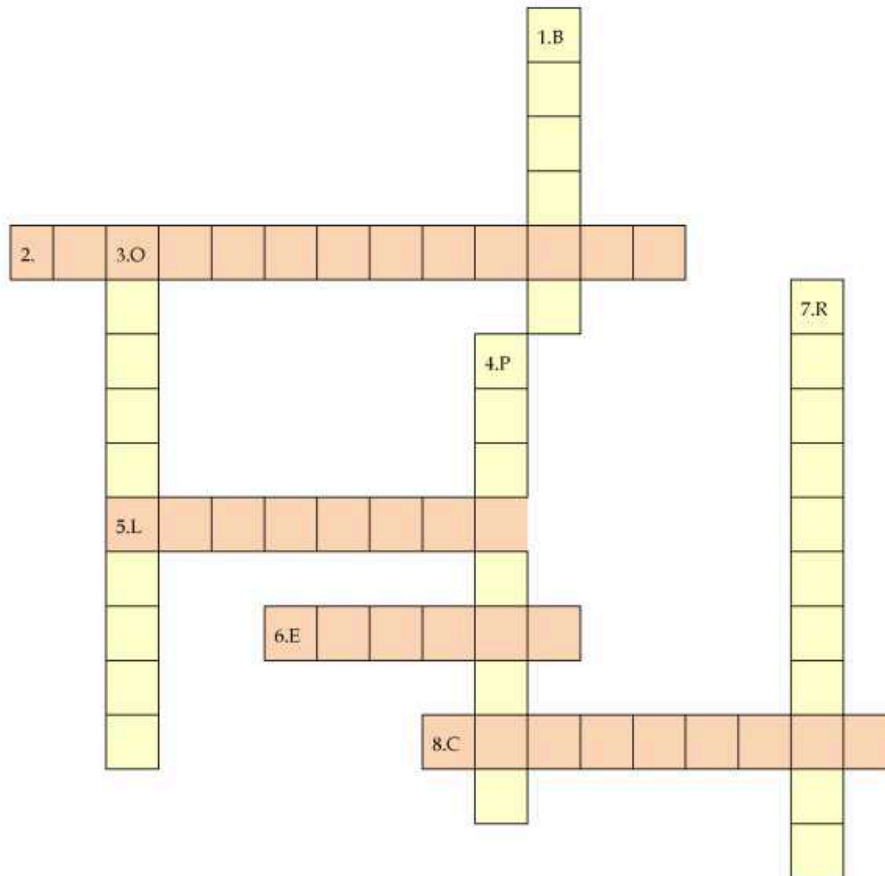
- Soil pollution
- Water pollution
- Air pollution
- Sound pollution

In order to stop pollution, we need to seek the cooperation of 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.



CROSSWORD PUZZLE - 9

Solve the crossword with the given clues:



Across:

2. A gradual increase in the overall temperature of the earth's atmosphere generally attributed to the greenhouse effect
5. The disposal of waste material by burying it



6. Discarded electronic appliances such as mobile phones, computers, and televisions are known as _____
8. The process of making vegetable matter or manure into compost

Down:

1. Refers to the living factors that affect ecosystems, including the organisms that inhabit the area.
3. A layer in the earth's stratosphere, which absorbs most of the ultraviolet radiation reaching the earth from the sun
4. The presence of a substance which has harmful or poisonous effects
7. Wastes that contain radioactive material
9. The process of converting (waste) into reusable material.

Comprehension Questions

Q1. Answer the following in about 15 words:

- (i) What does waste management refer to?
- (ii) What are waste materials?
- (iii) Write the names of a few types of waste material.
- (iv) What includes hospital or bio-medical waste?
- (v) What are liquid wastes?
- (vi) What do you mean by pollution?
- (vii) How does air and water get polluted?
- (viii) What has led to the reduction of the ozone layer?
- (ix) What role is played by humans in destroying forests?
- (x) What are affected by loud sounds?
- (xi) Why do many birds and fish die due to contact with oil?
- (xii) How are air-conditioners responsible for the depletion of ozone layer?

Q.2. Answer the following in about 50 words

- (i) What are the different categories of solid waste?
- (ii) What is e-waste?



- (iii) What are the sources of hazardous waste?
- (iv) What comprises hazardous waste?
- (v) What contaminates ground water? What causes excessive growth of weeds and why many aquatic organisms die?
- (vi) Write a short note on sound pollution.
- (vii) How does the discharge of agricultural waste pollute soil and water?
- (viii) Why has sound pollution increased manifold over the years?
- (ix) Write short note on the discharge of:
 - a) Domestic waste
 - b) Industrial waste

Q.3. Answer the following in about 75 words

- (i) Write short note on:
 - a) Soil erosion
 - b) State of being biotic or abiotic
- (ii) What do you understand by global warming?
- (iii) What are the advantages of rain water harvesting in urban areas?
- (iv) Why is there a need for water conservation?

Q.4. Answer the following in about 150 words

- (i) Write in detail about municipal solid waste and its management.
- (ii) What are radioactive wastes?
- (iii) What actions can be taken by civic bodies with regard to waste management?
- (iv) What are the advantages of rain water harvesting in urban areas?
- (v) Write a note on soil pollution.
- (vi) What do you understand by air pollution?

Q.5. Answer the following in about 250 words

- (i) What are the causes of air pollution?
- (ii) Bring out the effects of soil and water pollution.
- (iii) What measures should be taken to control pollution?



Let's Discuss

Q.6. HOTS (Higher Order Thinking Skills)

- (i) *"Management of waste is an essential requirement"*. Explain with the help of appropriate examples.
- (ii) *"Youth can guide and contribute by educating others about the dangers of pollution."* Explain with reference to the positive role played by NCC cadets in curbing environmental pollution.



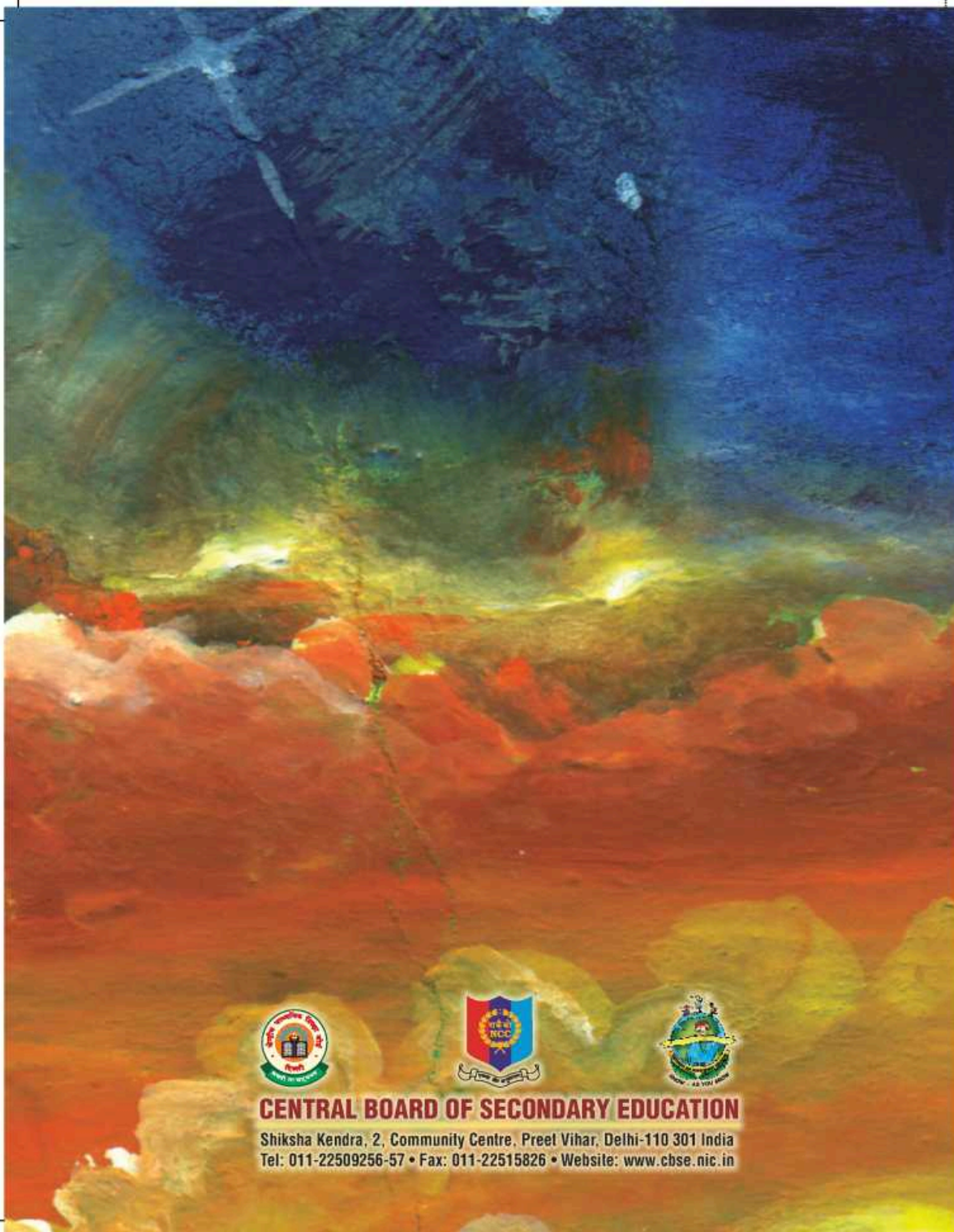
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