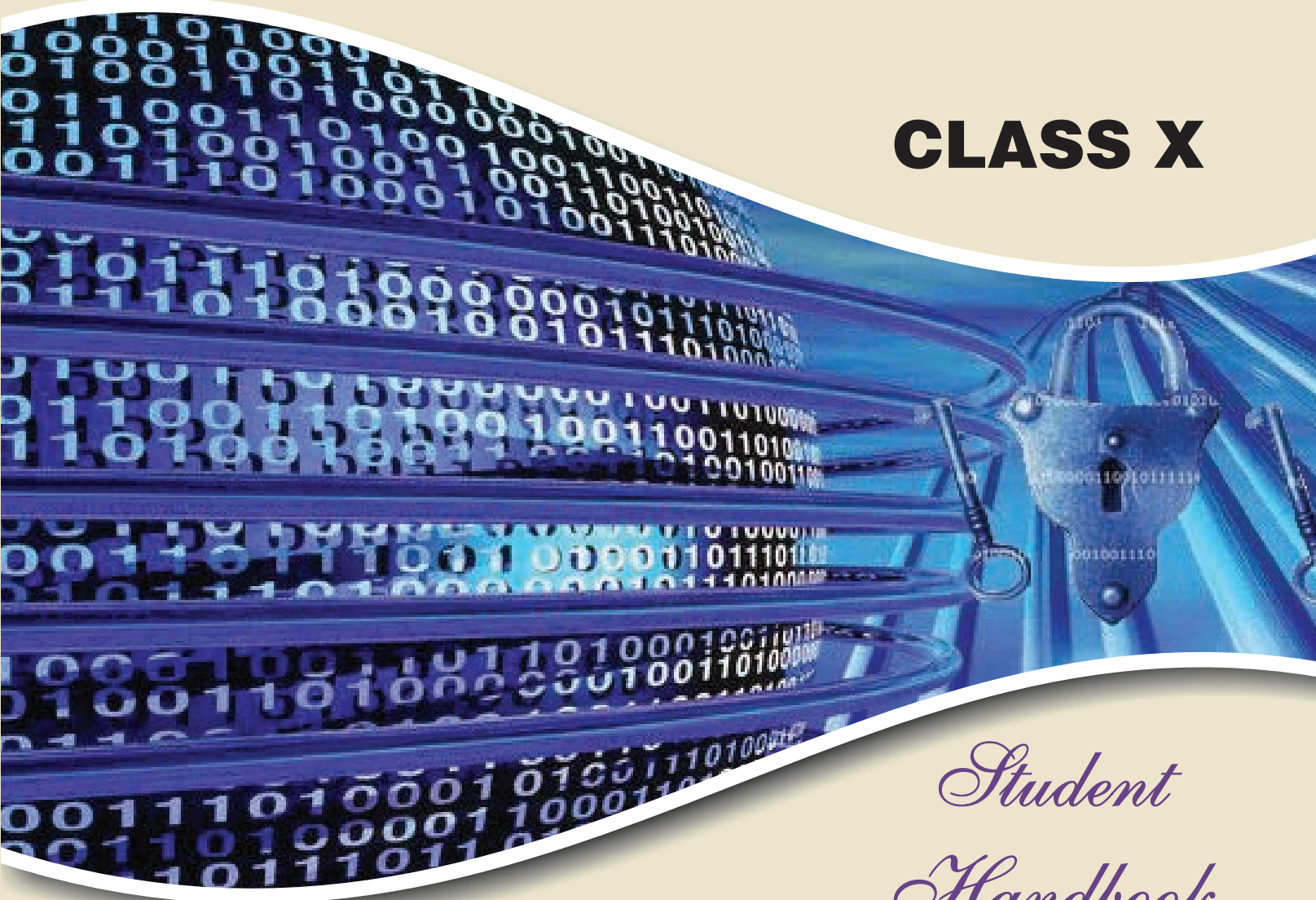# SECURITY
# NSQF LEVEL–2

CLASS X

Student

Handbook

## CENTRAL BOARD OF SECONDARY EDUCATION
**Shiksha Kendra, 2, Community Centre, Preet Vihar, Delhi-110301**

BUILDING SKILLS•BUILDING FUTURE•

# SECURITY
# NSQF LEVEL-2

# Class X

*Student Handbook*

# भारत का संविधान

## उद्देशिका

हम, भारत के लोग, भारत को एक सम्पूर्ण [1]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

[2]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 ई॰ को एतद्द्वारा इस संविधान को अंगीकृत, अधिनियमित और आत्मार्पित करते हैं।

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1. संविधान ( बयालीसवां संशोधन ) अधिनियम, 1976 की धारा 2 द्वारा ( 3.1.1977 ) से "प्रभुत्व-संपन्न लोकतंत्रात्मक गणराज्य" के स्थान पर प्रतिस्थापित।
2. संविधान ( बयालीसवां संशोधन ) अधिनियम, 1976 की धारा 2 द्वारा ( 3.1.1977 ) से "राष्ट्र की एकता" के स्थान पर प्रतिस्थापित।

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## भाग 4 क

# मूल कर्त्तव्य

**51 क. मूल कर्त्तव्य** – भारत के प्रत्येक नागरिक का यह कर्त्तव्य 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 हों, 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;

[1](ट) यदि माता–पिता या संरक्षक है, 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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1. संविधान ( छयासीवां संशोधन ) अधिनियम, 2002 की धारा 4 द्वारा प्रतिस्थापित।

# THE CONSTITUTION OF INDIA

## PREAMBLE

**WE, THE PEOPLE OF INDIA,** having solemnly resolved to constitute India into a [1]**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 the[2] 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.**

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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)

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# 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) to provide opportunities for education to his/her child or, as the case may be, ward between age of 6 and 14 years.

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

# *Preface*

The Student Handbook on Security for level 2 (class X) is a part of the Qualification Package developed by the Security Sector Skill Development Council (SSSDC) under National Skill Qualification Framework (NSQF) for unarmed security guard (private security sector). The NSQF is an initiative of the Government of India to set common principles and guidelines for a nationally recognized qualification system covering schools, vocational education and training institutions, technical education institutions, colleges and universities. It is envisaged that the NSQF will promote transparency of qualifications, cross sectoral learning, student centered learning and fascinate learner's mobility between different qualifications, thus encouraging life long learning.

The Private Security Sector (PSS) industry comprises those agencies or people, who provide security for people and property. An unarmed security guard is required to observe, deter, record and report.

The National security agencies i.e., the army, the navy, the air force, the police and secret intelligence organizations are responsible for providing security to the citizens of the nation. At the local level, private "Security Firms" provide protection to human body and property of corporate, household and individual through the provision of "security systems", which include burglar alarms, electronic surveillance and personal security guards, etc., who work in the areas of asset protection, transport services, events services as well as personal protection and the protection of valuable objects in the private and public spheres.

To achieve these objectives, Central Board of Secondary Education has started a vocational course in Security. After necessary knowledge in security, the students will have an edge over others in getting jobs in this sector.

This book is authored by professionals in the field of security under supervision of PSSCIVE with a focus on real word of security in an interesting and lucid manner.

Any suggestions/feedback are welcome for further improvement of the book.

**Chairman, CBSE**

# *Acknowledgements*

# Index

# Unit–1
## Basic Drill and Defensive Techniques

# *Introduction*

Have you seen the 26 January Republic Day Prade? Most of us have watched it on the television. Some of you must have had the privilege of witnessing it live at the Rajpath in New Delhi.

Marching Contigents of armed forces, central armed police forces and military bands; display of defence equipment and colourful tableaus from the States are the hallmark of the parade.

Do you know that preparations for the Republic Day parade start months in advance? Movement of each contingent is rehearsed and timed and the troops participating in the parade practice their drill movements tirelessly to achieve perfection.

What is drill? Drill simplifies complex movements in to simple steps, for the ease of learning and performance. Drill is not restricted to a parade alone; it is also used for simplifying complex movements such as equipment and weapon handling.

You must have heard about 'Self-defence'. Your parents want you to learn it; the police organises self-defence training camps regularly. What is self-defence? Why is it necessary?

There is violence and crime in our society. Everyone feels vulnerable. Self-defence enables us to defend ourselves and others from the acts of criminals and anti-social elements.

Self-defence techniques are martial art forms, which do not use weapons or firearms. It is also known as 'Unarmed Combat'. There are many forms of unarmed combat such as; judo, karate, kung-fu, taekwondo, etc.

Through this Unit, you will learn about the basic drill movements and self-defence techniques.

# Session–1
# Performing Drill

## Relevant Knowledge

The term drill comes from the old tradition of battle, in which soldiers battle, stood together in a certain formation to face an enemy. Drill is the process of memorising and performing certain actions through repetition until the action is instinctive to the personnel performing it.

Drill is a form of physical activity carried out by an individual or a group, which imbibes discipline and smartness. It is practiced several times for perfection. This activity is mainly carried out by the Army, Police, Firefighters, cadets, etc. to demonstrate discipline, team work, authority and uniformity. There are no individuals in a team; everyone performs the movement at the same time and in exactly the same way. Complex actions are broken down into simpler ones which can be practiced in small groups so that when the whole act is put together and the desired results are achieved.

## Aim of Drill

The aim of drill is to transform a trainee into an obedient, alert and smart soldier. The main purpose of formal parade ground drill is to enable trainees to move easily and quickly from point to point in an orderly manner. Drill in battle ensures that everyone does what they have been trained to do, irrespective of noise and other distractions.

The benefits of drills include the following:

1. It allows the team to respond quickly and effectively to a situation or an emergency.
2. It helps an individual or group to be familiar with the standard procedures and operate an equipment or weapon effectively.
3. It helps in developing self confidence and perfection in performing various activities.

## Military Parade

Drill in military terms is the process of memorising certain actions through repetition until these become instinctive to the soldiers individually. Complex actions are broken down into simpler ones which can be practised. When the whole act is put together desired results are achieved. Drill is necessary for any team to perform at maximum efficiency in all situations.

Military parade is a formation of soldiers whose movement are controlled by word of command. A military ceremony is organised for the following purposes:

1. Honouring a visiting high-ranking commander, official, or dignitary;
2. Presenting decorations and awards;
3. Honouring or recognising an unit's or individual's achievements; and
4. Commemorating events.

Only one person is in charge of a parade. He/she is known as the parade commander, who command entire parade.

The following rules for giving commands apply a commander :-

1. When at the halt, the commander faces the troops for giving commands; and
2. When marching, the commander turns head in the direction of the troops to give commands.

Parade consists of four directions:

1. **Advance:** It is the primary direction of movement, regardless of which direction the soldiers are actually facing.
2. **Retire:** It is opposite of the Advance.
3. **Left:** It is to the left of the Advance.
4. **Right:** It is to the right of the Advance.

The typical parade commands are spoken extremely clearly and emphatically, and consist of four major parts, namely the **identifier,** the **precautionary,** the **cautionary** and the **executive** as under :-

1. **Identifier** is the one or group who is to follow the command. This is typically (number) Section, (number) Platoon, (letter) Company, or (name) Regiment.
2. **Precautionary** or what is to be done. For example, move to the advance, move to retire, etc.
3. **Cautionary** or the first part of what is to be done. It is usually drawn out to two syllables. For example, for a right wheel: "right turn", "right" is the cautionary.

4. **Executive** is a single syllable on which the soldiers actually move. There is always a significant pause between the cautionary and the executive. The executive command should always be given a greater emphasis and be as loud possible.

In private security, security personnel are taught basic drill movements to imbibe discipline, correct their posture and to work in a team. Thus, the importance of drill in private security is to develop obedience, smartness and team spirit amongst security personnel.

### Drill Commands

Drill commands are generally used for a group that is marching.

**Marching**, also called as Marchpast, refers to the organised, uniformed, steady and rhythmic walking. While marching, individuals must maintain their dress, cover, interval, and distance.

1. **Dress** — Alignment with the person to the side.
2. **Cover** — Alignment with the person in front.
3. **Interval** — Space between the person(s) to the side.
4. **Distance** — Space between the person in front.

During the British rule, the Indian Armed Forces used the English drill commands. After the Independence, Indian Armed Forces and other uniformed forces in the country use Hindi 'Word of Commands'.

Some of the state police units, however, still continue to use English drill commands. The common drill commands for drill without arms used by various uniformed organisations in India are as follows:

1. **Savdhan - Attention (सावधान):** The position of attention is the basic drill position. It indicates that an individual or group is alert and ready to receive instruction. On the command Savdhan, one has to stand with heels together, feet forming an angle of 30 degrees, head and body erect, hips and shoulders level, and chest lifted. Allow your arms to hang naturally—thumbs along skirt or trouser seams and fingers joined and in their natural curl. Keep your legs straight, but not stiff at the knees. Direct your head and eyes to the front. Keep your mouth closed, and pull your chin in slightly.



FRONT VIEW    SIDE VIEW

Attention

2. **Vishram - Stand-at-ease (विश्राम):** On the command vishram, one can relax and shift about, but keep the right foot in place. Left foot is moved to shoulder width and the hands are placed behind the back with arms fully extended. The right hand is placed inside the left with all fingers together and pointing rigidly downwards. One must not talk, but may remain relaxed.

3. **Line Ban - Fall in (लाइन बन):** Resume your place in ranks, and come to attention.

4. **Line Tod - Fall out (लाइन तोड़):** This is done with a right turn followed by either three steps or a Quick March in a straight line to the edge of the parade square.



20 cm    20 cm

Stand at-ease

5. **Hilo Matt - Stand Still (हिलो मत):** This command is given to a group, which is already in attention.

6. **Aaram Se - Stand easy (आराम से):** Legs remain at ease position, arms are brought to the sides to a more natural standing position. Make minimal movements and you should not talk or shift from the current place.

7. **Sajj Dahine Sajj - Dress Right Dress (सज–दाहिने सज):** On this command all members in the unit except the right marker take two steps forward, pause, and bring up their arms parallel to the ground and at the same time snap their heads so they are facing right, unless otherwise specified (elbow dressing or shoulder dressing). After this, they pause, and then shuffle back to a new position, where their hand is extremely close to the member's shoulder on their right. The only thing that should change is the position of the head. They should turn their head to the right at a 45º angle. They should then line themselves up with the person to their immediate right.



8. **Sajj Bayen Sajj - Dress Left Dress (सज–बायें सज):** It is same like as Right Dress but to the left. They have to adjust themselves until they are in line with the person to their left.

9. **Dahine Mud - Right Turn (दाहिने मुड़):** A 90° turn to the right is done by turing on the heel of the right foot and toes of the left foot. Left leg is then stamped down on the ground.

10. **Bayen Mud - Left Turn** *(बायें मुड़):* A 90° turn to the left is done by turning on the heel of the left foot and toes of the right foot. Right leg to then stamped down on the ground.

11. **Tham - Halt (थम):** On this command a marching individual or contingent comes to a halt.

12. **Tez Chal - Quick March (तेज चल):** On this command an individual or a contingent commences marching. The standard pace of marching is 120 steps per minute.

13. **Dheere Chal - Slow March (धीरे चल):** This is a ceremonial pace used for funeral marches or when a unit's colors are marched out in front of the troops. The standard pace is 60 paces per minute.

14. **Daud ke Chal - Super Quick Time (दौड़ के चल):** This is essentially a moderate jog at approximately 180 paces per minute. It creates a travel speed of approximately double that of Quick Time, normally used for warming up the trainees before the drill.

15. **Parade Teeno-teen main Dahine/Bayen Chalega - Move to the right/left in columns of threes (परेड़ तीनों–तीन में दाहिने/बायें चलेगा):** This command is given just before the orders to actually execute the right or left turn.

15. **Kooch Kar - Take Charge (कूच कर):** Usually given when a senior officer wants someone junior to him/ her to take charge of the parade/ company/ troop. On hearing this command, the junior officer would take a step forward, salute and then take about turn to face the men on parade.

17. **Parade Par - On Parade (परेड़ पर):** Usually given during parades, when certain officers who would be standing as a separate group, are required to march up to stand in front of the troops coming under them.

18. **Visarjan - Dismiss (विसर्जन):** A fall-out where the soldiers have free time until their next designated work period.

19. **Dahine Dekh - Eyes Right (दाहिने देख):** On this command marchers, turn their heads and eyes 45 degrees to the right. To return their heads and eyes to the front, the command (सामने देख) is given as the left foot strikes the ground.

20. **Saamne Dekh - Eyes front (सामने देख):** On the command front, heads and eyes are turned smartly to the front.

**Characteristics of a Good Drill**

A good drill should include a proper physical exercise programme, a motivational programme and a record-keeping exercise. The characteristics of a good drill include the following:

(i) **Physical Fitness:** Physical fitness has been defined as a set of attributes or characteristics that people have or achieve that relates to the ability to perform physical activity. It comprises two related concepts: (i) general fitness (a state of health and well-being), and (ii) specific fitness (a task-oriented definition based on the ability to perform specific aspects of sports or occupations). Physical fitness is generally achieved through correct nutrition, exercise, and rest. Therefore, a training programme includes exercise, rest and relaxation.

Correct posture of standing and walking is very important in drill and for military bearing. In standing position, both the heels of the feet should meet each other. Toes of the feet should be 3 to 4 inches apart. The whole body should be erect, straight, knees and chin inside, chest forward, and belly backward and pressed inside with equal body weight on both feet. While walking, the heel of the foot should touch the ground and then weight should be transferred to the toes, which means that there should be heel- toe action and the marching should be smooth and graceful with chest out.

(ii) **Word of Command:** Good drill depends in the first instance on good words of command. A word of command to a squad of six men need not be as loud as a command to a large body of troops.

Words of command must be given at all times with precision. Instructors, when giving words of command, must stand to attention and should not move along with the squad.

(iii) **Motivation:** Motivation means to be inspired to do something. There are two types of motivational forces that drive a person to perform activities: (i) **Intrinsic motivation**: It comes from within oneself, and (ii) **Extrinsic motivation**: It occurs when external factors compel a person to perform something. For example, rewards and awards act as extrinsic factors. Motivation arises from the learners' interest and expressed purposes. It is necessary to arouse the learners' sustained effort in the learning activity. Briefing of the participants of the drill is done for not only telling them of the various aspects of the drill, but also motivating them.

(iii) **Record-Keeping:** Drill is also used to simplify and rehearse a complex procedure, such as emergency evacuation from a premises. A good drill will make every individual understand his / her role and responsibility in the whole process. Proper record of such drills / rehearsals are maintained, which include the following information:

1. Identity of the person conducting the drill
2. Date and time of the drill
3. Notification method used

4.    Staff members on duty and participating
5.    Number of occupants evacuated
6.    Special conditions simulated
7.    Problems encountered
8.    Weather conditions
9.    Time required to accomplish complete evacuation

## EXERCISE

### Practice Session

Practice the movements using the following commands under the supervision of your teacher or trainer:

1.    Line Ban – Fall in
2.    Line Tod – Fall out
3.    Savdhan – Attention
4.    Hilo Mat – Stand still or Don't move
5.    Vishram – Stand-at-ease
6.    Dahine Mud – Right turn
7.    Bayen Mud - Left turn
8.    Tham – Halt
9.    Dahine Dekh – Eyes right
10.   Bayen Dekh – Eyes left
11.   Saamne Dekh – Eyes front
12.   Visarjan – Dismiss

## ASSESSMENT

### Fill in the Blanks

1.    A _____ is the process of memorising and performing certain actions through repetition until the action is instinctive to the personnel performing the drill.

2.    Drill teaches d_____ and t_____ work.

3.    Drill allows a team to respond v_____ and e_____ in a situation or an emergency.
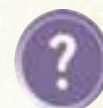
4. _____ is the one or group who is to follow the command.

5. _____ is the command which implies what is to be done.

6. _____ is the single syllable on which the soldiers actually move.

7. Parade consists of four directions, namely a_____, r_____, l_____, and r_____.

8. In _____ *Mat*, no body movement is allowed but participants of the marchpast are free to talk among themselves.

9. While marching individuals must maintain their _____, cover, _____ and distance.

10. On the command *Savdhan*, you are alert and ready for _____.

11. On the command *Vishram*, you may remain relaxed but you should not t_____.

12. If a senior officer wants someone junior to him/ her to take charge of the parade, then he/ she will give command _____ Kar.

13. The two types of motivation are _____ and _____.

## CHECKLIST FOR ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

### Part A

(a) Differentiated between different drill commands.

### Part B

Discussed the following in the class:-

(a) What is the need and importance of drill?
(b) What are the characteristics of good drill command?
(c) What are the different types of motivation?

## Part C

**Performance Standards**

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Demonstrate the movements on the following commands:<br>1. Line Ban<br>2. Line Tod<br>3. Savdhan<br>4. Vishram<br>5. Dahine Mud<br>6. Bayen Mud | | |

# Session–2
# Personal Hygiene and Grooming

## Relevant Knowledge

**Grooming** means the act of making oneself neat and tidy, it includes personal hygiene. Personal grooming is an integral part of any uniformed profession. A well groomed security professional commands respect for himself / herself and his / her organisation. Correct wearing of uniform and proper turnout distinguishes security personnel from the general public.

Security personnel must always be properly groomed and dress up smartly, only then they will be able to create a good impression on others and earn respect. Well groomed security personnel is always taken seriously while an untidy and improperly dressed one is ignored by the visitors.

## Personal Hygiene

Personal hygiene is the first step to good health and grooming. Personal hygiene practices include regular washing/ bathing, healthy eating habit and seeing a doctor or dentist when required.

Body hygiene pertains to hygiene practices performed by an individual to care for one's bodily health and well being. Motivations for personal hygiene practice include reduction of personal illness, healing from illness, optimal health and sense of well being, social acceptance and prevention of spread of disease to others.

## Good Habits

Good habits such as taking regular exercise, staying away from smoking, alcohol and drugs and taking precautions with regards to sexually transmitted diseases must be a part of all security personnel.

## Essentials of Uniform

A "uniform" is any distinctive clothing intended to identify the individual wearing it as a member of a specific group or an organisation. Uniform, as the name suggests gives uniformity and a sense of equality to a select group of people carrying out a particular duty or task. At the same time, it differentiates the personnel from general public. As the uniform gives responsibility and authority, it is the duty of security personnel to maintain his/ her uniform.

It is mandatory for the security personnel to wear a distinct the uniform. The colour of their dress should be different from those of army and police personnel. The following points are to be kept in mind while wearing the security uniform. Private security companies must ensure that their employees wear uniforms on duty at all times. Such uniform must bear the logo of the company. They must also ensure that their colours and styles do not

conflict with other private security companies operating in the country or with those of the army and police. The uniform should be:

❖ Worn only during duty hours;

❖ Kept neat, clean and properly ironed;

❖ Worn only when complete set is available;

❖ Worn as per the prevailing season.

Besides the uniform, a security personnel should also wear (i) An arm badge distinguishing the agency; (ii) Shoulder or chest badge to indicate his position in the organisation; (iii) Whistle attached to the whistle cord and to be kept in the left pocket; (iv) Shoes with eyelet and laces; and (v) A headgear which may also carry the distinguishing mark of the agency.

### Identity Card

Every private security agency must provide identity cards to its personnel. An identity card bears the name and employee number of the holder of the card and the name and license number of the agency, along with the photo of employee in colour.

Other details on the identity card should include:-

❖ Position of the card holder in the company.

❖ Date of issue and expiry of the card.

❖ Details of the issuing authority.

❖ Stamp of the company.

Identity card should be returned to the issuing agency, once the private security guard is no longer engaged or employed by it. Any loss or theft of identity card will be immediately brought to the notice of the agency that issued it. Every private security guard while on active security duty will wear and display photo-identity card issued under Section 17 of the PSAR Act.

## EXERCISE

Given below is the self-checklist for personal hygiene. Tick the practices that you already follow and try to practice other personal hygiene and health practices. If you face any problem, discuss with your parents and teachers.

| Personal Hygiene Practices | Yes I do |
|---|---|
| Keep nails clipped and clean. | |
| Use soap and shampoo regularly. | |
| Avoid stepping out of the house without a bath. | |
| Eat breakfast after taking bath. | |
| Wear clean and ironed clothes. | |
| Wash hands with soap before and after eating. | |
| Brush teeth regularly. | |
| Keep house and surroundings clean. | |
| Comb hair at intervals to avoid appearing tired and messed up. | |
| Keep hair trimmed and clean. | |
| Wash hands after using the toilet or anything that is not clean. | |
| Cover face with a handkerchief while sneezing or coughing. | |

## ASSESSMENT

### Fill in the blanks

1.  Grooming means the act of making oneself n_____and tidy.

2.  Personal h_____ is the first step to good grooming and good h_____.

3.  Personal grooming include personal h_____, as it pertains to the maintenance of a good personal and public appearance.

4.  A u_____ is any distinctive clothing intended to identify the individual wearing it as a member of a _____ group or organisation.

## CHECKLIST FOR ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

### Part A

(a)    Differentiated between personal hygiene and grooming.

### Part B

Discussed the following in the class:-

Actions required to be taken to keep the following body parts hygienic and healthy: nails, eyes, hairs, teeth, hands, and feet.

### Part C

**Performance Standards**

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Demonstrate good personal hygiene practices. | | |
| Explain requirement of uniform and identity card for security personnel | | |

# Session–3
# Identifying Vulnerable Parts of the Human Body

## Relevant Knowledge

We all assess threats to our life and property and take necessary precautions. For example, we avoid dark streets and alleys at night to save ourselves from assailant and other dangers. We lock doors to protect property from thieves. We learn martial arts and self-defence techniques to protect ourselves from others who may want to harm us.

Common security risks that a security guard has to address are trespassing, unauthorised access, disorderly and disruptive behaviour, theft, burglary, robbery, assault, loss of

information and damage to property. Being physically fit and well-trained in self defence techniques will help you in facing such threats.

Threats are everywhere you might have seen that a shopping mall has security guards at the entrance, exits and other locations. The restaurants have their own security guards over and above to those employed by the shopping mall management. In case of an unruly or violent behaviour of a visitor, the security guard is required to take necessary steps to prevent harm to self or the general public. He or she should be able to control the troublemaker by applying some force. To achieve this, a guard should have a thorough knowledge of the vulnerable parts of human body. It helps us to strengthen and protect our vulnerable body parts from an attacker and respond suitably to the opponent in case of an assault.

In this session we will identify the vulnerable parts of human body. For better understanding we should know about the vital parts of the body.

**Vulnerable Parts of Human the Body**

You should always wear the personal protective equipment such as headgear, elbow guard, mouth guard, etc. to protect yourself from injury while practicing self defence techniques. There are some vital points in human body. A focused attack on anyone of them will cause an immediate harm and injury to the opponent. Therefore, it is important to understand how a particular body part would be affected in case of injury.

1.  **Base of the Skull:** If there is trauma to the head, headache, disorientation or unconsciousness can occur. Sometimes, due to head trauma brain shake or spine fracture may occur. Headgear should be worn to protect the head and to reduce the impact of the blood.

2.  **Ear:** If there is injury to the ear, pain and disorientation can occur. Also internal injury and loss of balance may occur, as ears maintain balance of the body.

3.  **Eyes:** An attack on eye may affect eyesight. It may cause blindness.

4.  **Temple:** It is a vital point. If there is injury to the temple, disorientation and unconsciousness can occur.

5.  **Side of the Nose:** If there is injury to side of nose, bleeding can occur or it can result in fractured nasal bone.

*"If you know the enemy and know yourself you need not fear the results of a hundred battles."*
*Sun Tzu*

6. **Under the Ear:** A blow under the ear can cause severe pain.

7. **Under the Nose:** If there is injury under the nose, pain and distraction can occur. Nasal bone may also get fractured.

8. **Jaw:** An attack on the jaw may lead to fractured jaw. Mouth guards should be worn to protect the mouth and jaw.

9. **Clavicle:** The clavicle or the collarbone is a bone of short length that serves as a strut between the scapula and the sternum. An attack on clavicle can lead to fracture.

10. **Throat:** If there is heavy injury to the trachea, even death can take place.

11. **Solar Plexus:** Solar plexus is a dense cluster of nerve cells and tissues located behind the stomach just below the diaphragm. Its rough location is below the sternum on the chest. If there is injury to the solar plexus, internal organs may get damaged and a person become unconsciousness. Injury may even result in death.

12. **Fingers and Wrist:** Fingers and wrist are vulnerable to twisting and wrenching, which may cause fractures. Hand wraps/ gloves should be worn to protect fingers.



13. **Elbow Joint:** Serious injury including fracture can occur on receiving a blow on the elbow. Elbow pads should be worn for protecting the elbows.

14. **Groin:** An injury in the groin region can cause severe trauma and pain, which may lead to unconsciousness and even death. Abdominal guard should be worn to protect the groin.

15. **Inner Thigh:** An attack on inner thigh can cause muscular pain and numbness.

16. **Knee:** An attack on knee may result in fracture or dislocation.

17. **Side of Ribs:** If there is injury in between 5th and 6th ribs loss of lung function or breathlessness can occur. Chest protector should be worn to protect the chest and the ribs from injury.

18. **Kidney:** An attack on kidney can cause internal injury and even death.

19. **Back of the Neck** (Fourth cervical vertebra): A blow on the back of the neck can cause paralysis or fracture. Sometimes, even death can happen.

## EXERCISE

1. Visit a biological lab to identify the vital parts of human body. Record your observations and submit the same as part of your portfolio.

2. Draw diagram of human body showing the following vital parts :-

    (i)     Temple       -

    (ii)    Solar Plexus   -

    (iii)   Clavicle      -

    (iv)   Rib cage      -

    (v)    Kidneys      -

    (vi)   Base of the skull -

## ASSESSMENT

### A. Fill in the blanks

1. An injury on $5^{th}$ and $6^{th}$ ribs can cause _____ or _____.

2. A blow on the back of the neck can cause _____.

3. An injury in the groin region can cause severe _____ and _____.

4. Solar plexus is located below the _____ on the chest.

### B. Short Answer Questions

1. List the various personal protective equipment worn to protect the vulnerable parts of body, while practicing self-defence techniques.

## CHECKLIST FOR ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

### Part A

(a) Differentiated between various vital parts of human body.

### Part B

Discussed the following in the class:-

(a) Why is it important to understand about the vulnerability of body parts to threat on or attack?

(b)    How to protect body parts, while practicing martial arts or self-defence techniques?

**Part C**

**Performance Standards**

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Identify and locate the vital body parts | | |
| Demonstrate the use of personal protection equipment for protecting vulnerable parts during practice sessions of self-defence | | |

# Session–4
# Performing Basic Self-defence Techniques

## Relevant Knowledge

A self-defence technique is an activity of fighting without the use of weapons. Unarmed combat means a system of strikes, holds and breaks by which one can defend himself/ herself and others against an attacker and subdue him/ her while being unarmed.

**Forms of Unarmed Combat**

Over the centuries, innumerable forms of unarmed combat have been developed across the world. There are training schools and academies for training on different forms of unarmed combat. Students of a particular martial art system often undergo periodic testing and grading by their own teacher in order to advance to a higher level of recognised achievement, such as a different belt colour or title. The common forms of unarmed combat are described below.

It must be understood clearly that no one can use deadly force on anybody to protect property. A security personnel can use non-lethal force to the extent necessary in self-defence or for other's protection. Hence, a private security personnel should always be conscious of the fact that deadly force must not be applied in self-defence.

Let us now look at some of the common forms of self-defence techniques.
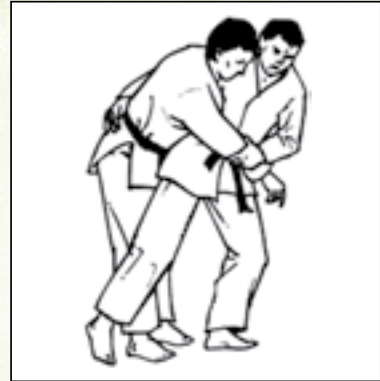
**Judo:** Judo, meaning 'flexible way', is a modern Japanese martial art and combat sport. Its most prominent feature is the competitive element where the objective is to throw the opponent to the ground, immobilise or subdue with a grappling manoeuvre or force an opponent to submit by joint knocking or by executing a choke.

**Wrestling:** Wrestling is an ancient martial art that uses grappling techniques such as clinch fighting, throws, take downs, joint locks, pins, etc. A wrestling bout is a physical competition between two competitors or sparring partners who attempt to gain and maintain a superior position. There are many styles of wrestling. Wrestling techniques have been incorporated into other martial arts as well as military hand-to-hand combat.

**Taekwondo:** Taekwondo, a Korean martial art, is the national sport of South Korea. In Korean, 'tae' means 'to strike or break with foot'; 'kwon' means 'to strike or break with fist'; and 'do' means 'way', 'method' or 'art'. Thus, taekwondo means the way of the foot and fist or the way of kicking and punching. As with many other arts, it combines combat techniques, self-defence, sport, exercise and meditation.

**Boxing:** Boxing is a combat sport and a martial art in which two people fight using their fists. Boxing is typically supervised by a referee during the series of one to three minute duration, called rounds. Boxers generally are of similar weight.

**Karate:** Karate is a striking art using punching, kicking, knee and elbow strikes and open handed techniques such
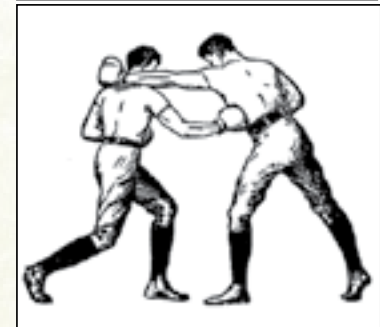


Judo



Wrestling



Taekwondo



Boxing

as knife-hands (karate chop). Grappling, locks, restraints, throws and vital point strikes are taught in karate.

**Kung Fu:** Kung Fu means skill gained from hard work. It is one of the martial arts and methods of self-defence which originated from ancient China. It uses several martial art techniques, especially those in which attacks are applied to vulnerable areas on an opponent's body using fluid movements of the hands and legs.



Kung Fu

**Krav Maga:** Krav Maga is a non-competitive self-defence system developed in Israel that involves striking techniques, wrestling and grappling. Krav Maga is known for its focus on real-world situations and extremely efficient, brutal counter-attacks. It was derived from street-fighting skills developed by Imi Lichtenfeld who made use of his expertise as a boxer and wrestler. He began to provide lessons on combat training to Israeli Defence Forces. Slowly it became known as Krav Maga.



## Common Terms

Let us first try to understand the meaning of the common terms used for self-defence technique, before we understand the basic principles of fights. Some of the terms used in self-defence are as follows:

1.  **Attacker:** The attacker is the combatant initiating the assault such as a punch, kick, or slap.

2.  **Victim:** The victim is the combatant on the receiving end of an attack.

3.  **Fight Distance:** It is the spacing between you and your partner. It should be at least 3 to 4 feet apart.

4.  **Eye Contact:** Making eye contact prior to each and every sequence in the fight is a constant reminder to be ready and prepared for the next sequence.

5.  **Stance and Balance:** Always stand with your weight centered, your legs at least shoulder width apart, and with your knees slightly bent. This stance allows for freedom of movement in all directions.

6.  **Cueing:** It is the signal given from you to your partner at predetermined time throughout the fight.

7.  **Contact Blow:** It is a blow delivered to a major muscle group that actually strikes the victim and produces a realistic sound. The energy of the contact punch or kick is always pulled.

8.  **Pulling the Energy:** Pulling the energy of a strike means the quick withdrawal of the punching or kicking action to avoid potential injury to the victim's major muscle group.

9.  **Non-contact:** It is a blow delivered with the illusion of contact. A non-contact punch always misses its target by 6 – 8 inches or more.

10. **Reverse Energy:** Reverse energy is the concept of energy moving away from the attacker's target area to protect the victim.

11. **Masking:** Masking is the concept of hiding a moment of contact so that it will look as if the blow has struck its target.

12. **Timing:** Good timing is crucial to the effectiveness of a good stage fight. Avoid anticipating the fight moves either by rushing the attack or reacting before the blow is delivered.

**Basic Principles**

The basic principles that you should follow when you are practicing striking techniques are as follows:

1.  Practice simple hand and foot techniques before moving to the complex ones. Use pads or heavy bags for practicing.

2.  Do not turn your back to the opponent.

3.  Combine hand and foot techniques for maximum effectiveness.

4.  Use body movement and not the body power to generate quick effective bursts of force. Try to use the hips and not the torso.

5.  Every second counts, therefore, avoid all fancy moves.

6.  The best place to strike is the solar plexus or under the nose.

7.  Hit with your palm instead of using your fist. Punching with your fist may break your knuckles.

8.  Stay solidly on the ground when striking with hand or foot.

9.  Avoid jumping and spinning movements until you are confident of balancing yourself.

10. Do not stop until the threat is neutralised i.e. knocked out, disarmed, tied up, etc.

# EXERCISE

## Practice Session

Practice the following movements under the strict supervision of your teacher/trainer:

1. Front kick.
2. Side kick.
3. Low kick.
4. Roundhouse kick.
5. Knee kicks.
6. Elbow strikes.
7. Release from chokes from the front/side/behind.
8. Prevention with a kick or a punch.
9. Release from headlocks.
10. Release from bear hugs from the front/ behind/ side.
11. Release from bear hugs – arms free/arms caught.
12. Defence against straight punch towards the head/chest.
13. Defence against low straight punches.
14. Defence against straight punch to the ribs.
15. Defence against combination of punches.
16. Counter attacks as soon as possible.

# ASSESSMENT

## A. Short Answer Questions

1. What is self-defence?

   _____

   _____

   _____

   _____

_____

_____

_____

2. Name three forms of unarmed combat.

_____

_____

_____

_____

_____

_____

_____

**B. Fill in the Blanks**

1. A s_____ d_____ technique is an activity of fighting without the use of weapons.

2. Unarmed combat is a system of s_____, h_____ and b_____ by which one can defend against an attacker.

3. Wrestling is an ancient martial art that uses g_____ technique.

4. Krav Maga is a self-defence system that involves _____ techniques, wrestling and _____.

5. The _____ is the person or combatant who imitates the technique such as punch, kick or slap.

6. The _____ is the combatant on the receiving end of any attack.

7. C _____ is the signal given from the combatant to another combatant at predetermined times throughout the fight.

## CHECKLIST OF ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

### Part A

(a) Differentiated between armed and unarmed combat.
(b) Differentiated between various forms of martial art.
(c) Differentiated between different techniques of martial art.

### Part B

Discussed the following in the class:-

(a) What is the need and importance of unarmed combat?
(b) What are the various forms of unarmed combat?
(c) What are the various techniques adopted in martial arts?

### Part C

**Performance Standards**

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Demonstrate punches | | |
| Demonstrate three types of kick | | |

# Unit–2
## Disaster Management and Emergency Response (Advanced)

# *Introduction*

The term disaster is of French origin and comes from the word 'desastre' which is a combination of two words, 'des' meaning bad and 'aster' meaning star. Thus the term refers to 'bad or evil star'.

According to the Disaster Management Act of India "disaster" means a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man-made causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of, property, or damage to, or degradation of, environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area.

**Hazard** is a potentially damaging physical event, phenomenon or human activity that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation. Hazards can include latent conditions that may represent future threats and can have different origins: natural or induced by human processes.

**Vulnerability** is the state of susceptibility to harm from exposure to stresses associated with environmental and social change and from the absence of capacity to adapt.

**Capacity** is a combination of all the strengths and resources available within a community, society or organisation that can reduce the level of risk, or the effects of a disaster.

Disasters are as old as human history but the dramatic increase and the damage caused by them in the recent past have become a cause of national and international concern. In India, the super cyclone of Orissa in 1999, the Gujarat earthquake in 2001, the Tsunami in 2004 affected millions across the country leaving behind a trail of heavy loss of life, property and livelihood.

After the flood in Vadodra district in Gujarat in 2005, it was seen that the villages with Disaster Management Teams (DMTs) and Disaster Management Committees (DMCs) responded well to the situation by rescuing people to pre-identified safe areas. It indicated that if we are well prepared to respond to any emergency or disaster, then we can effectively mitigate or cope up with hazards and disasters. Emergency preparedness is therefore, an important aspect in disaster management.

In this Unit you will learn about the various aspects of disaster management, including the importance of Disaster Management Teams or Emergency Response Team in mitigating and dealing effectively with disasters.

# Session–1
# Disaster Management and Emergency Response

## Relevant Knowledge

We have learnt earlier that a disaster results from the combination of hazard, vulnerability and insufficient capacity or measures to reduce the potential chances of risk. A disaster happens when a hazard impacts on a vulnerable population and causes damage, casualties and disruption. Any natural hazard such as flood, earthquake or cyclone which is a triggering event along with greater vulnerability would lead to disaster causing greater loss to life and property. Vulnerability includes inadequate access to resources, sick and old people, lack of awareness, lack of training, etc. Vulnerability and risk to disaster will depend on certain conditions, for example, an earthquake in an uninhabited desert cannot be considered a disaster, no matter how strong it is. The hilly regions, on the other hand, are vulnerable to various kinds of disasters such as avalanches, landslides, hailstorms or cloudbursts.

Disaster Management covers a broad range of interventions before, during and after a disaster to prevent, minimise the loss of life and property and to accelerate recovery. The manner in which human beings deal with disasters improved as technology developed and our approach to risk assessment and mitigation measures became more and more scientific. Earlier, disaster management was reactionary and we could not prevent or mitigate the damage. But now we have developed pre-disaster mitigation measures to avoid or reduce the impact of disasters. Pre-disaster measures to prevent or mitigate disasters are called "Risk Management" or Disaster Management.

### Goals of Disaster Management

The goals of disaster management are to:

1. Reduce, or avoid, losses from hazards;
2. Assure prompt assistance to victims; and
3. Achieve rapid and effective recovery.

### Disaster Management Cycle

The disaster management cycle illustrates the ongoing process by which governments, businesses, and civil society plan for and reduce the impact of disasters, react during and immediately following a disaster, and take steps to recover after a disaster has occurred. Appropriate actions at all points in the cycle lead to greater preparedness, better warnings, reduced vulnerability or the prevention of disasters during the next

iteration of the cycle. The complete disaster management cycle includes the shaping of public policies and plans that either modify the causes of disasters or mitigate their effects on people, property and infrastructure.

The mitigation and preparedness phases occur as disaster management improvements are made in anticipation of a disaster event. As disaster occurs, key personnel in disaster management, especially humanitarian organisations, become involved in the immediate response and long-term recovery phases.
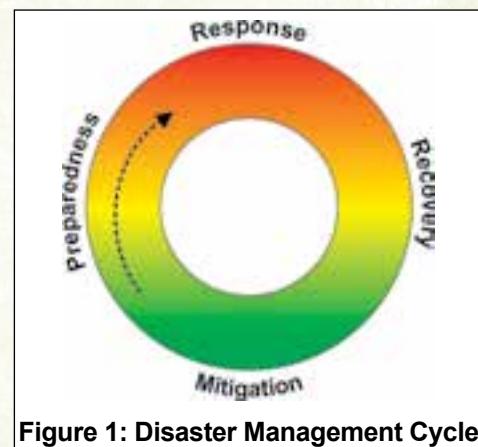
**Phases in Disaster Management**

The four disaster management phases are as follows:

1. **Mitigation:** It includes steps taken to minimise the effects of disaster. Examples include building codes, vulnerability analysis, zoning and land use management, preventive health care and public education. Let us look at some of these mitigation measures in detail.



**Figure 1: Disaster Management Cycle**

(a) **Building codes:** A building code or building control are a set of rules that specify the minimum acceptable level of safety for constructed objects such as buildings and nonbuilding structures. The main purpose of building codes are to protect public health, safety and general welfare as they relate to the construction and occupancy of buildings and structures. Unless a building is being renovated, the building code usually does not apply to existing buildings. The building code becomes law of a particular jurisdiction when formally enacted by the appropriate authority. An example of a building code is an ancient building code that has come down from Biblical times, which specifies that a parapet must be made for the roof to prevent someone falling from it.

Building codes generally include:

❖ Rules regarding parking and traffic impact.

❖ Fire code rules to ensure safe evacuation in the event of a fire.

❖ Requirements for earthquake, hurricane, tornado, flood, and tsunami resistance, especially in disaster prone areas or for very large buildings where a failure in following the norms would be catastrophic.

❖ Requirements for specific building uses (for example, storage of flammable substances, or housing a large number of people).

- ❖ Energy provisions and consumption.
- ❖ Specifications on components like size, windows, ventilations, basements, etc.
- ❖ Allowable installation methodologies.
- ❖ Minimum and maximum room and exit sizes and location.
- ❖ Ensuring exterior restrictions, such as setbacks.
- ❖ Qualification of individuals or corporations doing the work.
- ❖ Anti-collision markers for high structures for the benefit of aircraft.

(b) **Vulnerability Analysis:** Assessing vulnerabilities of a megacity are fundamental to enabling counteractive measures before an expected earthquake disaster as well as preparing for the post-earthquake response. An example of vulnerability analysis is of a remote sensing system set up to assess the vulnerability of a megacity and to assess the risk of a hazard turning into a disaster in that megacity. The data from the remote sensing provide information on population growth, housing in hazardous areas, etc. Substantial and up-to-date, area-wide data are the basis for effective crisis management.

(c) **Zoning and Land use Management:** Zoning is a method of land use planning done by local governments. The word is derived from the practice of designating permitted uses of land based on mapped zones which separate one set of land uses from another. Zoning regulates land use, such as for residential, commercial, green belts, ecological protection areas, etc., or it may regulate building height, parking lot coverage, etc. The primary purpose of zoning is to segregate uses.

To understand zoning think of how space is organised in a home. The different rooms of the house are situated in a way that it is both convenient and safe for people of the house.

Water faucets, drains, electrical fittings are placed in the bathrooms in such a way that they can be hygienically and safely used. Space in the rooms are demarcated for sitting, sleeping, watching TV, etc. keeping in mind the movement as well as convenience and safety. Zonal regulations means zoning of land use and regulations prepared under the Town and Country Planning Act, prescribing the uses permissible in different land use zones, the open spaces around buildings, plot coverage, floor area ratio, height of the building, building lines, parking, etc.

Mitigation will depend on the incorporation of appropriate measures in national and regional development planning. Its effectiveness will also depend on the availability of information on hazards, emergency risks, and

the countermeasures to be taken. The mitigation phase, and indeed the whole disaster management cycle, includes the shaping of public policies and plans that either modify the causes of disasters or mitigate their effects on people, property, and infrastructure.

2. **Preparedness**

It involves planning to respond to disaster. It includes preparedness plans, emergency exercises or training, and warning systems.

The goal of emergency preparedness programmes is to achieve a satisfactory level of readiness to respond to any emergency situation through programmes that strengthen the technical and managerial capacity of governments, organisations, and communities. These measures can be described as logistical readiness to deal with disasters and can be enhanced by having response mechanisms and procedures, rehearsals, developing long-term and short-term strategies, public education and building early warning systems.

Preparedness can also take the form of ensuring that strategic reserves of food, equipment, water, medicines and other essentials are maintained in cases of national or local catastrophes. During the preparedness phase, governments, organisations, and individuals develop plans to save lives, minimize disaster damage, and enhance disaster response operations.

Preparedness measures include, (i) preparedness plans; (ii) emergency exercises/training; (iii) warning systems; (iv) emergency communication systems; (v) evacuation plans and training; (vi) resource inventories; (vii) emergency personnel/contact lists; (viii) mutual aid agreements; and (ix) public information and education. As with mitigation efforts, preparedness actions depend on the incorporation of appropriate measures in national and regional development plans. In addition, their effectiveness depends on the availability of information on hazards, emergency risks and the counter measures to be taken, and on the degree to which government agencies, non-governmental organisations and the general public are able to use the information.

3. **Response**

Response includes efforts to minimize the hazards created by a disaster. It includes search and rescue, and emergency relief.

The aim of emergency response is to provide immediate assistance to maintain life, improve health and support the morale of the affected population. Such assistance may range from providing specific but limited aid, such as assisting refugees with transport, temporary shelter, and food to establishing semipermanent settlement in camps and other locations. It may also involve initial repairs to damaged

infrastructure. The focus in the response phase is on meeting the basic needs of the people until more permanent sustainable solutions can be found.

4. **Recovery**

Recovery includes measures taken to generate resource for returning the community to normal. These measures may include temporary housing, grants, and medical care.

As the situation after a disaster is brought under control, steps are undertaken to enable the affected population of undertaking a number of activities aimed at restoring the infrastructure and other resources. There is no distinct point at which immediate relief changes translate into recovery and then into long-term sustainable development.

It depends on the pace of recovery and recurrence of the disaster. There will be many opportunities during the recovery period to enhance prevention and increase preparedness, thus reducing vulnerability.

Recovery measures, both short and long-term include returning vital life-support systems to minimum operating standards, temporary housing, public information, health and safety education, reconstruction, counselling programmes, and economic impact studies. Information resources and services include data collection related to rebuilding, and documentation of lessons learned. Recovery activities continue until all systems return to normal or better.

One of the major considerations of a disaster management plan is to reduce the vulnerability of a population to a risk or a hazard. This leads to plans for sustainable development. Measures of sustainable development include the promotion of sustainable livelihood and their protection and recovery during disasters and emergencies. Where this goal is achieved, people have a greater capacity to deal with disasters and their recovery is more rapid and long lasting.

**National Disaster Management Act, 2005**

The Disaster Management Act 2005 defines disaster management as a continuous and integrated process of planning, organising, coordinating and implementing measures which are necessary or expedient for (1) prevention of danger or threat of any disaster (2) mitigation or reduction of risk of any disaster or its severity or consequences (3) capacity building (4) preparedness to deal with any disaster (5) prompt response to any threatening disaster situation or disaster (6) assessing severity or magnitude of effects of any disaster (7) evacuation rescue and relief and (8) rehabilitation and reconstruction.

The Disaster Management Act provides for a detailed action plan right from the central government to the district and local levels to draw, implement and execute disaster management plans. The Act comprising 79 sections and 11 chapters is capable

of effectively managing the disaster and matters related to it. According to the Act, "Disaster Management" is defined as a continuous and integrated process of planning, organizing, coordinating and implementing measures which are necessary or expedient to prevent danger or threat of any disaster, mitigation or reduce the risk or severity or consequences of any disaster, capacity-building and preparedness to deal with any disaster, prompt response to any threatening disaster situation or disaster, assessing the severity or magnitude of effects of any disaster, evacuation, rescue and relief, rehabilitation and reconstruction. The Act empowers the Central Government to appoint the National Disaster Management Authority (NDMA) with the Prime Minister of India as the Chairperson and such number of other members, not exceeding nine. The other provisions in the Act include the establishment of National, State and District level disaster management Authorities, Institutes and Committees.

## EXERCISE

### Assignment

1. Visit the local Bureau of Indian Standards (BIS) and learn about the building codes. Record your observations and submit them as part of your portfolio.

2. Visit the local office of the Town and Urban Planning to learn about the zoning laws and regulations of your town/city especially from the point of view of disaster mitigation and preparedness. Discuss the meaning of the following terms and note your observations in your diary.

   (a) Municipality
   (b) Land use
   (c) Master plan
   (d) Layout
   (e) Residential
   (f) Commercial (retail and wholesale)
   (g) Industrial (light, medium, heavy and service)
   (h) Public and semi-public
   (i) Public utilities
   (j) Open spaces, parks, playgrounds
   (k) Transport and Communication
   (l) Agriculture use

3. From local newspaper archives in the school library/ local public library find the disasters that have occurred as a result of violation of zoning laws or building regulations. Prepare a write up and include in your portfolio.

4. Visit the local Fire Station and Disaster Management Institute/Agency and discuss with the concerned officers about the mitigation and preparedness measures. Record your observations and submit them as part of your portfolio.

5. Using the key words such as disaster, disaster management cycle and disaster management browse through the websites and note the meaning of these terms and the website address.

## ASSESSMENT

### A. Short Answer Questions

1. Define disaster.

_____

_____

_____

_____

2. List the phases of disaster management.

_____

_____

_____

_____

_____

3. State two preparedness measures that should be taken to avoid a fire disaster in a multi-storey residential building.

4. Write the full form of the following abbreviations:

(i) DMT: _____

(ii) DMC: _____

(ii) NDMA: _____

5. Write short note (about 200 words) on the following:

❖ Natural and man-made disasters.

❖ Myths about disasters and rumours that are required to be dispelled.

❖ Gender issues in disaster management.

**B.  Fill in the Blanks**

1. In French, the term disaster means e_____ star.

2. The two types of disasters are manmade and n_____.

3. Disaster results from a combination of h_____ conditions of v_____ and insufficient capacity or measures to reduce potential negative consequences of risk.

4. _____include measures taken to generate resource for returning the community to normal.

5. _____ includes efforts to minimize the hazards created by a disaster.

6. Emergency exercise or training for disaster management is part of the p_____.

7. Given below are some of the disaster management measures. What type of measures are these?

(a) Drainage correction
(b) Proper land use measures
(c) Reforestation of the areas occupied by degraded vegetation
(d) Creation of awareness among local population.

## CHECKLIST FOR ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

### Part A

(a) Differentiated between hazard and disaster.
(b) Differentiated between manmade and natural disasters.

(c)    Differentiated between mitigation and preparedness.

(d)    Differentiated between response and recovery.

### Part B

Discussed the following in the class:-

(a)    What is the importance of disaster management?

(b)    What are the goals of disaster management?

(c)    What is disaster management cycle?

(d)    What are the phases in disaster management?

### Part C

**Performance Standards**

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Identify hazards and risks in a given situation | | |
| Identify the phases in disaster management | | |
| Read terms and signages for disaster management | | |
| Identify the sections of the society who are vulnerable to disasters | | |

# Session–2
# Role and Responsibilities of Emergency Response Team

### Relevant Knowledge

Emergency Response Team (ERT) or Emergency Response Unit (ERU) is established to provide relief from suffering and distress to persons affected by hazards, emergencies and disasters. It is a team of trained technical specialists ready to be deployed at short

notice. They use pre-packed sets of standardized equipment and materials to deal with the emergency.

**Structure, Roles and Responsibilities of an ERT**

The structure of an ERT is a functional team. In the United States of America (USA), the standard is a ten-person team comprising of the following:

1.  **ERT Team Leader:** Generally, the first ERT team member arriving on the scene becomes team leader, and is the designated Incident Commander (IC) until the arrival of someone more competent. He/she makes the initial assessment of the scene and determines the appropriate course of action for team members; assumes role of Safety Officer until assigned to another team member; assigns team member roles if not already assigned; designates triage area, treatment area, morgue, and vehicle traffic routes; coordinates and directs team operations; determines logistical needs (water, food, medical supplies, transportation, equipment, and so on) and determines ways to meet those needs through team members or citizen volunteers on the scene; collects and writes reports on the operation and victims; and communicate and coordinates with the incident commander, local authorities, and other ERT team leaders.

2.  **Safety Officer:** The Safety Officer checks team members prior to deployment to ensure that they are safe and equipped for the operation. He/she determines whether the working environment is safe or unsafe and ensures team accountability. He/she supervises operations (when possible) where team members and victims are at direct physical risk, and alerts team members when unsafe conditions arise.

3.  **Fire Suppression Team (2 people):** The team suppress small fires in designated work areas and assist the search and rescue team or triage team.

4.  **Search and Rescue Team (2 people):** The team search and provide for rescue of victims, as is prudent under the conditions and assist the Fire Suppression Team.

5.  **Medical Triage Team (2 people):** They provide Simple Triage and Rapid Treatment (START) triage for victims found at the scene; marking victims with category of injury as per the standard operating procedures and assist the Fire Suppression Team or Rescue Team, if needed. The START system was developed to allow first responders to triage multiple victims in 30 seconds or less based on three primary observations: Respiration, Perfusion and Mental Status.

6.  **Medical Treatment Team (2 people):** The team provides medical treatment to victims within the scope of their training. This task is normally accomplished in the Treatment Area; however, it may take place in the affected area as well. They may also assist the Fire Suppression Team and the Medical Triage Team as needed.

The team members have to work under the supervision of the ERT team leader, and communicate with him/her. Because every ERT member in a community receives the same core instructions, all team members have the training necessary to assume any of these roles. Hasty teams may be formed by whichever members are responding at the time. Members may need to adjust team roles due to stress, fatigue, injury, or other circumstances.

## Equipment used by ERT

The equipment used by an ERT could be sophisticated or simple, depending on the nature of the emergency and its magnitude. The list of some of the equipment used by the ERT is as follows:

❖ Personal Protective Equipment (PPE include hard hats, protective apparel, masks, eye protection glasses, gloves, etc.).

❖ HAZMAT (Hazardous Material Response Trucks).

❖ Frac tanks (A frac tank is used to hold water, or a proppant, when a well is being fractured)

❖ Vacuum trailers

❖ Excavators

❖ Bulldozers

❖ Tri-axle Dump Trucks

❖ Roll-Off Container Trucks

❖ Air Cushion Recovery Tools

❖ Mobile Incident Command Center With Satellite Communication Equipment

❖ Utility Vehicle

❖ Evacuation Megaphones

❖ Emergency Rescue Mat

❖ Emergency Eyewash and shower equipment

❖ Fire Extinguishers

❖ Medical Equipment

❖ Flotation Devices

❖ Safety Ropes

## Search and Rescue Operations

Search and Rescue Operations (SAR) are a set of technical activities rendered by individual or a group of specially trained personnel who rescue and attend to the casualties under adverse conditions, where life is at threat. It is important for the rescuers to collect

information on the extent of damage, approach to the damage and understand if any further damage is likely to occur.

Search and Rescue Operations comprises the search for, and provision of aid to persons or structures which are feared to be in distress or imminent danger. It uses available personnel and facilities. It provides for their initial medical or other needs, and delivers them to a place of safety. Rescue is a team effort that needs planning and coordination amongst the members for an optimum response. The four types of search and rescue operations are as follows:

(i)  **Mountain Rescue** refers to search and rescue activities that occur in a mountainous environment. The terrain in which mountain rescue often occurs has resulted in the development of a number of specific pieces of equipment and techniques. The equipment includes mountain bike, motorcycle, protective clothing, helmet, knives, tools, compass, and sleeping bags. Helicopters are often used to quickly extract casualties, and search dogs may be used to locate casualties or survivors.

(ii)  **Ground Search and Rescue** is the search for persons who are lost or in distress on land or inland waterways. Traditionally associated with wilderness zones, ground search and rescue services are increasingly required in urban and suburban areas to locate persons with Alzheimer's disease, autism, dementia, or other conditions that lead to wandering behaviour.

(iii)  **Urban Search and Rescue** also referred to as Heavy Urban Search and Rescue (HUSAR), is the location and rescue of persons from collapsed buildings or other urban and industrial entrapment. Urban SAR (USAR) in many jurisdictions refers to the location and extraction of people from collapsed buildings or other entrapments. Some ground search teams also employ search and rescue dogs. Due to the specialized nature of the work, most teams are multidisciplinary and include personnel from police, fire and emergency medical services. Unlike traditional ground search and rescue workers, most USAR responders also have basic training in structural collapse and the dangers associated with live electrical wires, broken natural gas lines and other hazards. While earthquakes have traditionally been the cause of USAR operations, terrorist attacks and extreme weather such as tornadoes and hurricanes have also resulted in the deployment of these resources.

(iv)  **Combat Search and Rescue** is search and rescue operations that are carried out during war, that are within or near combat zones. The armed forces of the country plays a vital role during disaster emergencies, providing prompt relief to the victims even in the most inaccessible and remote areas of the country. With their skills in technical and human resource management they organize effective relief measures for emergency situations.

(v) **Air-Sea Rescue** refers to the combined use of aircraft (such as flying boats, floatplanes, amphibious helicopters and non-amphibious helicopters equipped with hoists) and surface vessels to search for and recover survivors of aircraft downed at sea as well as sailors and passengers of sea vessels in distress. The rescue team should follow the following three key principles, while performing rescue operations:

(a) **Look** physically for survivors and casualties trapped under the debris.

(b) **Listen** to the source of information using acoustic devices.

(c) **Feel** the gravity of danger and then respond to the situation.

### Rescue and Evacuation Drills

A rescue and evacuation drill is a method or procedure of practicing the rescue or evacuation for an emergency. During any disaster, it is generally the security personnel or the police that first reaches the spot till the arrival of other emergency service personnel. The police extend all possible help and cooperation to the local authority in the rescue and evacuation operations. The security personnel should, therefore, be trained in rescue and search operations. In India, the National Disaster Response Force (NDRF) is a designated agency to respond in case of a disaster striking any part of the country. Apart from NDRF, armed forces, police organisation, fire services, medical services, participate wholeheartedly in disaster management.

In an evacuation generally the emergency system, usually an alarm is activated and the building is evacuated as though a real emergency has occurred. Usually the time it takes to evacuate is measured to ensure that it occurs within a reasonable length of time, and problems with the emergency system or evacuation procedures are identified to be remedied.

At the village level, Disaster Management Committee (DMC) and Disaster Management Teams (DMTs) are set up. The DMC consists of elected representatives, local authorities, officials from Government departments, doctors, paramedics, representatives from primary health centres, school teachers, etc. The DMT consists of the members of voluntary organizations/NGOs and trained volunteers from the village. The members of the team are imparted training in basic functions of rescue, evacuation, first aid, etc.

Drills are usually conducted in schools, offices, factories and other such facilities. The kinds of drills usually depend on the possible emergencies that could occur in those areas. The common types of drill that are usually conducted are:

1. Fire drills.
2. Drills on use of rescue equipment like ropes and knots, stretchers, fire extinguishers, and first aid kits.

3.    Drills on use of floatation devices.

4.    Drills on use of PPE.

**Benefits of Drills**

❖    Develop teamwork.

❖    Develop self confidence.

❖    Prepare crew for responding rapidly and effectively in an emergency situation.

❖    Prepare the crew to make decisions under pressure.

❖    Identify how procedures might be improved.

❖    Crew to become familiar with the equipment and procedures and whether they are working properly.

## EXERCISE

### Assignment

1.    Visit the local fire-station and note down the list of equipment and procedures that they use for conducting fire drill.

_____

_____

_____

_____

_____

## ASSESSMENT

### A.    Short Answer Questions

1.    What is an ERT?

_____

_____

_____

_____

_____

2.  Who are the members of an ERT?

    _____

    _____

    _____

    _____

    _____

3.  Name any three equipment used by an ERT.

    _____

    _____

    _____

    _____

    _____

4.  Write short note (about 100 words) on the following:

    (a)  Role of Panchayat or local authority in disaster management

         _____

         _____

         _____

         _____

         _____

         _____

         _____

         _____

    (b)  Role of non-government organisations in disaster management

         _____

_____

_____

_____

_____

_____

_____

_____

(c)     Role of educational institutions in disaster management

_____

_____

_____

_____

_____

## B.    Fill in the blanks

1.    ERT stands for _____ Response _____.

2.    An ERT is established to provide relief from suffering and distress to persons affected by hazards, e_____ and d_____.

3.    _____ rescue refers to search and rescue activities that occur in a mountainous environment.

4.    _____ search and rescue operations are carried out during war.

5.    The rescue team should l_____ for survivors, listen to the source of information and f_____ the gravity of danger, before responding to the situation.

# CHECKLIST FOR ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

## Part A

(a)   Differentiated between the functions of Medical triage team and Medical treatment team.

(b)   Differentiated between mountain rescue and ground search and rescue.

## Part B

Discussed the following in the class:-

(a)   What are the roles and responsibilities of people involved in emergency response team or emergency response units?

(b)   What are the different types of search and rescue operations?

## Part C

**Performance Standards**

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Identify personal protective equipment used by emergency response team or disaster management team | | |
| Identify the role of various teams in responding to an emergency in a given situation or accident | | |
| Identify the agencies responsible for disaster management | | |
| Identify the type of search and rescue operation in a given situation | | |

# Session–3
# Fighting Fire

## Relevant Knowledge

Everything in nature is made up of five basic elements: (i) earth, (ii) water, (iii) fire, (iv) air, and (v) space. Each of the five elements has a certain relationship with the other elements. These relationships form the laws of nature. An element could support or act as an enemy to the other element. For example, air (contains oxygen) supports fire, but water can block the spread of fire. Therefore, in order to co-exist fire and water need to be separated. In this session, we will try to understand how to respond to fire emergencies. But before we do that, let us first understand what we mean by fire.

**Fire** is the rapid oxidation of a material in the chemical process of combustion, releasing heat, light and various reaction products. The flame is the visible portion of the fire and consists of glowing hot gases. Fire has the potential to cause physical damage through burning.

For a fire, three things are necessary – heat, oxygen and fuel. Fuel (in a non-gaseous state) does not burn directly. When you apply heat to fuel, it produces a gas. When the oxygen in the air combines with this gas, it burns. Remove one of those things (e.g., add water to eliminate heat or cover with dirt or sand to eliminate oxygen) and the fire will go out. Therefore the three elements that are necessary for a fire to ignite are:

❖ Heat

❖ Oxygen

❖ Fuel

❖ Fires start when a flammable and/or a combustible material, in combination with a sufficient quantity of oxygen gas is exposed to a source of heat that reaches above the flash point for the fuel and is able to sustain a rate of rapid oxidation that produces a chain reaction. This is commonly called the *"fire tetrahedron"* (See Figure 1).
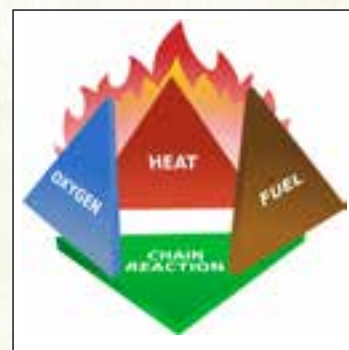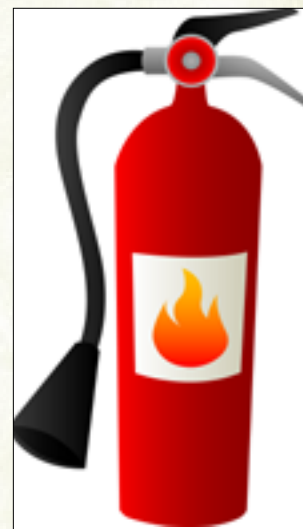
**Figure 1: Fire Tetrahedron**

**Classification of Fire :** Fires occurring around us can be classified as under:-

**Class A Fire :** Class A fire is caused by burning of organic material such as, grass, wood, paper, textile, garbage, coal, tyres, plastic, etc. It is extinguished by applying cooling, wetting and blanketing agents like water, sand, etc. Class A fires are extinguished by using Water and Carbon dioxide ($CO_2$)

**Class B Fire :** Class B fire is caused by burning of inflammable liquids - kerosene oil, petrol, diesel, benzene, alcohol, paints, greases, oils or those materials, which turn into liquid under heat such as, fats, wax, coal tar, etc. Class B fires are extinguished by using $CO_2$ and blanketing agent like Foam and Dry Chemical Powder (DCP). Water is not used for extinguishing Class B fires.

## FIRE CLASSIFICATIONS & SUITABILITY OF EXTINGUISHERS FOR DIFFERENT CLASS OF FIRES

| *CLASSES* | **A** | **B** |
|---|---|---|
| | Fire caused by combustion of solid materials, mainly of organic origin, which normally burn & produce ash e.g. wood, paper, straw, textile, coal, car tyres. | Fire caused by combustion of liquids of materials that liquifies e.g. petrol, benzene, oils, fats, paints, tar, ether, alcohol. |
| *Suitable Extinguisher* | | |
| **WATER** | ✓ | ✗ |
| **FOAM** | ✗ | ✓ |
| **DRY CHEMICAL POWDER** | ✓ | ✓ |
| **CO₂** | ✓ | ✓ |

| *CLASSES* | **C** | **D** |
|---|---|---|
| | Fire caused by combustion of gases e.g. methane, propane, hydrogen, acetylene natural gas & city gas | Fire caused by combustion of of materials of metals e.g. aluminum, magnesium, lithium, sodium, potassium & their alloys. |
| *Suitable Extinguisher* | | |
| **WATER** | ✗ | ✗ |
| **FOAM** | ✗ | ✗ |
| **DRY CHEMICAL POWDER** | ✓ | ✓ |
| **CO₂** | ✓ | ✗ |

**Class C Fire :** Class C fire is caused by burning of inflammable gases such as, liquefied petroleum gas (LPG), compressed natural gas (CNG), methane, acetylene, hydrogen, etc. Class C fires are extinguished by using $CO_2$ and DCP. Water and Foam are not used for extinguishing Class C fires.

**Class D Fire :** Class D fire is caused by burning of metals like aluminium, magnesium, lithium, sodium, potassium and their alloys. Class D fires are extinguished by using DCP blanketing agents. Water, $CO_2$ and Foam are not used for extinguishing Class D fires.

In many cases fires start due to electrical short-circuit. On electrical panels and equipment,

Water-type of fire extinguisher should never be used. $CO_2$ – type fire extinguishers are best suited for electrical panels and equipment.

## Common Causes of Fire

Common causes of fire can be related to the following:

(i) **Open Flames**

❖ Negligence in conducting hot work, such as welding, cutting or grinding.

❖ Improper use of candles.

❖ Improper handling of flammable or combustible liquids or flammable gases in or near-topotential ignition sources.

❖ Matches and cigarettes that are improperly disposed off or left unattended near combustibles.

(ii) **Electrical**

❖ Damaged electrical conductors, plug wires or extension cords.

❖ Use of faulty, modified or unapproved electrical equipment.

❖ Insufficient space or clearance between electrical heating equipment and combustibles.

❖ Short or overloaded circuits.

❖ Loose electrical connections.

❖ Lighting.

(iii) **Cooking**

❖ Deep frying in pots or pans on stove tops.

❖ Unattended cooking appliances.

❖ Combustibles located dangerously close to cooking equipment.

(iv) **Spontaneous Ignition**

❖ Improper disposal of materials susceptible to spontaneous combustion, such as oily rags from wood finishing or polishing.

❖ Accumulation of organic materials, such as green hay, grain or woodchips.

❖ Accumulation of waste combustible materials near potential sources of ignition.

## Dealing with Fire Emergencies

In order to deal with fine emergencies remember the short form "RACE" i.e., Rescue, Alarm, Confine and Evacuate. Let us now learn about each of these aspects in detail.

❖ **R – Rescue/Remove:** Search and rescue is a team effort that needs planning,

trained people and coordination amongst the members. When you discover a small fire you can rescue people in immediate danger, but this you should do without endangering your life. In case of big fires, evacuation should be done and people should calmly exit via safe Fire Exit.

❖ **A – Alarm/Alert:** Sound the alarm by pulling a fire box and call from a safe distance. Dial the fire emergency number 101.

❖ **C – Confine/Contain:** Close all doors, windows and other openings.

❖ **E – Evacuate/Extinguish:** Evacuate the building. In case it is necessary to enter the building, for example, to save people, take necessary precautions while entering the building.

## Methods and Techniques of Extinguishing Fire

Small fires can be extinguished only if you are trained to use a fire extinguisher under the supervision of a trained fire fighting personnel.

To stop a fire, one of the sides of the fire tetrahedron ought to be cut off. The various methods adopted for extinguishing a fire include the following:

❖ **Cooling:** Lowering the temperature of the combustible material so that it falls below the ignition temperature.

❖ **Smothering:** Cutting off supply of air/oxygen to the combustible material.

❖ **Starving:** Removing of combustible material or removing air for achieving conditions below the "Limit of flammability".

## Fire Fighting Equipment and Installations

1. **Personal Protective Equipment (PPE):** Designed to withstand water, high temperatures and hand tools used by fire fighters are as follows:

   (a) Bunker gear, including turnout jacket and pants

   (b) Self-contained breathing apparatus.

   (c) Helmet, facemask and/or visor.

   (d) Safety boots, gloves

   (e) Alert safety system device.

(f)　Handheld radio or other communication devices.

(g)　Thermal Imaging Camera.

(h)　Gas Meter.

(i)　Flat and pick-head axe.

(j)　Halogen bar

(k)　Chain saws.

2.　**Fire Water Tanks:** For dealing with large fires, the entire building is installed with a system with a network of pipeline, hydrant valves, sprinkler heads, etc. The system is always kept under desired pressure with the help of respective Jockey pumps operating automatically within a range of water pressure in the pipe line. In case some hydrant is opened or sprinkler system gets activated, the respective main hydrant pump or sprinkler pump will start automatically at a pre-set pressure for supplying water in large quantity. For supplying water to the system, the following water tanks are generally placed:

(a)　1 Tank at the terrace: 100 KL (Kilo Litre)

(b)　2 Underground tanks:285 KL each

(c)　2 Raw water tanks: 170 KL each

(d)　2 Domestic water tanks: 155 KL each

(e)　Soft water tanks: 305 KL

3.　**Pumps:**

(a)　Main Fire Pumps for hydrants: Capacity 4500 LPM (Litre Per Minute).

(b)　Pump for Sprinkler System: Capacity 4500 LPM.

(c)　Diesel Pump as stand by: Capacity 4500 LPM for hydrant & sprinkler system.

(d)　2 Jockey Pumps with the capacity of 180 LPM and 450 LPM each to maintain pressure in low, medium and high pressure system.



4.　**Fire Hydrants:** Fire hydrants are provided inside the building covering all the areas as per fire safety rules and regulations. Each hydrant box is equipped with a hose reel, two outlet valves for standard size hoses and a branch pipe.

5.　**Yard Hydrants:** These are provided around the building for attacking the fire from outside, with the help of single outlet valve and standard size Reinforce Rubber Lined (RRL)

hoses. Rubber hoses are provided with instantaneous release type couplings at each end i.e. male coupling at one end and female coupling at the other end.

(a) *Use of Hose Reels in Hydrants* (Rubber Hose Reel of length 35 metres): Open the fire hydrant cabinet door, tilt the hose reel outwards and start unrolling the rubber hose after opening 1 inch size hydrant valve. Open quick shut off valve on the nozzle of direct water jet at the base of fire. One person can operate the hose reel comfortably. For handling canvas hoses, 2-3 persons are sufficient.

(b) *Use of RRL (Reinforced Rubber Lined) Hose (Length 15 mtr -02 in each hydrant box):* Open the hydrant cabinet door, unroll the canvas hose, connect its male coupling end to hydrant valve and if required, connect additional hoses depending upon the distance between the seat of fire and hydrant box. Ensure that length of hose is not kinked. Connect water jet nozzle to female end of canvas hose and hold it firmly with both hands while keeping the hose pressed between the body and right arm. Throw of water can be adjusted by regulating the hydrant valve. Third person can assist in holding the pressurized hose or adjust length of hose or act as a messenger for regulating the hydrant valve. Drain hoses thoroughly before rolling and stowing. Do not open the hydrant valve abruptly as reactive force of water jet through nozzle may injure the person holding it.

6. **Automatic Sprinkler System:** A sprinkler system is an automatic fire detecting, alarm and extinguishing system that is constantly on guard to deal quickly and effectively with any outbreak of fire that may occur in relevant spaces. Water is fed to the sprinkler heads through a multi-stage composite pump applying water to low, medium and high pressure system of piping usually suspended from the ceiling with sprinklers facing upwards.

Sprinklers system also helps for gaining an easy access to seat of fire and improvement of visibility by lowering the smoke level in areas on fire.

In case of fire when temperature rises 68ºC, the quartzoid bulb in the sprinkler head bursts and water under pressure starts spraying out from the sprinkler for extinguishing the fire by cooling effect.

Most of the area in the shopping mall building is well protected against risk of fire by means of automatic sprinkler system. Various areas connected to low, medium and high pressure sprinkler system are further divided zone-wise and a visual and

audible alarm indication will be activated on alarm panel situated in the mall control room.

7. **Fire Detection Panel and Warning System:** This panel is installed in the electric control room. In case of a fire in a particular zone, we get an indication and audible alarm signal for dealing with the emergency situation. Control panel operates on 24ºC supply through a rectifier circuit connected to 230 V AC supply. A stand by 24V battery backup is provided in case of failure of supply from the mains. Highly sensitive smoke and heat detectors are installed in various zones in public area, retail shops, service and machinery area on floors and corridors.

**Heat Detectors:** These detectors have thin strips of metal that react to the presence of heat and activate an alarm when a specific temperature is reached. The thin strips of metal warp easily when heat from the air comes into contact with them. When the metal warps to a sufficient degree, contact is made with an electrical circuit activating the alarm.

**Smoke Detectors:** When oxygen and the fuel source combine, the chemical reaction between the two products often produce other byproducts, including smoke and other toxic gases. A smoke detector works by monitoring the air for particles of smoke i.e., the minute particles produced by combustion. Smoke detectors do not detect flame, heat, or gases. There are two types of smoke detectors commonly in use: (i) Ionization Smoke Detectors, and (ii) Photoelectric Smoke Detectors

**Flame Detector:** These systems monitor the production of certain spectrums of light produced by fire. Some of these systems monitor infrared light while others monitor ultraviolet light produced by the fire.

In case of fire, respective area fire detectors will activate an audible alarm signal along with visual indication showing the affected zone on a floor. A Light Emission Diode (LED) lamp glowing at the base of detector indicates that the detector has activated. The smoke detector is reset after the fire or after source of smoke is eliminated. Any fault indication also gets displayed on the panel.

Manual call boxes, installed at specific points in the corridors, service, machinery and public area, covering the entire mall building are used to activate fire alarm. Fire alarm can be activated in the main fire

control panel by breaking the glass of pill box with a small hammer fixed on it. For resetting the system, pill box glass has to be refixed.

8.  **Public Address System:** The Public Address (PA) system panel is a part of main control panel. All areas are divided in zones for making necessary announcements or for giving FIRE ALERT alarm to various guest, service, machinery and public area. This system is supervised round the clock by an Assistant Security Officer (ASO).

9.  **Automatic Sprinkler Alarm Panel:** This panel is installed adjoining main fire detection and warning panel. Zonal alarm signal and visual indication will get displayed on this panel in the event of water flow through the sprinklers, accidentally or due to outbreak of a fire.

10. **Emergency Exits:** Emergency exits on the road side outside the building are provided on every floor. Similarly, adequate arrangement is made for emergency exits from various public areas, basements, service areas and machinery areas.

11. **Signages:** Evacuation and safety instructions are displayed conspicuously at different prominent places. The following signages are generally displayed:

    (i)   Photo luminescent signages reading "IN CASE OF FIRE, USE STAIRS UNLESS INSTRUCTED OTHERWISE" in red and white background in the entire building showing EXIT route.

    (ii)  Photo luminescent signages are fixed in "EXIT" staircase indicating floor number.

    (iii) Each stairway and each elevator is given numbers as per evacuation plan e.g. S1, S2, etc. for stairways and L1, L2, etc. for elevators.

    (iv)  'No Smoking' signages are provided in service areas.

    (v)   Kitchen safety signages are fixed in all kitchens.

    (vi)  High Voltage/Danger signages are fixed on all electrical panels.

12. **Emergency Power Supply:** In case of power failure from the city source, generator sets each with a power output of 1500 KVA (or commensurate with requirements) come on load automatically within 5 to 10 seconds for meeting the normal supply load demand.

**Prevention and Procedures**

The defence against fire is viewed in two parts i.e., Fire Prevention and Fire Protection.

(i)  **Fire Prevention:** This is a major precaution, which embodies the control of the source of heat and elimination or isolation of obviously dangerous fuels. It is considered much more important than success in the fire fighting operations. Adhering to precaution saves not only consequential losses but also helps in maintaining continuity in operations. Some of the preventive measures which are to be followed strictly have been mentioned below:

❖  Do not compromise on implementing norms and standards.

❖  Develop No Smoking discipline.

❖  Do not leave liquid fuel unattended.

❖  Prevent unauthorized electrical connections and usage of unauthorized electrical apparatus.

❖  Store all fuels / flammable stores in safe place.

❖  Establish a fire preparedness plan which takes care of prevention, response, recovery and keep it updated periodically.

❖  Designate an emergency coordinator and a team and assign responsibilities to employees to initiate the plan.

❖  Keep your housekeeping up-to-date, preventing accumulation of garbage or waste materials.

❖  Upgrade the facility to meet the required fire codes mentioned in National Building Code (NBC) of India.

❖  Ensure a preventive maintenance programme for operational equipment and make sure that the equipment meets the specifications and standards.

❖  Develop a mutual programme with neighbouring establishments for such emergencies.

(ii)  **Fire Protection**

❖  The First Aid firefighting equipment have been provided on all floors, including basements.

❖  Fire fighting extinguishers have been distributed all over the building not only as per norms but also depending upon the vulnerability of the place.

❖  The complete building and the lawn is equipped with manual as well as automatic fire alarm system. Location of all manual call boxes is within laid down limit of 22.5 meter. The call boxes while being visible from the exit ways, do not obstruct fire exits. The call boxes are "Break Glass" Type.

❖  Fire exits and elevators are fitted with fire doors and shutters to provide fire protection to these areas.

❖ Fire extinguishers in the entire building, particularly in places identified as hazardous.

❖ Periodically test fire detection and suppression system as per national fire code.

❖ Ensure adequate water supply for hydrants and sprinklers.

❖ Evaluate volume, pressure and duration of water to last in an emergency.

❖ Provide an alert warning system for people in premises.

❖ Predetermine fire evacuation routes, mark them clearly and carry out periodical drills for all employees as well as guests.

❖ Inspect all evacuation routes daily.

❖ Maintain a checklist of maintenance.

❖ Smoke detectors and sensors have been fitted as per laid down norms.

❖ Adequate water storage facility.

❖ Gas pipe lines in kitchen areas of the food court have been checked for safety and fittings conform to Indian Standard Institution (ISI) norms.

❖ All exit ways are conspicuously marked by illuminated signs which remain visible even in the event of a power failure.

❖ To avoid the possibility of spread of toxic gases, smoke or fire due to central air conditioning, air ducts made of non-combustible and fire resistance material have been provided at appropriate places.

❖ Automatic dampeners have been provisioned at suitable locations inside the ducts.

❖ Emergency lights have been installed in the building.

**Role of People in Fire Detection and Control**

(i)     **Person Discovering Fire**

The person who discovers the fire should:

❖ Contact telephone operator or fire station immediately.

❖ Give his/her name, exact location, size and type of fire.

❖ If phone is not working, then break the glass of nearby manual call box to activate fire alarm.

❖ Remove all possible combustible material from the vicinity of the fire.

❖ With the assistance of fellow colleagues try to control the fire in the manner he/she has been taught in the fire training or wait until the fire fighting team arrives on the scene.

**(ii)   Telephone Operator**

In case of a report of fire or an emergency the operator shall notify the following immediately:-

1.   Chief Security Officer (CSO).

2.   Deputy Chief Security Officer (Dy. CSO).

3.   Security Officer (SO).

4.   Fire Officers.

5.   Manager Operations.

6.   Electrical Room.

7.   General Manager (GM), Corporate Security.

8.   Chief Engineer.

9.   Electrician.

**(iii)   Fire Fighting Teams**

The duty schedule of the fire fighting team is as follows:

| Day | Night |
|---|---|
| (9:00 AM – 6:00 PM) | (6: 00 PM to 9:00 PM) |
| 1. Chief Security Officer | Security Officer on Duty |
| 2. Chief Fire and Safety Officer | Fire Officer |
| 3. Chief Engineer | Shift Engineer |
| 4. Manager Incharge | |

**Support team**

| Day | Night |
|---|---|
| Security Officer/ Assistant Security Officer of respective areas | Security Officer/ Assistant Security Officer on duty |
| SA as deputed by SO/ASO | Assistant Fire Officer |
| Person reporting fire | Fire Marshalls |

| Incharge House Keeping (Day) | ■ Shift Engineer<br>■ Electrician<br>■ Incharge Housekeeping (Night) |
|---|---|

### (iv) Duties of Leader of the Fire Fighting Team

❖ Acts as over all incharge.

❖ Assesses the intensity and magnitude of fire.

❖ Depute the fire fighting team to fire.

❖ Arrange to remove trapped persons from the scene of fire.

❖ Decide evacuation of guests after consulting General Manager, Corporate Security.

❖ Ensure sufficient water, power, fire extinguishers and necessary equipment to fight the fire are available.

### (v) Duties of Chief Fire and Safety Officer/Fire Officer on Duty

❖ Rush to the scene of the fire.

❖ Assist CSO/Dy. CSO / SO on duty to combat the fire.

❖ Guide fire fighting team to make optimum use of fire fighting first aids and installations.

❖ Take charge of fire fighting team in case CSO/ Dy. CSO/SO are not present due to some reasons.

### (vi) Duties of Engineering/Electrical Control Room Incharge

On receiving the information regarding the fire, he/she should immediately inform the shift engineer and on orders should instruct the following:

1. **Electrician:** To cut off the power to affected area.

2. **A/C Technician:** To cut off A/C and ventilation supply.

3. **Fire Technician:** To ensure activation of fire fighting installations.

### (vii) Duties of Chief Engineer/ Shift Engineer

❖ To ensure control room is manned all the times during the period of emergency.

❖ Ensure engineering support team is deputed for respective jobs.

❖ Ensure that the electrician cut off power supply of the affected quadrant.

❖ Check status of fire pumps and instruct the operator and plumber to open all valves and check water levels.

❖ Carpenter to remain stand by with tools to break open door, if need arises.

❖ All emergency supply such as water, torches, emergency lights, etc. should be readily available to cater to the needs during the emergency.

❖ To take charge of the situation and monitor it from the Close Circuit Television (CCTV) rooms.

❖ To set up an emergency control room in CCTV room.

❖ To exercise command and control over the activities in and around the building.

❖ On receipt of instructions from fire fighting team about the magnitude of fire, pass on necessary orders of evacuation, calling ambulance, fire brigade, etc. in consultation with the CSO / Dy. CSO.

❖ Inform neighbouring establishments about the fire.

❖ Ensure continuous flow of information to review the situation.

(viii) **Duties of SO/ASO of the Affected Area**

❖ To bring all elevators to the lower basement by operating Fireman's switches.

❖ Keep concerned senior persons informed about the situation.

❖ Ensure that adequate number of charged walkietalkies are available for the emergency.

❖ Fight the fire with available resources without panicking.

❖ Guide people while carrying out evacuation.

❖ Make available enough security guards and housekeeping personnel to help in evacuation of injured person.

(ix) **Duties of Neighbouring SOs/ ASOs**

❖ Cordon off the affected area and access to persons not involved in fire fighting.

❖ Be ready to assist fire fighting team.

❖ Provide assistance to fire brigade in guiding to the scene of fire.

❖ Act as Incharge of Cordon and Salvage Party according to the requirement.

❖ Ensure that onlookers or bystanders are kept at bay for easy and unobstructed movement of the fire tenders.

❖ Ensure that guards at the exit route guide the people on the way to the assembly point.

❖ Provide First Aid to the injured.

❖ Remove inflammable items lying around the scene of fire.

- Carry or shift items of property to a designate safer place within the area cordoned.
- Help evacuate trapped guests or employees.
- Keep close watch on salvaged items.
- Provide help to procure additional firefighting equipment, if required.

**(x) Duties of Help Desk Staff**

- Help in evacuation of persons.
- Pass suitable instructions to control room for emergency announcements on Public address (PA) system.
- Restrict movement of persons not concerned with emergency to proceed towards the scene of fire.
- Guide persons in atriums to assembly points.

**(xi) Duties of Housekeeping Staff**

- Ensure fire exits are not obstructed.
- Help customers to come out of the building and guide them to exit routes.
- Try and convince the guests to maintain composure while evacuation to avoid stampedes.
- Help security guards in cordoning off the fire affected area.
- Help in salvaging property from getting burnt.
- Help in evacuation of casualties.

In India municipalities are required by law to have a fire brigade and participate in a regional fire service. Each city has its own fire brigades. The main functions of firefighting services in India are provision of fire protection and of services during emergencies such as building collapses, drowning cases, gas leakage, oil spillage, road and rail accidents, bird and animal rescues, fallen trees, appropriate action during natural calamities, and so on. Industrial corporations also have their own firefighting service. Each airport and seaport has its own firefighting units.

Firefighters are trained to use communications equipment to receive alarms, give and receive commands, request assistance, and report on conditions.

## EXERCISE

### Assignment

1. Visit the local fire station and enquire about the following:

❖ What is the frequency of fire incidents in the jurisdiction area?

❖ What are the locations that usually report a fire?

❖ What are the usual causes of fires that were reported last year?

❖ Is the fire station providing training to institutions? If yes, then collect the names of the institutions.

2. Acquaint yourselves with the names and uses of the fire-fighting equipment housed in the firestation. Take pictures, if possible, and make a report of your visit.

3. Visit a hotel/multiplex/shopping mall to observe and record your observations on the following:

(i) Emergency exits

(ii) Location of fire alarms

(iii) Assembly points

(iv) Nearest alternative telephone

(v) Internal shelter areas

(vi) First Aid equipment

## ASSESSMENT

### A. Short Answer Questions

1. Describe the following terms with respect to dealing with fire emergencies:

(a) Rescue

_____

_____

_____

_____

_____

(b) Alarm

_____

_____

_____

_____

_____

(c)     Extinguish

_____

_____

_____

_____

(d)     Evacuate

_____

_____

_____

_____

## CHECKLIST FOR ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

### Part A

(a)     Differentiated between different types of fire.

(b)     Differentiated between different methods of extinguishing fire.

### Part B

Discussed the following in the class:-

(a)     What are the various types of fires?

(b)     What are the various installations used for fire fighting?

(c)     Why is it necessary to conduct fire fighting drill?

(d)     What are the implications of incorrect use of fire extinguishers on different types of fire?

## Part C

**Performance Standards**

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Classify the various types of fires | | |
| Read the signages for fire safety | | |
| Demonstrate use of personal protective equipment | | |
| Determine the fire type and select appropriate fire extinguishers | | |
| Perform the technique of extinguishing small fire using portable fire extinguishers | | |
| Identify different fire fighting installations for controlling large fires. | | |
| Demonstrate the correct use of fire hose reel | | |

## SUGGESTED READING WEBSITES

1. http://mha.nic.in/pdfs/DM_Act2005.pdf (Disaster Management Act, 2005).
2. http://www.gdrc.org/uem/disasters/1dm_cycle.html
3. http://en.wikipedia.org/wiki/Building_code
4. http://helmholtzeos.dlr.de/docs/Taubenboeck_etal.pdf
5. http://en.wikipedia.org/wiki/Zoning
6. http://en.wikipedia.org/wiki/Building_regulations_in_the_United_ Kingdom#Part_N._Glazing_-_safety_in_relation_to_impact.2C_opening_and_ cleaning
7. http://en.wikipedia.org/wiki/Community_Emergency_Response_Team

# Unit–3
# Security Structure and Laws Governing Private Security

# *Introduction*

On national level, security has two important aspects; one, to protect country's sovereignty and integrity from external and internal threats and two, to provide a safe and secure environment to its citizens to live and earn their livelihood.

External threats to a country's sovereignty and territorial integrity can take many forms– an enemy country can declare war; it can provide support to insurgency and terrorism or interfere in the internal socio-political disturbances, which can threaten the unity of the country.

The spectrum of internal threats is very wide. It ranges from petty crimes to violent socio-political movements, such as communal riots, sectarian violence, insurgency and terrorism.

A nation maintains its Armed Forces (army, navy, air force, coast guard, etc.) to protect its sovereignty and integrity from external threats. Similarly, there are various police forces, which look after the internal security of a nation. Armed Forces and police organisations also work in close coordination to eliminate such threats, which threaten external as well as internal security.

India is a large and over-populated country. Its police resources are inadequate to provide desired level of security to the citizens. It opens avenues for Private Security Sector to offer private security services to its clients.

Private Security Sector in India is regulated by Private Security Agencies (Regulation) Act – 2005. The  Act lays down rules for eligibility, licensing and operation of Private Security Agencies and the eligibility, training and employment of private security personnel.

It is desirable that private security personnel should have the basic knowledge of the law of the land, as applicable to their role and responsibility.

In this Unit, you will learn about the Armed Forces, Central Armed Police Forces and State Police Force and rules and regulations governing various aspects of security.

# Session–1
# Security Structure in India

## Relevant Knowledge

There are two main divisions of security in India: Public and Private. Public security agencies are those organisations which perform security functions exclusively funded by governments in the interest of public service. These agencies include central and states security forces. Private security is provided to clients for a fee and except in special circumstances has its jurisdiction limited to the property owned by the client.
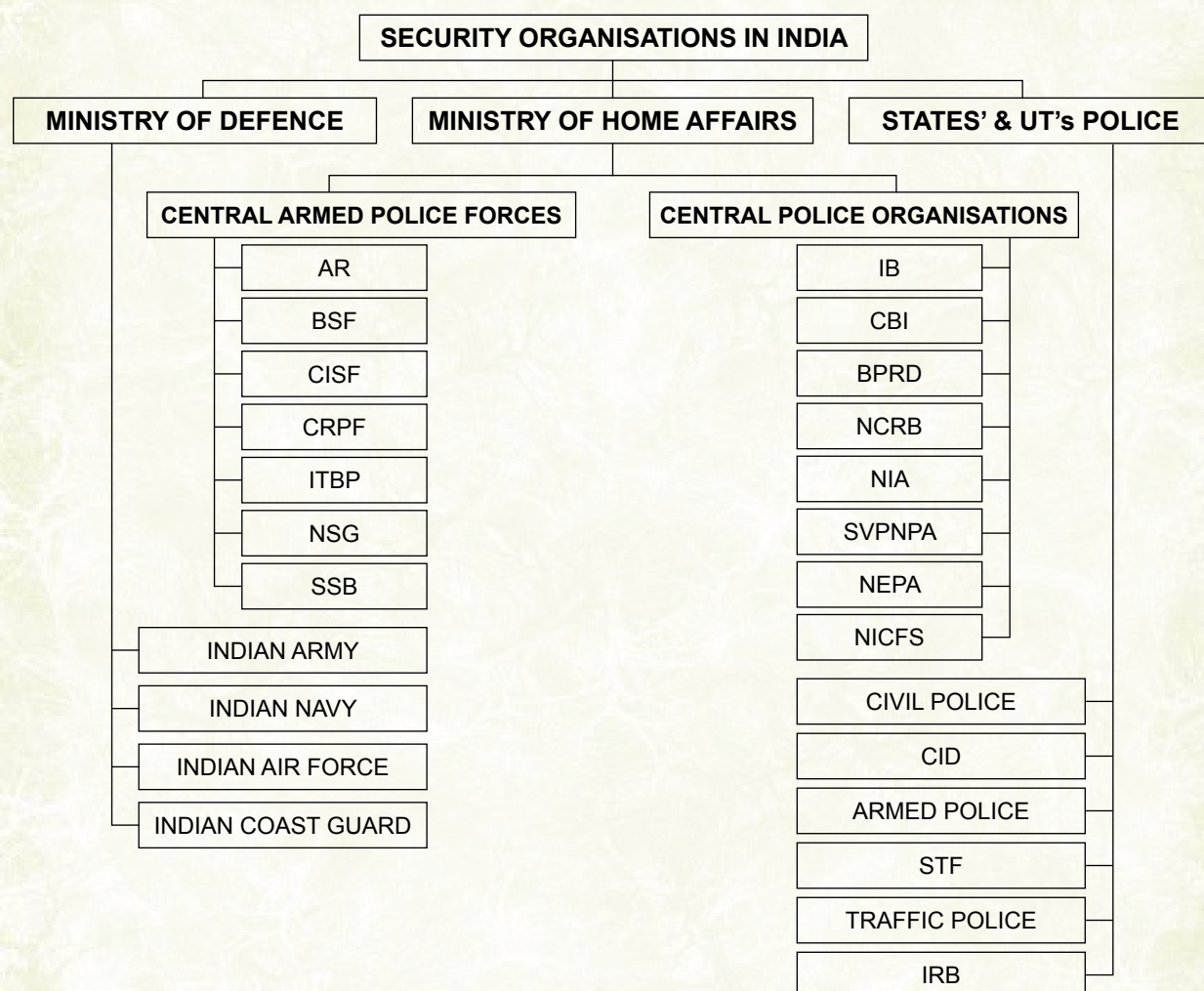
The present structure of the national security in India consists of political, administrative, intelligence and enforcement elements. At the political level, there is the Cabinet Committee on Security. The administrative element is the Ministry of Home Affairs, the Prime Minister's Office and the Cabinet Secretariat. The intelligence elements are spread over different ministries. There is the Intelligence Bureau (IB) which reports to the Home Minister and there is the Research and Analysis Wing (RAW) which falls under the Cabinet Secretariat and reports to the Prime Minister. Joint Intelligence Committee (JIC), National Technical Research Organisation (NTRO) and Aviation Research Centre (ARC) are the intelligence organisations which report to the National Security Adviser. There is the National Security Council Secretariat, which serves the National Security Council. The enforcement element of this architecture consists of the central paramilitary forces, such as Central Reserve Police Force (CRPF), Border Security Force (BSF), Central Industrial Security Force (CISF), Indo-Tibetan Border Police (ITBP), Assam Rifles, *Sashastra Seema Bal* (SSB) and the National Security Guard (NSG).

The Indian Armed Forces comprise the Indian Army, Indian Navy, Indian Air Force, Indian Coast Guards. While the President of India acts as the Supreme Commander, the Cabinet is responsible for national defence. The entire functioning of the Indian armed forces is controlled by the Ministry of Defence. India shares its land and maritime borders with eight countries including Afghanistan, Bangladesh, China and Pakistan. The armed forces have their own intelligence agencies, one each under the army, navy and air force and an umbrella body called the Defence Intelligence Agency.

The internal security of the nation is shouldered by the security forces including the BSF, CISF, CRPF, NSG, ITBP, Assam Rifles, and State Police.

Major informent elements of national security are given in the diagram below:

```
                    SECURITY ORGANISATIONS IN INDIA
        ┌──────────────────────┬──────────────────────┐
MINISTRY OF DEFENCE    MINISTRY OF HOME AFFAIRS    STATES' & UT's POLICE

        CENTRAL ARMED POLICE FORCES      CENTRAL POLICE ORGANISATIONS
                 AR                                IB
                 BSF                               CBI
                 CISF                              BPRD
                 CRPF                              NCRB
                 ITBP                              NIA
                 NSG                               SVPNPA
                 SSB                               NEPA
                                                   NICFS
           INDIAN ARMY
           INDIAN NAVY                        CIVIL POLICE
           INDIAN AIR FORCE                   CID
           INDIAN COAST GUARD                 ARMED POLICE
                                              STF
                                              TRAFFIC POLICE
                                              IRB
```

**Legend:**

**AR** – Assam Rifles, **BPRD** – Bureau of Police Research & Development, **BSF** – Border Security Force, **CBI** – Central Bureau of Investigation, **CID** – Criminal Investigation Department, **CISF** – Central Industrial Security Force, **CRPF** – Central Reserve Police Force, **IB** – Intelligence Bureau, **ITBP** – Indo-Tibetan Border Police, **IRB** – India Reserve Battalion, **NCRB** – National Crime Records Bureau, **NEPA** – North Eastern Police Academy, **NIA** – National Investigation Agency, **NICFS** – National Institute of Criminology and Forensic Science, **NSG** – National Security Guards, **SSB** – Sashastra Seema Bal, **STF** – Special Task Force, **SVPNPA** – Sardar Vallabhbhai Patel National Police Academy, **UT** – Union Territory

The main objectives of the Indian defence forces are to safeguard the sovereignty, territorial integrity and the unity of the nation.

There are Central Armed Police Forces (CAPF) that look after the internal security. These include the Assam Rifles, Border Security Force, Indo-Tibetan Border Police,

Unit - 3

Sashastra Seema Bal, Central Reserve Police Force, Central Industrial Security Force and National Security Guard. While the Indian armed forces function under the Ministry of Defence; the CAPFs function under the Ministry of Home Affairs.

The law and order in the Indian States are maintained by the States' Police Forces. These are independent units in the state administrations. The police organisations include well trained and disciplined body of men who detect and prevent crime.

During peace time, the armed forces also provide aid to civil authority in dealing with manmade and natural disasters. Some of these eventualities include the following:-

(a)    Terrorist attacks/ hijacking.

(b)    Floods, earthquakes and tsunamis.

(c)    Massive fires and industrial disasters.

(d)    Insurgencies.

(e)    Internal disturbances/riots.

(f)    Organisation of international games and sports.

### The Armed Forces (Special Powers) Act, 1958

The Armed Forces (Special Powers) Bill was passed by both the Houses of Parliament and it received the assent of the President on 11 September 1958. The Armed Forces (Special Powers) Act grants special powers to the armed forces in "disturbed areas" in the States of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and Jammu and Kashmir.

The Governor is empowered to declare any area of the State or Union Territory as disturbed area. Under this act, on declaration in the Official Gazette as disturbed area, any commissioned officer, warrant officer, non-commissioned officer or any other person of equivalent rank in the armed forces may, act as under:-

(a)    If he is of opinion that it is necessary so to do for the maintenance of public order, after giving such due warning as he may consider necessary, fire upon or otherwise use force, even to the causing of death, against any person who is acting in contravention of any law or order for the time being in force in the disturbed area prohibiting the assembly of five or move persons or the carrying of weapons or of things capable of being used as weapons or of fire-arms, ammunition or explosive substances;

(b)    If he is of opinion that it is necessary so to do, destroy any arms dump, prepared or fortified position or shelter from which armed attacks are made or are likely to be made or are attempted to be made, or any structure used as a training camp for armed volunteers or utilized as a hide-out by armed gangs or absconders wanted for any offence;

(c)  Arrest, without warrant, any person who has committed a cognizable offence or against whom a reasonable suspicion exists that he has committed or is about to commit a cognizable offence and may use such force as may be necessary to effect the arrest;

(d)  Enter and search without warrant any premises to make any such arrest as aforesaid or to recover any person believed to be wrongfully restrained or confined or any property reasonably suspected to be stolen property or any arms, ammunition or explosive substances believed to be unlawfully kept in such premises, and may for that purpose use such force as may be necessary.

## EXERCISE

Visit the cantonment area in your city and observe the developments that have taken place. Observe how the Cantonment Board is planning and developing the area. Meet the officers of the cantonment board and discuss the various rules and regulations and the role and functions of the army personnel.

## ASSESSMENT

### Fill in the Blanks

1.  A nation needs to address its threats from the external enemies and also maintain l_____and o_____ within the boundaries.

2.  Essentially the security forces are meant to prevent and protect from e_____ or internal threats.

3.  The external threats are addressed by the _____ forces under the Ministry of Defence.

4.  In accordance with the Constitution of India, law and order is a _____ subject.

5.  India enacted the _____Security _____ (Regulation) Act (PSARA) in 2005.

6.  IPC stands for Indian _____ Code.

7.  The two main divisions of security in India are _____ and Private.

8.  _____ security agencies are those groups that perform a security function exclusively funded by governments in the interest of public service.

9. _____ security is provided to clients for a fee and except in special circumstances has its jurisdiction limited to the property owned by the client.

10. Indian Armed Forces comprise the Indian A_____, N_____, A_____ Force.

11. The intelligence agencies of armed forces in an umbrella body called the D_____ I_____ Agency.

12. The law and order in the Indian states are maintained by the States' P_____ Forces.

13. During _____ time, the armed forces also provide aid to civil authority in dealing with manmade and natural disasters.

14. Write the full form of the following abbreviations:
    (a) JIC
    (b) CRPF
    (c) BSF
    (d) CISF
    (e) ITBP
    (f) SSB
    (g) NSG

## CHECKLIST FOR ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

### Part A

(a) Differentiated between external and internal security.

### Part B

Discussed the following in the class:

(a) What types of threat a country faces?
(b) Why should a country prepares itself for external threats?
(c) What are the internal threats a country faces?

(d)    What is the security structure in India?

**Part C**

**Performance Standards**

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Identify the various types of internal threats | | |
| Identify the various types of external threats | | |
| Identify the security forces responsible to address the internal and external security threats | | |
| Identify the security forces responsible to address the external security threats | | |

# Session–2
# The Armed Forces

## Relevant Knowledge

### Indian Army

India has long borders encompassing different geographical and climatic conditions such as desert terrain on the west, snow-covered mountains in the north and thick rainfed mountainous jungles in the east. The main responsibility of the Army is to safeguard the territorial integrity of the nation against external aggression.

The Army is often required to assist the civil administration during internal security disturbances and in the maintenance of law and order. It organizes relief operations

during natural calamities like floods, earthquakes and cyclones and in the maintenance of essential services. Army is also deployed in Jammu and Kashmir and in the North Eastern States to counter insurgency operations.

The Indian Army is organised into six regional Commands Headquarters and a training command which are as follows:

| Sr. No. | Command | Headquarters |
|---|---|---|
| 1 | Western Command | Chandimandir (Haryana) |
| 2 | Eastern Command | Kolkata (West Bengal) |
| 3 | Northern Command | Udhampur (J&K) |
| 4 | Southern Command | Pune (Maharashtra) |
| 5 | Central Command | Lucknow (Uttar Pradesh) |
| 6 | Army Training Command | Shimla (Himachal Pradesh) |
| 7 | South Western Command | Jaipur (Rajasthan) |

Army is divided into Arms and Services. Let us now learn about their role and functions.

**Arms:** Arms cover those troops which carry out actual operations. They consist of the following:

1. Infantry (including air-borne and mechanised)
2. Armoured
3. Aviation
4. Artillery
5. Air Defence Artillery
6. Engineers
7. Signals
8. Intelligence

**Services:** The remaining components of the Army are the Services. Their primary duty is to provide the logistic, technical and administrative services to the Army. The major services include the following:

1. Army Service Corps
2. Army Ordnance Corps
3. Army Medical Corps
4. Electrical and Mechanical Engineers

The strength and composition of different units and formations of a corps/ division will depend on their roles, the terrain and weather in which they are required to carry out their operations.

## Role and Functions of Army

Main role of the army is to protect country's territorial integrity from external aggression. Army remains battle ready to undertake operations in all terrains and weathers. It provides help to civil populations during disasters. Army also controls internal disturbances such as in insurgencies and extremism if called by the government.

## Armoured Corps

The Armoured Corps has armoured tanks, which are tracked, and are mounted with tank guns and other weapons and support, such as smoke grenade, communication equipment, etc. They are generally organised into Armoured Units and employed in offensive operations, supported by infantry and artillery. Armoured Units could be part of an Infantry Division, or an Armoured Division. In an infantry battle they are required to support the infantry.

## Infantry

Infantry is either foot infantry or mechanised. Mechanized infantry has tracked vehicles for use in difficult terrain, where normal vehicles cannot operate. They are used in offensives and defensive operations on the ground. Infantry is formed into the battalions. Battalions are integrated organisation formed of HQ Company, Support Weapon Company and three Rifle Companies.

## Artillery

The basic unit of Artillery is a Regiment. A Regiment is formed of HQ and three batteries, each having specified number of Guns. They are also equipped with ground-to-ground missiles. Artillery provides fire support to the Infantry and Armoured Corps.

## Army Air Defence

Army Air Defence provides air defence cover to Infantry and Armoured Corps formations and other vulnerable points and areas. The types of guns in the Army Air Defence would be radar controlled or manual / electrically operated anti aircraft guns / weapons.

## Engineers

The basic unit of Engineers is a Regiment. Such a Regiment is also formed of HQ and three Companies. Engineers provide combat engineer support to the frontline troops. Some of their tasks are laying and removing anti personnel and anti tank mines, preparing temporary bridges in the battle field, providing safe lanes for infantry and vehicles to facilitate own operations. For preparation of the bridges over the water bodies, the Army Engineers are equipped with different types/ specification of the bridges and boats to support the bridging operations.

## Signals

The basic unit of Signals is a Regiment. Such a Regiment is also formed of HQ and three Companies. Signals provide communication support to the fighting troops with wireless and telephonic communications.

## Aviation

Aviation Corps provides elevated platforms for command and control of the field forces and provides direction to the fire support in the battle field.

## Army Service Corps

The Army Service Corps provide major logistics support and fuel to the field formations, through its large transport fleets and arrange for the rations, fuel, and ammunition amongst others.

## Army Ordnance Corps

They are responsible for weapons, ammunition, spare parts and clothing for the Army

## Army Medical Corps

The Army Medical Corps are responsible to provide treatment and evacuation of the casualties during the war, as well as peace. For treatment they use the network of the

border hospitals, and if required establish field hospitals behind the frontlines for prompt response to the treatment. For evacuation they have ambulances and stretcher bearers.

## Electrical and Mechanical Engineers

They provide periodic maintenance and repair to the weapons, vehicles and other equipments in peace area as well in the field.

## Aid to Civil Authorities

Army is generally the first responder in disaster situations. The Disaster Management Act of 2005 has ensured that the Army's role in disaster response remain focused on critical issues with optimal utilisation of dedicated resources. The Army has responded to disaster situations including Tsunami disaster and earthquake on several occasions.

## Indian Navy

India is a maritime nation strategically straddling the Indian Ocean with seaborne trade. Our island territories situated on our Western and Eastern seaboards are at considerable distances away from the mainland. The offshore assets include the Exclusive Economic Zone (EEZ) of 2.02 million sq. kms where marine fishery is undertaken.

The Indian Navy is organised into the following three regional commands:

| Sr. No. | Command | Headquarters |
|---------|---------|--------------|
| 1. | Western Naval Command | Mumbai (Maharashtra) |
| 2. | Eastern Naval Command | Visakhapatnam (Andhara Pradesh) |
| 3. | Southern Naval Command | Kochi (Kerala) |

The Indian Navy is divided into the following broad categories:

1. Administration
2. Logistics and Material
3. Training
4. The Fleets/Surface Ships

5. The Naval Aviation

6. The Submarine Arm

Indian Navy is equipped with aircraft carriers, cruisers, destroyers, submarines and miscellaneous small ships. Navy also has submarines and its air fleet as Harriers and Sea Hawks and Air Craft Carrier, Light Sea Tankers, Mine Sweepers, Sea King Helicopters, Light Cruisers, Leander Class Frigates, Anti Aircraft, Anti Submarine Frigates, Anti Submarine Vessels, Landing Craft and Patrol Boats to name a few.

The Navy embarked upon a programme for indigenous construction of ships and development of major subsystems, sensors and weapon systems with the help of Defence Research and Development Organisation (DRDO) and Defence Public Sector Undertakings (PSUs).

## Aid to Civil Authorities

Navy has always been in the forefront in the aid to civil authorities, whether at sea or land. Its fast rescue boats with life jackets and diver responded promptly to any disaster/ crisis in the country and beyond. It has done credible work in accident of Emperor Ashoka, off Mumbai Harbour in early seventies, flood relief countrywide, Indian Ocean Tsunami in 2004, clearing the oil slick and navigational obstructions after collision of MSC Chitra and MSC Khalija in 2010 off Mumbai, and cyclone relief to Myanmar in 2008.

## Indian Air Force

The Indian Air Force was officially established on 8 October 1932. Its first flight came into being on 01 April 1933. In January 1950, India became a Republic and the Indian Air Force dropped its "Royal" prefix. At this time, it possessed six fighter squadrons of Spitfires, Vampires and Tempests, operating from different airfields in the Northern India.

The Indian Air Force is divided into the following broad categories:

1. Flying operations

2. Maintenance and Logistics

3. Administration

4. Training

The Indian Air Force has seven commands, of which five are operational and two functional, namely:

| Sr. No. | Command | Headquarters |
|---------|---------|--------------|
| 1. | Western Air Command | New Delhi |
| 2. | Eastern Air Command | Shillong (Meghalaya) |
| 3. | Central Air Command | Allahabad (Uttar Pradesh |
| 4. | South Western Air Command | Gandhinagar (Gujarat) |
| 5. | Southern Command | Thiruvananthpuram (Kerala) |
| 6. | Training Command | Bengaluru (Karnatka) |
| 7. | Maintenance Command | Nagpur (Maharashtra) |

### Role and Functions

Indian Air Force is responsible to protect the Indian air space. For this purpose it has the Aircrafts, Radar and Missile Units. The fleet of Indian Air Force include Aircraft Fighters, Bombers, Fighter Bombers, Transporters and Helicopters (Utility and Strike). While the Combat Aircrafts have offensive as well as defensive roles, the Missile Units provide Air Defence with the assistance of Radars. Transport aircraft supports the Army in logistics in remote areas, and during battles to save time.

The IAF has combat aircraft which include SU-30, Mirage, Jaguar, MIG-29, Light Combat Aircraft, and MIG 21. It also has an AWAC (Airborne Early Warning and Control) Aircraft. IAF transport fleet includes IL-76-Gajraj, AN-32, AN-12, Boeing, Embraer and Dornier. It has helicopters such as Cheetah, Chetak, MI-8, MI-7, MI-26, and MI-35 strike helicopter.

Other than strike helicopter, they are utilised for logistics, rescues and reliefs during disasters, and command and control functions.

Air Force has also been equipped with static Radar units, covering the international borders with a view to provide early warning of the enemy intervention of the international border. The warnings received also enable combat craft and other weapons to be applied where the threat exists.

In addition to the traditional wartime roles of the IAF of counter air, counter surface, strategic and combat support operations, the Air Force has provided significant aid to civil authorities during natural calamities. The Siachen glacier lifeline continues to be monitored by the Indian Air Force, fully supporting the Indian Army in fighting.

## Aid to Civil Authorities

The IAF has also provided aid to civil authorities for the large scale movement of military and paramilitary personnel to maintain law and order as well as to cater for the needs of a large number of airmen and jawans in remote and inaccessible outposts.

## The Coast Guard

The Coast Guard (CG) was set up as an Armed Force of the Union in 1978. The CG is responsible for keeping India's Exclusive Economic Zone (EEZ), measuring over 2.02 million sq. kms under regular surveillance in order to conduct search and rescue operations, prevent poaching/ smuggling and other illegal activities in the EEZ. The Maritime Zones of India Act was passed on 25 Aug 1976, under which, India claimed 2.01 million sq km of sea area in which India has the exclusive rights for exploration and exploitation of resources, both living and non-living at sea. Besides, the CG's charter of duties includes pollution control at sea, search and rescue (SAR) and protection of marine environment.

The Command and Control of the Indian Coast Guard lies with the Director General at New Delhi. The organisation has three Regional Headquarters at Mumbai, Chennai and Port Blair. The entire coastline of India is covered by the 11 District Headquarters and 09 Coast Guard Stations under the command of respective Regional Headquarters. A full fledged air wing of Coast Guard operates from two Air Stations at Daman and Chennai, five Air Enclaves at Mumbai, Goa, Kochi, Kolkatta and Port Blair. The primary duties of Indian Coast Guard are as follows:

❖ To protect ocean and offshore wealth including oil, fish and minerals.

❖ Protect the artificial Islands and off-shore installations.

❖ To assist Mariners in distress and safeguard life and property at sea.

❖ To enforce Maritime Laws with respect to sea, shipping, poaching, smuggling and narcotics.

❖ To preserve marine environment and ecology and to protect rare species.

❖ To collect scientific data.

❖ To assist Indian Navy during war situation.

## EXERCISE

1. Armed forces are required to provide aid to civil authorities in various situation or disasters. Collect information about such contributions of Indian Armed Forces from various sources such as world wide web, magazines, newspapers, etc. and prepare a report. Submit the report as part of your portfolio to your teacher.

2. Visit the official websites of Indian army, air force, navy and coast guards to study the activities and achievements and career opportunities.

## ASSESSMENT

### Fill in the blanks

1. India has borders encompassing d_____ terrain on the west, s_____-covered mountains in the north and thick rainfed m_____ jungles in the east.

2. Army is deployed in Jammu and Kashmir and in the North Eastern States to counter i_____operations.

3. There is an Army Training Command at _____for the purpose of laying down the training policy for the Army.

4. Army is divided into _____ and Services.

5. Infantry and Artillery are units of _____.

6. Their primary duty of the services arm of the army is to provide the logistic, t_____and administrative services.

7. The units and formations in army have both o_____ and d_____ roles and functions.

8. Offensive operations include advance attack and c_____attacks on the enemy.

9. The _____ Corps has armoured tanks and other weapons, such as smoke grenade and communication equipment.

10. Infantry is either _____ infantry or mechanized.

11. B_____ are integrated organisation formed of HQ Company, Support Weapon Company and three Rifle companies.

12. The basic unit of Artillery is a _____.

13. Artillery provides fire support to the _____ and Armoured Corps.

14. Engineers provide c_____ engineer support to the frontline troops.

15. The Army _____Corps are responsible to provide treatment and evacuation of the casualties during the war, as well as peace.

16. The Fleets/Surface Ships, the Naval Aviation and the Submarine Arm are the arms of _____.

17. DRDO stands for Defence _____and _____ Organisation (DRDO)

18. Indian Air Force has the Aircrafts, R_____ Units and Missiles.

## CHECKLIST FOR ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

### Part A

(a) Differentiated between the roles and functions of different armed forces.

### Part B

Discussed the following in the class:-

(a) Why national security is needed?
(b) What is the role and function of Indian Army, Indian Navy and Indian Air Force during the war?
(c) What are the roles and functions Indian Army, Indian Navy and Indian Air Force perform during peace time?

### Part C

**Performance Standards**

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Identify the role of Army against external security threats | | |
| Identify the role of Army against internal security threats | | |
| Identify the role of Air Force against external security threats | | |

# Session–3
# Para Military Forces

## Relevant Knowledge

**Border Security Force**

The Border Security Force (BSF) was established on 1st December, 1965. It is a paramilitary force charged with guarding India's land border during peace time and preventing transnational crime. It is under the administrative control of the Ministry of Home Affairs. It is the world's largest border guarding force. The ethos of BSF is "Any task, anytime, anywhere" and its motto is "Duty Unto Death".

Generally deployed on Western border with Pakistan and along Bangladesh, the BSF is mostly tasked operationally for Rajasthan, Punjab, and Jammu & Kashmir for peace time border vigilance and anti smuggling. During the war, the BSF supports the Army in defensive operations or in protection of the vulnerable assets and areas. The tasks of BSF can be broadly categorised into two: (i) Peace time tasks and (ii) War time tasks.

The Peace time tasks of the BSF are as follows: -

(a) Promote a sense of security among the people living in the border areas.

(b) Prevent trans-border crimes and unauthorized entry into or exit from the territory of India.

(c) Prevent smuggling and any other illegal activity.

The War time tasks of the BSF are as follows: -

(a) Holding ground in less threatened sectors.

(b) Protection of vital installations.

(c) Assistance in control of refugees.

(d) Anti-infiltration duties in specified areas.

## Law Governing BSF

The BSF is under the Ministry of Home Affairs, and is governed by the Border Security Force Act, 1968. The BSF Rules deal with various aspects as follows:

(a) General Powers of superior officers

(b) Composition of the force

(c) Organisation of a Battalion

(d) Training

(e) Discipline

(f) Rules regarding judicial trial

(g) Internal management

(h) Pay and allowances

(i) Rules for promotion

(j) Rules and regulation for recruitment

(k) Appointment

(l) Other conditions of services.

## The Indo-Tibetan Border Police

The Indo-Tibetan Border Police (ITBP), also known as Himveer, was conceived on October 24, 1962. It is a multi-dimensional force. It is responsible for protection of Indo-Tibetan border in the areas adjoining Tibet in Uttarkhand and Himachal Pradesh. The recruitment of the troops for ITBP is generally carried out from the hills areas surrounding the locations where they are deployed.

ITBP is basically a mountain trained force and most of the officers and men are professionally trained mountaineers and skiers. They have scaled more than 140 Himalayan peaks including Mt. Everest. ITBP battalions are also deployed on VIP security duties at Chamba – Doda border, Delhi and Jammu and Kashmir. The border posts manned by ITBP are exposed to high velocity storms, snow blizzards, avalanches, and landslides, besides the hazards of high altitude and extreme cold, where temperature dips to minus 40°C.

Presently Battalions of ITBP are deployed on the border guarding duties from Karakoram Pass in Ladakh to Jachep La in Arunachal Pradesh, covering 3488 KM of India-China Border with Border Out Posts at an altitude ranging from 9000 ft to 18500 ft in the Western, Middle and Eastern Sector of India China Border. The ITBP is trained in Civil Medical Camp, disaster management, and nuclear, biological and chemical disasters. ITBP personnel have been deployed abroad in United Nations (UN) peacekeeping missions in Bosnia and Herzegovina, Kosovo, Haiti, Sudan, etc. The motto of the ITBP is *Shaurya, Dridata, Karm Nishtha* (valour, determination, devotion to duty).

### Role and Functions

The role and functions of ITBP include the following:

1.  To keep vigil on the northern borders and detection and prevention of border violations.
2.  To check illegal immigration,trans-border smuggling and crimes.
3.  To provide security to sensitive installations, banks and protected persons.
4.  To restore and preserve order in any area in the event of disturbance.

### Aid to Civil Authorities

The ITBP is the first responder for natural disaster in Himalayas. It has Regional Response Centres in Himachal Pradesh, Uttaranchal and North East States for carrying out rescue and relief operations in various disaster situations. ITBP has trained personnel in disaster management including radiological and chemical and biological emergencies.

### Sashatra Seema Bal

The *Sashatra Seema Bal* (SSB) is a Border Guarding Force under the administrative control of the Ministry of Home Affairs. SSB was set up in early 1963 in the wake of the Indo-China conflict to inculcate feelings of national belonging in the border population

and develop their capabilities for resistance through a continuous process of motivation, training, development, welfare programmes and activities in the then North-East Frontier Agency (NEFA), North Assam, North Bengal, hills of Uttar Pradesh, Himachal Pradesh, and Ladakh.

It was later extended to Manipur, Tripura, Jammu (1965), Meghalaya (1975), Sikkim (1976), border areas of Rajasthan and Gujarat (1989), Manipur, Mizoram and some more areas of Rajasthan and Gujarat (1988), South Bengal, Nagaland (1989) and Nubra Valley, Rajouri and Poonch district of Jammu and Kashmir (1991). Now it is also the border guarding force and lead intelligence agency (LIA) for Indo-Nepal border (in January, 2001) and Indo-Bhutan border (in March, 2004).

## The Assam Rifles

Established in 1835, Assam Rifles HQ Directorate General of Assam Rifle (DGAR) is located at Shillong. It has three HQ Inspector General Assam Rifles (IGAR) and nine Sector HQs operationally deployed. The force comprises of 46 Battalions of Assam Rifles. All Officers in the Assam Rifles from DG Assam Rifles, a Lt General up to the rank of Lieutenant Colonel are from the Army.

## Role and Functions

The Battalions of Assam Rifles conduct counter insurgency operations in the north-east and other areas where deemed necessary. It works under operational control of the army. During peace and 'proxy war', it has the role of security of the Indo-China border and Indo-Myanmar border. During war, it is responsible for rear area security in the Tactical Battle Area.

## EXERCISE

1.  Prepare a poster showing the logos and activities of the Border Security Force, Assam Rifles and Sashatra Seema Bal. Submit the poster as part of your portfolio.

2.  Visit the official websites of paramilitary forces to study the strategic locations, activities and career opportunities.

## ASSESSMENT

### A.  Fill in the Blanks

1.  The Border Security Force is a p_____ force.

2.  BSF is generally deployed on the Western border with P_____ and along Bangladesh.

3.  BSF is mostly tasked operationally for R_____, Punjab, and Jammu & Kashmir for peace time border vigilance and anti smuggling.

4.  It is responsible for protection of Indo-Tibetan border in the areas adjoining _____ in Uttarkhand and _____ Pradesh.

5.  ITBP is the first responder for natural disaster in H_____.

6.  BSF ethos is "Any task, _____, anywhere"

7.  BSF Motto is "Duty unto _____"

8.  SSB stands for _____ _____ Bal.

## CHECKLIST FOR ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

### Part A

(a)  Differentiated between the role and functions of BSF during peace and war time.

### Part B

Discussed the following in the class:-

(a)  What are the roles and functions of Border Security Force during war?
(b)  What are the role and functions of Border Security Force during peace time?
(c)  What are the role and functions of Indo Tibetan Boarder Police.
(d)  What are the role and functions of Assam Rifles?
(e)  Why Sashatra Seema Bal was set up?

**Part C**

**Performance Standards**

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Identify the role and functions of Border Security Force | | |
| Identify the role and functions of Indo Tibetan Border Police | | |

<h1 style="text-align:center">Session–4<br>Central Armed Police Forces</h1>

## Relevant Knowledge

### Central Reserve Police Force

The Central Reserve Police Force (CRPF) came into existence as Crown Representative's Police on 27th July, 1939. It became the Central Reserve Police Force on enactment of the CRPF Act on 28th December, 1949. It works under the Ministry of Home Affairs. It is responsible to meet the requirement of internal security force by the Central Government. Currently CRPF is deployed to contain the disturbances in Jammu & Kashmir and Left Wing Extremist Areas in Chhattisgarh and Jharkhand. The CRPF is governed by the CRPF Act 1949 as modified from time to time. The objective of this Act is to provide for the constitution and regulation of an Armed Central Reserve Police Force.

The CRPF Rules deal with various aspects like general powers of superior officers, composition of the force, organisation of a battalion, training, discipline, rules regarding judicial trial, internal management, pay and allowances, rules and regulation for recruitment, appointment and other conditions of services, rules for promotion, etc. A member of the force also enjoys certain police powers and legal protection against prosecution for lawful action taken by him in the course of official duties.

## Role and Functions

The Central Reserve Police Force is an armed Force of the Union of India, with the basic role of assisting the State/Union Territories in Police operations to maintain law and order and contain insurgency. The CRPF performs the following roles and functions:



❖ Crowd control.

❖ Riot control.

❖ Counter militancy/insurgency operations.

❖ Dealing with Left Wing extremism.

❖ Overall co-ordination of large scale security arrangement especially with regard to elections in disturbed areas.

❖ Protection of VIPs and vital installations.

❖ Checking environmental degradation and protection of local flora and fauna.

❖ Fighting aggression during war time.

❖ Participating in UN Peace Keeping Mission.

❖ Rescue and relief operations at the time of natural calamities.

## Rapid Action Force

The Rapid Action Force (RAF) has been raised for dealing with communal and other such internal disturbances. This force is the part of CRPF. They are lightly armed and highly trained forces to address sudden internal crisis situation, manmade accidents such as industrial accident or terrorist attacks, and natural disasters (floods, earthquakes, etc.).

## The Central Industrial Security Force

The Central Industrial Security Force (CISF) came into existence in 1969 with three battalions, to provide integrated security cover to the Public Sector Undertakings (PSUs), which in those years, occupied the commanding heights of the economy. With globalization and liberalization of the economy, CISF is no longer a PSU-centric organization. Instead, it has become a premier multi-skilled security agency mandated to provide security to major critical infrastructure installations of the country in diverse areas. CISF is currently providing security cover to nuclear installations, space establishments, airports, seaports, power plants, sensitive Government buildings and important heritage monuments. Among the important responsibilities recently

entrusted to the CISF are the security of Delhi Metro Rail Transport system, VIP Security, Disaster Management and establishment of a Formed Police Unit (FPU) of the United Nations at Haiti.

The CISF is governed by the CISF Act 1968, as modified from time to time. The objective of this Act is to provide for the constitution and regulation of an Armed Central Industrial Security Force.

CISF Rules deal with various aspects like general powers of superior officers, composition of the force, organisation of a battalion, training, discipline, rules regarding judicial trial, internal management, pay and allowances, rules for promotion, rules and regulation for recruitment, appointment and other conditions of services, etc. Members of the force also enjoy certain police powers and legal protection against prosecution for lawful actions taken by him/her in the course of official duties.

**Railway Protection Force**

The Railway Protection Force (RPF) is a Central Armed Police Force under the Railway Ministry charged with protecting the Indian Railways.

This force is headed by Indian Railway Protection Service (IRPS) Officers. It was constituted under the Railway Protection Force Act, 1957 (as amended from time to time) for better protection and security of railway property and passengers. They maintain discipline on platforms as well as travel inside trains to keep passengers secure.

Railway accidents are also handled by them. It is responsible to protect the railway property, whether moveable or immoveable.

The duties of the Railway Protection Force include the following:

❖  To remove any obstruction in the movement of railway property or passenger area;

❖  To protect and safeguard railway property; and

❖  To protect and safeguard passenger, their belongings and the passenger area.

The RPF has the powers of inquiry and prosecution under the Railway Property (Unlawful Possession) Act 1966 for unlawful possession of Railway Property. The Force has also been exclusively empowered, under 29 sections of the Railways Act, 1989, to deal with the minor offences affecting train operations (except sabotage related offences).

The Railway Protection Force Act, 1957 was modified by Parliament vide act No.52 of 2003 on 23rd December-2003 for providing more legal powers to RPF.

Policing on the Railways, being the constitutional responsibility of State Governments, State Police have a separate wing called the Government Railway Police (GRP) for the registration of cases, their investigation and maintenance of law and order within Railway premises as well as running trains. RPF has got a Special Force constituted in the name of Railway Protection Special Force (RPSF) which is organized on Battalion pattern.



The Railway Protection Force Academy at Lucknow (capital of Uttar Pradesh) is a training institute run by the Indian Railways to impart training to new candidates to the Indian Railway Protection Force (RPF).

## National Security Guards

The National Security Guard (NSG) was set up in 1984 as a Federal Contingency Deployment Force to tackle all facets of terrorism in the country. Thus the primary role of this Force is to combat terrorism in whatever form it may assume in areas where activity of terrorists assumes serious proportions, and the State Police and other Central Police Forces cannot cope up with the situation. The NSG is a Force specially equipped and trained to deal with specific situations and is therefore, to be used only in exceptional situations. The Force is not designed to undertake the functions of the State Police Forces or other Para Military Forces of the Union of India. The NSG draws its members from the Indian Army and various central police units. With its HQ at Manesar, near Gurgaon, NSG is formed essentially of highly trained commando force to address the terror crisis in the country. For example, the Force was involved in removing the terrorists holed up in the hotels (Taj, and Oberoi Trident), during their attack in Mumbai which also included Chatrapati Shivaji Railway Terminal, Cama Hospital, Leopold Café and Nariman House from 26-29 November, 2008. The NSG conducted Operation Black Tornado to flush out the terrorists.

The NSG has also been increasingly tasked with protection of Very Important Persons (VIPs). This role has expanded in recent years, as several politicians have come to view NSG protection as a status symbol. The NSG team with a dedicated transport aircraft is always stationed at Palam airport in New Delhi, ready to deploy in 30 minutes. In consequence of the lessons drawn from the 26/11/2008, the NSG units/ subunits/teams are being deployed in locations other than Delhi/ Manesar, with a view to enable their availability at the place of action in shorter timeframe.

## EXERCISE

1. Prepare a scrapbook using pictures of logos and activities collected from magazines and newspapers and submit it as part of your portfolio.
2. Visit the official websites of Central Reserve Police Force, Central Industrial Security Force and Railway Protection Force to study the location, activities and career opportunities.

## ASSESSMENT

### Fill in the Blanks

1. The Central Reserve Police Force works under the Ministry of _____ Affairs.
2. CRPF is responsible to meet the requirement of internal security by the _____ Government.
3. RAF stands for R_____ A_____ Force
4. CISF stands for Central _____ Security Force

## CHECKLIST FOR ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

### Part A

(a) Differentiated between the role and functions of CRPF and CISF.

### Part B

Discussed the following in the class:-

(a) What are the role and functions of Central Reserve Police Force?
(b) What are the role and functions of Central Industrial Security Force?
(c) What are the role and functions of Railway Protection Force?

### Part C

**Performance Standards**

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Demonstrated the knowledge of role and functions of Central Reserve Police Force | | |
| Demonstrated the knowledge of role and functions of Rapid Action Force | | |
| Demonstrated the knowledge of role and functions of Railway Protection Force | | |
| Demonstrated the knowledge of role and functions of National Security Guard | | |

# Session–5
# State Police Forces

## Relevant Knowledge

Law enforcement in India is conducted by numerous law enforcement agencies. Article 246 of the Constitution of India designate police as the State subject, which means that the State Governments frame the rules and regulations governing the police force. Each State and Union Territory of India has its own police force. The state police are responsible for maintaining law and order in townships of the state and rural areas.

At the federal or Central Government level, there are many agencies that come under the Union Ministry of Home Affairs, and support the states when required. Larger cities also operate metropolitan police forces, under respective state governments.

All senior police officers in the state police forces, as well as those in the federal agencies, are members of the Indian Police Service (IPS). The police force is headed by the Commissioner of Police (State) or Director General of Police (DGP). The DGP isresponsible to the State Government for administration of the police force and for advising the government on law and order matters.

## Organization

1. Some State forces are organized into Police Ranges, headed by a Special Inspector General of Police (Special IG) or Deputy Inspector General of Police (DIG) or Additional Commissioner of Police (ACP), who control several Police Districts.

2. The Police District is the fulcrum of state police activity and each Police District of the state is headed by a Senior Assistant Commissioner of Police or Superintendent of Police (SP). Generally a Police district is same as a revenue district of a state.

3. The Police District is divided into Police Sub-Divisions and is under the command of Assistant Commissioner of Police or Deputy Superintendent of Police.

4. The Police Sub-Division is made up of one or more Police Circles, and is under the command of an Inspector of Police, often referred to as the Circle Inspector (CI).

5. Under the Police Circles are the police stations, generally under the control of a Sub-Inspector (SI). As per the various Indian laws, Sub-Inspector (and above) are the only officers who can file a charge sheet in the court.


Insignia of Deputy Inspector General of Police


Insignia of Deputy Superintendent of Police

## Police Regulations

The Police Act of 1861 is the main legislation that governs all aspects of policing in India. Much of the police functioning and administration is governed by the Indian Penal Code (IPC), Code of Criminal Procedure (CrPC) and the Indian Evidence Act 1872.

## Role, Functions and Duties of the Police in General

The role and functions of the police in general are:

(a) To uphold and enforce the law impartially

(b) To protect life, property, human rights, and dignity of the members of the public;

(c) To prevent and control terrorist activities, breaches of communal harmony, militant activities and other situations affecting internal security;

(d) To protect public properties including roads, railways, bridges, vital installations and establishments etc. against acts of vandalism, violence or any kind of attack;

(e) To prevent crimes, and reduce the opportunities for the commission of crimes through their own preventive action;


Insignia of Inspector of Police

(f) To accurately register all complaints brought to them by a complainant or his representative, in person or received by post, e-mail or other means, and take prompt follow-up action thereon, after duly acknowledging the receipt of the complaint;

(g) To register and investigate all cognizable offences coming to their notice through such complaints or otherwise, duly supplying a copy of the First Information Report (FIR) to the complainant, and where appropriate, to apprehend offenders, and extend requisite assistance in the prosecution of offenders;

Insignia of Sub-inspector of Police

(i) To provide, as first responders, all possible help to people in situations arising out of natural or man-made disasters, and to provide active assistance to other agencies in relief and rehabilitation measures;

(j) To aid individual, who are in danger of physical harm to their person or property, and to provide necessary help and relief to people in distress situations;

(k) To facilitate orderly movement of people and vehicles, and to control and regulate traffic on roads and highways;

(l) To collect intelligence relating to matters affecting public peace, and all kind of crimes including social offences, communalism, extremism, terrorism and other matters relating to national security, and disseminate the same to all concerned agencies, besides acting, as appropriate on it themselves;

(m) Behave with the members of the public with due courtesy and decorum, particularly so in dealing with senior citizens, women, and children;

(n) Guide and assist members of the public, particularly senior citizen, women, children, the poor and indigent and the physically or mentally challenged individuals, who are found in helpless condition on the streets or other public places or otherwise need help and protection;

(o) Provide all requisite assistance to victims of crime and of road accidents, and in particular ensure that they are given prompt medical aid, irrespective of medico-legal formalities, and facilities their compensation and other legal claims;

(p) Prevent harassment of women and children in public places and public transport, including stalking, making objectionable gestures, signs, remarks or harassment caused in any way;

(q) Preserve, promote and protect human rights and interests of weaker sections, backward classes, poor, weak and the downtrodden.

**Reserve of the Police at State Levels**

Each State police force also maintains its own armed police force (known variously as the Provincial Armed Constabulary; PAC), Special Armed Police and Armed Police which is responsible for emergencies and crowd control issues. They may also be sent to quell outbreaks of student or labour unrest, organized crime, and communal riots;

to maintain key guard posts; to cover important functions/ festivals; and to participate in anti-terrorist operations.

## Traffic Police

The Traffic Police are responsible for maintaining the smooth flow of traffic and stopping offenders in the city or town. The Highway Police are responsible for securing the highways and for catching speeding offenders. Traffic Police in small towns comes under the State Police, but Traffic Police in the cities comes under the metropolitan police. The role and functions of Traffic Officer include the following activities:
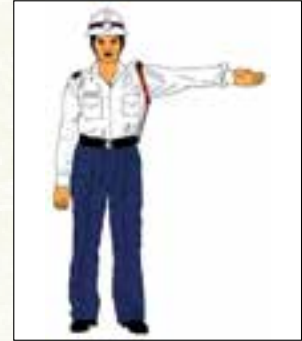
❖    Manage incidents that do not involve loss of life, injury or potential criminal activity;

❖    Support the police when they are managing incidents, particularly in managing traffic;

❖    Deal with accident damaged, broken down and abandoned vehicles;

❖    Provide rolling road closures to hold traffic back to allow removal of debris, installation of temporary traffic management and other purposes;

❖    Monitor road works; and

❖    Educate road users.

## EXERCISE

Visit the official websites of State Police Force and study the ranks and insignia of police officers.

## ASSESMENT

**State whether the statement is True or False**

1.    Private Security Guard and the State Police have the same power to arrest.
2.    Police is responsible for maintaining law and order.
3.    Traffic police can arrest a person for a theft in a house.
4.    Traffic Police in small towns is under the State Police.

## CHECKLIST FOR ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

**Part A**

(a)  Differentiated between the role and functions of police and traffic police.

**Part B**

Discussed the following in class:-

(a)  What are the roles and tasks of the state police in so far as the enforcement of law and order is concerned?

**Part C**

Performance Standards

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Demonstrate the knowledge of role and functions of police. | | |

# Session–6
# Private Security Industry

## Relevant Knowledge

The evolution of security measures can be traced even to the Stone Age when the cave man rolled a rock to close the entry of his cave to protect himself against enemy attacks. In the ancient days, treasures were hidden in places secured by trap devices and crude alarm systems. The Greeks were the pioneers to establish a professional security force for the protection of life and property.

Industrial revolution saw the movement of the labour to the industries/ cities and caused many inhabitations to cluster. The increase in crime and criminals has given rise to increasing law and order problems. Dealing with crimes and criminals was initially the responsibility of Government law enforcing agencies. As these became over burdened by the declining law and order situations, the industry needed private security to provide the security. 19th and 20th centuries saw the

commercialization of the security and gave rise to Private Security. Industrialization and improvement in technology saw the technology being used to complement the security of the people and assets. Second half of the 20th century saw improvement in the quality of the services. From the beginning of human existence, man has been devising various means and methods to protect himself and his/her possessions from different natural and man-made threats. A Security plan, which can be seen as the measures taken to create a state of that safe environment with the purpose of protection of personnel, material and information. These shall be based on perceived threats and dangers by application of manpower, technology and security processes. In fact, it becomes imperative for the commerce/ institutional/ domestic organisations to hire/ raise security resources to ensure smooth functioning of their business/ industry/ institution/ domestic complex. The private security industry is highly un-organised and approximately 10,000 security agencies are operating in the country. In an effort to organise the industry, Government of India introduced 'Private Security and Regulation Act'. Security agencies need to get license under the Act to operate. However, adoption of the Act is left to the discretion of the respective State Governments. Till now, only five states have implemented the Act viz., Maharashtra, West Bengal, Goa, Rajasthan and Sikkim.

### Roles and Functions

Private security consists of self-employed individuals and privately owned companies, which provide security related services to people and businesses at a price. The sole purpose of security is to protect and preserve the property and life of the client against loss, damage and ensure that they can perform their business without disruption. Beside guarding the people and property, a private security guard is required to fulfill the following role and functions:

1. Enter licence plate numbers, vehicle models, dates and times on parking tickets.

2. Read brief notes that other guards and supervisors write in logbooks and shift reports.

3. Read letters, e-mail and memos from client organizations.

4. Read detailed descriptions and narrative accounts in incident reports.

5. Identify icons on signs to locate building facilities such as washrooms, escalators and identify safety warnings

6. Monitor fire alarm panels noting any irregularities as indicated by lights and audible beeps.

7.   Send e-mail to supervisors requesting shift changes or vacation leave.

8.   Complete timesheets by totalling hours worked for each pay period.

9.   Use word processing software to complete accident and incident reports.

**Types of Security**

1.   **Physical Security:** It is concerned with physical measures designed to safeguard people, to prevent unauthorized access to equipment, facilities, material and documents, and to safeguard them against damage and loss. When designing a physical security program, we have to secure the three levels i.e. the outer perimeter, the inner perimeter and the interior. One of the extreme forms of perimeter security is a barbed wire fence with a gate protected by an armed guard.

2.   **Layered Security:** A physical security approach that requires a criminal to penetrate or overcome a series of security layers before reaching the target. The layers might be perimeter barriers; building or area protection with locks, CCTV and guards; and point and trap protection using safes, vaults, and sensors.

3.   **Personnel Security:** It involves those security measures taken to safeguard a company's employees and those coming to a place of business either for business reasons or as guests. It can further include access control systems that control access in and out of specific premises. Identification card systems, passes, and permits used by companies are considered personnel control.

4.   **Information Security:** Information security means protecting information and information systems from unauthorized access, use, disclosure, disruption, modification, perusal, inspection, recording or destruction. The terms information security, computer security and information assurance are frequently used interchangeably.

5.   **Infrastructure Security:** It is the security provided to protect critical infrastructure, such as airports, rail transport, hospitals, bridges, highways, communications, electricity grid, dams, power plants, seaports, oil refineries, and water systems.

## EXERCISE

### Assignment

Meet some of the private security personnel in your locality and discuss with them about the problems/ difficulties faced by them while performing their duties. Note your

observations and submit the same as part of your portfolio.

## ASSESSMENT

### A. Short Answer Questions

1. Write a short note on the development of the private security?

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

2. What are the roles and functions of private security?

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

## CHECKLIST FOR ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

## Part A

(a)    Differentiated between different types of security.

## Part B

Discussed the following in the class:-

(a)    What are the different types of security?

(b)    What are the three lines of defence in physical security?

(c)    What are the role and functions of private security?

## Part C

**Performance Standards**

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Identify the three lines of defence in a physical security scenario | | |

# Session–7
# Laws Governing Security Services

Security personnel are required to work within the laws of their location. They need to be familiar with common acts and regulations. Security staff or private citizens can take action to prevent a crime or offence but for that it is imperative that he/she has knowledge of the offences under the law. While there is an array of offences in the Indian Penal Code (IPC), there are some prominent ones against human body or property which we come across more often in day-today life.

Since there are so many offences, it shall be right for you to know as to how the } sections are recorded in the IPC. To begin with, there shall be the statement of offence in bold. This is then followed by an unambiguous description of the offence. In some cases these are further followed by explanations for various contingencies of the offence.

## Indian Penal Code

Based on their roles, the security staff should be aware of the offences, against property, people and information as laid down in the Indian Penal Code (IPC). Some operative offenses and clauses are as follows:

(a) **Chapter IV** deals with General Exceptions (Sections 76-106). Sections 76-95 pertain to certain acts, which when committed under certain situations/ understanding/ conditions are not an offence. Sections 96-106 of this chapter refers to Rights of Private Defence are part of this chapter.

(b) **Chapter XVI** lists the offences against Human Body and against Life from IPC sections 299 to 377. Some of these are homicide, suicide, causing hurt, use of force, assault, rape, kidnapping, unlawful detention, abduction, and so on.

(c) **Chapter XVII** lists the offences against property from sections 378, which deals with theft and up to 462. These clauses deal with all offences against moveable and immoveable property, such as theft, dacoity, robbery, criminal trespass, house breaking, etc.

(d) **Chapter XVIII** deals with offences relating to documents and property marks, and these are listed In Clauses 463 to 489E.

## Arrests/ Detention under Section 43 of Cr PC

Arrest is purely a police matter. It gives a constable in uniform the power to arrest without warrant any person he reasonably suspects to committing one of the cognizable offences. It does not give such power to a Private Security Staff or a private person. This provision can be invoked if you are convinced that the person was acting with criminal intentions then an arrest may be carried out as per the guidelines mentioned earlier, under section 43 of the Cr PC. As far as possible, Private Security staff should facilitate the arrests to be made by the Police. In an event they shall have to do this, the same should be done with due caution and tact, ensuring the evidences are meticulously collected, preserved and handed over to the Police.

## Some Rules/Guidelines for Security Staff/ Private Person for Arresting/ Detaining

❖ A male Security Staff should never be along with a female prisoner.

❖ Ideally a female Security Staff or a female member of the client's management team should stay with the prisoner.

❖ Similarly a male prisoner should not be left alone with a female Security Staff.

❖ A Security Staff does not have the right to search the baggage or person of someone they have arrested and detained. (Unless there is reasonable ground to believe that the detainee has a weapon with which he may injure himself or others).

**Indian Arms Act-1959 and Rules 1962**

Arms ownership in India is a privilege under the Arms Act of 1959. The Arms Act of 1959 and the Arms Rules of 1962 were derived from the text of the Indian Arms Act of 1876 created by the British Rulers in view of the 1857 rebellion against the East India Company. To obtain a license for owning a firearm, a person has to prove that there exists a threat to life. Once a license is obtained, there are several restrictions on calibre (9mm, .303 British .45 ACP are prohibited along with several other calibres) and types of firearms (semiautomatic rifles, short barrel shotguns, and automatic weapons are also not allowed for civilians). A license is limited to three firearms under section 3 of the Arms Act 1959. Under the wake of terror the government is considering making the rules even more stringent. The Act also lays down the offences, penalties, possession, and licenses in respect of the arms.

**Explosives Act 1884**

It is an Act to regulate the manufacture, possession, use, sale, transport, import and export of explosives. It lays down the terms for possessing, license, appeals, offences and punishments in addition to the above mentioned regulations.

**The Explosive Substances Act, 1908**

It was enacted on 8th June, 1908 and extends to the whole of India, and applies also to citizens of India outside India as well. It essentially deals with the regulation and control of explosive substance which is deemed to include any materials for making any explosive substance; any apparatus or machine, implement.

**The Explosives Rules, 1983**

In exercise of the powers conferred by Section 5 and 7 of the Explosives Act, 1884 (4 of 1884) the Central Government made the rules, called the Explosives Rules, 1983. These rules regulate and control the transportation, storage and required processes and precautions required to be taken for explosives. Offenses in relation to these and punishments have also been mentioned.

## Private Security Agency Regulatory Act – 2005, and Rules

In order to regulate the large number of Security Agencies that has come up in the market to meet the security demand of the Industry and Commerce. The Government of India enacted the Private Security Agencies (Regulations) Act (PSARA) in 2005. While the Act lays down the larger framework, rules have been prepared for ground level implementation of the Act.

### Important Contents of the Act

The Act commences by laying down certain terms and definitions. Private Security in the Act has been defined as 'Security provided by a person, other than a public servant, to protect or guard any person or property or both and includes provision of armoured car service'.

The Act emphasizes on some of the following aspects:

(a)  Training required to be done for the security staff.

(b)  Requirements of the persons that can be engaged by the private security agencies/companies.

(c)  Expectations of carrying out satisfactory provision of the security service.

(d)  Documents to be maintained by the Private Security Agency.

(e)  Instructions with respect to the Identity Cards.

## EXERCISE

1.  Prepare a short note on the various rules and regulations governing the security personnel in India.

2.  Describe an incident/experience that demonstrates the application of a rule or a set of rules by the security personnel.

## ASSESSMENT

### Fill in the Blanks

(a)  Chapter IV of IPC deals with General _____.

(b)  Chapter XVI of the IPC deals with the Offences against Human Body and against _____.

(c)  Chapter XVII deals with the offences against _____.

(d) Offenses against Property from sections 378, which deals with _____ and up to 462.

(e) To obtain a license to own a firearm, a person has to prove that there exists threat to _____.

(f) A license is limited to _____firearms under section 3 of the Arms Act 1959.

(g) The full form of PSARA is _____ _____ Agency _____ Act.

## CHECKLIST OF ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

### Part A

(a) Differentiated between the various Acts and rules and regulations governing security personnel in India.

### Part B

Discussed the following in the class:-

(a) How do private security and public law enforcement agencies work together?

(b) Issues of legal obligations and liability in private security.

### Part C

**Performance Standards**

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Demonstrate the knowledge of authority of private security personnel | | |
| Demonstrate the basic knowledge of rules and regulations applicable to private security personnel | | |

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# Unit–4

# Introduction to Information Technology

# *Introduction*

Information technology (IT) is the application of computers and telecommunications equipment to store, retrieve, transmit and manipulate data. Just a few years back, people used to pick up paper and pen to do all their calculations. A good knowledge of mathematics was required to solve complicated problems related to calculations and yet the process was quite time consuming. People used to fill in lot of pages in their diaries with the contact address and phone numbers of their friends, relatives and clients. A great effort used to go in searching for information from large number of pages of different books and notebooks. Big companies used to invest a lot of amount in transportation of their experts to various work locations for solving day-to-day problems. People used to communicate through traditional mails or postal mails which used to take 3 to 10 days time to reach destinations. Today, Information and Communication Technology (ICT) has tremendously influenced all aspects of our life. Almost all work places and tasks are getting automated with the help of IT tools and its applications. Information Technology is all about acquiring, processing, storing and disseminating numerical, textual, audio and video form of information with the help of electronic machine, and network applications.



Security personnel should be able to use computers for collection, processing, storage, communication, and retrieval of information. They should be able to type and process information for communication and reporting.

Through this unit, you will acquire the basic knowledge and skills for connecting the computer system with the input-output devices and basic operations related to use of operating system and software.

# Session–1
# Basics of Information Technology

## Relevant Knowledge

A computer system includes software and hardware. Software is a collection of instructions and related data that tells a computer what to do and how to do. In other words, software is a conceptual entity, which contains a set of instructions (computer programs) with associated documentation related to the operations of a data processing system; whereas, computer hardware is a collection of electronic and other peripheral units, which enables software to perform desired operations. There is an important software, known as Operating system (OS) specially designed to establish the communication between various hardware devices and software loaded on a computer system.

> *"A computer system is a programmable machine designed to perform arithmetic and logical operations to produce meaningful results in a desired format"*

A computer system is broadly divided into three units – Input Unit, Central Processing Unit (CPU) and Output Unit. Input unit helps the user to enter raw data and instructions into the computer system, the central processing unit performs the required operations as per given instructions and the output unit produces meaningful results in the desired format for the user.

Let us understand this concept with the help of an example: What information will you require to calculate the amount to be paid to shopkeeper for buying several pieces of a branded pen?

You will require its Unit Price and the Quantity procured by you. So the Unit Price and Quantity will become the raw data to be entered by you through the input unit. Now, you need to multiply both these values to know the amount to be paid to the shopkeeper. Therefore, multiplication of these two values will become the operation, which will be performed by the CPU and the amount, which is the result will be on the Output unit of a computer system.

**Figure 1: Block diagram of computer system**

The CPU is further divided into three parts

(i)     Control unit (CU),

(ii)    Arithmetic and logic unit (ALU), and

(iii)   Memory unit (MU) inside CPU.

Control unit acts as a receptionist and a manager of a company. It receives each and every instruction from user and coordinates between different parts to perform various operations. Arithmetic and logic unit acts as an accountant of a company, which performs all the mathematical and logical calculations. And memory unit acts as a temporary store of a company, where small amount of data is stored while other operations are being performed. In addition to these units, a computer system also has secondary storage device to hold or store large amount of data for later use by various applications running on it. Figure 1 illustrates the interconnection of these units and secondary storage device.

Now, you must be wondering how you can recognize these units in the form of real devices in a personal computer system. You might have seen a device having several buttons (known as keys) with alphabets and numbers. This device is known as keyboard, which acts as an input device of the computer system. You might have also seen another oval shaped device with two/three buttons in front. This device is known as mouse, which is also an input device. Further, you can see a vertically standing/horizontally places box/ case with an on/off/reset button – this cabinet/case is known as CPU cabinet, which contains secondary storage devices such as hard disk, to hold large amount of data and instructions, and Compact Disc (CD)/Digital Versatile Disc (DVD)/Blue Ray drive to keep data on portable discs. One of the most common output devices is LCD/LED/Monitor, which is used as output unit to display the results. The computer system may also

have some more additional input and output devices connected with it. The common IO devices are given in Table 1.

**Table 1: Input / Output Devices**

| Input/Output device | Purpose | Examples of use |
|---|---|---|
| Mic/mike | Used to take the audio input | To record nursery rhymes songs in the system |
| Scanner | Used to accept digital input from a paper picture/image/ document. | To scan a picture that is to be included in an assignment. |
| Camera | Used to accept image/video inputs | To take pictures of students for identity cards. |
| Barcode Reader | Used to read barcode | To read Barcodes present on books being issued/returned in the School library or to scan the barcode on grocery items. |
| Printer | Used to print output on paper | To print an assignment on paper |
| Speaker | Used for audio output | To listen to presentations and talks |

The memory unit of CPU is further divided into two components: (i) Random Access Memory (RAM) which takes care of intermediate storage of data while working on a computer system; and (ii) Read Only Memory (ROM) which stores the essential instructions, the operating system and perform basic input/output operations. It is also referred to as BIOS i.e. Basic Input-Output System.

In the computer, the data is stored in the form of Bits and Bytes. Bit (Binary Digit represented by 0 or 1) is the smallest storage unit, 8 Bits combined together form a single byte, which in turn represent a single character. If the name "RAVI" is required to be stored in computer, it will need 4 bytes in the computer's memory. Table 2 shows the conversion of memory units.

**Table 2: Conversion of Memory Units**

| Memory unit | Relationship with memory unit | In equivalent Bytes |
|---|---|---|
| Kilo Byte (KB) | 1 Kilo Byte = 1024 Bytes (or $2^{10}$ Bytes) | 1024 |
| Mega Byte (MB) | 1 Mega Byte = 1024 Kilo Byte (or $2^{10}$ KB) | 1024x1024 |
| Giga Byte (GB) | 1 Giga Byte = 1024 Mega Byte(or $2^{10}$ MB) | 1024x1024x1024 |
| Tera Byte (TB) | 1 Tera Byte = 1024 Giga Byte (or $2^{10}$ GB) | 1024x1024x1024x1024 |

RAM and ROM discussed in the above paragraph constitute Primary Memory. Now, let us discuss in detail about the various Secondary Storage Devices. The secondary storage devices are basically used to store large amount of data (with capacity in the range of 20 GB to 2 TB) permanently on computer, i.e. the data is retained even when the system is switched off. Hard Disc is one of the most important secondary storage devices, which is used to hold (store) operating system, office applications, utility software and the user's data, etc. It is usually fitted in the cabinet of CPU, so that it cannot be easily removed from the computer system. Apart from hard disk, one can always use additional (portable) secondary storage devices such as Compact Disk (CD with a storage capacity of 750 MB), Digital Versatile Disk (DVD with a capacity of around 4.5 GB), Blue-ray Disk (with a storage capacity of around 25 GB/50GB), Pen Drives (with a storage capacity of 512 MB to 32 GB), Memory Stick (with a storage capacity of 512 MB to 32 GB).



**Figure 2: CPU Cabinet Back Panel**

Now, let us connect the various parts of a personal computer. Try to locate all the sockets or ports, which are present behind the CPU Cabinet as shown in Figure 2. Some of the common sockets/ports are power socket for connecting power cable, PS2 ports for connecting Mouse and Keyboard, USB Port for connecting USB devices such as mouse, keyboard, printer, pen drive, etc., VGA port for connecting Monitor/Screen.

Connect Monitor with VGA cable, mouse and keyboard with PS2/USB cable and push the power on button on the CPU after connecting power cable. Your computer should display some message from the manufacturer and then it should start the Operating System (boot up with the operating system). Once some icons, which allow you to choose and start the the booting process is over, see the application of your choice. Some of the common ports desktop – the first screen you see in and cables along with their pictures are described in the beginning. This desktop displays table 3.

| USB Port & Cables | Firewire Port & Cables | Ethernet (RJ45) Port & Cables |
|---|---|---|
|  |  |  |
|  |  |  |
| A USB (Universal Serial Bus) port is a standard cable connection interface available on personal computers and some other electronic devices for data communication. USB ports allow stand-alone electronic devices to be connected with the help of cables to a computer (or to each other). USB ports can also supply electric power across the cable to devices.<br><br>Pins: 4<br><br>Standard: Industry Standard in 1990 | FireWire® ports are forms of a serial port that make use of FireWire® technology to transfer data rapidly from one electronic device to another. The FireWire® port has the ability to interact with a number of different devices. A FireWire® port can provide an ideal way to connect a scanner and digital camera to a computer system as the data transfer is relatively faster than on USB and also results in excellent quality.<br><br>Pins: 4,6,9<br><br>Standard: IEEE 1394 | Ethernet Port is used to connect computers and other devices to form a computer network. It uses Ethernet cables to establish efficient and effective communication between computers and other peripheral devices such as modem, router, multimedia projector etc.<br><br>Pins: 8 Pins<br><br>Standard: IEEE Std 802.1 to 802.10 |

**Table 3: Common Ports and Cables**

## Software

Software is a set of instructions (also known as program) and data that tells a computer what to do and how to do. In other words, software is a conceptual entity, which contains a set of instructions with associated documentation related to the operations of a data processing system. Software can be divided into three major classes: (i) System Software, (ii) Programming Software, and (iii) Application Software.

(i) **System Software** provides the basic functions for computer usage and helps run the computer hardware system. It includes a combination of Operating System (OS), device drivers, servers, utilities and window system. The OS establishes the communication between various hardware devices and software loaded on a computer system. It is responsible for managing a variety of independent hardware components, so that they can work together. The most popular OS available for computers today are Microsoft Windows, Mac OS X and Linux.

(ii) **Programming Software** usually provides tools to assist a programmer in writing programs or software using different programming languages. The tools include compilers, debuggers, interpreters, linkers and text editors.

(iii) **Application Software** serves as a tool for performing specific tasks. For example, if you want to do word processing, you can use application software, such as MS Word or Corel Draw.

Now let us review what we have learnt about the various computer devices. The table given below contains the description of the various parts of a computer:

| Part | Description |
|---|---|
| Input devices | Input devices are used to provide information to a computer, such as typing a letter or giving instructions to a computer. Some examples of input devices are as follows: |
| | ❖ **Mouse:** A standard mouse has a left and a right button. You use the left button to select items and provide instructions by clicking an active area on the screen. You use the right button to display commonly used menu items on the screen. |
| | ❖ **Keyboard:** A set of keys that resembles a keyboard on a typewriter. You use the keyboard to type text such as letters or numbers into the computer. |
| | ❖ **Microphone:** A device that you can use to talk to people in different parts of the world. You can record sound into a computer by using a microphone. You can also record your speech and let the computer convert it into text. |

| | |
|---|---|
| | ❖ **Scanner:** A device that is similar to a photocopy machine. You can use this device to transfer an exact copy of a photograph or document into a computer. A scanner reads a page and translates it into a digital format that a computer can read. For example, you can scan photographs of your family using a scanner. |
| | ❖ **Webcam:** A device that is similar to a video camera. It allows you to capture and send live pictures to other users. For example, a webcam allows your friends and family to see you when you are communicating with them. |
| | ❖ **Stylus:** A pointing device, similar to a pen, used to make selections and enter information by tapping on a touch sensitive surface. For example, to enter information on a personal digital assistant (PDA), you use a stylus. A PDA is a lightweight, palmtop computer. |
| | ❖ **Trackball:** A pointing device that is an alternative to a mouse. A trackball consists of a ball that is rotated to move the pointer on a computer screen. You can use a trackball when you have limited desk space. |
| Output devices | You use output devices to get feedback from a computer after it performs a task. Some examples of output devices are as follows: <br><br> ❖ **Monitor:** A device that is similar to a television. It is used to display information in visual form, using text and graphics. <br><br> ❖ **Printer:** A device that you use to transfer text and images from a computer to a paper or to another medium, such as a transparency film. You can use a printer to create a paper copy of whatever you see on your monitor. <br><br> ❖ **Speaker/Headphone:** A device that allows you to hear sounds. Speakers may either be external or built into the computer. |
| Central Processing Unit (CPU) and Memory | The Central Processing Unit (CPU) is a device that interprets and runs the commands that you give to a computer. It is the control unit of a computer. The CPU is also referred to as the processor. <br><br> Memory is where information is stored and retrieved by the CPU. There are three main types of memory. |

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| | |
|---|---|
| | ❖ **Random Access Memory (RAM):** It is the main memory and allows you to temporarily store commands and data. The CPU reads data and commands from RAM to perform specific tasks. RAM is volatile, which means it is available only while the computer is turned on. The contents of RAM must be copied to a storage device if you want to save the data in the RAM.<br><br>❖ **Read Only Memory (ROM):** It is the memory that retains its contents even after the computer is turned off. ROM is nonvolatile, or permanent, memory that is commonly used to store commands, such as the commands that check whether everything is working properly.<br><br>❖ **Flash Memory:** It is a nonvolatile memory that retains data even after a computer is turned off. Unlike in ROM, you can erase or modify stored information. |
| Motherboard | The motherboard is the main circuit board inside a computer. It has tiny electronic circuits and other components on it. The motherboard connects input, output, and processing devices together and tells the CPU how to run. Other components on the motherboard are the video card, the sound card, and the circuits that allow a computer to communicate with devices like a printer. The motherboard is sometimes called a system board. |
| Expansion Cards | An expansion card is a circuit board that can be attached to a motherboard to add features such as video display and audio capability to your computer. An expansion card improves the performance of your computer and enhances its features. Expansion cards are also called expansion boards. Some types of expansion cards are described in the following list.<br><br>❖ **Video Card:** It is connected to a computer monitor and is used to display information on the monitor.<br><br>❖ **Network Interface Card (NIC):** It allows a computer to be connected to other computers so that information can be exchanged between them.<br><br>❖ **Sound Card:** It converts audio signals from a microphone, audio tape, or some other source to digital signals, which can be stored as a computer audio file. Sound cards also convert computer audio files to electrical signals, which you can play through a speaker or a headphone. You connect microphone and speakers to a sound card. |

| Storage Devices | You use storage devices to store computer information. Storage devices come in many forms. Some examples are hard drive or disk, CD-ROM, floppy disk, and DVD-ROM. Storage devices can be divided into two types, internal storage devices and external storage devices. Some common storage devices are as follows:<br><br>❖ **Hard Disk:** A magnetic disk that is usually the main storage device on most computers. It can be an external or an internal device.<br><br>❖ **Floppy Disk:** A portable storage device that allows you to store a small amount of data. A disadvantage of this disk is that it can be easily damaged by heat, dust, or magnetic fields.<br><br>❖ **CD-ROM:** A portable storage medium that allows you to store 400 times more data than on a floppy disk. It is less prone to damage than a floppy disk.<br><br>❖ **DVD-ROM:** A portable storage medium that is similar to a CD-ROM; however, it can store larger amounts of data than a floppy disk or a CD-ROM. |
|---|---|
| Ports and Connections | A port is a channel through which data is transferred between input/output devices and the processor. There are several types of ports that you can use to connect a computer to external devices and networks. Some types of ports are described in the following list.<br><br>❖ **Universal Serial Bus (USB) port:** You use this to connect peripheral devices such as a mouse, a modem, a keyboard, or a printer to a computer.<br><br>❖ **FireWire:** You use this to connect devices such as a digital camera. It is faster than a USB.<br><br>❖ **Network Port:** You use this to connect a computer to other computers to exchange information between the computers.<br><br>❖ **Parallel Port and Serial Port:** You use these ports to connect printers and other devices to a personal computer. However, the USB port is now preferred to connect peripheral devices because it is faster and easier to use.<br><br>❖ **Display Adapter:** You connect a monitor to a display adapter on your computer. The display adapter generates the video signal received from a computer, and sends it to a monitor through a cable. The display adapter may be on the motherboard, or on an expansion card. |

| | |
|---|---|
| | ❖ **Power:** A motherboard and other components inside a computer use direct current (DC). A power supply takes alternating current (AC) from a wall outlet and converts it into DC power |

**Creating a picture using Paint tool**

Open Paint tool by

Clicking **Start**->**Programs**->**Accessories**->**Paint**

OR

Click **Start** -> **Run** and type in **MSPAINT** and click on open

Paint tool is the most basic software to draw pictures with the help of various tools such as Pencil Tool, Brush Tool, Air Brush Tool, Text Tool, Line tool, Curve Tool, Rectangle Tool, Polygon Tool, Ellipse Tool and Rounded Rectangle tool (as shown in Figure 3).

| Tool Description | Tools | Tool Description |
|---|---|---|
| **Free Form Select** helps in Selection of any shape | | **Select tools** helps in rectangular selection |
| **Eraser tool** erases a portion of picture | | **Fill Color tool** fills color in the closed boundary |
| **Pick color** picks color from one place and fill in the other place | | **Magnifier tool** magnifies the picture |
| **Pencil tool** to draw continuous thin free hand line | | **Brush tool** for drawing thick free hand line |
| **Air brush tool** is for spreading colors | | **Text tool** is for writing text in the picture |
| **Line tool** to draw straight line | | **Curve tool** to draw symmetrical curves |
| **Ractangle tool** to draw rectangular shape | | **Polygon tool** to draw a figure with multiple corners |
| **Ellipse tool** to draw circles and ellipse | | **Rounded Rectangle** tool to draw a figure with multiple corners |

**Figure 3: Paint Tool Bar**

At the time of using any of these tools, you can select the colors of your choice to be used in the drawing (picture) from Basic Colors usually found at the bottom of the drawing

area (as shown in Figure 4) or can use customized colors clicking Color -> EditColors and creating a color of choice from the color palette (as shown in Figure 5).



**Figure 4: Basic Color Palette**
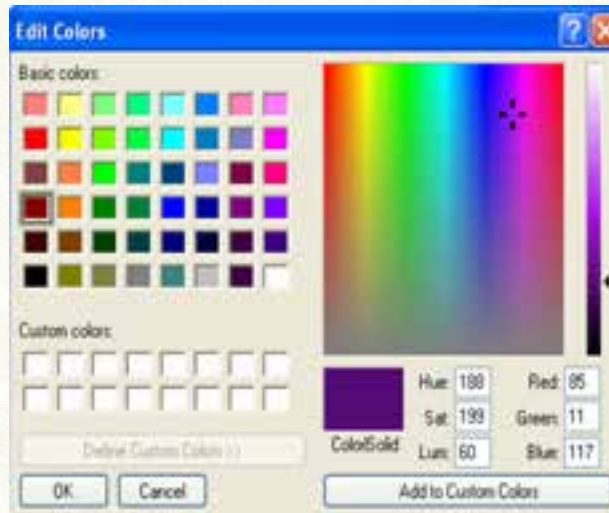


**Figure 5: Edit Color Palette**

## Saving the File

After drawing picture, you can save the file permanently in hard disk or any other storages device in various file formats such as BMP (Bit Map File – this is a large picture file format, can also be used to be inserted in a document), JPG (here JPG is the short form of Joint Picture Expert Group – this small/large picture file format is most common picture file format, also used on the website or can be inserted in the documents) and GIF (Graphic Image File - this small/large picture file format is also a common picture file format, can be used on the website or can be inserted in the documents). A sample screen shot is shown in the Figure 6 to save the file in the desired format.

To do this, you need to follow the instructions given below:

**[1]** Click File -> **[2]** Click Save -> **[3]** Chose the correct location -> **[4]** Select the required picture file format **[5]** Type in the name of the file -> **[6]** Click Save button.

Let us see the use of different tools, to decide which tool to be opted for a particular shape or design. You will use the pencil tool to freely draw any shape using requiring a thin tip. The Figure 7 -9 illustrates some of the drawing made with the help of pencil tool. Before drawing any shape or design, you can choose the color of pencil accordingly.
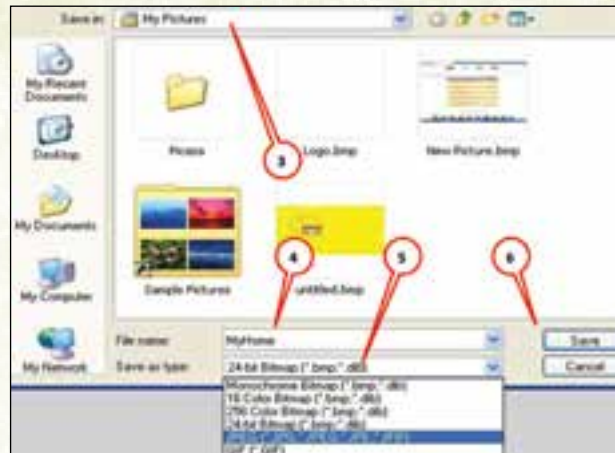
**Figure 6: Saving file**



**Figure 7: Drawings using Pencil tool**

You will use the Brush or Air Brush tool to freely draw any shape using requiring a thick tip. The brush tool will have the solid color tip, where as the Air Brush will have dotted tip for drawing. The Figure 8 and Figure 9 illustrate the drawings made with the help of Brush and Air Brush tools respectively. Here also, you can choose the color for your Brushes accordingly.
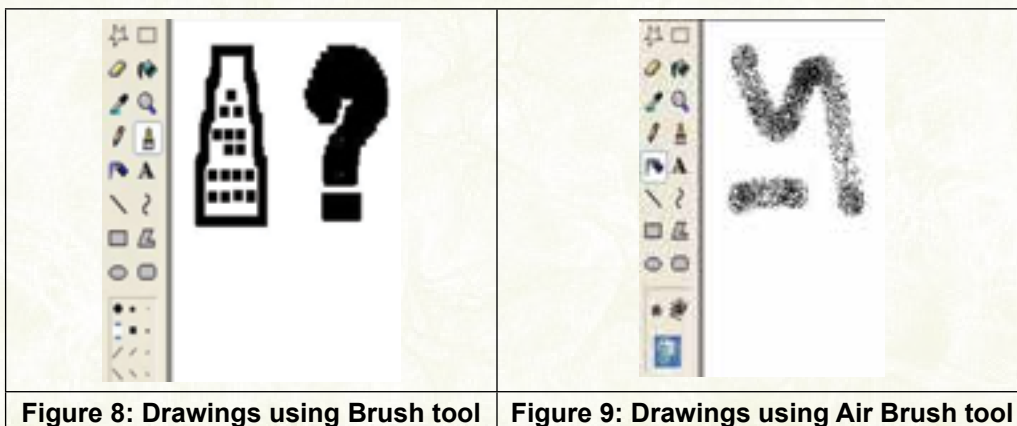


| **Figure 8: Drawings using Brush tool** | **Figure 9: Drawings using Air Brush tool** |

# EXERCISE

## Practice Sessions

1. **Connecting parts of a Computer System**

Let us connect the various parts of a personal computer and start the system

### Procedure:

**Step 1:** Locate all the sockets or ports, which are present behind the CPU Cabinet, as shown in Figure (PS2 ports for connecting Mouse and Keyboard, USB Port for connecting USB devices such as mouse, keyboard, printer, pen drive etc., VGA port for connecting Monitor/Screen).



PS/2 Ports
Serial Port
VGA Video
USB Ports
Audio Jacks
Power Supply
Parallel Port
RJ45 NIC
56K Modem
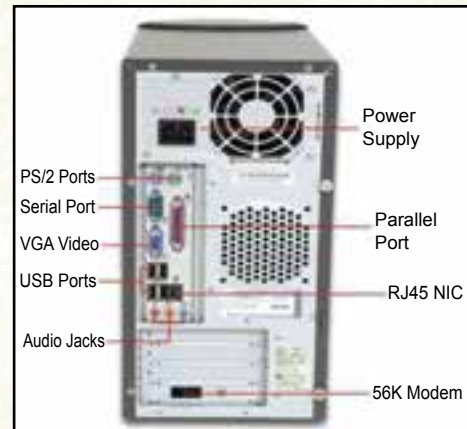
**Step 2:** Connect Monitor with VGA cable, mouse and keyboard with PS2/USB cable and power on the CPU after connecting power cable.

**Step 3:** Connect power cable at the power supply point and put on the switch and press the start button of the CPU cabinet.

**Step 4:** Check for the display of some message from the manufacturer on the screen. Once the booting process is over, you will see the desktop. Desktop is the first screen that you see in the beginning.

**Step 5:** Double click on the icon with the help of left side of the mouse to start the application of your choice.

2. **Write the types of each device in the column given:**

| Sr. No. | Device | Type of Device: (Input, Output or Storage) |
|---|---|---|
| 1 | Mouse | |
| 2 | Microphone | |
| 3 | Keyboard | |
| 4 | CD-ROM | |
| 5 | Printer | |
| 6 | Stylus | |
| 7 | Floppy Disk | |
| 8 | Headphone | |

| 9 | Scanner | |
|---|---------|---|
| 10 | Hard Disk | |
| 11 | Speaker | |
| 12 | Monitor | |
| 13 | DVD-ROM | |

3. Draw the following shapes in Paint Tool and save the pictures as JPG files in a folder with your name.

Triangle, Square, Rectangle and Circle, color them with different colors and label them accordingly. Save the file as "SHAPES.JPG"



Triangle     Square     Rectangle     Circle

## ASSESSMENT

### A.   Multiple Choice Questions

1. The unit of a computer system, which displays the results is known as
   (a)   Central Processing Unit
   (b)   Memory Unit
   (c)   Input Unit
   (d)   Output unit

2. A computer system can accept textual input with the help of
   (a)   Mouse
   (b)   Video Camera
   (c)   Keyboard
   (d)   Barcode Reader

3. We can enter the audio form of data into a computer system with the help of
   (a)   Mike
   (b)   Scanner
   (c)   Keyboard
   (d)   Barcode Reader

4. A device, which is used for voice output in a computer system is known as
   (a) LCD
   (b) Printer
   (c) Speaker
   (d) Plotter

5. A kilobyte is equivalent to
   (a) 1 Byte
   (b) 1000 Bytes
   (c) 1024 Bytes
   (d) 1 Megabyte

6. Bit stands for
   (a) Binary Digit
   (b) Binary Decimal
   (c) Binary Digital
   (d) Binary Information Technology

7. CD-ROM stands for
   (a) Compactable Read Only Memory
   (b) Compact Data Read Only Memory
   (c) Compactable Disc Read Only Memory
   (d) Compact Disc Read Only Memory

8. Central Processing Unit (CPU) is a combination of
   (a) Control and storage
   (b) Arithmetic & logic and input unit
   (c) Arithmetic & logic and control unit
   (d) Control and output unit

9. Group of instructions that directs a computer is called
   (a) Memory
   (b) Storage
   (c) Program
   (d) Logic

10. The software, which enables a computer to communicate with various hardware devices and software applications is
    (a) Operating System
    (b) Office Tools
    (c) Browser
    (d) None of the above

## CHECKLIST FOR ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

### Part A

(a) Differentiated between primary memory and secondary storage device.
(b) Differentiated between Bit and Byte.
(c) Differentiated between input/output devices
(d) Differentiated between system and application software.

### Part B

Discussed the following in the class:-

(a) What are the latest configurations of the hardware components available in the market?
(b) What are the latest versions of software available in the market?

### Part C

**Performance Standards**

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Identify Monitor Screen, CPU Cabinet, Keyboard, Mouse and Printer. | | |
| Classify input and output devices. | | |
| Distinguish between common i/o ports and connectors. | | |
| Start and shut down a computer system | | |

# Session–2
# Working on Computer System

## Relevant Knowledge

As you are now familiar with the basics of a computer system, you must be curious to work on the system. Look at the screen and you will find some pictures and text present on the various parts of the screen. A sample view of the desktop and its various components is given in Figure 10.
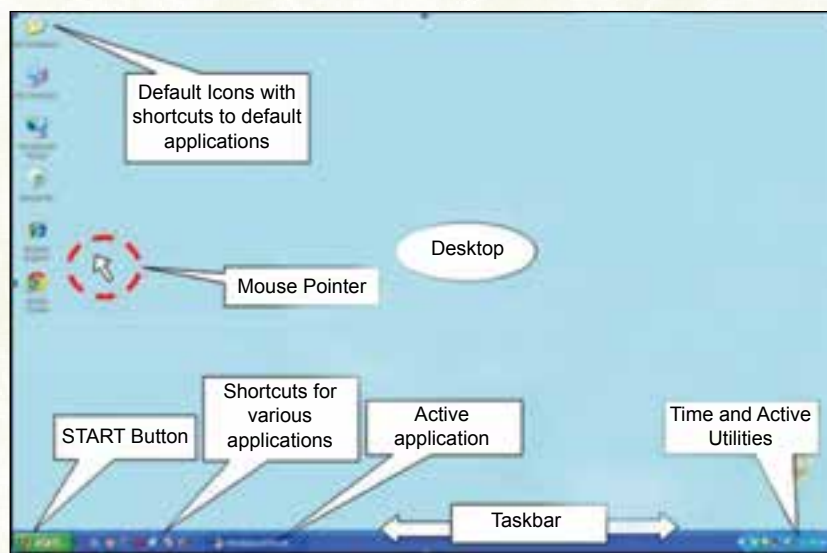


**Figure 10: Desktop**

**Desktop:** A desktop is a computer display area of windows that contains various objects that one might find on the computer. On the desktop of your computer, you may find pictures with the following labels:

(i)   **My Computer or Computer:** It contain all the storage areas of your computer (Hard Disk, Floppy Disk, CD/DVD)

(ii)  **Recycle Bin:** It contains all the deleted content of your computer,

(iii) **My Network Places or Network:** It contains the information of interconnected computers (if any),

(iv)  **My Documents or Documents:** It contains a common area to store various types of files on the computer. You may find some more pictures on the desktop with self-explanatory labels. All these pictures, which you see on screen, are known as "icons". At the bottom of desktop, you can see a bar (known as Taskbar), left side

of which may contain a Start button, right side may contain date, time and active device or utility information and the center of the taskbar may have some shortcuts and active applications. Shortcuts are the direct links to help the user to start the application, which may be stored anywhere on the computer. It is also important for you to know, which area of desktop will perform an operation on left click of a mouse button. You can click on any shortcut or buttons to start an application or to perform the desired task. Now, just look at Figure 11 to view a sample menu and sub-menu display, which you will see after clicking the Start Menu. Here, you will see various options you can choose from. The common ones are:

(i)     **Help and Support** to provide documented form of basic help information to work on the computer.

(ii)    **Search** to help you search for an application or a file.

(iii)   **Settings** to customize various settings (Display, Hardware, Software, etc.) of the computer.

(iv)    **Documents** to provide you quick links to all recent documents, which were opened or modified recently on the computer.



**Figure 11: Start Menu and Program Menu**

(v)     **Programs** to display a submenu with list of various applications available on the computer to work on.

The Start menu also gives you an option to Log Off/Shut Down/Turn Off the computer. These options may vary from version to version and OS to OS. Every file has an associated format that defines the way data is stored in the file. The file format is identified by a period (also called a dot) appended to a file name, followed by three or four letters. The following are some of the more common file formats:

- ❖ Word documents (.doc/.docx)
- ❖ Images (.gif and .jpg)
- ❖ Executable programs (.exe)
- ❖ Multimedia files (.wma and others)

Let us now discuss about some common applications, which come along with the operating system. Notepad is one such application, which allows you to type in the content in a text file, save it on the hard disk and print the same, if required.

In **My Computer or Computer**, you will find a list of all the Secondary Storage device(s) available on your computer (Figure 12). These drives are represented in the form of alphabets (from A: to Z:). For example C: Drive normally represents the first hard disk present in your system, D: Drive may represent the second hard disk or CD/DVD Drive. A: and B: Drives normally represent Floppy Drives, last alphabets are normally used to represent Network Drives (i.e., the hard disk or DVD drive of another computer).



**Figure 12: Drives**

The data on computer can be organized in files and folders. Files are the immediate container of the content created by you using a particular tool/application. For example, using the Notepad, you can create a Text file "REPORT.TXT" containing report of a particular program organized in your school, you might create another text file "LESSON1. TXT" containing a list of assignments to be given in a class and using paint tool, you might create a file "MYCREATION.BMP". All these are known as "files". When you have many files loaded or stored on the computer, you would like them to be organized in separate groups so that you can manage the files easily. You can create Folders on computer to represent these groups, where each folder can hold any number of file(s) or sub-folder(s). For example, you can create a folder as Movies with sub-folders as Hindi and English to contain Hindi Movie Files and English Movies Files, respectively. You may create a Folder with name Academics with sub-folders as School Work, Homework, etc.

**Creating a Text file using Notepad**

Open Notepad by

Clicking **Start -> Programs -> Accessories -> Notepad**

OR

Click Start -> Run and type in **NOTEPAD** and click on open

Once the notepad is loaded, type the content required by you in the text file.

**Type your name and address and save the file.**

**Saving the File:** After typing in the desired content, you may like to save the content permanently on the hard disk of the computer or any other secondary storage device (Figure 13). To do this, you need to follow the instructions given below:

1. Click File ->
2. Click Save ->
3. Choose the location ->
4. Type in the name of the file ->
5. Click Save button

**Printing File:** Follow the following steps to print the content of the text file

1. Click File ->
2. Click Print ->
3. Select Printer ->
4. Click Print Button



**Figure 13: Saving a TEXT file in Notepad**

### Quitting Notepad

To quit select the close button (X) on the upper right corner of the Window

OR

Click on the File Menu and Select 'Close' option to quit the Notepad.

### Folders and Subfolders

When you have many files stored on a computer, you would like them to be organized in a separate folder so that you can manage them easily. This can be done by creating folder(s) on your computer, where you can place related files. Each folder can hold several files or sub-folders.

### Creating and Renaming Folder

To create a new folder, right click the mouse to open a menu on your desktop. Take the pointer or cursor to the 'New' and then to the 'Folder' on the right (Figure 14). Left click your mouse on the Folder. You will see a folder on the desktop with a default name 'New Folder'. Left click your mouse on the new folder and name it as you want and then press enter. You can also rename the folder by right clicking and then clicking on 'rename'. Once you have renamed your folder, click Enter on the keyboard.

**Figure 14: Creating a Folder**

You can create a folder on any drive. For example if you wish to create a folder labeled as 'Letters' with sub-folders labeled as 'Hindi' and 'English' to contain Hindi Letter Files and English Letter Files, respectively.

To create a folder, you will have to right click the 'start' button on the task bar and go to the 'Explore' by left click of the mouse. Click on the drive (e.g., C or D) where you wish to create a folder. Now right click the mouse button, go to 'New' and then to 'Folder'. A folder with a default name 'New Folder' will be created. You can rename the folder.

**Restoring Files from Recycle Bin**

Suppose you have deleted some files or folders by mistake and you wish to restore the files/ folders to the same place from where they were deleted, then you need to go to the recycle bin on your desktop, and then right click to restore the file. Restoring an item in the Recycle Bin returns that item to its original location. So look for your restored file from where you deleted it. The following files are not stored in the Recycle Bin and therefore cannot be restored:

❖   Files deleted from network location.

❖   Files deleted from removable media such as pen drive.

❖   Files those are larger than the storage capacity of the recycle bin.

**Shutting Down Your Computer**

When you have finished using your computer, it is important to shut it down properly. Windows will close any open applications, save settings, and remove temporary files that have been stored. When you have saved your file, take the following steps to shut down your computer.

Step 1:  Click the Start button.

Step 2:  Click the arrow next to the Lock button.

Step 3:  Click the Shut Down option to turn off the computer.

The Sleep feature can be used to conserve energy. It will power down the hard drive and monitor and retain information in memory. If there is a power failure, information in memory will be lost, so it is wise to save your documents before you use the Sleep feature.

## EXERCISE

### Practice Session

1.   Open a file in the Notepad program and type your day's activities and save the file in a folder.

2.   Open a new Notepad file and type the following:

   (a)   **Name** (in upper case letters):

(b)  (Note: To type an uppercase letter, hold the Shift key down while you type the letter or Press the Caps Lock key). Turn off the caps lock feature if you wish to type in small case. If you have typed an incorrect letter, press the **Backspace key** to delete it. Press the Enter key to move the flashing insertion point down one line).

(c)  Father's name (in uppercase letters):

(d)  Mother's name(in uppercase letters):

(e)  Residential address:

(f)  Telephone no.:

(g)  E-mail address:

## ASSESSMENT

### A.    Multiple Choice Questions

1.    The file extension not related to storage of images on a computer is
(a)  Txt
(b)  Jpg
(c)  Gif
(d)  Bmp

2.    A small picture that represents a folder or an application program is known as
(a)  Desktop
(b)  Icon
(c)  Graphic
(d)  Text

3.    The software, which helps in editing of a basic text file is
(a)  Adobe Reader
(b)  Notepad
(c)  MSPaint
(d)  None of the above

### B.    Fill in the Blanks

1.    A shortcut to default application on a desktop is known as _____.

2.    The deleted files can be found in the _____ bin.

3. To go to the log off option you need to first go to the _____ menu.

4. A list of all secondary storage devices can be found at _____ computer.

5. Files can be organized in a _____.

6. A file with an extension .txt is a _____ file.

7. A file with a .jpg is an _____ file.

## CHECKLIST FOR ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

### Part A

(a) Differentiated between different desktop icons.

### Part B

Discussed the following in the class:-

(a) Why do we need to create folders and sub-folders?

(b) How files can be restored?

### Part C

**Performance Standards**

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Identify common desktop icons | | |
| Identify files with different types of extension | | |
| Perform different tasks using a mouse | | |
| Demonstrate the use of icons to open and close files, and use of program menu | | |
| Create a text file in Notepad and save it in desired location. | | |
| Create and rename folders | | |
| Locate stored files and folders | | |
| Restore files from the recycle bin | | |
| Draw a picture in paint and save the file | | |

# Session–3
# Managing Files and Folders

## Relevant Knowledge

A file in computer terminology can be considered as the modern counterpart of paper documents which were traditionally kept in offices and libraries. The term file is used in computers for a block of arbitrary information, or resource for storing information.

Here are some of the ways to rename, delete, copy, cut and paste files.

**To Rename a particular file:** Close the file to be renamed, if opened. Locate and Select the file:

1. Click the right button of mouse.
2. Select Rename.
3. The filename will become editable – type the new name and press **ENTER** Key on the keyboard.

OR

Locate and Select the file:

1. Click F2 button of keyboard.
2. The filename will become editable – type the new name and press **ENTER** Key on the keyboard.

**To Delete a particular file:**

Close the file to be deleted, if opened. Locate and Select the file:

1. Click the right button of mouse.
2. Select Delete.
3. Pop up will ask to confirm File Delete – Click on **YES**

OR

Locate and Select the file:

1. Press Delete key on keyboard.
2. Pop up will ask to confirm File Delete – Click on **YES**.

**To Copy-Paste a particular file:**

In Copy-Paste, the file will remain there in the original location and a copy of the same will be saved on the new location.

Locate and Select the file:

1.    Click the right button of mouse.
2.    Select Copy.
3.    Change the Drive and Folder to target location.
4.    Click the right button.
5.    Select Paste.

OR

Locate and Select the file:

1.    Press **CTRL** and **C** Keys together.
2.    Change the Drive and Folder to target location.
3.    Press **CTRL** & **V** Keys together.

**To Cut-Paste a particular file:**

Close the file to be moved, if opened. Locate and select the file.

1.    Click the right button of mouse.
2.    Select Cut.
3.    Change the Drive and Folder to target location.
4.    Click the right button.
5.    Select Paste.

OR

Locate and Select the file:

1.    Press **CTRL** & **X** keys together.
2.    Change the Drive and Folder to target location.
3.    Press **CTRL** & **V** keys together.

In Cut-Paste, the file will be removed from the original location and it will be copied in the new location.

**Folder**

A folder is basically a container, in which the files can be organised in the computer's storage devices. We create folders to keep different kind of information separately for later use.

**To Rename a particular folder**

Close all the applications, which are using the folder to be renamed.

Locate and Select the folder:

1.    Click the right button of mouse.

2.    Select Rename.

3.    The folder name will become editable

4.    Type the new name and press **ENTER** Key on the keyboard.

OR

Locate and Select the folder:

1.    Click F2 button of key board.

2.    The folder name will become editable

3.    Type the new name and press **ENTER** Key on the keyboard.

**To Delete a particular folder:**

Close all the applications, which are using the folder to be deleted.

Locate and Select the folder:

1.    Click the right button of mouse.

2.    Select Delete.

3.    Pop up will ask to confirm Folder delete – Click on **YES**.

OR

Locate and Select the folder:

1.    Press Delete key on keyboard.

2.    Pop up will ask to confirm File Delete – Click on **YES**.

**To Copy-Paste a particular folder:**

In Copy-Paste, the folder will remain there in the original location and a copy of the same will be saved on the new location.

Locate and Select the folder:

1.    Click the right button of mouse.

2.    Select Copy.

3.    Change the Drive and Folder to target location.

4.    Click the right button.

5.    Select Paste.

OR

Locate and Select the folder.

1. Press **CTRL** & **C** Keys together.
2. Change the Drive and Folder to target location.
3. Press **CTRL** & **V** Keys together.

**To Cut-Paste a particular folder:**

In Cut-Paste, the folder will be removed from the original location and will be copied in the new location.

Close all the applications, which are using the folder to be deleted.

Locate and Select the folder

1. Click the right button of mouse.
2. Select Cut.
3. Change the Drive and Folder to target location.
4. Click the right button.
5. Select Paste.

OR

Locate and Select the folder:

1. Press **CTRL** & **X** Keys together.
2. Change the Drive and Folder to target location.
3. Press **CTRL** & **V** Keys together.

If we wish to select all the files within a folder in one go, we can simply go in that folder and select them by pressing **CTRL** & **A** together. All the files in the folder are selected. After selecting the files, we can Copy or Cut these files with the help of **CTRL** & **C** or **CTRL** & **X** respectively.

We can select some of the files, which are next to each other in a particular folder with the help of Shift and direction keys (Left, Right, Up and Down Keys) the first four files in a sequence are selected. We can also select some of the files, one by one, by holding CTRL key and using Left button of the mouse.

## EXERCISE

**Practice Session**

You will now create and save a file, browse the file, delete the file, and restore the file. Follow the steps given in the table below:

| 1. | To view a program that is installed on a computer, click the Start button, and then click All Programs. |
|----|---------------------------------------------------------------------------------------------------------|
| 2. | To open WordPad, click Accessories, and then click WordPad. |
| 3. | To add text in the document, in the Document - WordPad window, for the purposes of this exercise, press SPACEBAR to have the text typed for you. |
| 4. | To save the document, click the File menu, and then click Save As. |
| 5. | To name the document, in the Save As dialog box, in the File name box. |
| 6. | To close the Sample file, click the Close button. |
| 7. | To open the Sample file, double-click Sample. |
| 8. | To close the file, click the Close button. |
| 9. | To delete the Sample file, ensure that the Sample file is selected, click Organize, and then click Delete. |
| 10. | To confirm that you want to send the file to the Recycle Bin, in the Delete File message box, click Yes. |
| 11. | To close Windows Explorer, click the Close button. |
| 12. | To restore the Sample file to its original location, double-click Recycle Bin. |
| 13. | In the Recycle Bin window, click Sample, and then click Restore this item. |

## ASSESSMENT

### A.    Multiple Choice Questions

1.    Files can be organized in a
   (a)    Printer
   (b)    Keyboard
   (c)    Folder
   (d)    Mouse

2.    Which of the following combination of keys are used for copying a particular file in a folder?
   (a)    CTRL+V
   (b)    CTRL+X
   (c)    CTRL+C
   (d)    CTRL+A

3. Which of the following combination of keys are used for pasting a particular file in a folder?
   (a) CTRL+V
   (b) CTRL+X
   (c) CTRL+C
   (d) CTRL+A

4. To rename a file, you should _____ the file before renaming it
   (a) Close the file
   (b) Move the file
   (c) Go to explorer
   (d) Open the file

## CHECKLIST FOR ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

### Part A

(a) Differentiated between file and folder.

### Part B

Discussed the following in the class:-
(a) Why do we need to create folders?
(b) How should we name files and folders?
(c) Where do the files and folders move when we delete them?
(d) How can we restore files and folders?

### Performance Standards

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Create, rename and delete folders and subfolders | | |
| Copy and Paste folder | | |
| Cut and Paste folder | | |
| Copy, Cut and Paste folders. | | |

# Unit–5
# Email Messaging

# *Introduction*

Electronic mail, commonly called as Email is a method of exchanging digital messages from a sender to one or more recipients. It has distinct advantages over postal services and phones. Email is cheaper and faster than a letter, less interfering than a phone call and has less hassle than sending a FAX. It can be easily forwarded and sent to numerous people simultaneously without the consideration of geographical locations and enables the recipients to respond quickly. Because of these advantages, email is being used increasingly by people as a means of communication. However, emails do not convey emotions that we communicate through face-to-face or telephone conversations. It lacks vocal intonation and gestures.

When e-mail is used skillfully, it enables effective communication. When used ineffectively, email can become a huge drain on time and efforts. There are many free email service providers such as Google (Gmail), Yahoo (Yahoo! Mail) and Rediff (RediffMail). To access an email service on the Internet, you must have an email address with at least one of these service providers which offer free email accounts.

Information and Communication Technology (ICT) tools, such as Email, Gchat and Facebook have now created new online communities, reduced the geographic barriers, and brought people closer to each other.

In this Unit, you will learn about the effective use of emailing for communicating with people and organising email contacts and account for efficient use of resources and time.

# Session–1
# Opening Email Account, Composing Mail and Attaching Files

## Relevant Knowledge

To send and receive emails, you should first open an email account. Opening an email account is simple. First, choose an email service that you prefer (major ones include Gmail, Yahoo, Hotmail etc). Next, decide which user name you wish to have. This will act as both your login name and your email address name (ex. yourname@yahoo.com). If the name has already been booked by someone else, then try a variation of the name, by adding numbers, spaces or hyphens in it. After you have chosen a name, you will have to create a password and a security question and answer. Make sure choose a password that you will be able to remember, but it should be difficult for others to guess.

The final step is to fill out your personal information and activate your account (Figure 1). Once this is completed, you will be able to use your email to send and receive messages, add addresses and phone numbers into your contact book.

Email is neither private nor secure. Do not use emails to discuss confidential or sensitive information. An email is a permanent record and can be easily forwarded to others or intercepted. Double check all addresses and content before you send. NEVER give your password to anyone, as there are many scam and phishing sites that will try to steal your information.
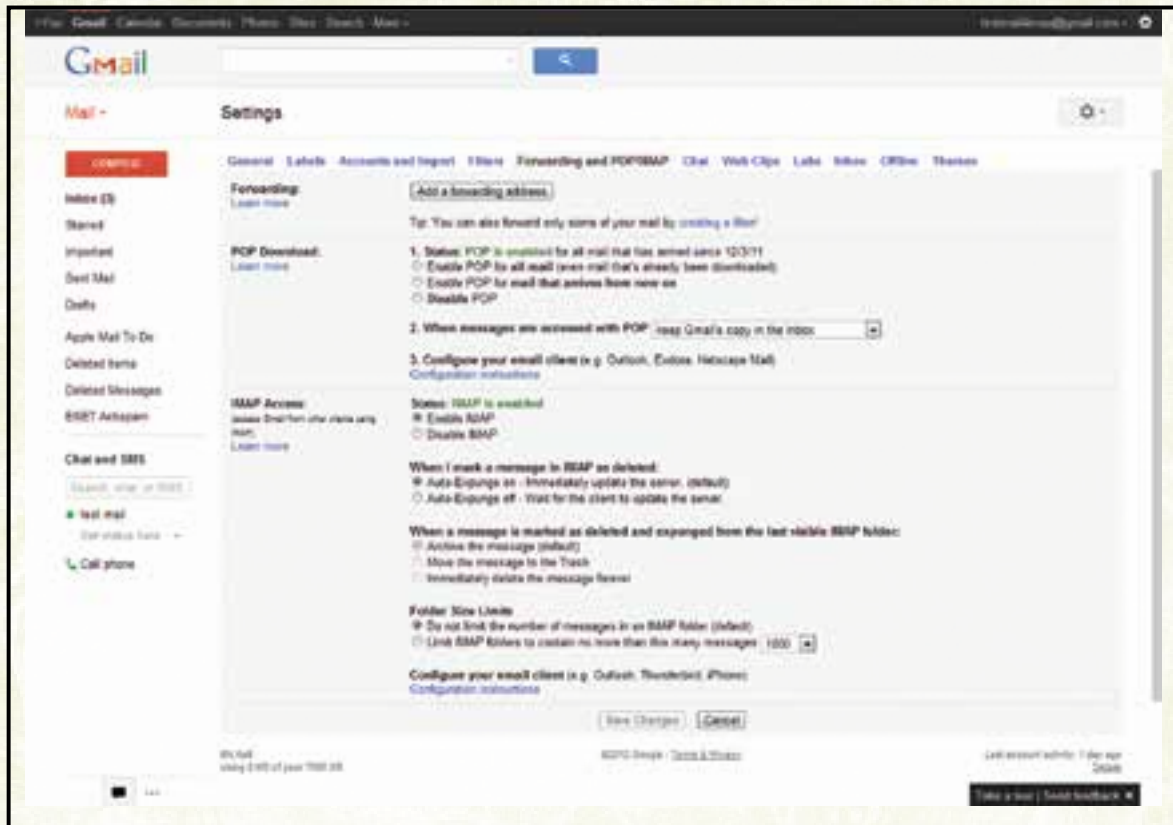
**Figure 1: Opening an account in Gmail**
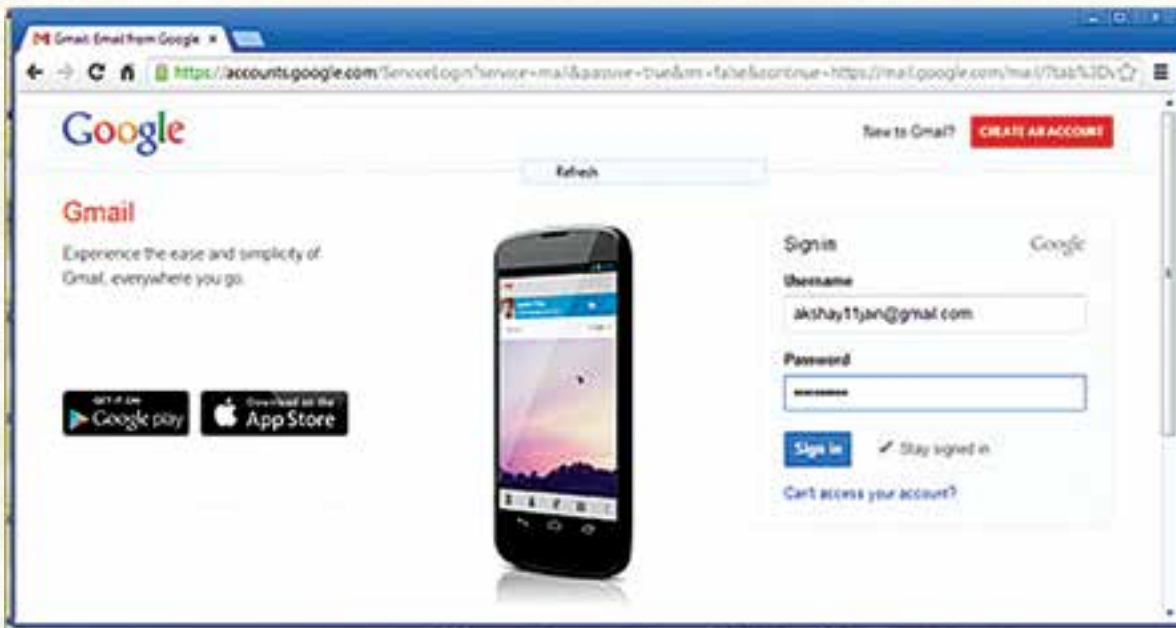


**Figure 2: Gmail Sign in Section**

## Sign In

Having opened an Email account, you just have to sign in next time. Once you have created an account, you get an online mailbox to send, receive and store contacts. A mailbox is identified by an email address. The email address is similar to a postal address or a phone number. An email address is a character string that identifies an email user. An email address consists of two parts, separated by @ symbol.

The first part is the username and the second part is the email service provider's domain name. The username may be up to 64 characters long. It is generally case-sensitive and cannot contain any spaces. The domain part cannot be longer than 255 characters and is case insensitive. There are many free email service providers such as Google (Gmail), Yahoo (Yahoo! Mail) and Rediff (Rediffmail).

When using email, you will interact with several windows, including the Inbox window, the Email Message window and the Compose Message window. Depending on the email provider, these windows may look and feel different, but the way they function is essentially the same. For ease of understanding, the steps presented in this unit will focus on one of the email services, known as Gmail.

Gmail (also called Google Mail) is a free, email service provided by Google. In many ways it is like any other email service: you can send and receive emails, block spam, create an address book, and do other basic emailing tasks.

Gmail also has some unique features such as Priority Inbox, Conversation View, phone call facility, etc. that help to make it one of the most popular email services on the web.

## Useful Features of Gmail

A few of the useful features offered by Gmail worth exploring are as follows:

1. **Spam Filtering:** Spam is another name for unwanted or junk emails. Advanced technologies are now being used by Gmail to keep spam out of your Inbox. Emails marked as Spam by you or recognised by Gmail are automatically sends these mails to a separate Spam folder. The mails in Spam folder are automatically deleted after 30 days.

2. **Priority Inbox:** This feature identifies the most important emails (by number of times you correspond with the sender of that email) and places them at the top in the inbox. This feature is particularly useful if you get many emails every day, as it saves you from the effort of manually sorting emails received by you.

3. **Conversation View:** A conversation occurs when you send emails back and forth to another person (or a group of people), often about a specific topic or event. Gmail groups these emails together by default, which helps to keep your Inbox more organised.

4. **Built-in Chat:** Instead of sending an email, you can send someone an instant message "chat" or use the voice and video chat feature if your computer has a microphone and/ or webcam.

4. **Call Phone:** The call phone feature is similar to voice chat, except it allows you to dial a phone number to call any phone in the world. It's a free service for calls made to people in United States of America or Canada, but for other countries calls can be made at relatively low prices.

5. **Different Inbox View Styles:** It is possible to view your inbox in different styles like Classic, Unread first, Important first, Starred first and Priority Inbox. These styles help you decide which emails will be displayed at the top of the inbox. To change the inbox view simply click on the small arrow link next to the inbox in the left menu pane and choose the appropriate style from the drop down list.

6. **Auto-Responders:** You can use Auto-responders to handle the most frequently requested information people ask from you. This feature is very useful to respond to your mails automatically when you are out of station for a long vacation or official purpose.

### Sign in

To send or receive emails, the first step is to log on to the email account by providing the correct username and password on the login page of the email service provider. Enter your username and password and click on Sign in button.

### Inbox

Once you log in to your Gmail account, you will see the inbox. The inbox is the folder that contains all the incoming emails. The Gmail inbox has some key features which include the following:



❖ Unread messages appear in bold.

❖ Names of the email senders are listed on the left.

❖ Displays snippets and small lines of text next to each recent message to reveal a bit of the content.

❖ Messages are grouped into 'conversations', so that all follow-ups and responses appear as a single line in your inbox.

❖ The time or date of the most recent message is displayed on the far right of the conversation line.

❖ Check boxes appear next to the sender's name to perform actions like deleting individual emails.
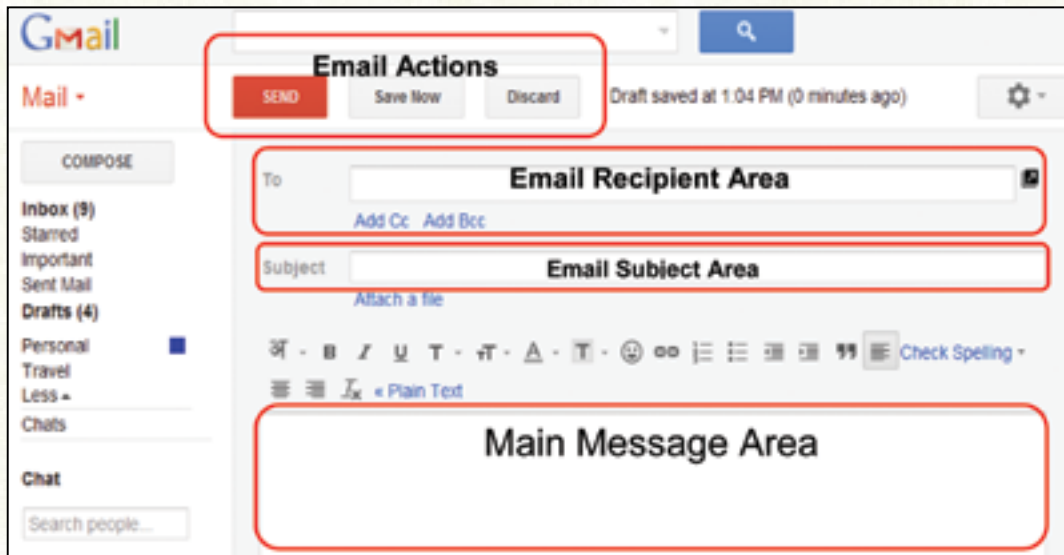


**Figure 3: Features of Inbox**

❖ It is possible to view your inbox in different styles. A few popular ones are:

➢ **Classic:** Classic is the default style in which messages are ordered chronologically in the order of the date.

➢ **Unread First:** Unread mail stays at the top; everything else is at the bottom.

➢ **Important First:** Displays mail from the contacts you email most often and other important mail at the top. All other mails are displayed in a different section at the bottom.

**Composing mail**

The first step towards composing effective email is to define the purpose for the email. Email can range from the formal to the informal. Formal emails should begin with appropriate greeting and end with "regards". Don't use an informal style unless you know the person very well. After defining the purpose, begin drafting the message. Begin the message by addressing the recipient in the way the contact prefers. Keep in mind that the more concise your message is, the more likely it is that the recipient will read it and take action. If the message requires some details and explanation, be sure to break up the information using bullet points.

The user-friendly **"Compose Mail"** interface has the following major elements:

❖ **To textbox:** In the "To" box you have to enter the email address of the recipient(s). This can contain multiple addresses separated by a comma.
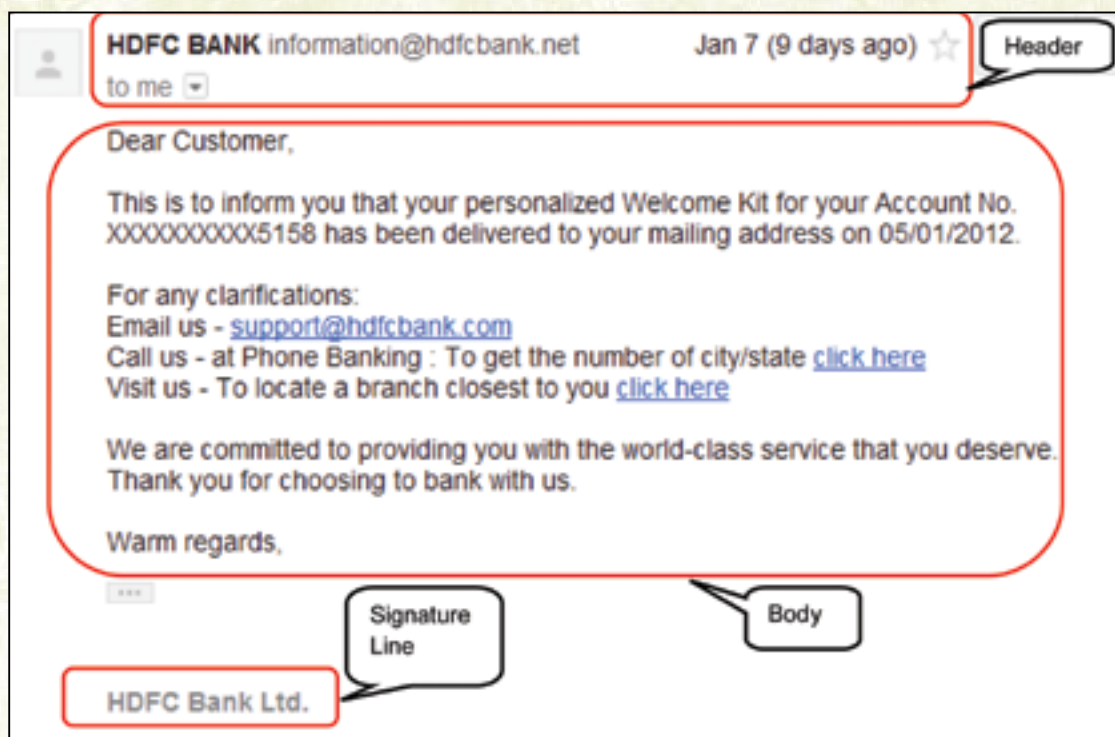
**Figure 4: Composing a simple and short message**

❖ **Cc/Bcc link:** Click on this to display a textbox where the email addresses of recipients who have to receive the carbon copy/ blind carbon copy can be entered. The Carbon Copy (CC) and Blind Carbon Copy (BCC) are used to send multiple copies of a message. The CC field allows you to send a copy of the message to multiple people. In this case all the recipients will be able to see the addresses of all other recipients. BCC field allows you to send a copy of the message to other people without the recipients knowing about it.

❖ **The Subject textbox:** This textbox is used for entering the Subject. The subject line should be short and give a clear indication of the content of the message. For example, if you are sending a presentation on "how to save water" to your teacher, then you can mention in the subject textbox " Presentation on "How to Save Water".

❖ **The Message Area:** Type the message in this area. The message should have the following parts:

(a) **Header:** The header has information about the sender, like the address of the sender, those that the email was sent to and/or CC, date and time of the message and the Subject Line.

(b) **Body:** The body contains the text of the email.

(c) **Signature Line:** A signature is an optional block of text that appears below every email you send. By default, Gmail does not include a signature, but it's easy to create one. A typical signature includes name and some contact information, like phone number or email address. If you are using Gmail at work, you may like to include your title and your company's address or website.

❖ **The Attach a file link:** This link is used to select the files to be sent as attachments. Attachments can be digital files for documents, images, videos, presentations or more. These attachments can be opened and downloaded by the recipient.

## Formatting Text

Gmail allows you to format text while composing an email. The **"formatting bar"** tool is available right below the subject field. If it is not visible, click **Rich formatting** link. The formatting bar has several buttons and you can understand what each one does if you move the cursor over it. Some of the rich-text formatting that you may use include:



**Figure 5: Formatting Toolbar in Gmail**

❖ Typing in Hindi language.

❖ Making text bold, italic or underlined.

❖ Changing font size and font type.

❖ Adding colour to selected text.

❖ Highlighting text.

❖ Including emoticons and web links (URL).

❖ Adding formatted lists (numbered, bulleted).

❖ Indenting.

❖ Aligning text.

❖ Removing text formatting.

❖ Checking spelling.
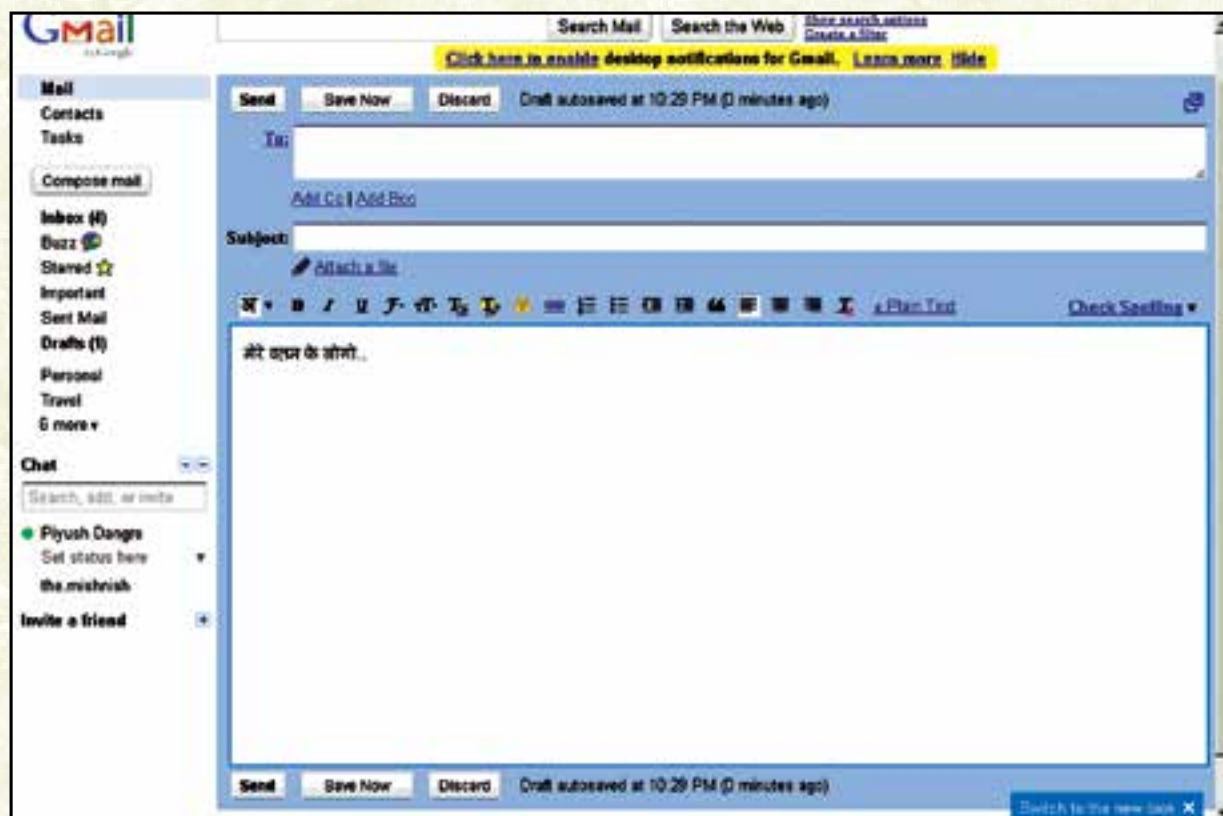
**Figure 6: Typing in Hindi in Gmail**

For official emails, such as job applications, you should not add formatting that seems too informal, such as bright colours or emoticons.

**Adding Signatures**

To add a signature, follow the steps given below:

**Step 1:**   Click the gear icon in the top-right corner of the page and select Mail settings.

**Step 2:**   Scroll down until you see the Signature section.

**Step 3:**   Type your desired signature in the box. You can also change the font, add other formatting, or insert an image if you want.

**Step 4:**   Scroll down to the bottom of the page and click Save Changes.

In Gmail, signatures are separated from the rest of your message by two hyphens. If you don't want your signature to appear on a specific message, you can delete it by highlighting the text (move the cursor over the text) and delete it by pressing the delete key before sending the message.

**Adding Attachments**

An attachment is a file (e.g. an image or document file) that is sent along with your email. For example, if you are applying for a job, you might send your resume and cover letter as an attachment. It's a good idea to include a message in the body of your email explaining what the attachment is, especially if the recipient is not expecting an attachment. To add an attachment follows the given steps:

**Step 1:**     Click **Attach a file**.

**Step 2:**     Choose the file you want to attach and click Open. The attachment will begin to upload. Most attachments will upload within a few seconds, but larger ones can take longer.

**Step 3:**     Click **Send**. You can click Send before the attachment finishes uploading. It will continue to upload and then send the email.

Never send attachments to email lists or to large groups of people until necessary. Instead of sending an attachment, consider putting the text you wish to send in the body of your email.

To prevent spread of virus, executable files, i.e. the ones with ".exe" extension are not allowed as attachments.

Let us quickly review the steps involved in composing an email:

1.     Sign in to Gmail account.

2.     Click the **Compose** button in the left menu pane.

3.     Fill in the **To: and Subject:**

4.     Click on the **CC (copy) or BCC** (blind carbon copy) buttons and enter additional addresses of the persons you wish to send the email (optional).

5.     Type your message inside the message screen.

6.     Use the formatting toolbar to add font styles (**bold**, *italic*, <u>underline</u>) and other formatting features (if required).

7.     Click **Save Now** button on the top to save the mail in the **Drafts** folder or send the email by clicking on send button.

**Saving Draft**

After composing your message, you might decide to review it thoroughly at a later date before actually sending it. To save the draft message till you are ready to send it, click on **Save Now** button or use thekeyboard shortcut **'Ctrl+S'**. The message will be saved in the Drafts folder and can be retrieved later for editing. The **Drafts** folder contains email

messages that have been composed but have not been sent. Gmail automatically saves a copy of the message being composed in the Drafts folder periodically to avoid loss of data in case of a browser crash, power failure or other errors.

**Sending Email**

After composing an email, you need to send the email. To do that you should click the Send button on the toolbar to deliver the email to the specified recipient(s). When you send an email, a copy is placed in the **Sent Mail** folder for your future reference. This is really helpful when sometimes you want to resend or forward the sent message.

## EXERCISE

### Practice Session

1.  Open an email account.

2.  Type the username and password and log on to your account.

3.  Compose emails and send them.

4.  Attach files

5.  Add signature

6.  Send email

## ASSESSMENT

### A.  Fill in the Blanks

1.  Domain part cannot be longer than ___ characters.

2.  Files ending with _____ file extension are not allowed as attachments in Gmail.

1.  To send and receive emails, you should open an email _____.

2.  An email address consists of two parts, separated by ____symbol.

3.  The_____ box contains messages that have been composed but not sent.

4.  Suspicious mails are flagged as_____

5.  The other name for log on is to _____in.

6. The other name for log out is to _____ out.

7. The _____ is the folder that contains all the incoming mails.

## CHECKLIST FOR ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

### Part A

(a) Differentiated between sign in and sign out.

(b) Differentiated between inbox and outbox.

### Part B

Discussed the following in the class:-

(a) What is the purpose of email?

(b) What are the advantages of email?

(c) What are the precautions are should take while operating an email account?

(d) What are the uses of various features of G-mail?

### Part C

**Performance Standards**

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Open a new email account. | | |
| Sign in email account | | |
| Make a signature block. | | |
| Compose an email | | |
| Prepare a Draft message and save in drafts folder. | | |
| Attach a file. | | |
| Send email | | |

# Session–2
# Sending, Forwarding, and Searching Email

## Relevant Knowledge

### Sending Email

After composing an email, you need to send the email. To do that you should click the Send button on the toolbar to deliver the email to the specified recipient(s). When you send an email, a copy is placed in the **Sent Mail** folder for your future reference. This is really helpful when sometimes you want to resend or forward the sent message.

### Receiving Email

All the received emails are stored in the inbox. The received emails are generally displayed chronologically on the basis of the time when they are received. To open emails simply click on the mail in the Inbox. When you open an email for reading, a separate window containing the email is displayed in place of the inbox. As soon as you select any email by placing a checkmark [√ ] in the checkbox next to an email in the inbox, Gmail activates the toolbar that displays different options of actions that can be performed on the selected email.

### Viewing Email Attachments in Gmail

In Gmail, attachments are displayed as thumbnails with two links beside each - **View** and **Download**. Clicking on View displays the full size image or document in a new

| Email Select Button with option to select:<br><br>● All<br>● None<br>● Read<br>● Unread<br>● Starred<br>● Unstarred | Archive Button to clear the inbox and send selected emails to the All Mail folder | Report Scam button to mark selected emails as Spam | Delete button to send the selected emails to the Trash folder | Move To button to send the selected emails to desired folders | Labels button to mark the selected emails with desired labels | More button with misscell--aneous options like Add Satr, Mute etc |

**Figure 7: Toolbar displaying actions to be performed on an Email**

browser window or a new browser tab. Microsoft Word documents (including .docx files) can be converted by Gmail to HTML format so that you can read these online (without downloading) and other kinds of email attachments like PDFs and text files, which can be viewed through **Google Docs**.

### Downloading Gmail Attachments

You can download Gmail attachments, either one by one or all together. Clicking on the **Download** link beside an email attachment will download *only that file*. The ***Download all attachments*** link is found right under the actual email message and just before the email attachment list. Clicking on this link downloads all the attachments as zip file.

Depending on which web browser you are working on, email attachments will either be downloaded to a specified directory (the download directory set in the browser) or the program, we will let you choose the storage location. Never open an attachment unless you know the sender or at least sure about the authenticity of the emails from unknown senders. Do not open emails in the spam box, as they may contain viruses. Always update the antivirus on your computer to prevent virus attack.



**Figure 8: Attachments in different format**

### Replying to Emails

The received mails are displayed in the **Inbox**. Emails are listed with the name of the sender, the subject of the message and the date received with the most recent at the top. Unread emails usually appear in **bold text**. Select an email in the Inbox by clicking on it and it will open in the **Email Message window**.

Read the message and determine how to respond to it with a variety of commands:

1. **Reply:** To respond to the sender of the email choose the reply option. A new compose window will appear just below the original email with the original message in the body. Compose your response and then click on **Send** button.

2. **Reply to All:** Sometimes emails may be sent to multiple recipients. To respond to such emails, first decide whether the reply is to be sent just to the sender or to all the original recipients. If the message is to be sent to all original recipients as well as the original sender then choose the **Reply All option**.

3. **Forward:** Forwarding means to share a received email message with others. To forward an email click the Forward link and then enter the email addresses of the person(s) to whom the mail is to be sent.

## Forwarding Email

To forward an email, simply click on the Forward link and then click on send. Note that Gmail automatically fills in the Subject textbox with the prefix Fwd: followed by the original Subject line of the message being forwarded. The prefix Fwd: is used to indicate to the recipient that this email contains a forwarded message. Be careful while forwarding any chain mail message. It is always better to first check the mail for authenticity before forwarding chain mails.

## Deleting Emails

To delete a message, simply click the Delete icon (a trash bin symbol) displayed at the top. Deleted emails are stored in the **Trash folder**. Deleted emails can be retrieved from the Trash within **30 days** of deletion after which they are permanently deleted.

## Archiving Emails

Archiving is one of the original and unique feature of Gmail. When you receive an email, it first goes into your inbox. You can read it, reply to it, forward it, trash it, or you can report it as Spam. All emails will remain in your inbox until you specifically **"Archive"** them.

**Archiving** is a message which simply tells Gmail to remove the message from your Inbox folder and keep it in your **"All Mail"** folder. Archiving simply cleans up your inbox. All archived messages are always accessible through the "All Mail" folder and may be easily moved back to the inbox when required. To archive an email simply select the mails to be archived by clicking on the checkbox before them and click on the Archive button.

### Flagging Email as Spam

You can flag your emails as Spam by

1.   Selecting the email message from the list.

2.   Click the Spam button on the toolbar.

3.   The conversation will move from the Inbox folder to the Spam folder.

4.   A confirmation message displays at the top of the screen.

### Recover Email from Spam Folder

If you receive email in your Spam folder that wasn't spam then you recover them by following the steps given below:

1.   Click on the email(s) to select.

2.   Click on the **More actions** button on the toolbar above the message list.

3.   Click on Not Spam. The email will be marked as **Not Spam** and it will be sent to the **Inbox**.

### Searching for Email

Because of the large storage space in your inbox, you can keep emails forever and hence there is no need to delete messages frequently. This means you can potentially store tens of thousands of emails. But this could be a cause of a major problem of searching for a particular email in your account. It's like trying to locate a needle in a haystack.

This is where Google's search algorithms come into play! The search field on your Gmail account is located at the top on the right of the logo. It allows you to perform searches on both email messages in your Gmail account and the World Wide Web (www).

To search for an email message follow the given steps:

**Step 1:**   Type in your query in the search field and click the **Search Mail** button. If the search is complex then proceed to step 2.

**Step 2:**   You can perform specific searches by clicking on the "Show search options" link which opens up the options window. You can use one or more fields to enter your search options. For instance, if you want to list all emails with attachments from a friend Puneet, you would type in Puneet's email address or his name in the *From:* field and check the *Has attachment* checkbox.

**Step 3:**   Click on the *Search Mail* button.

Using the Search Mail button you can search for:

- ❖ Emails from specified senders or recipients using the **From:** and **To:** fields.
- ❖ Messages containing or not containing specified words using the **Has the words** and **Doesn't have:** fields.
- ❖ Email subject lines for keywords using the **Subject:** field.
- ❖ Emails that have attachments using the **Has attachment** checkbox.
- ❖ Within a specified date range using the **Date** within textboxes.
- ❖ Email messages that are lying in your inbox, trash, chats, spam, drafts, send folder or those that have been read or unread using the **Search** drop down list.

## EXERCISE

### Practice Sessions

1. Log in to your email account.
2. Open inbox and read the message
3. Download or View the attachment
4. Prepare a suitable reply to the message
5. Send the email
6. Forward an email to 2 contacts
7. Delete an email
8. Archive email
9. Flag email as spam
10. Move the email from Spam folder to inbox
11. Search for an email

## ASSESSMENT

### Fill in the blanks

1. When you send an email, a copy is placed in the _____ Mail folder.

2. All the received emails are stored in the _____.

3. The received emails are generally displayed _____on the basis of the time when they are received.

4. To open emails simply click on the mail in the _____.

5. To select an email placing a checkmark [√ ] in the _____ next to an email in the inbox.

6. In Gmail, attachments are displayed as thumbnails with two links i.e. **View** and _____.

7. Clicking on this Download all attachments downloads all the attachments as _____file.

8. If the message is to be sent to all original recipients as well as the original sender then choose the Reply _____ option.

9. Deleted emails are stored in the_____ folder.

10. _____ is a message which simply tells Gmail to remove the message from your Inbox folder and keep it in your "All Mail" folder.

## CHECKLIST FOR ASSESSMENT

### ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

### Part A

(a) Differentiated between 'reply' and 'forward'.
(b) Differentiated between 'reply' and 'reply all'.
(c) Differentiated between CC and BCC.

### Part B

Discussed the following in the class:-

(a) What are the precautions to be taken while sending and reading emails?
(b) How to protect computer from online virus attack?

### Part C

**Performance Standards**

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Compose and send an email. | | |
| Download an attachment. | | |
| Download and open zip file. | | |
| Retrieve emails saved in the Drafts box and edit them before sending. | | |
| Forward received messages. | | |
| Archive emails | | |
| Flag email as spam | | |
| Recover email from spam folder | | |

# Session–3
# Organising Emails and Managing Contacts

## Relevant Knowledge

Gmail provides the facility to categorise and organise emails into different folders, known as labels. Each label may be "opened" and it is possible to see all the messages in it. This feature has an obvious advantage. It is possible to put any message in any number of folders. An email can belong to the "Most Urgent" messages as well as to a particular project at work.

**Creating a Label in Gmail**

**Step 1:** While viewing the message in your mailbox, click the Labels button

**Step 2:** Select Create new.

**Step 3:** Type the desired label name, e.g. work, personal, confidential, etc.

**Step 4:** If this label is to be nested under another label then select the name of the parent label from the drop-down list.

**Step 5:** Click Create.

### Applying Label to a Message

**Step 1:** While viewing the message, click the **Labels** button. A drop-down menu will appear with a list of labels. Alternatively check the message in the message list and then click on Labels button.

**Step 2:** **Place a check mark** next to all of the labels you want, and then click **Apply**. Now, when you view your Inbox, you'll be able to see the label next to the message subject.

### Viewing Labeled Messages

Once you have added labels to some of your messages, you can easily view all of the messages contained in a particular label. To view the messages with a particular label, click the desired label name in the left panel of the mailbox. If the label is not visible then click **more** drop-down arrow below the list of labels and then click the desired label. From there you can also click **Manage labels** to control the ones to be hidden.

### Choosing a Label Colour

**Step 1:** In the **left menu pane**, locate the label for changing the colour (e.g., work).

**Step 2:** Click the **drop-down arrow** next to the label name.

**Step 3:** From the menu, select the desired **colour**.

**Step 4:** The label will be updated with the color chosen by you.

### Customizing Colour for Labels

You can customize the colour of the labels by following the steps given below:

**Step 1:** When picking a label's colour, select **Add custom color**.

**Step 2:** Select the desired colors for text and background.

**Step 3:** Click **Apply**.

## Removing a Label from a Message

**Step 1:**     Check on the labeled message in the message list or open it.

**Step 2:**     Click the **Labels** button.

**Step 3:**     Click on the desired checked label to be removed. Alternatively deselect the check box in front of the label name and click Apply.

## Using Filters for Organising Mails

You can also set up filters and rules for incoming mail. It is useful for organising mail from mailing lists and deleting spam straight away. The filters let you automatically segregate email messages based on the criteria you specify. Filters for email messages is probably the most useful and overlooked feature of the free email service. Once the emails have been segregated, you can then indicate an **action** to be applied such as deletion, forwarding, archiving, etc. Filters can be applied to both new incoming messages and to older ones. Let us now look at the usefulness of filters and how you can create these to manage your messages and save time.

## Creating Filters

Filters are created by specifying **search criteria** that automatically sort email messages in your account. Filter in Gmail can be created in two steps. In the first step, you choose search criteria, which segregate the email message. In the second step, you select an action to be applied to the search results.

Gmail filters are found under **Settings**, which is located at the link near the top right.

To create your first Gmail filter, follow the steps given below:

**Step 1:**     Click on the gear icon ⚙ to open the Settings window.

**Step 2:**     Select the **Filters tab**.

**Step 3:**     Click on the **Create a new filter** link.

**Step 4:**     Specify your **search criteria** based on which the emails are to be searched and segregated.

**Step 5:**     Click on the **Test Search** button to check your specified search criteria.

**Step 6:**     Click on **Next Step** button.

**Step 7:**     Choose an action to be implemented on the segregated emails from the available list.

**Step 8:**     Click on the **Create Filter** button.

## Specifying Search Criteria

As mentioned above, the most important step in creating a Gmail filter is to indicate a *search criteria* based upon which the emails will be searched and segregated and you'll find a total of six (five text fields and a checkbox) options to specify the search criteria as explained below:

❖ **From (text field):** Enter the name of the sender or their email address.

❖ **To (text field):** Specify the email account to which the email comes to - especially helpful if you have added multiple accounts on Gmail.

❖ **Subject (text field):** Enter keywords to search the email subject line.

❖ Has the words and **Doesn't have** (text fields): Specify keywords to search the email message body.

❖ **Has attachment (checkbox):** Results in segregating emails that have attached files.

The **Test Search** button is a convenient way to check your specified search criteria. Using the test search button, you can check if the specified criteria work properly, else modify the search criteria.

## Choosing Action for Search Results

Once you've specified the search criteria (and don't forget to check it using the "Test Search" button) you need to **indicate an action** to be implemented on the results. Gmail offers you the following seven different actions that you can apply.

❖ **Skip the Inbox:** The message will be archived and will not be displayed in the Inbox.

❖ **Mark as read:** Marks the email message as read. The message in your Inbox will not appear in bold.

❖ **Star it:** Marks the email with a star. Star lets you give messages a special status and make them easier to find.

❖ **Apply the label:** Select and apply a label to the email message.

❖ **Forward it to:** Forwards the email message to another account that you specify.

❖ **Delete it:** Deletes the email message.

❖ **Never send it to Spam:** Never send the filtered messages to **Spam** box.

Since these are checkboxes, you can have one or more actions applied to the searched results. Furthermore, the actions are executed not only on new incoming messages but also older ones residing in your inbox. You can have as many email filters as you want in Gmail.

Unit - 5

## Editing and Deleting Filters

You can edit or delete filters by following the steps given below:

**Step 1:**  In the top-right corner of the page, click the **gear icon** and go to **Mail settings**.

**Step 2:**  Click on the **Filters** tab to view a list of filters that are currently active.

**Step 3:**  You can then click on the **edit** or **delete** links to edit or delete the desired filters.

## Contact Feature

Contact is like an address book. It contains the names and email addresses of the people with whom you have communicated. It allows you to include other contact information like home address and phone number if desired. Apart from saving the hassle of remembering everyone's email address, Email also has the provision to create Contact Groups i.e., Family, Friends, Work, etc. The most important benefit of having groups of Contacts is the ease with which you would be able to send messages to multiple recipients i.e., all the contacts in a group.

## Creating a Contact

To create a contact follow the steps given below:

**Step 1:**  Click on the **Contacts** button in the left-hand column.

**Step 2:**  Hit the **New Contact** button in the top left corner of the **Contacts** box.

**Step 3:**  Fill in all of your contacts information in the appropriate fields. Any information added will save automatically otherwise you may click **Save Now** when you are ready to add the contact.

**Step 4:**  You can enter additional contact information by clicking the **Add** drop-down menu.

Email addresses are automatically added to your Contacts list each time you use the Reply, **Reply to all** or **Forward** button to send messages to addresses not previously stored in your **Contact list**. If you don't want contacts to be automatically added, choose **I'll create contacts myself setting.** To do this, visit the **'Create contacts'** section of the General tab in your Settings.

## Editing a Contact

**Step 1:**  Click on the **Contacts** button in the lefthand column.

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**Step 2:** Select **All Contacts** and scroll through the list until you find the contact you want to edit.

**Step 3:** Click on the name of the contact you want to edit.

**Step 4:** Make necessary changes.

**Step 5:** Exit the editing field to save automatically or click on the **Save Now** button.

**Creating a Contact Group**

**Step 1:** Click on the **Contacts** button in the lefthand column.

**Step 2:** Click on the **Groups** drop-down menu or Click on the **New Group** button in the topleft corner of the **Contacts** box

**Step 3:** Select **Create New**.

**Step 4:** Type in the name of the group you want to create.

**Step 5:** Click on the **OK** button.

**Adding Contacts to Contact Group**

**Step 1:** To add contacts to a group, check the box next to the contacts you want to add.

**Step 2:** Open the Groups drop down menu

**Step 3:** Choose the group you want to add the contacts to or select **Create New** to create a new group

**Removing Contacts from Contact Group**

**Step 1:** Select the contact in the Contacts list.

**Step 2:** Open the **Groups** drop-down menu.

**Step 3:** Deselect the checkbox of any groups. You would like to remove these contacts from.

**Managing Contact Groups**

To edit the contact group name

**Step 1:** Click **Contacts** on the side of any page.

**Step 2:** Select the group you'd like to edit.

**Step 3:** Click **More actions** and select **Rename group**.

**Step 4:** Enter the new name and click **OK**.

## Deleting Contact Group

**Step 1:**   Click **Contacts** on the left side of any page.

**Step 2:**   Select the contact group from the groups list.

**Step 3:**   Select **Delete group** from the **More actions** drop-down menu at the top of the page.

**Step 4:**   Click **OK**.

This will delete the group but not the individual contacts. They will remain in your Contacts list.

## Searching for Contacts

To search for a contact:

**Step 1:**   Click **Contacts** along the side of inbox page.

**Step 2:**   Enter the name or email address of the person you are searching for in the contacts search box.

**Step 3:**   Click on **Search Contacts** button

Tips for searching contacts:

❖   You can use prefixes.

❖   You can search by a person's first and/or last name.

❖   You can search for contacts by phone number, or notes you've entered about them.

❖   You can search by domain1 or username. For example, searching for 'gmail.com' will return all contacts with a Gmail address.

You can see all of the details about your contacts by printing them. Here is how you can do it:

1.   Click **Contacts** on the side of any Gmail page.

2.   Click the **More actions** drop-down menu and select **Print**.

3.   Select the details you'd like to display.

4.   Click **Print**. A new browser window or tab will open with the details you have chosen.

5.   Perform a search in your browser for the contact information you are looking for.

## EXERCISE

### Practice Sessions

1. Create a label
2. Apply label to a message
3. View labeled message
4. Customize colour for label
5. Remove label from a message
6. Create filters
7. Search email
8. Create and edit contacts
9. Search for contact

## ASSESSMENT

### Fill in the blanks

1. Gmail provides the facility to categorize and organize emails into different folders, known as _____.

2. You can customize the colour of the labels by selecting _____ custom color.

3. Filters are created by specifying _____ criteria that automatically sort email messages in your account.

4. Gmail filters are found under _____, which is located at the link near the top right.

5. Marking the email as_____ will give your message a special status and make it easier to find.

6. _____ in an email is like an address book.

## CHECKLIST FOR ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

**Part A**

(a)   Differentiated between contact and contact groups.

**Part B**

Discussed the following in the class:-

(a)   What is the utility of labels and filters?

(b)   What is the benefit of creating contact groups?

**Part C**

**Performance Standards**

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Create filters to automatically sort email messages | | |
| Edit and delete filters | | |
| Create labels | | |
| Create, edit and delete contacts | | |
| Search for a contact | | |
| View labeled messages | | |
| Customize colours of labels | | |

# Session–4
# Email Etiquettes and Best Practices

## Relevant Knowledge

The use of email, instant messaging, texting, and various other digital communicative tools is increasing rapidly. Electronic communication, because of its speed and broadcasting ability, is fundamentally different from paper-based communication. Due to the fast response time, email is proving to be more useful than postal letters or even faxes. In a paper document, it is absolutely essential to make everything completely clear and unambiguous because the audience may not have a chance to ask for clarification immediately. But with email documents, the recipient can ask questions immediately.

Email does not convey emotions as is possible with face-toface conversations. It lacks vocal intonation and gestures.

You will now learn about the best practices in emailing and the etiquettes that one should follow while writing emails.

1.  **Useful Subject Lines:** Meaningful subject lines should not be more than 5-6 words. Avoid using special characters, symbols, website address and email address in the subject line. The subject line should catch the eye of the reader. You should avoid using words like "Help" in the subject line as some email providers treat such mails as Spam.

    Notice that the subject lines are precise and compact. Each of these subject lines has a common problem. They are too long and hence inconvenient and unpleasant for the reader. Just like a long subject line is unpleasant, not including a subject at all is equally irritating.

    Remember that the subject line should be indicative of the content of the mail. It should not contain all the information to be included in the mail.

2.  **Use Appropriate Prefixes in Subject Lines:** Apart from the rule of keeping the subject line short and precise, it is a good practice to prefix the subject line with appropriate abbreviations.

    ❖   For time-critical messages, starting with **URGENT:** is a good idea.

    ❖   For requests, starting with **REQ:** can signal that action is needed.

    ❖   If you are sending some information that requires no response from the other person, preface the subject line with **FYI:** (For Your Information)

    ❖   Use of **FWD:** while forwarding emails is polite and ethical.

3.  **Greet your Recipients:** Emails are generally informal so the use of Hi or Hello is satisfactory, especially if you are senior than your correspondent. On the other hand, if you are sending a cover letter for a job application it will be better to use the traditional way of greeting i.e. Respected Sir/Madam. When sending out information to a junior, like in the case of a Team leader sending Project information to his manager, use of first name along with the greeting, is polite. Juniors and customers respond better when their name is used. Personalization helps build the relationship with the reader. Given below are some examples of proper greetings:

    ❖   Hello Shiny – appropriate for a junior.

    ❖   Dear Shiny – appropriate for a friend.

    ❖   Respected Sir/Madam – appropriate for official emails.

❖ Hi – appropriate for a colleague.

❖ Good Day Sir/Madam – appropriate for a senior.

4.  **Keep the Messages Short:** It is always suggested to keep the content of the message as precise and to the point as possible as most of the internet users and readers are busy and prefer doing many activities at the same time while being online. Remember, people are busy and do not have the time to read **complex messages**. There is another valid reason to keep the messages small. Now-a-days most of the people check their emails on **mobile** and it is inconvenient to scroll up and down in **small screens** to make sense out of a long and complex message.

5.  **Watch the Spelling:** It's easy to make mistakes and ignore them, but sending out messages with misspelled words is a bad sign to the recipient.

6.  **Be Careful Using Abbreviations and Emoticons:** Emoticons and abbreviations such as lol (Laugh Out Loud) may be acceptable in informal emails sent to friends. However, in formal communication, it is considered inappropriate and frivolous to use such features to display emotions.

7.  **Use Proper Intonations:** An email is not capable of conveying emotions nearly as well as face-toface or even telephone conversations. It lacks vocal modulations and gestures. For the receiver, it is, therefore, difficult to judge whether the sender is serious or kidding, happy or sad. Therefore, you have to be very careful while composing an email message.

It is considered rude to use all capital letters as it conveys the emotion of yelling or shouting. So it will totally be inappropriate to use all capital letters in a situation when you are calm. Similarly writing in all small case letters can be used to denote lowering of voice. Always sign out of your email account before leaving the cubicle.

❖ Never use the save password option provided by most email providers.

❖ Make sure that no unwanted people are around you while typing passwords

❖ Do not reveal your passwords to any of your colleagues or close friends as they might misuse your account to send unsolicited mails.

❖ Never send personal information like credit card numbers, Automated Teller Machine PIN numbers on emails.

❖ Always use reliable internet cafes and avoid logging on through unsecured WiFi networks.

8.  **Every Email is a Legal Document:** Be very careful while writing to a stranger as every email you send can be tracked and identified and can be used as a legal proof. So it is advisable not to create anonymous accounts and send mail using that account. Moreover it is not ethical too.

## EXERCISE

### Assignment

1.  Log into your email account and compose a simple invitation for your birthday party which you are going to organize in a farmhouse to be sent to your relatives and friends. Attach a map with the directions for the venue. Also attach a document with a detailed program of the party. Make sure that the message conforms to all email etiquettes and best practices you have learnt in this Unit.

2.  Log into your email account and store relevant contact information of all your close friends and relatives. Now create two separate labels namely Friends and Family. Next create a filter to automatically apply the appropriate labels to all incoming mails.

3.  Log into your email account and one-by-one search for all friends using their first names/ email ids from the contacts list to make sure that you have the birthday dates of all your friends.

## ASSESSMENT

### A.   Multiple Choice Questions

1.  Which of the following is a valid e-mail address?
    (a)   India.user.com
    (b)   India@user.com
    (c)   India.user.co.in
    (d)   None of the above

2.  What do we call the files that we send along with the messages?
    (a)   Pop-ups
    (b)   Signature
    (c)   Attachments
    (d)   Trash

3.    Generally, an email that you compose should include _____
      (a)    Recipients
      (b)    A subject
      (c)    A message in the body field
      (d)    All of the above

4.    When you are organizing your mails, you can apply one or more _____ to categorize them
      (a)    Filters
      (b)    Groups
      (c)    Address Book
      (d)    Labels

5.    A filter can automatically _____incoming emails
      (a)    Label
      (b)    Archive
      (c)    Forward
      (d)    All of the above

6.    We usually create _____ to store one type of contacts in our e-mail account
      (a)    Signatures
      (b)    Groups
      (c)    Blind Carbon Copy
      (d)    None of these

7.    Which symbol is used to separate user name and domain name?
      (a)    @
      (b)    *
      (c)    $
      (d)    #

8.    We need the recipient's _____ to send him an e-card over the internet.
      (a)    Postal address
      (b)    E-mail address
      (c)    Website address
      (d)    None of the above

9. Where do we find the information about all the mails that we receive?
   (a) Trash
   (b) Drafts
   (c) Sent Mail
   (d) Inbox

10. To get to your mail Settings, you will first need to click
    (a) Your email address
    (b) Contacts
    (c) The gear icon
    (d) Inbox

**B. Fill in the Blanks**

1. The _____ special character is a must in the email address.

2. Emails containing unsolicited advertising messages to a wide audience are marked as _____.

3. _____ feature tries to identify the most important emails and puts them at the top of your inbox.

4. The AutoSave feature prevents _____ of data in case of power failures and broken connections.

5. You should use the _____ when sending emails to undisclosed recipients.

6. Typing in all caps when writing an email is considered as _____

7. When you sign up for _____, you automatically have access to Google Docs, Calendar and other services.

## CHECKLIST FOR ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

**Part A**

(a)   Differentiated between values and etiquettes.

**Part B**

Discussed the following in the class:-

(a)   What is the importance of email etiquettes?

**Part C**

**Performance Standards**

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Demonstrate the use of appropriate prefixes for subject lines | | |
| Greet recipients appropriately | | |
| Prepare short messages | | |
| Demonstrate the knowledge of using appropriate abbreviations and emoticons | | |

## SUGGESTED READINGS

### Books

❖   Business Email Etiquette | THE MANUAL, Judith Kallos

❖   Gmail Unlocked, Scott Lasak

❖   Teach Yourself Gmail in 10 Minutes, Steven E. Holzner

## WEBSITES

❖   http://www.gcflearnfree.org/email101

❖   http://www.gcflearnfree.org/gmail

❖   http://gmailblog.blogspot.com/

❖   http://g04.com/misc/GmailTipsComplete.html

# Unit–6
# First Aid Practices (Advanced)

# *Introduction*

**First Aid** means providing immediate care in cases when a person will need immediate treatment, treatment for the purpose of preserving life and minimizing the consequences of injury until medical treatment is obtained. It includes self-help and home care if medical assistance is not available or is delayed. It also includes well-selected words of encouragement, evidence of willingness to help, and promotion of confidence by demonstration of competence.



The person giving first aid i.e., the first-aider deals with the whole situation, the injured person, and the injury or illness. He/she knows what not to do as well as what to do and avoids errors that are frequently made by untrained persons. A first aider should, therefore, possess the knowledge that could make the difference between life and death, between temporary and permanent disability, and between rapid recovery and long hospitalisation.

First aid training is of value in both preventing and treating sudden illness or accidental injury and in caring for large number of persons caught in a natural disaster. First aid training not only provides you with knowledge and skill to give life support and other emergency care but also helps you to develop safety awareness and habits that promote safety at home, at work, during recreation, and on the streets and highways. First aid training is of particular importance to security personnel in case of accident or emergency, when medical and hospital services are limited or delayed.

In this Unit, you will learn to recognise first aid emergencies and administer basic first aid and Cardio Pulmonary Resuscitation (CPR).

# Session–1
# Basic First Aid

## Relevant Knowledge

Basic first aid refers to the initial process of assessing and addressing the needs of someone who has been injured or is in physiological distress due to choking, heart attack, allergic reactions, use of drugs and alcohol or other medical emergencies. Training in basic first aid allows you to quickly determine a person's physical condition and the correct course of treatment. You should always seek professional medical help as soon as possible, even if you are providing first aid to a casualty as a trained first-aider.



**A, B, C of First Aid:** The A,B,C of first aid refer to the three critical things you need to look for as a first aider. These are as follows:

❖ **Airway –** Does the person have an unobstructed airway?

❖ **Breathing –** Is the person breathing?

❖ **Circulation –** Does the person show a pulse at major pulse points i.e. wrist, carotid artery, or groin?

**Avoid Moving the Casualty:** Avoid moving the casualty unless he/she is in immediate danger. Moving a casualty will often make injuries worse, especially in the case of spinal cord injuries.

**Call Emergency Services:** Call for help or tell someone else to call for help as soon as possible. If you are the only person on the scene, try to establish breathing before calling for help, and do not leave the casualty alone for an extensive amount of time.

**Determine Responsiveness:** If a person is unconscious, try to rouse them by gently shaking and speaking to him/her. If the person remains unresponsive, carefully roll him/her onto his/her back and open his airway. The two methods that could be adopted for opening the airway are as follows (i) Jaw thrust method, and (ii) Head tilt or chin lift method. Practice the following steps for chin lift method under the supervision of a trained first aider/teacher.

### Steps

(a)  Kneel at the level of the casualty's shoulders.

(b)  Place one of your hands on the casualty's forehead and apply firm, backward pressure with the palm of your hand to tilt the head back.

(c)  Place the fingertips of your other hand under the tip of the bony part of the casualty's lower jaw and bring the chin forward.

(d)  Lift the chin forward until the upper and lower teeth are almost brought together.

(e)  The mouth should not be closed as this may interfere with breathing if the nasal passage are blocked or damaged. If needed, the thumb may be used to depress the casualty's lower lip slightly to keep his mouth open.

### Caution

❖  Do not use chin lift method, if a spinal or neck injury is suspected.

❖  Do not use the thumb to lift the lower jaw.

❖  Do not press deeply into the soft tissue under the chin with the fingers as this could close the casualty's airway.

❖  Do not allow the casualty's mouth to close. The mouth must remain open so that the casualty can breathe air in and out.

**Look, Listen and Feel for Signs of Breathing:** Look for the casualty's chest to rise and fall, listen for sounds of breathing (place your ear near the nose and mouth), and feel for breathe on your cheek.

There could be two situations: (i) casualty is breathing or (ii) he/she is not breathing.

**Check the Casualty's Circulation:** Look at the casualty's colour and check the pulse. A pulse is simply the stretching of the arterial walls caused by them filling with the blood at each heartbeat. The four common points for checking pulse are (i) Carotid: Side of the neck, (ii) Femoral: The groin, (iii) Radial: The wrist, (iv) Posterial Tibial: The ankle. If the casualty does not have a pulse, start Cardio Pulmonary Resuscitation (CPR), only if you are trained on the technique. For example, to check the carotid pulse, feel for a pulse on the side of the casualty's neck by placing the tips of first two fingers beside his/her Adam's apple.

(a)  **Carotid Pulse (Neck):** The carotid pulse is characterized by a smooth, relatively rapid upstroke and a smooth, more gradual downstroke, interrupted only briefly at the pulse peak. During palpation of the pulse, the examiner uses the tactile or mechanoreceptors in the fingertips to sense movement of the arterial wall associated with the pressure pulse as it passes by the site of palpation. The fingers should be positioned between the larynx and the anterior border of the sternocleidomastoid

muscle at the level of the cricoid cartilage. In palpating the pulse, the degree of pressure applied to the artery should be varied until the maximum pulsation is appreciated.

(b) **Radial Pulse (Wrist):** Place your index and middle fingers together on the wrist, about 1/2 inch on the inside of the joint, in line with the index finger. Once you find a pulse, count the number of beats you feel within one minute period.

**Stay with the Casualty Until Help Arrives:** Try to calm the casualty and the people around him/her until assistance arrives.

**If the Casualty is Breathing, but Unconscious,** roll him/her onto the side, keeping the head and neck aligned with the body. This will help drain the mouth and prevent the tongue or vomit from blocking the airway.

**If the Casualty is Not Breathing,** follow these steps to restore breathing in an unconscious casualty:

❖ Check for a clear airway: Remove any obvious blockage.

❖ Cover the casualty's mouth with your own.

❖ Pinch the casualty's nose.

❖ Attempt to fill casualty's lungs with two slow breaths: If the breaths are blocked, reposition the airway. Make sure the head is tilted slightly back and the tongue is not obstructing it. Try again if breaths are still blocked.

Give 5 quick, forceful abdominal thrusts in the following manner:

❖ Place a fist just above the belly button and below the breastbone.

❖ Thrust upward to expel air from the lungs.

❖ Sweep the mouth to remove any foreign objects.

❖ Try two slow breaths again.

❖ Repeat until you are successful in clearing the object from the windpipe.

With open airway, begin **rescue breathing**. There are two types of rescue breathing: (i) Mouth-to-mouth, and (ii) Mouth-to-nose. We will deal with them in detail in another session.

### Warnings

❖ Moving someone with spinal cord damage may increase the likelihood of paralysis or death.

❖ Do not touch someone who is being shocked by an electrical current. Turn off the power or use a piece of non-conductive material (e.g., dry wood, dry rope, dry clothing) to separate him from the power source before touching him.

❖ Before touching a casualty or rendering any aid, get consent to treat! Check the laws in your area. Rendering aid without consent may lead to legal action.

**Never Try and Reset a Broken or Dislocated Bone:** Unless you are 100% sure of what you are doing, resetting a dislocation or broken bone runs a strong risk of making things worse. Some signs of closed fracture include the following:

❖ Swelling

❖ Discoloration

❖ Deformity

❖ Unusual body position

Never, ever put yourself in danger!

## Treat Shock and bleeding

After you have established that the casualty is breathing and has a pulse, your next priority should be to control any bleeding and get him/her out of the shock.

Shock may result from heatstroke, trauma, infection, poisoning, etc. Shock may result in a decrease in blood flow to the brain and important organs.

## Types of Shocks

❖ Respiratory (due to asthma, impaired breathing, etc.)

❖ Hemorrhagic (due to loss of blood)

❖ Neurogenic (due to loss of ineffective nervous control of blood vessels)

❖ Psychogenic (due to heatstroke or fainting)

❖ Metabolic (due to fluid loss or untreated illness)

❖ Toxic (due to toxic substances in the body)

❖ Anaphylactic (due to allergic reactions)

## Signs of Shock

Some of the signs and symptoms of shock would include the following:

❖ Restlessness and nervousness.

❖ Fast breathing.

❖ Nausea and sometimes vomiting.

❖ Weak pulse.

## Treating Shock

Treating the shock would include the following:

❖ Position the casualty on his/her back.

❖   Raise and support the casualty's legs.

❖   Reassure the casualty.

❖   Loosen the tight clothing at the neck, chest and waist.

**Types of Bleeding**

The three types of bleeding that could occur are as follows: **(i) Arterial:** In this case, blood is bright red and will spurt with each heart beat; **(ii) Venous:** In this case, blood is dark red and flows in a steady stream, and **(iii) Capillary:** In this case, blood oozes out from the wound.

**Controlling Bleeding**

❖   Bleeding can be treated by applying the sterile field dressing. Dressing should be done immediately to prevent infection. Direct manual pressure may be applied for 5-10 minutes to control bleeding by placing a hand on the dressing and exerting firm pressure for 5 to 10 minutes.

**Caution**

❖   Do not tilt or rotate the casualty's head.

❖   Do not allow the casualty's mouth to close.

The mouth must remain open so that the casualty can breath air in and out.

## EXERCISE

### Practice Session

Pair up with your classmates or use mannequins to demonstrate basic first aid practices under the strict supervision of your teacher/trainer. Perform the following:

1.   Perform A,B,Cs of first aid

2.   Perform Jaw Thrust Method as given below:

   (a)   Kneel at the top of the casualty's head.

   (b)   Rest your elbows on the surface where casualty is lying.

   (c)   Place one hand on each side of the casualty's lower jaw at the angle of the jaw, below the ears.

   (d)   Stabilize the casualty's head with your forearms.

   (e)   Use the index fingers to push the angles of the victim's lower jaw forward.

   (f)   Use the thumb to retract the patient's lower lip to keep the casualty's mouth open, if necessary.

## ASSESSMENT

### A.    Fill in the blanks

1.    A, B, C of first aid stand for a_____, b_____, c_____.
2.    Casualty's hear beat can be checked by checking the_____.

### B.    Multiple Choice Questions

**Tick the correct answer**

1.    Pulse can be checked
    (a)    At the carotid artery
    (b)    On the nose
    (c)    On the palm
    (d)    None of the above

2.    If the casualty is not breathing
    (a)    Give him mouth to mouth breathing
    (b)    Do nothing
    (c)    First take him to hospital
    (d)    None of the above

## CHECKLIST FOR ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

### Part A

(a)    Differentiated between first aid and medical treatment.
(b)    Differentiated between carotid and radial pulse.

### Part B

Discussed the following in the class:-
(a)    What is first aid?
(b)    What are the safety and precautions to be followed while applying first aid?

### Performance Standards

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Demonstrate the knowledge to call emergency services | | |
| Check for breathing | | |
| Check for pulse | | |
| Open the airway | | |

# Session–2
# Methods of Evacuation and Rescue

## Relevant Knowledge

In certain extreme emergency circumstances it may be necessary to evacuate and rescue a sick or injured person and transport him/her to hospital or a safe place. For handling such a situation, there are a number of procedures and techniques which should be learned. In this session, you will learn about the various techniques which are used for transporting the casualty using various materials and methods.

### Improvised Pole and Sack Litter



An improvised litter can be made using two poles and heavy fabrics (e.g. jacket) or sacks such as jute sacks. Follow the steps given below to prepare an improvised pole and sack litter:

1. Take two strong branches that will extend by about 1 foot either end of the person to be carried. Ensure that the sharp parts are cut away. It is vital that they are capable of holding the weight of the casualty.

2. Now select some clothing or sack that is strong enough to bear the weight of the casualty.

3. Cut the two corners of the closed end of each sack.

4. Slide the clothing on to the poles with the poles coming through the arms of the garment or sack.

5. Place the next piece of clothing on to the poles in the same way and overlap the first item. Place enough pieces of clothing on to the poles to ensure that the casualty's head and legs will be supported.

### Carrying a Survival Bag



It is possible to use the survival bag as a stretcher without damaging it. Lay the bag out and, depending on how many people you have to help with the carry, collect stones large enough for each person to grip. Next, using string or rope, tie the stones at each corner of the bag and at each side in the

middle. If stones are not available, items of clothing such as hats, socks or gloves can be used in place. There are definite limitations to this kind of stretcher. The polythene is relatively easy to split, especially on rough ground, and when wet can be extremely slippery. Therefore, care should be taken when picking the stretcher up.

## Using Survival Bag

If you are using the survival bag/flysheet technique, it will be easier to put the stretcher underneath the casualty before you add the poles. The easiest way for this to be done is to use one of the two methods:

**Method 1:** Lay the bag/flysheet next to the casualty and gather up approximately half of the fabric on the side closest to her,  placing it as close as you can to body. Turn the casualty onto his/her side and place the bundle as close as you can to her body, then and gently roll her bag/sheet out from the sides. You are then ready to add poles.

**Method 2:** Fold the top and bottom ends of the bag towards the center with one person on each side of the casualty, placing the folded bag/sheet under the hollow. Together, pull the bottom part down toward the casualty's feet and then the other half of the bag/sheet can be pulled up toward his/her head. You can then add the poles.

## Stretcher

It may be possible for you to lift the person directly onto the stretcher. Ideally this should be done with a minimum of two people. Bring the stretcher to the casualty and lay it down as close as you can without being in your way. Decide who will take the top half of the person to be lifted.

1. Help a person to sit up and ask him/her to cross or fold his/her arms across the chest.
2. Squatting behind the casualty, slide your hands under his/her arms, taking hold of his/her wrists or lower arms.
3. Ask your partner to squat beside the casualty and pass their arms under his/her thighs, taking hold of the legs.
4. The person at the head end takes control and will determine the timing of the lift. When ready, working together and keeping your backs straight, raise the casualty slowly and move him/her onto the stretcher.

Follow the postures given below to reduce your risk of injury when performing any lift or handling a stretcher:

1. Stand with your feet shoulder-width apart, with one foot slightly in front of the other.

2. Bend at your hips and your knees, not at your back. Keep your back straight but not rigid.

3. Get a secure grip of the stretcher. Raise your head.

4. Use your strongest muscles (in your thighs) to lift, keeping your elbows close to your body.

## Human Crutch

Moving an injured or ill person can be done by encouraging hi/her by himself/herself, minimizing risk to both. There are a number of dangers inherent in lifting and moving people and the task should not be taken lightly. When you are the only person handling the casualty and the casualty is not seriously injured (for instance a person has sprained an ankle and is having difficulty in walking); the following technique will provide additional support.

1. Stand on the person's injured or affected side, pass his/her arm around the waist and grasp his/her hand or wrist.

2. Place your other arm around his/her waist and grasp his/her clothes, preferably the top of the trousers or a belt.

3. Move off with your inside foot first, walking at the casualty's pace.
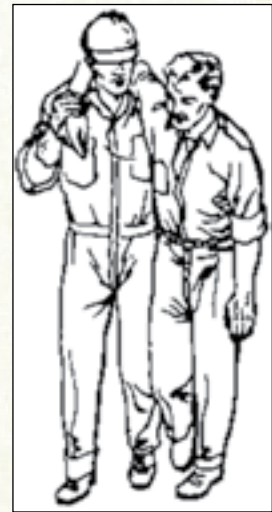
## Piggy Back

Although this is an effective carry, how far you will be physically capable of moving the casualty will depend on his/her size and weight

1. Crouch in front of the casualty with your back toward his/her and ask him/her to put his/her arms over your shoulders.

2. Grasp the casualty's thighs, pull them in toward you and slowly stand up, remembering to keep your back straight.

## The Drag

This technique is for extreme emergencies and will be effective only over short distances as it is very labourintensive. Its key use is in moving people from hazardous areas

quickly. There are three types of drag: (i) Neck drag, (ii) Cradle drop drag, and (iii) Pistol belt drag. Let us now practice two of them:

(i) **Neck Drag:** To perform the neck drag, follow the steps given below:

**Step 1:** Tie the casualty's hands together loosely with soft rope.

**Step 2:** Face the casualty's head and straddle his hips on your knees.

**Step 3:** Loop the casualty's arms around your neck.

**Step 4:** Crawl forward on your hands and knees, dragging the casualty beneath.

(ii) **Cradle Drop Drag:** To perform the cradle drop drag, follow the steps given below:

**Step 1:** Position the casualty on his back.

**Step 2:** Kneel at the casualty's head.

**Step 3:** Slide your hands (palms up) under his shoulders and grasp the clothing under his armpits.

**Step 4:** Partially rise so as to pull the casualty to a semi-sitting position.

**Step 5:** Bring your elbows together and use both forearms to support the head.

**Step 6:** Rise to a stopped position and walk backward, dragging the casualty.

**Two-Hand Seat Carry**

It is far easier for two people to control and move someone. The two-handed carries can only be used with conscious people because they require the person being carried to have some control over his/her body and give some assistance to the rescuers. However, hand carry techniques do have their limitations and require a little practice.

The steps for two-hand carry are as follows:

**Step 1:** Crouch down, facing each other on either side of the injured person.

**Step 2:** Cross over your arms behind the casualty and grab hold of her waistband or belt.

**Step 3:** Pass your other hands under the casualty's knees and grasp each other's wrists.

**Step 4:** Bring your hands toward the middle of the casualty's thighs.

**Step 5:** Get in close to the injured person and stand up slowly. You are now ready to move off.

**Four-Hand Seat Carry**

For four hand seat carry, perform the following steps:

**Step 1:**  With the person to be carried standing close to you, first hold your left wrist with your right hand, and ask your carrying partner to do the same.

**Step 2:**  Now, link hands, taking hold of your partner's right wrist. This should form a square. This forms the seat for carrying.

**Step 3:**  Allow the casualty gently sit back onto your hands and get him/her to place her hands around your shoulders.

**Step 4:**  Move forward lifting the casualty.

## EXERCISE

### Practice Session

Practice the following techniques:

1.  Carrying a stretcher
2.  Two handed seat carry
3.  Four handed seat carry

## ASSESSMENT

### Short Answer Questions

1.  Write about the postures that you should follow to reduce your risk of injury when performing any lift or handling a stretcher.

_____

_____

_____

_____

_____

_____

_____

2. Name three types of drag.

_____

_____

_____

_____

_____

_____

_____

3. Write the procedure of four-hand seat carry.

_____

_____

_____

_____

_____

_____

_____

## CHECKLIST OF ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

### Part A

(a) Differentiated between two and four hand seat carry.

### Part B

Discussed the following in the class:

(a) Why is it important to learn about the various techniques of carrying a casualty?

**Performance Standards**

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Demonstrate two hand seat carry | | |
| Demonstrate four hand seat carry | | |

# Session–3
# Common Knots Used in Evacuation

## Relevant Knowledge

Ropes and knots are very important part of life saving and rescuing methods for evacuating the casualty from the scene of emergency or accident. Therefore, it is necessary to understand the proper method of tying knots. All knots have a purpose and it is just as important to understand what that purpose is, and when the knot is used.
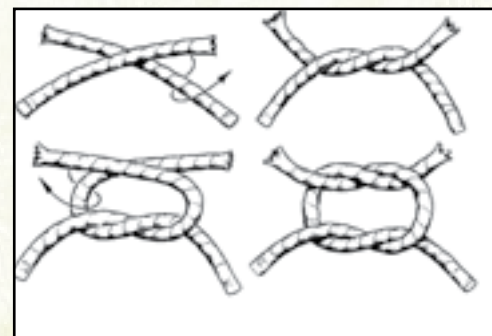
Today, despite technology, knots are still as necessary as ever. In sports, such as sailing, climbing, and in other activities, such as fire fighting, fishing, truck driving and even surgery, the ability to tie the right knot is essential. Although there are many types of knots, in this session we will learn to tie some of the common knots used for emergency evacuation.



FIGURE OF EIGHT     BOWLINE     SLIP KNOT

SHEET BEND     REEF KNOT     CLOVE HITCH
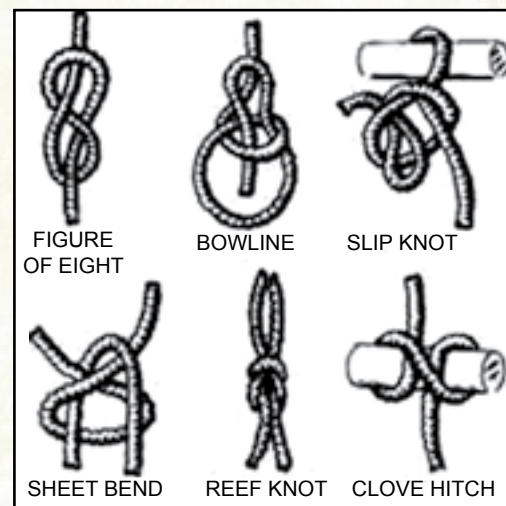
### Reef Knot

It is the most common knot used to tie together two working ends of the rope.

**Step 1:** Take an end of rope in each hand and lay the left hand end over the right.

**Step 2:** Then, using your right hand, take the end from the left down behind the other rope and up to the front again.

**Step 3:** Point the ends inwards again, this time the right hand one over the other one, then take it down behind it and up to the front through the loop which has now been formed.

**Step 4:** Pull the knot tight. This knot is often remembered by, 'left over right and right over left'.

## Sheet Bend

The 'sheet' is the sailor's name for a rope. The sheet bend is used to tie together two ropes of different types or unequal thicknesses. To tie a sheep bend, follow the following simple steps:

**Step 1:** Form a bight (double rope) with a larger diameter rope.

**Step 2:** Insert the second thinner rope under and then over the end of the first rope.

**Step 3:** Take the end of the second rope and bring it under the bight.

**Step 4:** Bring the end over the bight, putting it under its own standing part.

**Step 5:** Pull on the both standing parts to set the knots.

Make sure that the two ends are on the same side of the knot. If the ropes are of very different thickness, take the working end round the bight and under itself twice to form a double sheet bend.

## Figure of Eight

This is a 'stopper knot' that is unlikely to jam or pull loose. It is also used, when doubled, to tie a loop in a rope.

**Step 1:** Form a loop in the end of a rope.

**Step 2:** Take the working end behind the standing part and back over itself into the open loop.

**Step 3:** Finish by pulling both sides of the knot tight. If the knot is correct, it will look like a 'figure of eight'.

## Round Turn and Two Half-Hitches

This is a long name for a simple hitch used to attach a rope to a pole, post, spar, tree, and so on. It is a composite knot formed from two simple knots.

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**Step 1:** Pass the end round the post once.

**Step 2:** Pass around a second time.

**Step 3:** Form a half-hitch by taking the working end around the standing part forming a crossed loop.

**Step 4:** Repeat to form a second half-hitch. These should be tied in the same direction and tightened up against the post to ensure that the round turn doesn't slip.

**Step 5:** Pull this tight to complete the knot.
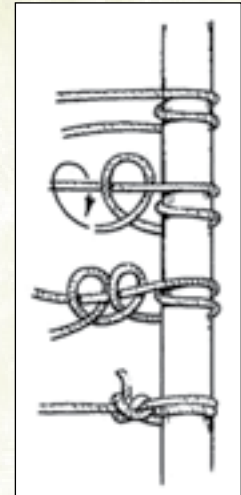
### Clove Hitch

The clove hitch is another method of 'hitching' a rope to a post. Not as secure as the round turn and two half-hitches, it is often used to begin other hitches and lashings. There are many ways to tie a clove hitch. However, common method is as follows:

**Step 1:** Begin with a round turn around the object and cross over.

**Step 2:** Make another turn.

**Step 3:** Pass the end under the second turn and pull though and tighten. Thus the two ends of the rope should be laid next to each other under the diagonal but running in opposite directions. The clove hitch looks like a 'N'.
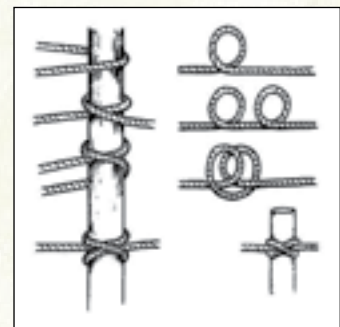
### Timber Hitch

The timber hitch is a temporary knot used to drag, tow or lift a log or pole.

**Step 1:** Turn the working end round the standing part and then wrap it around itself at least four or five times.

**Step 2:** A half-hitch can be tied in the standing part further up the log or pole to add some security.

**Step 3:** The log is dragged by pulling the standing end.
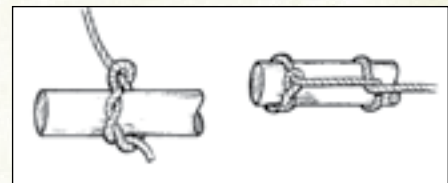
### Highwayman's Hitch

It is also known as Fireman's hitch. It is ideal for tying a rope to an object when you need a quick release. Pulled on the standing end it holds fast and when pulled on the working end it comes free. Follow these simple steps to tie a highwayman's hitch:

**Step 1:** Start by passing a bight (a doubled rope) around the object.

**Step 2:** Take the main part of the rope and push a bight through the first bight.

**Step 3:** Take the end of the rope and push a bight through the second bight.

**Step 4:** Tighten the knot.

## Sheepshank

This knot is used to shorten a rope, or to bridge a damaged length, without cutting the rope. If the knot is used to take up a piece of damaged rope, the damaged area must be positioned in the centre of the knot to avoid subjecting to any strain. Follow these simple steps to tie a sheepshank:

**Step 1:** Form three loops at the point in the rope ('S' shape) where the shortening will be required.

**Step 2:** Pull the indicated points of the middle loop through the two outer loops.

**Step 3:** Slowly pull on the two main parts of the rope, making sure that the knot retains its shape and form.

**Step 4:** Tighten the knot into its final form. The sheepshank should be kept in tension. If loosened it may well come undone.
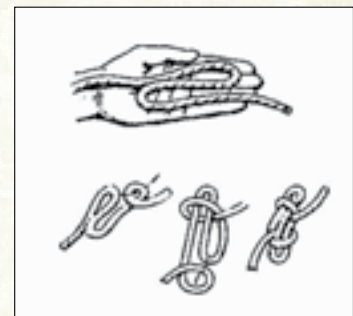
## Bowline

The bowline is used to form a non-slip loop in the end of a rope. It was traditionally the climbers' waist knot before harnesses were used. It is used for pulling someone out of the water or to safely bring down people from the upper levels to the ground.

1. Start by making a loop and pass the end up through the loop.
2. Pass the end around the main line.
3. Pass the end back down through the loop.
4. Pull the end tight to close the knot. If tied correctly, the loop should not slip.

## EXERCISE

### Practice Session

1. Practice tying the following knots under the supervision of your teacher/trainer:

2.

| Sr. No. | Knots |
|---------|-------|
| 1 | Reef Knot |
| 2 | Sheet Band |
| 3 | Figure of eight |
| 4 | Round turn and two half hitches |
| 5 | Clove hitch |
| 6 | Timber Hitch |
| 7 | Highwayman's hitch |
| 8 | Sheepshank |
| 9 | Bowline |

## ASSESSMENT

### Fill in the blanks

1.  _____is also known as stopper knot.

2.  The _____ is another method of 'hitching' a rope to a post.

3.  The _____ is a temporary knot used to drag, tow or lift a log or pole.

4.  _____is used to tie a boat.

5.  The_____ is used to form a nonslip loop in the end of a rope.

## CHECKLIST FOR ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity:

### Part A

(a)  Differentiated between different types of knots

### Part B

Discussed the following in the class:-

(a)  What are the uses of differed types of knots in rescue and first aid?

**Part C**

**Performance Standards**

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Tie reef knot | | |
| Tie sheet bend knot | | |
| Tie bowline | | |
| Tie clove hitch | | |
| Tie highwayman's hitch | | |

# Session–4
# Identifying Parts of Human Body

## Relevant Knowledge

Anatomy is the study of the structure of the body. Functions include digestion, respiration, circulation, and reproduction. Physiology is the study of the functions of the body.

The human body is an amazing living machine with hundreds of parts that, for the most part, work together to flawlessly perform countless tasks. Although a complex system, the human anatomy breaks down into a number of individual processes or systems, each of which has a specific function. The combination of these systems adds up to form the complete anatomy of the human body.

It is useful for a first aider to have a basic awareness of the major systems and their functions. Knowledge of human anatomy will assist you in a first aid diagnosis and will also provide a firm basis for the care and treatment of a casualty.

**Human Skeleton**

The human anatomy is held upright by bones, without which people would be shapeless structures. On an average, there are 206 bones in the adult human body, most of which are connected to other bones. An infant may have 350 bones, some of which fuses during the development of the body.

## Nervous System

The nervous system is considered in two main parts, the central nervous system and the peripheral nervous system.

The central nervous system comprises the brain and spinal cord. The brain controls all functions of the body and is the most complex of all body systems. The brain regulates all body functions, including the respiratory and cardiovascular systems. The spinal cord delivers the signals to all parts of the body.

The motor and sensory nerves, which involve movement, are known as the peripheral nervous system and these are directed by the brain. Some peripheral nerves function without conscious thought and these are known as autonomic nerves. Breathing is a function attributable to these nerves.

## The Cardiovascular System

This system involves the heart, blood vessels and blood. The heart is the pump that drives the blood around the body.

The body's main vessels are arteries, which take the blood from the heart and veins, which return the blood to the heart.

There are smaller blood vessels such as arterioles, venules and capillaries, most of which are located at the body's extremities and usually close to the skin.

Blood is the medium that transports oxygen, from the respiratory system to the body's cells. Blood also transports sugars, chemicals, proteins, hormones and many other substances around the body for use and elimination.

As the heart pumps blood, a pulse beat can be felt at various locations in the body and each pulse beat corresponds to one heartbeat. The heart rate of the average adult at rest is between 60 to 100 beats per minute, depending on age, medical conditions and general fitness.

## The Respiratory System

This system is composed of the airway (mouth, nose, trachea, larynx, bronchi and bronchioles) and the lungs (including the small air sacs called alveoli).

The respiratory system provides oxygen to the blood and takes away the waste product called carbon dioxide.

Oxygen is extracted from air inhaled through the airway and goes into the blood stream through the membranes of the lungs. For the first aider, maintaining a casualty's airway is of primary importance.



### The Musculoskeletal System

This system involves the bones, ligaments, tendons and muscles that support the body, protect the internal organs and enable movement.

Most muscles used for movement work by contracting and relaxing in conjunction with a bone.

The action of raising your leg involves contracting several muscles, creating an opposing force in the leg and causing it to move upwards.

Some muscles, such as the diaphragm that makes the lungs expand and contract, do not need bones, but functions attached to large masses of tissue.
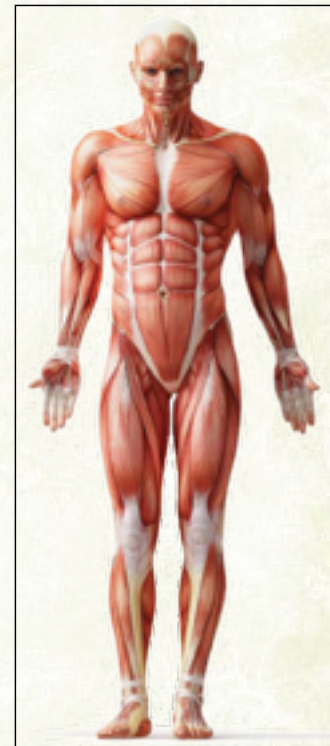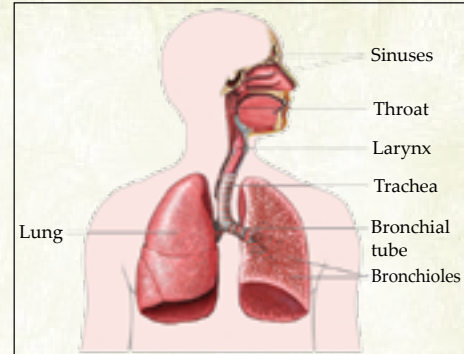
### The Digestive System

This system includes the oesophagus, stomach and intestines. Fluid and solids are passed through the oesophagus to the stomach where they are processed for further digestion. They are then absorbed into the body through the membranes of the intestines.

Some organs, such as the liver and pancreas, are considered accessories to the digestive system as they help process food into various chemical substances used by the body.

### The Endocrine System

This system involves those organs and glands that secrete chemicals in the form of hormones to stimulate and activate the body's functions.

The pancreas for example, controls a variety of important functions by releasing insulin and influencing the body's metabolic process.

## The Urinary System

This important system flushes waste products suspended in fluid from the body. It includes the kidneys, bladder and urinary tract and plays a vital role in keeping the body healthy.

Should the urinary system fail (especially the kidneys), then the affected person requires external assistance to get rid of the waste products by 'flushing' the blood. This is called haemodialysis or, more commonly, 'dialysis'.
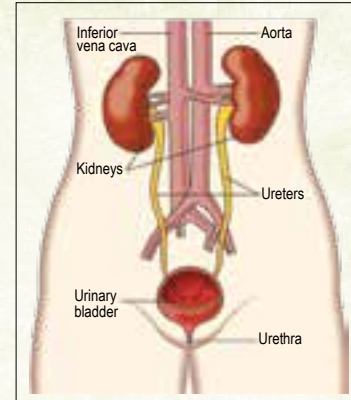
## The Reproductive System

This is linked to the body's endocrine system, through the female's ovaries and the male's testes. These are known as the gonads or 'sex glands'.

The female reproductive system consists of the ovaries, which produce the human egg, and the uterus (or womb), where the fertilised egg is lodged for growth and the vagina.

The male reproductive system is composed of the testes, which produce sperm, the seminal vesicle that provides the fluid medium for the sperm and the penis.

## The Integumentary System

This is the system that includes skin, hair, fingernails and toenails. Their pigmentation (colour) and growth are linked to the endocrine system.

The skin is the body's largest organ and plays an important role in protecting the body from infections. The skin's other functions include acting as a shield against injury and keeping body fluids in. The skin is made from tough, elastic fibres which have the ability to stretch without tearing easily.
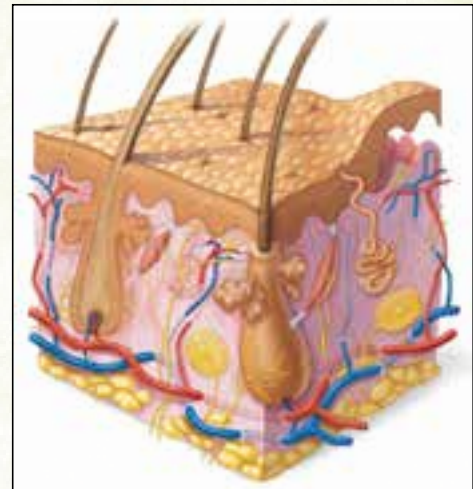
## The Lymphatic System

The lymphatic system is a slow moving system where toxins such as venom tend to accumulate after a bite has occurred.

This system provides lymphatic fluid that drains from the body's tissues, which is important as a 'flushing' mechanism. Most toxins and infections absorbed or injected into the tissues are collected by the lymphatic system and 'strained' through lymph nodes in the armpits, neck and groin. The lymphatic fluid eventually drains into the blood stream

## EXERCISE

### Practice Session

Visit a biological laboratory to study the following parts of human body. Prepare a chart showing the parts of human body.

❖ Nervous System
❖ Cardiovascular System
❖ Respiratory System
❖ Musculoskeletal System
❖ Digestive System
❖ Urinary System
❖ Reproductive System

## ASSESSMENT

**A. Fill in the blanks**

1. _____ is the study of the structure of the body.

2. Nervous system is divided in two parts _____ and_____.

3. Blood is the medium that transports _____, from the respiratory system to the body's cells

4. the respiratory system provides oxygen to the blood and takes away the waste product called.

5. _____ is to support the body, protect the internal organs and enable movement.

6. _____ system involves those organs and glands that secrete chemicals in the form of hormones to stimulate and activate the body's functions.

**B. Multiple Choice Questions**

**Tick the correct answer**

1. On an average, adult human body contain
   (a) 236 bones

(b)     206 bones

(c)     204 bones

(d)     197 bones

2.   Digestive system include

(a)     Esophagus

(b)     Stomach

(c)     Intestines

(d)     All of the above

3.   Endocrine system Pulse can be checked

(a)     At the carotid artery

(b)     On the nose

(c)     On the palm

(d)     None of the above

4.   Integumentary system is the system that include

(a)     Skin

(b)     Hair

(c)     Nails

(d)     ll of the above

5.   If the casualty is not breathing

(a)     Give him mouth to mouth breathing

(b)     Do nothing

(c)     First take him to hospital

(d)     None of the above

## CHECKLIST FOR ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

### Part A

(a)   Differentiated between different parts of human body.

### Part B

Discussed the following in the class:-

(a)    What are the different parts of human body?

(b)    What are the role and functions of parts of human body.

### Part C

**Performance Standards**

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Identify various parts of human body | | |

# Session–5
# Administering Cardio Pulmonary Resuscitation

## Relevant Knowledge

The heart is a muscle that pumps blood around the body, which it does with the help of the thick-walled and muscular arteries and the other vessels of the circulatory system. The heart is controlled by regular electrical impulses. Like all other muscles, the heart needs its own blood supply and this is provided by the coronary (heart) arteries.

When this blood supply fails to run smoothly, the body starts to experience problems such as angina pectoris (angina) and heart attack. Either of these may lead to the heart stopping (cardiac arrest).

### Angina

Throughout life, the arteries are clogging up with fatty deposits. As these fatty deposits cause the coronary and other arteries to become narrower, it becomes increasingly difficult for blood to flow around the body. The clogged coronary arteries can just about supply blood to the heart when it is pumping at a normal rate but when the heart rate speeds up the arteries cannot cope with the demand. This leads to an angina attack, a frightening, severe, crushing chest pain that acts as a warning to the casualty to calm down or to rest.

### Treatment

1.  Make the casualty sit down comfortably and reassure him/her. This reduces the demands being placed on the heart.

2.  Angina sufferers may have medicine that will help relieve an attack.

3.  Call an ambulance if the pain does not appear to ease or if the casualty is not a known angina sufferer.

### Heart Attack

If a coronary artery becomes completely blocked, the area of the heart being supplied by that particular blood vessel will be starved of oxygen and will eventually die. This blockage may be caused by a clot, a condition often referred to as a coronary thrombosis.

The development of advanced cardiac care in hospital and good-post hospital care means that the heart attack patients have a good chance of making a full recovery. This is important information to remember when you are reassuring somebody having a heart attack.

### Signs and Symptoms of a Heart

These signs and symptoms are generally the same as those of angina the patient may initially suffer an angina attack that becomes a heart attack. The key difference is that heart attacks do not always follow physical exertion. While angina sufferers will recover from their attack on resting, heart attack patients do not tend to improve without medical treatment.

### Treatment

1.  Move the casualty into a semi-sitting position, head and shoulders supported and knees bent, as this is generally the best position to breathe in.

2.  Reassure the casualty and do not let her move, as this will place an extra strain on the heart.

3.  Call for an ambulance as soon as possible because the casualty needs hospital care.

4.  If the casualty has angina medication, let her take this. If you have an ordinary aspirin, give her one to chew (without water).

5.  Keep a continual check on the breathing and pulse and be prepared to resuscitate if necessary

## Stroke

A stroke occurs when a blood clot or bleeding cuts off the blood supply, and therefore the oxygen, to the part of the brain. The affected area of the brain will eventually die. The effect of a stroke depends on how much of the brain is affected and where the clot or bleeding is. Different parts of the brain control different functions, so a clot in the part of the brain that controls speech, for example, will result in slurred or confused speech. Often the signs will be confined to one side of the body.

## Effects of the Stroke

If the bleeding or clot is in one of the larger blood vessels supplying a large area of the brain, then the stroke will often be immediately fatal.

If a person has had a stroke and is still conscious, help her to lie down with her head and shoulders raised. Speak in a reassuring voice and seek medical help. Simple tests can be performed at home to assess whether or not a person has suffered a minor stroke. A minor stroke may cause weakness on one side of the body or loss of sensation.

## Treatment

Monitor airway and breathing and be prepared to resuscitate if necessary. Place the person in the recovery position if he/she becomes unconscious. If conscious, help him/her lie down with the head and shoulders slightly raised. Provide support and reassurance. The person will often be disoriented and may be speaking nonsense if the speech center is affected. Equally, may hear what you are saying but not understand it. Speak in a reassuring tone with confidence. Call an ambulance. Wipe any dribbling away from the side of the face and prepare for the person to vomit.

## Signs and Symptoms

Any combination of the following may be present:

❖ The sufferer may have a history of smaller strokes over previous years, or may have been feeling unwell for some days with no known cause headache.

❖ Blurred vision, partial loss of sight, or seeing flashing lights.

❖ Confusion and disorientation, often mistaken for drunkenness.

❖ Signs of paralysis or weakness, often only down one side of the body.

Unit - 6

- ❖ Difficulty in speaking; drooping mouth or smile.

- ❖ Dribbling from one side of the mouth.

- ❖ Loss of consciousness.

- ❖ Sometimes the pulse will be full and throbbing, the person breathes noisy, and the skin flushed.

## Cardiopulmonary Resuscitation

Cardiopulmonary resuscitation or CPR is an emergency life-support procedure. CPR is a combination of compression and breathing. It includes artificial and manual procedures.

Both these procedures are applied to prevent irreversible brain damage or death in the case of cardiac arrest. They should be performed only by someone trained in the technique after making sure that the casualty's heart has stopped or respiration has ceased.

The first step is to check if a casualty's pulse has stopped and then to check the pulse rate. If no pulse can be felt the rescuer can assume that the casualty's heart has stopped and start CPR at once if he is properly trained. If untrained in CPR one should seek emergency medical help as soon as possible. Those who are performing the CPR may shout out to someone nearby to call for medical help.

## Artificial Respiration

The first step in CPR is to give artificial respiration. Artificial respiration is a lifesaving method used to restore breathing to a person whose breathing has stopped. If breathing has stopped, the casualty will soon become unconscious. There will be no chest movement, and the skin will be pale or a slightly bluish colour. When breathing stops there is no oxygenation of the blood and irreversible brain damage or death may occur in as little as three to six minutes. Therefore, it is important to start artificial respiration as soon as possible and continue until medical help arrives. If breathing restarts and becomes regular, the casualty should be observed continuously until medical help arrives.
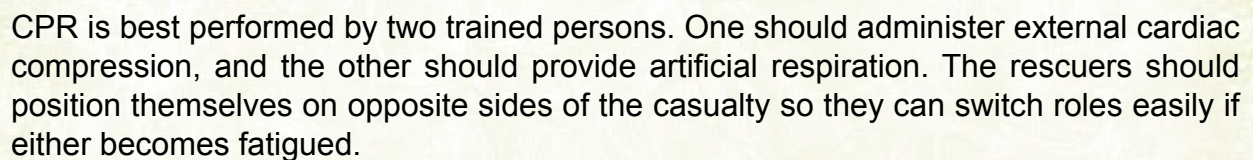
The most common and efficient method of artificial respiration is mouth-to-mouth resuscitation.

**Mouth-to-Mouth Resuscitation**

Perform mouth-to-mouth resuscitation on a mannequin (dummy) under the supervision of a first aid trainer.

❖ **Assess the Responsiveness of the Patient** by gently shaking the casualty and shouting "Are you OK"? Ask someone nearby to call for medical help.

❖ **Open the Airway:** One very important step in the resuscitation process is to immediately open the airway. Quite often the tongue may block the passage of air into the air passages. To open the airway, one hand must be placed on the casualty's forehead and firm, backward pressure with the palm is applied to tilt the head back. If there is a suspicion of neck injury, the head should not be moved unless it is absolutely necessary to open the airway. Place the fingers of the other hand just under the chin and lift to bring the chin forward. If there is material like vomitus or any foreign body that appears to block the air passages it must be removed.

❖ **Ascertain Whether the Patient is Breathing:** With the airway open, look at the chest for signs of breathing. Put your ear next to the nose and mouth and listen for breathing. Feel for the flow of air. If there is no breathing, begin artificial respiration.

❖ **Mouth-to-Mouth Resuscitation:** To perform mouthto-mouth resuscitation, follow these simple steps:

1. Place one hand on the casualty's forehead to pinch the casualty's nose closed. Ensure that your breathing is regular.

2. Seal the casualty's nostrils with thumb and index finger of upper hand. Take a deep breath and place your mouth tightly over the casualty's mouth (to avoid transmission of viruses and bacteria, place your disposable airway bag over your mouth and over the casualty's mouth. You may also place a thin handkerchief on your mouth. However, do not use a very thick cloth, as it may be difficult to blow through it.

3. Exhale hard into the casualty's mouth. Breath twice, each inhalation one to 11/2 seconds. Blow until the casualty's chest rises. Listen for air being passively exhaled. Check carotid pulse.

4. If you dealing with an adult, stop for five seconds and then repeat steps 1-3 giving only one breath.

5. Repeat the process until the casualty begins breathing.

**External Cardiac Massage:** The aim of external cardiac massage is to cause the heart to pump blood to the other parts of the body. It should be started simultaneously with artificial respiration in a casualty whose heart has stopped beating (as made out by an absent pulse in the neck or groin). The rescuer should place the heel of the palm of one hand parallel to and over the lower part of the casualty's sternum (breastbone), 1 to 1.5 inches from its tip. The rescuer puts the other hand on top of the first and brings the shoulders directly over the sternum. The rescuer's fingers should not touch the casualty's chest.

Keeping the arms straight, the rescuer pushes down forcefully on the sternum. This action, called *external cardiac compression*, results in blood flow from the heart to other parts of the body. The rescuer alternately applies and releases the pressure at a rate of about 60 compressions per minute. Each time after 15 compressions, the rescuer gives the casualty artificial respiration (three or four breaths). The ratio of 15 cardiac compressions to 3 or 4 breaths is commonly followed.

If the casualty is a small child, then the rescuer must use only one hand for the cardiac compression. For infants, the pressure is exerted using the index and middle fingers at the middle of the sternum. In all cases, the compressions must be accompanied by artificial respiration. Treatment should continue until medical help arrives.

To perform the chest compression, follow these simple steps:

**Step 1:** Prepare for chest compressions.

**Step 2:** Find notch at the bottom of the breastbone. Place the heel of upper hand two fingerwidths above the lower hand.

**Step 3:** Begin compressions. Place lower hand on upper hand and interface fingers and give 15 compressions within nine to eleven seconds.

**Step 4:** Ventilate twice. Repeat procedure of 15 compressions and two ventilation's each four times. Check carotid for five seconds.

CPR is best performed by two trained persons. One should administer external cardiac compression, and the other should provide artificial respiration. The rescuers should position themselves on opposite sides of the casualty so they can switch roles easily if either becomes fatigued.

## EXERCISE

### Practice session

Using a mannequin (dummy) perform Cardio Pulmonary Resuscitation (CPR). Record your observations below.

Step 1: _____

Step 2: _____

Step 3: _____

Step 4: _____

## ASSESSMENT

### A.    Fill in the blanks

1.    CPR stands for Cardio _____ Resuscitation.

2.    CPR is an emergency life support procedure applied to prevent irreversible brain damage or death in the case of _____.

3.    The aim of external cardiac massage is to cause the _____ to pump blood to the other parts of the body

### B.    Multiple Choice Questions

**Tick the correct answer**

1.    Artificial respiration is a
    (a)    Life saving method
    (b)    Normal breathing process
    (c)    Energy giving process
    (d)    None of the above.

2.    If breathing has stopped
    (a)    Casualty will become unconscious
    (b)    No chest movement.

(c)    Skin will become pale/bluish colour

(d)    All of the above

3.    The first aider alternately applies and releases the pressure at a rate of about

    (a)    50 compressions per minute

    (b)    60 compressions per minute

    (c)    65 compressions per minute

    (d)    None of the above

4.    CPR is best performed by _____ trained person(s) effectively

    (a)    2

    (b)    3

    (c)    4

    (d)    1

## CHECKLIST FOR ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

### Part A

(a)   Differentiated between stroke and heart attack.

### Part B

Discussed the following in the class:-

(a)   What are the signs and symptoms of angina and heart attack?

### Part C

**Performance Standards**

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Perform mouth-to-mouth resuscitation on a mannequin (dummy) | | |

## SUGGESTED READING WEBSITES

- ❖ http://www.medindia.net
- ❖ http://medical.tpub.com/10669-c/css/10669-c_140.htm
- ❖ http://en.wikipedia.org/wiki/First_aid
- ❖ http://en.wikipedia.org/wiki/First_aid
- ❖ http://en.wikipedia.org/wiki/First_aid_kit
- ❖ http://kidshealth.org/parent/firstaid_safe/
- ❖ http://www.medindia.net/patients/firstaid.asp
- ❖ http://www.nlm.nih.gov/medlineplus/firstaid.html
- ❖ http://www.ehow.com/how_7690979_teach-basicfirst-aid-kids.html

Unit – 6

# Unit–7
# Work Integrated Learning – Security Services–L2

# *Introduction*

We have studied that the State ensures security and safety of the life and property of its citizens. Due to certain factors, such as the rise in population, urbanisation, economic growth, rise in crimes and shortage of police personnel, it is difficult for the State to protect each and every citizen individually.

Citizens, at times, hire the services of Private Security Agencies (PSA) to protect their life, business and property. Employment of PSAs had witnessed a rise in the 1990's, with economic progress of the country. Today, there are about five to six million private security personnel employed with thousands of PSAs.



The PSAs offer a variety of security services, such as normal guard duties, domain-specific security, personal protection, escorting and carriage of cash and valuables. We find private security guards – men and women protecting us at residential colonies, markets, schools, religious places, hospitals, malls, hotels, tolls, airport, metro stations, and many other locations.

Private security guards perform many functions such as observing and monitoring of people and area; access control to a premises, search and frisking of people, vehicle and material, responding to emergencies – accidents, fire and medical, and assisting a visitor in every possible way.

In India, the Private Security Sector (PSS) is regulated by Private Security Agencies (Regulation) Act – 2005 (PSARA), which lays down rules for eligibility for licence and licensing of PSAs, cancellation of licence, eligibility to be a private security guard, training standards for security guards, etc.

This unit deals with the structure and functions of the PSS in India; rules and regulations governing it, common security equipment and career pathways available to security personnel.
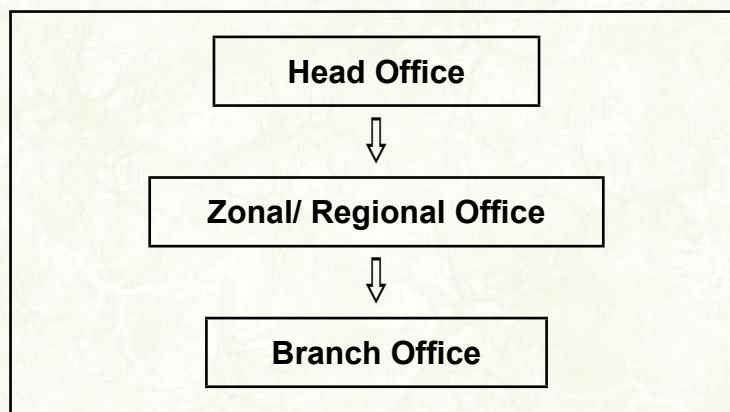
# Session–1
# Structure and Functions of Private Security in India

## Relevant Knowledge

India is a large and overpopulated country. Its policing resources are inadequate to ensure public security. The 'police-population ration' i.e. number of police personnel for 1,00,000 population in India is 141, whereas, United Nations recommended police strength is 222 for 1,00,000 population. With rise in crimes in society, citizens hire the services of PSAs for ensuring security and safety of their life, property and premises. The civil police still hold the responsibility of maintaining law and order. Private security personnel are not bestowed with any legal powers to deal with the miscreants. Their rights and responsibilities of towards law are similar to those of a common citizen, like the right of private defence; to assist magistrate and police under certain circumstances and to inform police about a crime or criminals. Like any citizen, security personnel can also arrest a person who has committed a crime.

The PSAs, engaged in providing private security services to their clients are organised in a more or less similar manner. Minor variations in organisations occur due to the size of the PSA - number of employees, number and location of clients, volume of business and operations - pan-India or regional or state basis.

The PSAs are normally organised as under :-

```
+----------------------------------------+
|                                        |
|          +----------------+            |
|          |  Head Office   |            |
|          +----------------+            |
|                  ⇩                     |
|     +------------------------+         |
|     |  Zonal/ Regional Office |        |
|     +------------------------+         |
|                  ⇩                     |
|        +------------------+            |
|        |  Branch Office   |            |
|        +------------------+            |
|                                        |
+----------------------------------------+
```

**Organisation Structure of Private Security Agencies**

## CEO/COO

- Human Resource & Admin
  - Statutory Compliances & Legal
  - Recruitment & Training (Other Personnel)
  - Admin & Stores
  - Attendance & Salaries
- Business Development
- Operations
  - Branch Offices
    - Assignment Manager
    - Security Officers
  - Recruitment & Training (Security Guards)
    - Recruiters & Trainers
- Finance & Accounts

CEO – Chief Executive Officer
COO – Chief Operations Officer
Admin – Administration

**Common Organisation of a Private Security Agency**

A PSA is headed by a Chief Executive Officer (CEO) or Chief Operating Officer (COO), who is responsible for an agency's overall effectiveness and profitability. A PSA comprise of many departments, which are as under :-

❖ **Human Resource & Administration (HR & Admin):** The HR & Admin department looks after the following functions of the organisation:-

  ❐ **Recruitment and Training :** Recruitment of manpower, its training and service documentation of employees is the responsibility of this division. In PSAs, the security guards and supervisors are normally recruited and trained by Operations Department directly. The HR department recruits and trains manpower other than the security personnel.

  ❐ **Statutory Compliances and Legal :** A PSA is required to comply with many rules and regulations, such as PSA licence, minimum wages, provident fund, employee's state insurance, bonus, gratuity, leave, service tax, income tax, etc. At times, PSAs are also involved in legal cases with the government, employees, clients and other parties. This division ensures that a PSA observes statutory compliances and agency's interests are safeguarded in the legal cases.

  ❐ **Administration and Stores :** A PSA organisation needs administration support such as facility management, office equipment, vehicles, maintenance, stores, uniform for security guards, security equipment, etc. This division provides administrative support to PSA's operations and procures and accounts for stores.

  ❐ **Attendance and Salaries :** This division manages the attendance of personnel and processes for their Finance and Accounts department.

❖ **Business Development :** A PSA needs more clients for its business to grow. For this purpose, personnel from business development department visit potential clients, bid for tenders and explore possible ways and means to bring in more business.

❖ **Operations :** Operations is an important department of a PSA. It delivers security service to a client. Business development department after securing a contract or an order handover the same to operations for its execution. Operations department deploys security personnel at the sites, as per required strength and shifts, liaises with the clients, takes attendance and passes on to HR & Admin department. The

department controls security operations through the branch offices, assignment managers, security officers, security supervisors, etc. to provide quality security service to the clients.

A PSA needs security guards and supervisors in large numbers and at short notice. To meet the requirement operations department has a recruitment and training division.

❖ **Finance and Accounts :** This department is responsible for all financial transactions of the PSA. It raises invoices to the clients, pays salaries to the employees, clears bills of the vendors and provides funds to PSA to meet operational expenditures.

Above mentioned departments are headed by a Vice President or General Manager or Manager, depending on the size, business and policy of the PSA.

### Assignment Instructions

Due to various factors, security procedures and system for every site or premises are different. Details of such procedures and systems are contained in Assignment Instructions. Whenever a new PSA takes over a site for providing security services, it trains and deploys its personnel as per the details given in assignment instructions. Besides the duties and responsibilities of security staff, assignment instructions also include the following :-

❖ **Internal Organisational Chart:** It provides necessary information to security personnel about the internal organisation of the client's company. An internal telephone directory is also provided. Such information helps security personnel while answering to visitor's queries and responding to emergencies.

❖ **Company's Safety Policy Statement:** Safety policy statement defines a company's policy towards security, safety and safe work practices in the premises. It delineates responsibilities of management, employees, security staff and visitors towards maintaining a safe working environment.

❖ **Standing Instructions:** Standing instructions are a set of instructions dealing with day-to-day functioning and procedures for emergencies and accidents. Security personnel are required to be briefed and trained repeatedly about standing instructions, so that they function and respond in a desired manner.

❖ **Emergency Plan:** An organisation irrespective to its size and business must have a well documented emergency plan. Emergencies like fire, flood earthquake, accidents, medical emergency, breakdown of services, violence, etc. can happen in any organisation. Organisations which are frequented a large number of people – staff, clients, visitors, students, patients, residents, etc. must have a plan and wherewithal to deal with emergencies.

❖ **Evacuation Plan:** In case of an emergency, affected people need to be rescued and evacuated. A detailed plan for dealing with emergencies, including composition of emergency response teams, names of fire wardens, location of refuge area, assembly points, assembly area, exit routes etc must be prepared. Based on such plan periodic training and rehearsal is carried out in which all employees must participate.

❖ **Contact Details:** A telephone directory having contact details of important appointments of the organisation, police station, fire brigade, hospitals, ambulance service and other departments is helpful to security personnel for responding to emergencies.

In addition to assignment instructions, each guard post has its post instruction, which describes responsibilities and duties of guards at a particular post.

**Duties of Security Personnel**

We find private security personnel guarding life and property everywhere. A security guard is required to perform the following duties :-

**(i) Access Control**

An unarmed or armed security guard is responsible to check unauthorised access to designated premises. He/she may be required to carry out one or more tasks as under :-

❖ Perform duty at the gate/ sentry post/ watch tower or by patrolling the premises.

❖ Ensure functionality of all security equipment provided for the task.

❖ Ensure necessary documents and registers are available.

- ❖ Stop and question personnel entering or exiting from the premises.
- ❖ Check identity/ authorisation papers of personnel entering or exiting from the premises.
- ❖ On orders search personnel entering or exiting from the premises.
- ❖ Issue passes to visitors.
- ❖ On orders escort visitors.
- ❖ Stop and question vehicles entering or exiting from the premises.
- ❖ On orders search vehicles/ material entering or exiting from the premises.
- ❖ On orders close entry/ exit from the premises.
- ❖ Check documents for material entering or exiting from the premises.
- ❖ Issue passes to vehicles.
- ❖ Collect passes fro exiting visitors and vehicles.
- ❖ Complete required documentation.
- ❖ Report any untoward incident to superiors.

**Visitors' Control**

There are following types of visitors to premises :-

- ❖ Staff and employees
- ❖ Contractors and their workers
- ❖ Visitors with or without prior appointment
- ❖ Government officials
- ❖ Labour union officials and locals
- ❖ Vendors
- ❖ Essential services – water, electricity, maintenance and waste disposal personnel and vehicles
- ❖ Emergency services – fire brigade and ambulance personnel and vehicles

Security personnel are required to check identity/ authorisation documents of regular visitors and permit them in. Other visitors are required to fill in their details in the visitors' book. Visitors with prior appointment are issued with necessary passes and escorted to the place of meeting. Visitors with no prior appointment await instructions from the authorities and wait at the waiting area.

Visitors are searched or frisked as per the procedure of the company. In certain premises visitors carrying items like laptops, pen drives, CDs, mobile telephones, cameras, firearms

and ammunition and other weapons are not permitted inside. After the visit, passes are withdrawn from the visitors.

### Material Handling

All material entering or exiting from a premise is checked by security personnel. Material could be raw material needed for production, finished product and other stores required in the organisation. Documents such as returnable or non-returnable passes, invoices, authority letters, etc. accompany all materials.

Once the material arrives at the gate, security personnel inform the concerned department to receive the consignment.

Security personnel note down the particulars of the driver, vehicle and material before permitting the vehicle in or out.

In some cases, like vehicles loaded with oils, raw material, etc. need weighing. Such vehicles are taken to a weigh bridge before being permitted to proceed. All documents regarding material movement are properly maintained.

### Control Room Duties

All premises normally have a central place from where guarding activities are monitored. This place is known as control room. The following activities take place from a control room:-

❖ Monitoring of premises through surveillance systems like CCTV, sensors and alarms.

❖ Maintaining communication with guards and posts through telephone and radio.

❖ Carrying out announcement on public address system during emergency.

❖ Handling emergency situations.

❖ Marking attendance of all security personnel.

❖ Overseeing shift change and taking shift reports.

❖ Exercising key control.

❖ Recording accidents and incidents.

At the control room, contact details of important appointments and emergency services, copy of assignment instruction, standard operating procedures is kept.

**Emergency Response**

Security personnel are expected to respond in case of an emergency. Therefore, their training should include the following aspects :-

❖ Monitoring of surveillance and alarm systems.

❖ Responding to alarms.

❖ Responding to emergency situations.

❖ Informing details of incident to concerned appointments

❖ Seeking help from emergency services.

❖ Rescue and first aid to victims.

❖ Co-operate with people involved in emergency services

## EXERCISE

### Case-based Problem

**Situation 1**

You are a Security Supervisor on night duty at a hospital. Suddenly a fire alarm is sounded. On enquiry, a Security Guard on the third floor of the hospital informs about a fire accident there. What actions would you take as Supervisor ?

**Situation 2**

You are a Security Supervisor on night duty at a factory. At 12.30 am, a speeding truck from inside comes to the main gate. Security guard signals the truck to stop, but it breaks the main gate and speeds away. What actions would you take as Supervisor ?

## ASSESSMENT

1. Draw the organisation tree of a Private Security Agency.
2. List out the main divisions of HR and Administration Department.
3. What are the main tasks of Operations Department?
4. What are the main tasks of Business Development Department?
5. What are the main tasks of Finance and Accounts Department?
6. What is Assignment Instruction.

7.     List any three Control Room Duties.

8.     Write a short note on Emergency Response.

## CHECKLIST FOR ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

### Part A

(a)    Differentiated between various Departments of a Private Security Agency.

(b)    Differentiated between the various duties performed by security personnel in a premises.

### Part B

Discussed the following in the class:-

(a)    Role of Private Security Sector in India.

(b)    Organisation of a Private Security Agency.

(c)    Duties of Security Personnel.

### Part C

**Performance Standards**

The performance standards may include, but not limited to the following :-

| Performance Standards | Yes | No |
|---|---|---|
| List three material handling aspects | | |
| List three visitor control aspects | | |
| Describe control room duties | | |
| Describe emergency response | | |
| Describe access control duties | | |

# Session–2
# Legislation and Rules Governing Private Security in India

## Relevant Knowledge

**Private Security Agencies (Regulation) Act – 2005**

Liberalization of the Indian economy has led to rapid industrialization and increase in the number of business establishments and increased demands for their security. The Private Security Sector is the second largest employer of manpower in the country but it lies in the unorganized sector of the economy. In order to regulate the large number of Security Agencies that has come up, the Government of India enacted Private Security Agencies (Regulation) Act in 2005. While the PSAR Act, 2005 lays down the larger framework, rules for the implementation of the Act are required to be promulgated and implemented by the State Governments.

**Important Contents of the Act**

We will now look at some of the important contents of the PSAR Act, 2005. The Act commences by laying down certain terms and definitions. Some of these are Private Security, Private Security Agency, and Private Security Guard. Private Security is defined as 'Security provided by a person, other than a public servant, to protect or guard any person or property or both and includes provision of armoured car service'.

The act covers essential rules to be followed by the Private Security Industry and some of them are as follows:

(a)    Process for obtaining, licenses and to renew them.

(b)    Expectations as to the training and training levels.

(c)    Documents required to be maintained.

(d)    Verification of the character of the management as well as security staff.

(e)    Requirement of physical standards.

(f)    Engagement of supervisors.

**Important Provisions of the Act**

Some of the important provisions in the PSAR Act 2005 are as follows:

**License:** The act stipulates that no person shall carry on or commence the business of private security agency, unless he holds a license issued under the Act. Every application by an Agency for the grant of the license under clause (1) of section 7 of the Act shall be made to the Controlling Authority in the format prescribed in Form V.

**Controlling Authority:** The State Government by notification shall designate a Controlling Authority in the Home Department, not below the rank of a Joint Secretary. The Controlling Authority, after receiving the application under sub-rule (1) of rule 8 shall grant a license to the private security agency in Form VI after completing all the formalities and satisfying itself about the suitability of the applicant and also the need for granting the license for the area of operation applied for.

**Verification:** An application for issue of a license under this act shall only be considered after due verification of his antecedents. All guards and supervisors are also required to be verified as per the PSAR Act.

**Uniform:** The uniform of the private security guard should be unique and should not resemble the one worn by the Army, Navy or Air Force personnel. According to PSAR Act 2005 if any private security guard or supervisor wears the uniform of the Army, Air force, Navy or any other armed forces of the Union or Police or any dress having the appearance or bearing any of the distinctive marks of that uniform, he and the proprietor of the private security agency shall be punishable with imprisonment for a term which may extend to one year or with fine which may extend to five thousand rupees, or with both. The uniform should also include the following:

(a)    An arm badge distinguishing the Agency;

(b)    Shoulder or chest badge to indicate his/her position in the organization;

(c)    Whistle attached to the whistle cord and to be kept in the left pocket;

(d)    Shoes with eyelet and laces;

(e)    Headgear which may also carry the distinguishing mark of the Agency.

**Training:** The Act specify the hours of training. The act also lays down the hours of training that exservicemen and former police personnel are required to undergo for employment as Private Security Guards. As per the PSAR Act, 2005 the training shall be for a minimum of 100 hrs of classroom instruction and 60 hrs of field training, spread over at least 20 working days for fresh trainees. On successful

completion of the training, the trainee will be awarded certificate in Form IV by the training Institute or organization. The Licensee shall intimate the name, parentage, date of birth, permanent address, address for correspondence and principal profession of each person forming the Agency within fifteen days of receipts of the license to the Controlling Authority.

**Physical Standards:** The Act lay down the standards of physical fitness for Security Guards. All persons employed are required to meet the basic minimum standard.

**Photo Identity Cards:** Security companies are required to provide Photo Identity Cards to its security staff as prescribed under the sub-section (2) of section 17 of the Act, which should be produced as prescribed under the Act and Form IX.

**Assistance to Police:** The Act lays down the responsibility of the security companies to assist Police in investigation pertaining to their areas of responsibilities and violation of laws in their premises through the management.

**Dress:** Section 21 of the Act lays down that use of a uniform similar to the uniform of the Armed forces or police by the security companies is punishable.

**Connected Labour Laws:** The Act lists various labour laws required to be followed by the security companies/ organisations, which seek license under the Act. This ensures the rights and interests of the Security Guards and Supervisors.

**Documentation:** Sec15 (1) of the act lay down that the security agency shall maintain register (s) containing the following information:

(a)    The name and addresses of the persons managing the private security agency.

(b)    The name, addresses, photographs and salaries of the Security staff.

(c)    The name and addresses of the persons/ companies, whom it provides security.

## EXERCISE

Discuss in class the following aspects with regard to Private Security Agencies and Personnel and record the outcomes of the discussion:

(i)    How regulation and training in private security influenced the growth of private security industry?

(ii)   Whether there has been an increase in the participation of women in private security in the last 5 years?

(iii)  Do the existing private security personnel need more training?

(iv)   Is there need for more stringent regulations in private security?

## ASSESSMENT

### Fill in the Blanks

1. PSARA stands for _____ _____ Agency (Regulation) Act.

2. An application by an Agency for the grant of the license for private security under clause (1) of section 7 of the Act shall be made to the _____ Authority.

### Short Answer Questions

What is the role of the private security industry in today's world?

_____

_____

_____

_____

_____

_____

_____

_____

## CHECKLIST FOR ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

### Part A

(a) Differentiated between the various regulations in the PSAR Act, 2005.

## Part B

Discussed the following in the class:-

(a)  What is the importance of regulations in private security?

(b)  Whether the PSAR Act 2005 has been useful in developing and maintaining professionalism in private security industry?

## Part C

### Performance Standards

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Demonstrated the knowledge of professional standards in private security industry | | |

# Session–3
# Security Equipment

## Relevant Knowledge

Security personnel use a wide array of equipment and materials for performance of their duties. The equipment and systems may be fixed installations like walls, fencing, surveillance equipment, etc., or portable equipment like hand held metal detectors and under chassis scanning mirrors. The equipment being used is becoming increasingly sophisticated and a number of equipment requires training for their handling.

A security guard should have access to the following stationery, equipments and materials:

**Notebook and Pen:** These are the most important stationery items that a guard should possess. The purpose of keeping notebook is as follows:

❖    To maintain personal record of hours of duty and work done.

❖    To record the instructions, messages and incidents during duty.

**Torch:** It is needed during patrolling.

**Two-Way Radios:** These are required for communication between the security personnel.

**Panic Alarm Button:** It is needed for the safety of the security guard, especially when he/she requires immediate help.

**Telephone:** It is needed to receive incoming calls and to make calls in case of emergency.
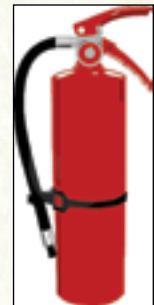
**Key Boxes:** For keeping keys.

**Fire Extinguishers:** For extinguishing small fires.

**Tool Box:** For minor repairs.

**Rope:** It is required for emergency evacuation, etc.

**First Aid Equipment:** For assistance in First Aid.

**Desk and Chair:** It is needed by the security personnel for writing about daily duty reports.

**Cupboards:** These are required for storing materials, documents and books.

**Waste Bin:** To throw waste and for keeping the area tidy and clean.

**Clock:** For maintaining punctuality and recording time of the events and incidents.

**Drinking Water:** Potable water should be made available at all times.

**Toilets:** Separate toilets for men and women should be available.

### Electronic Devices and Equipment

Major categories of electronic security systems that we will study are as under:

❖ Intruder Alarm Systems
❖ Close Circuit Television (CCTV) Systems
❖ Access Control Systems
❖ Security Lighting
❖ Fire Detection Systems
❖ Communication Equipment
❖ Safety and Emergency System

### Intruder Alarm Systems

An intruder alarm system is designed to detect the presence of an intruder at your premises - trigger a local siren to deter activity and communicate the alarm event to a

security monitoring centre so an appropriate response can be coordinated. The principal components of an Intruder Alarm System are as follows:

❖ Control unit (panel, remote keypad)
❖ Detection devices (heat, motion detection, etc.)
❖ On site sounders (bell, siren)
❖ Remote signaling (digital, radio communicator)

The control unit of an intruder alarm system is the control panel that is operated by the use of a digital keypad where the system is turned on / off. To set or un-set the system, the user enters a designated series of numbers in a designated sequence i.e. 1,2,3,4. This is known as the set code or user code. Systems can be set or un-set from the main control panel or from one or more remote keypads (RKP) installed away from the main unit.

**Close Circuit Television System**

CCTV system uses cameras, video recorders and monitors to carry out surveillance on a protected area. There are many types of CCTV systems—analog & digital and wired wireless. The images collected are sent to a CCTV monitor and recorded on a Digital Video Recorder as digital information (DVR) (Digital Video Recorder). The CCTV camera picks up the signal from the area being monitored, and in a wired system, it sends the signals through a coaxial cable to the CCTV monitor; in wireless systems, no cable is needed, instead the CCTV camera broadcasts the signal.

The principal components of a CCTV system are as follows:

(a) Camera/Lens
(b) Monitor
(c) Video Recorder
(d) Cable

Some of the advantages of CCTV are as follows:

(a) Support to security staff, as they can monitor a large area such as multi-story office block or shopping centre with limited manpower.
(b) Can be monitored either on site or remotely.
(c) It allows for immediate action by security on discovery of an incident.

**Access Control System**

Access control is the selective restriction of access to a place or a resource. Access controls are nearly always based on authenticity and identification. The term "identification" literally means the systems ability to recognise a user. The term Authentication means the process used by the system to recognise a user. Permission to access a resource is called authorisation. When individuals enter a site, it is essential to examine their identification and check against the list. An access control point, which can be a door, gate, elevator, or other physical barrier where granting access can be manually or electronically controlled.

The principal components of an Access Control System are as follows:

(a)  Security Tokens (card or bio-metric identifier): There are four types of tokens: (i) Static password token (e.g., an employee swipes his/her smart card over an electronic lock to gain access to a store room), (ii) Synchronous dynamic password token (Token generates new passwords at certain time intervals that are synched with the main system. Each password is valid for a certain time period. Typing in the wrong password in the wrong time period will invalidate the authentication), (iii) Asynchronous password token (the system works on the same principal as the synchronous one but it does not have a time frame), and (iv) Challenge response token (A user will be sent special "challenge" strings at either random or timed intervals. The user inputs this challenge string into their token device and the device will respond by generating a challenge response. The user then types this response into the system and if it is correct they are authenticated).

(b)  Inputs (card reader, keypad, code lock).

(c)  Decision making element (processor, computer, door control unit)

(d)  Outputs (power for the lock, signal to alarm system, signal to cameras, barriers or other devices).

Some of the benefits of the access control system are follows:

(a)  It can be linked to electronic door locks and deny access to unauthorised persons.

(b)  It can record all details of those who have made authorised access.

(c)  It can be used in conjunction with CCTV

(d)  It can be connected to an intruder alarm system that would alert the security personnel in the event of unauthorised access.

(e)  Access points can be monitored from a central point through a computer, instead of locally at the gate through a security guard.

## Security Lighting

The principal components of security lighting are as follows:

(a) **Power Source:** The power source is normally from the direct mains. However, inverters and generators may be installed for emergency backup.

(b) **Cabling:** It should be done to suit the anticipated power load.

(c) **Mounting:** It can be mounted on a building or a freestanding pole/mast.

(d) **Switch:** Wall switch, timer, light sensor or motion detector.

(e) **Lens:** Flood or Spot lenses/glass to dictate the spread of light. Lenses/glass can be toughened or covered with mesh or plastic shield to suit risks.

(f) **Casing:** To house and protect the illuminant, fixtures and reflector from damage.

## Benefits of Security Lighting

The benefits in installing security lighting include the following:

❖ **It Acts as a Deterrent Against Intruders:** Lighting can be an effective deterrent particularly in a main street environment where the attention of the passing public can be drawn to premises.

❖ **To Assist Detection of Intruders:** Lighting increases the level of observation and detection of intrusion.

❖ **It is Useful for Safety and Convenience of Patrolling Staff.**

## Fire Detection System

The principal components of a fire detection system are as follows:

❖ Control unit.

❖ Detection devices for smoke, heat etc.

❖ Warning bells or sirens.

❖ Remote signaling equipment to alert a monitoring centre/ fire brigade.

❖ Cabling to suit the environment and risks.

These systems are to alert and warn of a possible outbreak of fire by detecting heat sources or smoke. Some of the benefits in the use of these systems are:

❖ All round protection.

❖ Range of detection devices to suit most conditions.

## Communication Equipments

A wide range of communication equipments are available. It includes two way communication radio, mobile telephones, Fax machines, and computer. A two-way radio is an apparatus for sending and receiving information by means of electromagnetic waves. It has been the foremost safety aid to the security guard since 70's. It enables security staff to speak directly to a control room and other security personnel, giving precise details of a situation or emergency at a location. To communicate effectively security guards must have an understanding of radio equipment together with rules and recommendations governing the correct use of radio equipment.

## EXERCISE

Study the various security equipment available in the market/institutional laboratory or in a nearby security company and record your observations in the following format:

1. Name of the equipment:

2. Purpose/ use of the equipment

3. Name of the manufacturing company

4. Specifications

## ASSESSMENT

### A. Short Answer Questions

1. List any three equipment used by Security Guards

_____

_____

_____

_____

2. List any three electronic security systems

_____

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_____

3. Describe five salient features of access control system

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**B. Fill in the blanks**

1. DVR stands for _____ Video Recorder

2. The principal components of a _____ system are Camera/ Lens, Monitor, Video Recorder, and Cable.

3. The principal components of _____ _____I System are Security Tokens, Inputs, Decision Making Element and Outputs.

## CHECKLIST OF ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

**Part A**

(a)　Differentiate between various types of security equipment.

**Part B**

Discussed the following in the class:-

(a)　What are the major categories of electronic security system?

(b)　What is access control system?

**Part C**

**Performance Standards**

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Demonstrated the knowledge and use of security equipment | | |

# Session–4
# Searching and Documentation

## Relevant Knowledge

Controlling access and permitting entry only to authorised persons is one of the most important methods employed to ensure security. There are laws which give powers to security officers/ guards to stop and search a person or vehicle. A person should be detained as long as necessary to carry out the search. Extensive searches must only be carried out when the circumstances suggest it is necessary.

A security guard should be clear on the rules that he or she will be enforcing on the site. The only way to ensure that the access requirements will be met is by making the security officer familiar with the requirements of that particular site. Security firms, when introducing security guards to a new site discuss the rules of access and protocol in detail. People may not only be greatly inconvenienced by a search of their belongings, but insulted as well. The security guard should take note of suspicious behaviour, items removed from the site, and so on. The guard's notebook should also include a full

description of what transpired.

Security search of people and their belongings (bags, etc.), vehicles, premises and vulnerable points within a premise is done by the security personnel. A search can be done manually, electronically or through a combination of both these systems. Access control systems are also employed to check identity and authenticate incoming/ outgoing material. If the Security Guard is not clear with regard to the execution of instructions, he/ she should consult his or her supervisor. The difficulties and other security policies should be discussed with the supervisor, who should consult with the client to determine an approach that is appropriate.

Let us now look at some of the electronic verification systems that are employed for verifying the identity during entry and exit.

**Identification System:** Many government offices use this method. All employees show an Identity card before entering the premises. The Security Guard checks each ID card carefully. The ID should have the following:

❖ A colour photo and physical description of the card holder.

❖ The full name and signature of the holder.

❖ The company's name and the issuing authority's signature.

❖ An expiry date.

❖ A serial number (for the card itself or an employee number).

**ID Card Tags:** Some cards have a magnetic strip, like you see on the back of a debit or credit card. Other cards have a bar code, like you see on a product in a retail store. The user swipes the card or puts it in a slot in the card reader. The reader is mounted on the wall or door. It checks the code on the card. If the card is an authorized one, the door is unlocked for a short period of time and the visitor can enter the premises.

**Security Company Ltd.**

**ID CARD**

**Mr. XYZ**

Employee Code : XYZ
Phone/Mobile : XXXXXXXXXX
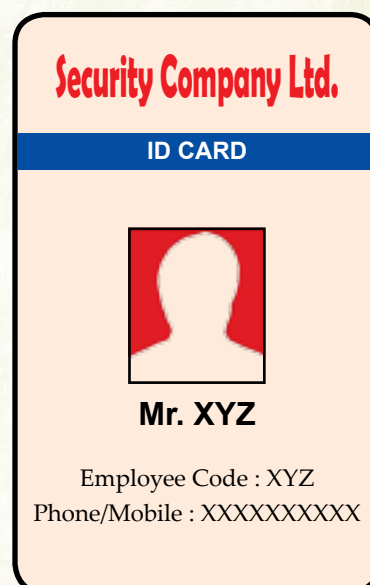
**Touch Keypads:** A keypad is mounted on the wall at the entrance. Users are given passwords, codes, or personal identification numbers (PIN) that they must punch in order to enter.

**Proximity Cards:** These cards work in a similar way to cards with stripes or bar codes, but they do not have to touch the reader. Someone can unlock the door by passing

their card near the reader. These cards may show only an identification number or one side may include photo ID. A key fob is a device that acts the same way as a proximity card. It is a small plastic that can be attached to a key ring.

**Biometric Identification:** Biometric systems use human characteristics that are individually unique. These include voice pattern, eye retina, fingerprint, signature and hand geometry.



In biometric system information about individual employees is stored in a data bank. This could include fingerprints, palm prints, retina patterns (blood vessel patterns in the eye) or face recognition information. If an employee wants to enter an area he/she must pass his/her finger/hand, eye, or face by a reader. If the reader matches this information with the stored data bank, the door is unlocked. Because biometric data is unique to each person, this system can be used to prevent theft or fraud. Unlike a password or PIN, a biometric trait cannot be forgotten or lost.

**Radio Frequency Identification:** Radio-frequency identification (RFID) is the use of a wireless non-contact system that uses radio frequency electromagnetic fields to transfer



data from a tag attached to an object, for the purposes of automatic identification and tracking. Some tags require no battery and are powered and read at short ranges via magnetic fields (electromagnetic induction). Others use a local power source and emit radio waves (electromagnetic radiation at radio frequencies). The tag contains electronically stored information which may be read from up to several meters away. The RFID tags are of the size of a grain of rice. They can be embedded in access cards or other security devices that would allow authorised personnel access to areas within a facility. They would also allow Security to 'track' the individuals and their movement throughout the facility. RFID technology is being used in airports in the new epassport system to help identify legitimate personnel, and mitigate possible security risks.

### Documentation

The variety of documents and records maintained by Security Guard will vary according to the size of the company, the type of business involved and the degree of threat

and the type of activities carried out on the premises. Electronic recording and storing of information by use of computers should be done for precision and to avoid any manipulations. Search Register, which include the date, time, name of the person should be properly maintained property found. Signature of person searched and the signature of the searcher may also be included. If the searched person refuses to sign the register, then a record of this should also be entered.

## EXERCISE

Visit an organisation or a company, study the following aspects and prepare a report. Submit the report as part of your portfolio.

1. What are the security requirements for each protected area?
2. What is the number of required control points?
3. What are the environmental conditions at the control point?
4. How many people are expected to use each control point, and how often?

## ASSESSMENT

### Fill in the blanks

1. A search can be done manually or _____
2. Access _____ systems are employed to check identity and authenticate incoming/outgoing material.
3. The _____ system use human characteristics that are individually unique.
4. PIN stands for Personal _____ Number.
5. RFID stands for _____ _____ Identification.

## CHECKLIST FOR ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

### Part A

(a) Differentiated between various electronic identification systems.

**Part B**

Discussed the following in the class:-

(a)   Why search operations are conducted?

**Part C**

**Performance Standards**

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Demonstrate the knowledge of identification and pass system used for security purpose. | | |

# Session–5
# Role and Functions of
# Private Security Personnel

## Relevant Knowledge

### Security Guard

A Security Guard is defined as any person providing private security with or without arms to another person or property or both and includes a supervisor (PSAR Act, 2005). He/ she works under the supervision of Security Supervisor. He/she should always maintain a professional appearance, behaviour and exhibit positive attitude.

The job of a Security Guard varies, so it is extremely important for the Security Guard to know exactly what the employer specifically expects of them. The Standard Operating Procedures (SOPs) for a security guard varies with the type of job that the guard is doing. He/ she is required to perform the following general role and functions:

❖ Wear neat and tidy uniform.

❖ Maintain hygiene and proper grooming.

❖ Obey and pass on to other Security Guards all orders and instructions received from Supervisor.

❖ Talk politely with students, staff, and visitors and assist them to provide any necessary information of the Institute.

❖ Prevention or detection of intrusion, unauthorised entry or activity, vandalism or trespass on private property.

❖ Be watchful while on night patrol and check all suspicious persons, and allow no one to pass the security gate without proper authorisation.

❖ Work as a team with other security personnel to ensure optimal safety of the person/organisation and communicate frequently with each other.

❖ Make proper entry in the visitor log and collect vendor/ visitor Photo ID card.

❖ Prevent or detect theft, loss, misappropriation or concealment of merchandise, money, valuables, documents or papers.

❖ Leave the post only after giving charge to the other Security Guard.

❖ Adhere to and enforce established company rules, regulations, policies and practices.

❖ Report incidents as per the procedure.

## Eligibility for Security Guard

A person shall be eligible for employment as Security Guard if he/ she fulfills the standards of physical fitness as specified in the PSAR Act (2005). The specifications are as follows:

(a) Height: 160 cms for males and 150 cms for females.

(b) Weight: According to standard table of height and weight, chest 80 cms with an expansion of 4 cms (for females no minimum requirement for chest measurement).

(c) Eyesight: Far sight vision 6/6, near vision 0.6/0.6 with or without correction, free from colour blindness. He/ she should be able to identify and distinguish color display in security equipment.

(d) Read and understand displays in English alphabets and Arabic numerals.

(e) Free from knock knee and flat foot. He/ she should be able to run one kilometer in six minutes.

(f) Hearing: Free from hearing defects. He/ she should be able to hear and respond to the spoken voice and the alarms generated by security equipments.

(g) The candidate should have dexterity and strength to perform searches, handle objects and use force for restraining the individuals.

(h) A candidate should be free from evidence of any contagious or infectious disease. He should not be suffering from any disease which is likely to be aggravated by service or is likely to render him unfit for service or endanger the health of the public.

**Types of Security Guard**

1. **Unarmed Security Guard:** Unarmed security guards carry out duty without any arm or weapon.

2. **Armed Security Guard:** Armed security guards perform their duties with arm or weapon.

3. **Personal Security Guard:** They are employed for providing personal protection to an individual. Personal security guards can be unarmed on armed. These are also known as body guards or personal security officers.

4. **Commercial Security Guard:** Commercial security guards specialize in guarding commercial establishments such as banks, hotels, business parks, cinemas, schools, malls etc. These can be armed or unarmed or both.

5. **Industrial Security Guard:** Industrial security guards specialize in guarding factories, plants, mines, ports, pipe lines etc. These can be armed or unarmed or both.

6. **Residential Security Guard:** These guard our homes, colonies, and other residential areas. Like others residential guards could be armed or unarmed or both.

**Security Supervisor/ Head Guard**

Supervisor is a person in the first-line management who monitors and regulates employees for their performance with regard to assigned or delegated tasks. Normally a security supervisor is placed on 15 security personnel deployed at a site. However, one person with experience and capability is also appointed as 'Head Guard' to perform the duties of a supervisor in a shift involving less than 10 persons.

The role and responsibilities of Security Supervisor include the following:

❖ Supervise the security staff as per the company's policies and rules.

❖ Educate the security staff on the various procedures and systems approved by the management.

- ❖ Conduct training activities for the security staff.
- ❖ Maintain security equipment and gadgets.
- ❖ Deploy security personnel for optimum use so as to ensure total security of the institute/ organisation/ residential colony.
- ❖ Ensure the maintenance of entry and exit log.
- ❖ Update and sign all Daily Security Report.
- ❖ Monitor inward and outward loading of goods, provision and other materials.
- ❖ Report all violation of Institute's rules and regulations and special orders to the Head of Security/ Management.

## Field Officers

Field officer are responsible to the management of the security company to enforce and implement the policies at the deployment site.

## Assistant Security Officer

Assistant security officer is on the pay roll of the security company deployed at the site to monitor and regulate employees for their performance of assigned or delegated tasks. Normally ASO is placed when the deployment exceeds 15 persons or more in each shift. He coordinates and liaises with the principal employer and the security company and performs a customer care role.

## Security Officer

A security officer is a manager, who controls a site where security personnel are deployed to provide security to a client. He/she coordinates security operations as instructions and policies.

## Carry Home Emoluments and Benefits in the Private Security Industry

**Pay and Allowances:** In the security sector, your pay depends on the level of the position and the company. In general, the pay is governed by the Minimum Wages Act of the State.

**Provident Fund (PF):** An employee saves 12% of the basic wages and equal amount is contributed by the employer (8.33% towards pension fund & 3.67% towards contribution of Provident Fund). On completion of 10 years contribution to the fund all employees are entitled to pension on attaining the superannuation age of 58 years. Pension depends on the total subscription made in the fund. Some of the benefits accrued are as follows:

(a) Lump sum payment of accretion with interest on retirement / leaving the job.

(b) Partial withdrawal during job for specified purposes.

(c) Provision of taking early pension but not before attaining the age of 50 years.

(d) Deposit Linked Insurance Scheme: Upon death while in service, an additional payment in lump sum equal to average P.F. accretion subject to maximum of Rs. 60,000 is given.

(e) Employees' Pension Scheme: Pension to member on retirement/invalidity.

(f) Pension to Family members on member's death.

**Employees State Insurance Scheme (ESIC) Coverage:** Under the scheme employee's contributory insurance cover is available at a marginal contribution of 1.75% of basic wages. The following benefits are available:

**Medical Benefit:** Medical care is provided to the Insured person and his family members from the day he/she enters insurable employment. There is no ceiling on expenditure on the treatment of an Insured Person or his family member. Medical care is also provided on payment of a token annual premium of Rs.120/- to the retired and permanently disabled insured persons and their spouses.

**Sickness Benefit (SB):** Cash compensation at the rate of 70 per cent of wages is payable to insured workers during the periods of certified sickness for a maximum of 91 days in a year. In order to qualify for sickness benefit the insured worker is required to contribute for 78 days in a contribution period of 6 months.

(a) **Extended Sickness Benefit (ESB):** ESB extendable up to two years in the case of 34 malignant and long-term diseases at an enhanced rate of 80 per cent of wages.

(b) **Enhanced Sickness Benefit:** Enhanced Sickness Benefit equal to full wage is payable to insured persons undergoing sterilization for 7 days and 14 days for male and female workers, respectively.

**Maternity Benefit (MB):** Maternity Benefit for confinement/pregnancy is payable for three months, which is extendable by further one month on medical advice at the rate of full wage subject to contribution for 70 days in the preceding year.

**Disablement Benefit**

(a) **Temporary Disablement Benefit (TDB):** This benefit is available from day one of entering insurable employment and irrespective of having paid any contribution in case of employment injury. Temporary Disablement Benefit at the rate of 90% of

wage is payable so long as disability continues.

(b) **Permanent Disablement Benefit (PDB) :** The benefit is paid at the rate of 90% of wage in the form of monthly payment depending upon the extent of loss of earning capacity as certified by a Medical Board.

**Dependants' Benefit (DB):** It is paid at the rate of 90% of wage in the form of monthly payment to the dependants of a deceased Insured person in cases where death occurs due to employment injury or occupational hazards.

## Other Benefits

**Funeral Expenses:** An amount of Rs.10,000/- is payable to the dependents or to the person who performs last rites from day one of entering insurable employment.

**Confinement Expenses:** An insured woman and an insured person in respect of his wife shall be paid a sum of rupees one thousand per case as "confinement expenses" (earlier termed as medical bonus), provided that the confinement occurs at a place where necessary medical facilities under the ESI scheme are not available. i.e., where facility for confinement is not available in the ESI institution. Also confinement expenses shall be payable for two confinements only.

**Rajiv Gandhi Shramik Kalyan Yojana 2005:** An Insured Person who become unemployed after being insured three or more years, due to closure of factory/ establishment, retrenchment or permanent invalidity are entitled to :

1. Unemployment Allowance equal to 50% of wage for a maximum period of up to one year.

2. Medical care for self and family from ESI Hospitals/Dispensaries during the period IP receives unemployment allowance.

3. Vocational Training provided for upgrading skills - Expenditure on fee/travelling allowance borne by ESIC.

**Workman Compensation:** In case a personal injury is caused to a workman by accident arising out of and in the course of his employment, his employer is liable to pay compensation in accordance with the provision of the Act within 30 days from the date when it fell due otherwise he would also be liable to pay interest and penalty

**Bonus Payment:** Any employee on a salary or wage not exceeding [three thousand and five hundred rupees] per month in any industry to do any skilled or unskilled manual, supervisory, managerial, administrative, technical or clerical work for hire or reward, whether the terms of employment be express or implied is eligible for bonus up to a maximum of "ten thousand rupees"

**Leave:** All employees are governed by the company policy and the labor laws prevalent in the states.

## EXERCISE

Prepare a comparative chart on the role and functions of private security professionals in the following places:

1.   Malls
2.   Hospitals
3.   Construction sites
4.   Supermarkets
5.   Manufacturing plants
6.   Private home alarm maintenance

## ASSESSMENT

### Short Answer Questions

1.   Explain the career opportunities available in private security

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2.    Write short note on the following:

(a)    Control room

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(b)    Patrolling

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(c)    Access control system

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## CHECKLIST FOR ASSESSMENT ACTIVITY

Use the following checklist to see if you have met all the requirements for assessment activity.

### Part A

(a)    Differentiated between the types of security guard.

### Part B

Discussed the following in the class:-

(a)    What are the eligibility criteria for appointment to the post of security guard in India?

(b)    What are the basic emoluments and benefits that a security guard gets during the service?

### Part C

**Performance Standards**

The performance standards may include, but not limited to:

| Performance Standards | Yes | No |
|---|---|---|
| Identify the role and functions of security personnel | | |

BUILDING SKILLS•BUILDING FUTURE

# CENTRAL BOARD OF SECONDARY EDUCATION