

Facilitator Guide



Sector
Electronics

Sub-Sector
IT Hardware

Occupation
After Sales Support

Reference ID: ELE/Q4605, Version 1.0

NSFQ Level: 4

CCTV Installation Technician

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Shri Narendra Modi
Prime Minister of India

“ Skilling is building a better India.
If we have to move India towards
development then Skill Development
should be our mission. ”



Acknowledgement

The need for having a standard curriculum for the Job Role based Qualification Packs under the National Skills Qualification Framework was felt necessary for achieving a uniform skill based training manual in the form of a Facilitator Guide.

I would like to take the opportunity to thank everyone who contributed in developing this Guide for the QP CCTV Installation Technician.

The Guide is the result of tireless pursuit to develop an effective tool for imparting the Skill Based training in the most effective manner.

I would like to thank the team of Kontent Edge for their support to develop the content, the SME and the team at the ESSCI along with the industry partners for the tireless effort in bringing the Guide in the current format.

CEO

Electronics Sector Skills Council of India

About this Guide

This Facilitator Guide is designed to enable training for the specific Qualification Pack (QP). Each National Occupational (NOS) is covered across Unit/s. Key Learning Objectives for the specific NOS mark the beginning of the Unit/s for that NOS. The symbols used in this book are described below.

Symbols Used



Ask



Demonstrate



Facilitation Notes



Learning Outcomes



Notes



Objectives



Practical



Team Activity



Do



Explain



Say



Resources



Activity



Summary



Role Play



Example

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1. Fundamentals of CCTV System

- Unit 1.1 – Basics of Electricity
- Unit 1.2 – Basics of Electronics
- Unit 1.3 – Cables and Connectors
- Unit 1.4 – Basics of Networking
- Unit 1.5 – Tools and Equipment



ELE/N4610
ELE/N9909

Key Learning Outcomes



At the end of this module, you will be able to:

- Define electricity
- Identify the difference between electrical and electronic devices
- Define the basic concepts related to electricity
- Identify the features of testing instruments
- Use various electronic components in a CCTV system
- Work with different cables and connectors in a CCTV system

UNIT 1.0: Objective of the Module

Objective of the Module



The objective of this module is to enable the participants to define electricity. They will be able to identify the difference between electrical and electronic devices. The facilitator can initiate a discussion on defining the basic concepts related to electricity. The participants will be able to identify the features of the testing instruments. They will understand the use various electronic components in a CCTV system. Also, they would know how to work with different cables and connectors in a CCTV system.

Notes for Facilitation



- Initiate the session with the participants by discussing about the objectives of the module.
- Make the session interactive by asking the participants to share their expectations from the module on the blackboard/whiteboard.
- Introduce the topics to be covered and give some information about them.
- Give the participants a general idea about what will be covered in the module.

UNIT 1.1: Basics of Electricity

Unit Objectives

At the end of this unit, the participants will be able to:

- Define electric charge, electric current and electric circuit
- Differentiate between alternating current (AC) and direct current (DC)
- Define voltage and current
- Differentiate between conductors and insulators
- Explain insulators and connectors
- Explain electric charge, electric current and electric circuit

Resources to be Used

- Objects such as a duster, pen, notebook and so on

Ask

- Ask the participants to tell what comes to their mind when they think of electricity.
- Ask them if they can tell some terms that we usually associate with electricity.

Notes for Facilitation

- Tell the participants why it is important for them to know about electricity, after the participants share what they think of electricity.
- Explain to them the various terms associated with electricity, such as current, voltage, power, energy; after the participants come up with different terms.
- Explain how to calculate the rate of flow of current or the rate at which electric energy is transferred. Tell them that the flow of current can be seen in simple mechanisms used in our day-to-day life such as switching on a fan or a light bulb.
- Tell them that electricity is a natural force that comes into existence whenever there is a flow of electric charge between any two components. The flow of electric charge is called current. Voltage is the potential difference between a negatively charged component and a component with positive charge.
- Explain that the electric power can be measured using electric meter. This way a customer comes to know how much power has been consumed.
- Explain how electric energy can be calculated. Also, tell them that wattage means electric power in watts.

Explain



- Explain Ohm's Law.

Do



- Draw the following diagram on the whiteboard.

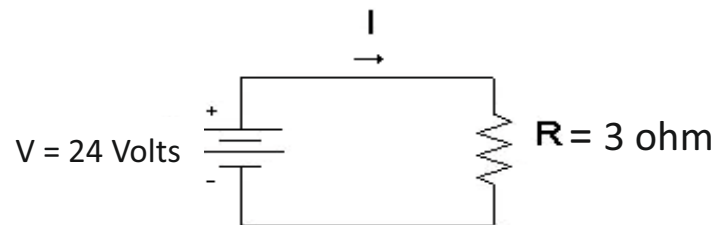


Fig 1.1.1: Representation of Ohm's law

Notes for Facilitation



- Explain Ohm's law showing the diagram on the board.
- Explain to the participants, the Ohm's law. Then tell them about the linear relation of current and voltage with the help of the following graph, where X axis represents current and Y axis represents voltage.

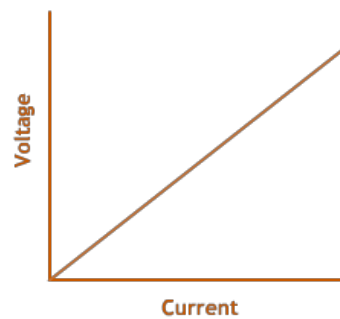


Fig 1.1.2: Linear relation of current and voltage

- Tell them, if V is 24 volts, R is 3 ohms, then I can be calculated as:
 $V=IR$; $I=V/R$; the current, I, flowing in the circuit will be 8 A.

Ask



- Ask the participants if they have heard of the terms, AC and DC.
- Ask them if they know what these terms stand for.

Explain



- Explain to the participants about electric circuit, AC and DC.
- Tell them the difference between AC and DC with the help of the following table:

Parameter	AC	DC
Direction	It reverses its direction while flowing in a circuit.	It flows in one direction in the circuit.
Current	It is the current of magnitude varying with time	It is the current of constant magnitude.
Obtained from	A.C Generator and mains.	Cell or Battery.
Passive Parameters	Impedance	Resistance
Power Factor	Between 0 and 1	It is always 1
Types	Sinusoidal, Trapezoidal, Triangular, Square	Pure and pulsating

Fig 1.1.3: Difference between AC and DC circuit

- In addition, tell them in a direct current circuit, current flows in a single direction and one pole is always negative and the other pole is always positive. In an alternating current circuit, the two poles alternate between negative and positive and the direction of the current (electron flow) reverses periodically.
- Explain series and parallel circuit. Tell them the difference between series and parallel circuit with the help of following table:

Series Circuit	Parallel Circuit
All components share the same current	Components have the same potential difference between them
There are no junctions between components	A loop can be found between two components
If the circuit breaks at any point, current stops flowing through the circuit altogether	If one branch of the circuit breaks, all the other branches can still function

Fig 1.1.4: Difference between series and parallel circuit

- Explain electric signal.
- Briefly explain different types of power supplies.

Notes for Facilitation

- Explain that an electrical circuit is an interconnection of the following:
 - Power source, such as a battery which provides energy for the current to flow through the circuit.
 - Load which is any device that draws power from the circuit, such as a light bulb, a TV, a computer and so on.
 - Electronic components, such as resistors, capacitors and so on.
 - Wires that connect various components.
- Tell them that a circuit may be open or closed. There is a flow of current when the circuit is closed.
- Explain that in a series circuit, the load, which is depicted by lamps, is connected to one after another; and in a parallel circuit, both the lamps are connected to the source, parallel to each other.
- Tell them the formulae of calculating resistance in a series connection and a parallel connection with the help of the following table:

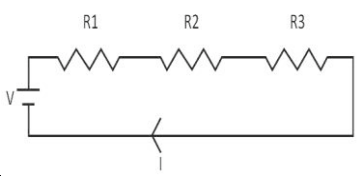
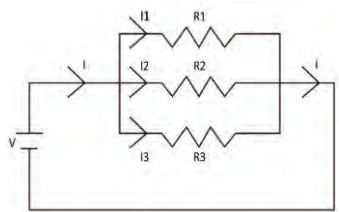
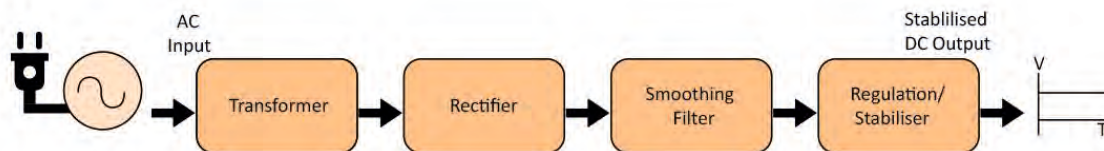
Type of Connection	Formulae	Circuit Diagram
Series	$R = R_1 + R_2 + R_3$	
Parallel	$1/R = 1/R_1 + 1/R_2 + 1/R_3$	

Fig 1.1.5: Formulae for calculating resistance

- Tell them that an electric signal provides information in the form of varied voltage or current.
- Briefly explain about different elements of the voltage -time relationship graph of an electrical signal such as:
 - Amplitude
 - Peak-peak voltage
 - Time period
 - Frequency
- Tell them about different types of power supplies and briefly explain these one by one.
- Also, tell them, in a linear regulator power supply:
 - The transformer steps down high voltage AC mains to low voltage AC.
 - The rectifier converts AC to DC, but the DC output varies.
 - The smoothing filter smooths the DC from varying greatly and maintains the

variation to a small ripple.

- The regulator eliminates the ripple by setting the DC output to a fixed voltage.
- Activity Handling Strategy:
 - Ask one participant to write the answers on the board and tell others to say whether the answers are correct or not.
 - The correct answers are:



UNIT 1.2: Basics of Electronics

Unit Objectives

At the end of this unit, the participants will be able to:

- Identify the electronic components in a CCTV system
- Identify the function of resistors
- Use resistor colour codes
- Define capacitance
- Identify the main types of capacitors

Resources to be Used

- Available objects such as a duster, pen, notebook and so on
- Electronic components such as a diode, capacitors, resistors, transistors and so on

Ask

- Ask the participants if they can tell the difference between electrical and electronic devices.

Explain

- Explain to the participants about electronic components.
- Explain the different types of electronic components.

Notes for Facilitation

- Start the session by telling the participants about the difference between electronic and electrical devices.
- Tell them that the difference lies in how the devices manipulate electricity to do their work. Electrical devices take the energy of the electric current and transform it in simple ways into some other form of energy; most likely light, heat, or motion. For example:
 - The heating elements in a toaster turn electrical energy into heat that allows toasting of bread.
 - The motor in a vacuum cleaner turns electrical energy into motion that drives a pump, which then sucks the dust out of the carpet.
- Tell that, electronic devices, instead of just converting electrical energy into heat, light, or motion, are designed to manipulate the electrical current into doing interesting and useful things. For example:
 - Audio electronic devices add sound information to electric current, which then allows someone to listen to music or talk on a cell phone.
 - Video devices add images to electric current so that one can watch movies.

- Also, tell them that there is not a clear-cut demarcation between electric and electronic devices. Electrical devices often include some electronic components in them and vice-versa. For example,
 - A toaster may contain an electronic thermostat that attempts to keep the heat at just the right temperature to make a perfect toast.
 - The remote control of a TV set is a complicated little electronic device that contains simple electrical devices such as batteries.
- Tell the participants that electronics is a branch of science which deals with electrical circuits involving active and passive electronic components.
- Tell them about the basic active and passive components with the help of the following figure and show some of the components to them.

Active Components	Passive Components
•Diodes •Transistors •Integrated Circuit(IC) •Light Emitting Diode (LED) •Power Sources •Solenoid	•Transformer •Resistor •Capacitor •Inductor •Thermistor

Fig 1.2.1: Active and passive components

- Then, explain to them about active components using the following points:
 - Those components which generate energy in the form of voltage or current are called as active components.
 - In very simple words, it can be said that active components are energy donors.
 - Brief them about each component along with its application with the help of the following table:

Components	Application
IC	• In an oscillator • In an amplifier • In a timer • In a counter, a microprocessor or computer memory
Transistors	• As an amplifier • As a switch
Power Sources	• Provide energy (power) to the circuit
LED	• In aviation lighting • In automotive headlamps • In general lighting • In traffic signals • In camera flashes • In lighted wallpaper

Solenoid	Automotive: In interlock devices Medical: In dialysis machines, dosing equipment and blood pressure monitoring devices. Railways: In locomotives, rolling stock, tracks, signals and power distribution Industrial: In locking, cutting, clamping, punching, positioning, diverting, holding or rotating
-----------------	--

Fig 1.2.2: Components and its applications

- Next, explain to the participants about passive components using the following points:
 - Passive components are those components which do not require any power source to perform their specific functions.
 - These components are not capable of controlling current.
 - Brief them about each component along with its application with the help of the following table:

Components	Application
Transformer	• To increase (or step-up) voltage • To decrease (or step-down) the supply voltage • In radio demodulation • In power conversion • In over-voltage protection • In logic gates • In waveform Clipper and Clamper
Resistor	• In a low-noise amplifier or a pre-amplifier • In heavy-duty industrial high-current
Capacitor	• For energy storage • In digital memory • In pulsed power and weapons • In power conditioning
Inductors	• For energy storage • In analog circuits and signal processing

Fig 1.2.3: Passive components and its applications

- Tell the participants that thermistors are widely used as:
 - Inrush current limiter
 - Temperature sensors that is Negative Temperature Coefficient (NTC) type, self-regulating heating elements
 - Positive Temperature Coefficient (PTC) type self-resetting overcurrent protectors
- Explain forward and reverse voltage of a diode.
- Briefly explain the colour bands of a resistor.
- Tell them about the various units of resistance and capacitance.
- Also, tell them about splices, switches and couplers.

- Activity Handling Strategy:
 - Ask the participants to tell the answers one by one.
 - The answers are:
 - $1\text{ k}\Omega = 1000\Omega$
 - $1\text{ M}\Omega = 1000000\Omega$
 - $1000000\mu\text{F} = 1\text{F}$
 - $1000\text{nF} = 1\mu\text{F}$
 - $1000\text{pF} = 1\text{nF}$

UNIT 1.3: Cables and Connectors

Unit Objectives

At the end of this unit, the participants will be able to:

- Identify the different types of cables and connectors used in a Closed-circuit television (CCTV) system
- Define cable, flex, lead and wire

Resources to be Used

- Available objects such as a duster, pen, notebook and so on
- Coaxial cables, paired cables, ribbon cables, portable cords and other cables, whichever are available
- RCA and BNC connectors

Demonstrate

- Show the participants the different types of cables.

Notes for Facilitation

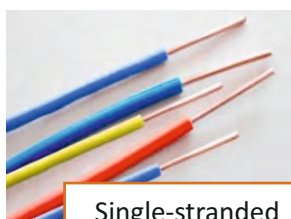
- Define cable as an assembly of electrical conductors/wires insulated from each other but laid up together (by being twisted around a central core).
- In addition, tell the participants that a cable is often misunderstood with a wire. Explain to them the difference between a wire and a cable with the help of the following table:

Parameter	Wire	Cable
Definition	Is a thin, flexible thread of metal	Is an assembly of electrical conductors/wires
Uses	Used to bear mechanical loads or electricity and telecommunication signals	Used for: • Power transmission • Connecting two or more devices • Carrying electric currents
Types	Solid wire and stranded wire	Twisted pair cable, coaxial cable, multi conductor cable, fibre optic cable and so on

Fig 1.3.1: Difference between wire and cable

- In addition, tell them that a flex is a flexible cable fitted to the mains electrical appliances and a lead is a complete assembly of cables and connectors.

- Tell them the basic classification of cables with the help of the following images:



Single-stranded



Multi-stranded



Single-core



Multi-core

Fig 1.3.2: Classification of cables

- Briefly explain various cables used in CCTV installation and show them the available ones.
- In addition, tell them:
 - A single cable is a thin strand that is simply known as a wire.
 - Communication cables are copper conductors. Copper wire is used in telecommunications, electronics circuitry, power generation, power transmission, power distribution and so on. Coaxial cables, multicore cables and twisted pair cables are used as communication cables.
 - Flexible cables, also known as continuous-flex cables, are specifically designed to cope with the bending of cables and the physical stress on cables inside cable carriers. It is used in automation.
 - In a shielded cable, there are one or more insulated conductors that are enclosed by a common conductive layer. The shield may contain braided strands of copper or aluminium, a non-braided copper tape that is wound spirally or it may contain a layer of conducting polymers.
 - Twisted pair cables may be shielded or unshielded.

Demonstrate

- Show them different types of connectors.

Notes for Facilitation

- Tell them that connectors provide interfaces for linking devices by using cables.
- Also, tell that connectors either have a male end with pins sticking out from it or a female part, also known as a socket, with holes for accommodating the pins.
- In addition, tell them that a pin layout describes which pins couple with which wires. Generally, each numbered pin corresponds to a wire within the cable.

- Show them a pin layout as given in the following image and tell them about the various ports and connectors:
 - Serial port: for DB9 connector, to connect older devices
 - Parallel port: for DB25 connector, to connect old printers
 - USB ports: to connect peripherals
 - RJ45 connector: for Ethernet cable
 - VGA connector: used for connecting a monitor
 - Line-In, Line-Out and microphone jacks: for connecting
 - Speakers
 - Sound system
 - Microphone

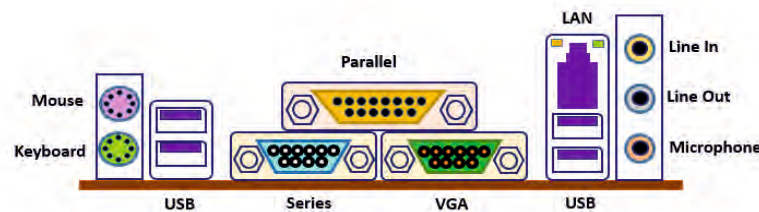


Fig 1.3.3: Pin layout for pin connections

- Tell them that:
 - An RCA connector: is used to carry audio and video signals
 - A BNC connector is:
 - Used with a coaxial cable in a radio-frequency electronic equipment, such as a radio and a television, in test instruments and in video signals.
 - Used on commercial video devices for composite video.
 - Also found in recording studios.
 - D connector: is used for communication ports, network ports and game controller ports.
 - F connector: are suitable for cables and satellite TV installations where there is a requirement for delivery of high frequency information.
- Briefly explain about terminal blocks and PCB terminals.
- Activity Handling Strategy:
 - Ask the participants to solve the question and give them two minutes.
 - After the time is over, ask one of them to tell the first three answers and then ask the other ones to tell the remaining answers.
 - Ask others to match their answers.

Type of cables	Image
Ribbon cables	

Twin-lead cables	
Twisted-pair cables	
Paired cables	
Portable cord	
Direct-buried cable (DBC)	
Multi core/ Multi conductor cable	

Fig 1.3.4: Difference between wire and cable

UNIT 1.4: Basics of Networking

Unit Objectives

At the end of this unit, the participants will be able to:

- Define network and its topologies
- Identify the types of networks
- Use the different layouts of networks
- Identify the various network devices
- Define TCP/IP and IP addressing

Resources to be Used

- Available objects such as a duster, pen, notebook and so on.

Ask

- Start the session by asking the participants if they know about LAN (Local Area Network), MAN (Metropolitan Area Network) and WAN (Wide Area Network).
- Ask them if they can tell the different types of network topologies.
- Enquire if they know anything about TCP/IP. If yes, then ask them to name its layers.

Demonstrate

- Show a network interface card
- Show the various network devices

Notes for Facilitation

- Tell the participants the full form of TCP/IP Transmission Control Protocol/Internet Protocol.
- Also tell them that a network is an interconnection of a group of computers that can communicate and share resources such as hard disks and printers and are connected by some type of transmission media.
- Tell them about some advantages of a network such as:
 - Sharing of information across the network
 - Optimum utilization of hardware resources
 - Centralization of data management and peripherals
- Tell them the components of a network are:
 - Shared Devices
 - Network Communication Technology (NCT)
 - Network Operating System (NOS)
 - Network Devices

- Explain to them about the concept of server and client computers and tell them about the different types of servers such as file, print, communication and mail server.
- Inform the participants that network communication technology deals with the technology aspect of networking communication.
- In addition, also tell them that communication is the process of sharing information and ideas through speech, symbols, signals or signs.
- Briefly introduce Network Interface Card to them.
- Tell them about network communication technology such as Internet, Intranet and Extranet.
- Further tell them that communication technology also deals with the mode of transmission of data. Mode refers to the direction of data flow over the network. There are three types of modes:
 - **Simplex:** It is a type of connection in which the flow of data is unidirectional, that is the data flows in only one direction.
 - **Half-duplex:** It is a type of connection in which the flow of data is in one direction or the other, but it cannot be both at the same time.
 - **Full-duplex:** It is a type of connection in which the flow of data is bidirectional. Each end of the line can thus transmit and receive at the same time. This means that the bandwidth is divided into two for each direction of the data transmission, if the same transmission medium is used for both the directions of the transmission.
- Further, tell them that there are other types of modes of transmission, such as synchronous and asynchronous communication mode, parallel and series mode and so on.
- Explain to them about Network Operating System (NOS) with the help of the following points:
 - It runs on a server and provides the server the capability to manage data, users, groups, security, applications and other networking functions.
 - The primary purpose of the NOS is to allow shared file and printer access among multiple computers in a network; for example, it allows sharing through a LAN and also through a private network to other networks.
 - Examples of network operating systems are Microsoft Windows Server 2003, Microsoft Windows Server 2008, UNIX, Linux, Mac OS X, Novell NetWare and BSD.

- Tell that the advantages of the network operating systems are as shown in the following figure:

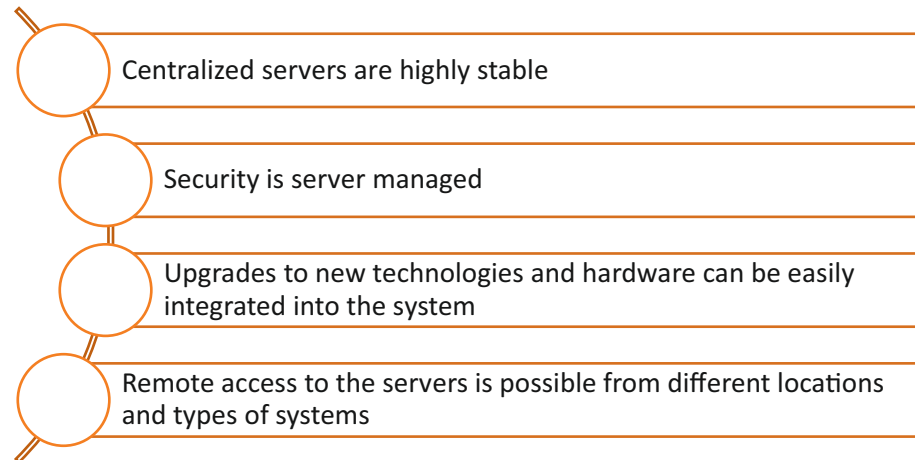


Fig 1.4.1: Advantages of network operating system

- In addition, tell them that the disadvantages of the network operating systems are as follows:

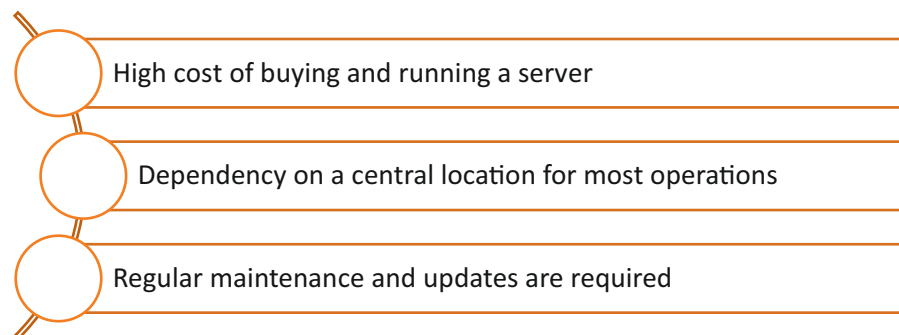


Fig 1.4.2: Disadvantages of network operating system

- Inform them that network architecture is a structural model that specifies the type, layout and components of a network along with the data format, different protocols and services provided.
- Explain to them about the two types of network architectures with the help of the following points:
 - **Peer-to-Peer:** In a peer-to-peer network, there is no specific distinction between a client and a server. Every computer can communicate directly with every other computer. By default, no computer has more authority than another.
 - **Client-Server:** In a client-server network, the requests are processed centrally by one or more servers. The server is a system with a high processing power, which provides services for the other computers in a network. The client is a system that accesses resources available on a server. In a client / server network setup, the server is responsible for processing the requests sent by the clients.
- Inform them about the various networking devices.
- Explain the concept of network topologies.

- Inform them that the three types of networks are:
 - LAN
 - WAN
 - MAN
- Tell them about each type of network with the help of the following figure:

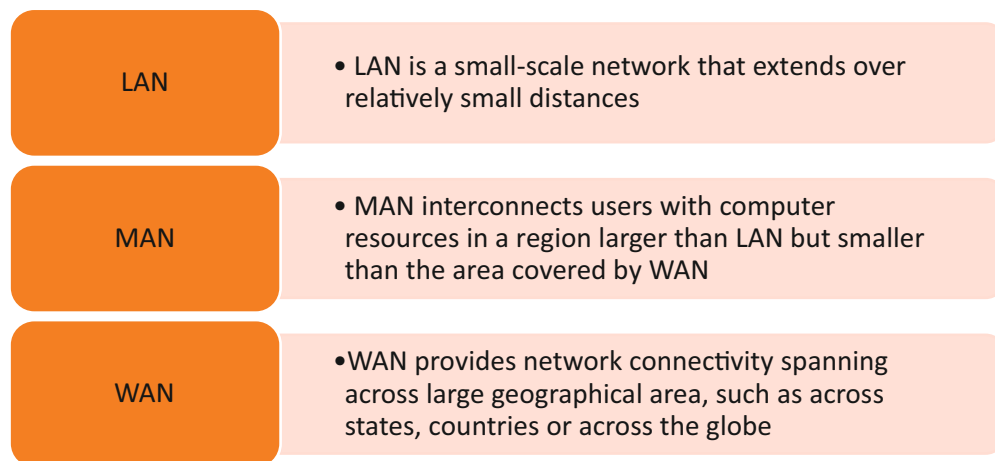


Fig 1.4.3: Type of networks

- Briefly explain Ethernet technologies.
- Inform them about wireless networks and WLAN standards.
- Tell them that a CCTV can be connected through a wired connection. It can also be connected via a wireless connection and can be operated remotely.
- Next, tell them that TCP/IP was developed by the department of Defence's Project Research Agency (ARPA, later DARPA) as a part of a research project studying about network interconnection required to connect remote machines.
- Briefly explain the different layers of TCP/IP model.
- Tell them that an IP address is a unique identifier for a computer or any other device attached to the network. It is a 32-bit value. IP addresses are written in four decimal numbers which are separated by dots.
- Tell them about the classes used in IPV4 addressing.
- Activity handling strategy:
 - Ask the participants one by one the name of the topologies.
 - Tell the participants to draw the topology on the board and write its name.
 - Answer:
 - Bus
 - Mesh
 - Star
 - Tree
 - Cellular

UNIT 1.5: Tools and Equipment

Unit Objectives

At the end of this unit, the participants will be able to:

- Define a multimeter
- Differentiate between analog and digital multimeters
- Use a multimeter
- Maintain a multimeter
- Identify analog scales

Resources to be Used

- Available objects such as a duster, pen, notebook and so on.

Ask

- Ask the participants to name some tools they can remember.
- Ask them to name the equipment that is used to measure current, voltage and resistance across the conductors.

Notes for Facilitation

- Write the name of the tools mentioned by the participants on the board.
- Show them the different types of tools and equipment.
- Explain to them about the usage of each tool and equipment.
- Tell them about some additional tools used for CCTV installations such as:
 - Hammer, which Hammer may be needed for clipping cables to the walls and ceilings.



Fig 1.5.1: Hammer

- Nose Plier, which is used for holding smaller objects/wires.



Fig 1.5.2: Nose plier

- Drill machine and drill bits, which are used to make holes in walls.



Fig 1.5.3: Drill machine

- Measuring tape, which is used for measuring distances while mounting cameras and thus helps in accurate installations.



Fig 1.5.4: Measuring tape

- Tell them about the two types of multimeter:
 - Analog
 - Digital
- Explain how to use a multimeter to measure voltage, current and resistance.
- Tell them that they should keep in mind the type of current they are measuring, whether it is AC or DC.
- Tell them how to measure electrical power and energy.
- Activity Handling Strategy:
 - Randomly ask the participants one by one to answer the questions.
 - Answers:
 - 1. Current
 - 2. Ampere
 - 3. Resistance
 - 4. Ohm
 - 5. Multimeter

2. Electronic Surveillance

Unit 2.1 – Introduction to Electronic Surveillance

Unit 2.2 – Introducing CCTV

Unit 2.3 – CCTV Technology



ELE/N4611

Key Learning Outcomes



At the end of this module, you will be able to:

- Define electronic security system
- List the types of electronic surveillance
- Recognize the roles of a CCTV installer
- Explain CCTV surveillance system
- List the applications of CCTV surveillance
- Explain components of CCTV system
- List different types of camera
- Explain different CCTV technology
- Describe remote control surveillance

UNIT 2.0: Objective of the Module

Objective of the Module



The objective of this module is to enable the participants to define electronic security system. The participants would be able to list the types of electronic surveillances and recognize the roles of a CCTV installer. The module will explain CCTV surveillance system in detail, along with its components. The participants would learn about applications of a CCTV surveillance and different types of camera. Different CCTV technologies will be introduced. Also, remote control surveillance shall be explained.

Notes for Facilitation



- Initiate the session with the participants by discussing about the objectives of the module.
- Make the session interactive by asking the participants to share their expectations from the module on the blackboard/whiteboard.
- Introduce the topics to be covered and give some information about them.
- Give the participants a general idea about what will be covered in the module.

UNIT 2.1: Introduction to Electronic Surveillance

Unit Objectives

At the end of this unit, the participants will be able to:

- Define electronic security system
- List the types of electronic surveillances
- Recognize the roles of a CCTV installer

Resources to be Used

- Available objects such as a duster, pen, notebook and so on

Do

- Revise the learning of the previous sessions.
- Ask the participants if they have any doubts.

Ask

- Ask the participants what they know about an electronic security system.
- Ask the participants if they can cite examples where they may have seen an electronic security system.
- Ask the participants if they can list the types of electronic surveillance.

Explain

- Explain to the participants about an electronic security system.
- Explain electronic surveillance.
- Explain how PV modules are rated.

Notes for Facilitation

- Introduce electronic security system after the participants share their views.
- Explain the participants how electronic security relates to an innovation whose usage can be witnessed in small stores or buildings and in homes.
- Explain the participants that it is on the basis of its functionality and technology usage, and necessary conditions, a security system can be further classified.
- A security system can be categorized into three sections based on its electronic functioning as:
 - Access Control/Attendance System
 - Fire Detection/Alarming System
 - CCTV Surveillance Security System

- Tell them that an electronic security system provides the facilities such as:
 - Surveillance
 - Access control
 - Alarm
 - Intrusion control of an area
- Tell them about the types and purposes of an electronic security system.
- Explain the participants in brief about CCTV Surveillance Systems as the process of keeping a virtual eye over an area that may be:
 - Under suspicion
 - Need to be secured
- Tell them that cameras are a main part of the surveillance electronic security system that act as eyes to it.
- Also, give the participants an insight as to how the system consists of various equipment that helps in viewing and saving the recorded surveillance data.
- Briefly explain an example of a crime prevention security equipment.
- Inform them that electronic surveillance can be carried on via a:
 - Computer
 - Telephone
 - Camera
 - Biometric System
- In addition, tell them that surveillance via computer is required to regulate activities such as:
 - Visiting certain types of web sites
 - Targeting certain words or phrases
 - Communicating through online chat with suspicious individuals or groups
 - Communicating via emails
- Also, inform them that specific software needs to be installed on computers to carry on surveillance physically or remotely. Accessing the information stored in a computer allows the government to obtain the stored information and search history, live chats emails, file transfers and so on.
- Tell them that surveillance through a telephone allows the identification of the location of a mobile phone and helps in tracking the person carrying it. It is done by calculating the differences in time for a signal to travel from the cell phone to the cell towers near the location of the phone.
- Inform them that cameras are simple and inexpensive gadgets to be used for everyday surveillance.
- Inform the participants about their role as a CCTV installation technician.
- Activity Handling Strategy:
 - Choose five participants randomly and ask each one of them to tell one type of electronic surveillance.
 - Types of surveillances are:
 - Computers
 - Telephones

- Cameras
- Biometric Systems
- Social network analysis

UNIT 2.2: Introducing CCTV

Unit Objectives

At the end of this unit, participants will be able to:

- Explain CCTV surveillance system
- List the applications of CCTV surveillance
- Explain components of CCTV system
- List different types of camera

Resources to be Used

- Available objects such as a duster, pen, notebook and so on

Do

- Revise the learning of the previous sessions and ask them if they have any doubts.

Ask

- Ask the participants about the applications of a CCTV system.
- Ask them whether they can tell about the components of a CCTV system.
- Ask them about applications of a CCTV surveillance.
- Ask the participants if they know about different types of CCTV camera.

Explain

- Explain the participants in brief about CCTV Surveillance Systems as the process of keeping a virtual eye over an area that may be:
 - Under suspicion
 - Need to be secured
- Explain that cameras are a main part of the surveillance electronic security system that act as eyes to it.
- Explain as to how the system consists of various equipment that helps in viewing and saving the recorded surveillance data.
- Explain the components of a CCTV system one by one.
- Explain the features of a camera.

- Explain the types of CCTV camera:

Infrared (IR) security camera

- Provide color video with high resolution during the day.
- Automatically lights up the area by switching colors from black to white and vice versa.
- Provide clear recording in both low light and no light situations. Can combat both hot and cold temperatures without requiring any additional camera housing.

Pro Box Camera

- Are popular for high video quality. Usually seen in super marts, grocery stores and banks.
- Allow the camera lenses to be changed based on viewing angle and required zooming feature.
- Are sometimes known as day / night cameras since they can switch from color to black and white as per the light conditions.
- Lower the light, better the camera can view in complete darkness.

Pan Tilt Zoom Camera

- Provide the facility to be controlled using remote viewing software, or a joystick.
- Allow to be panned (left or right) and tilted (up or down).
- Provide zoom capability and can zoom in on something from a distance.
- Can be programmed to perform preset tours where certain areas can be monitored from a distant location.
- Are mainly used in department stores, casinos and airports.
- Are expensive, as compared to other types.

Bullet

- Is a ceiling-mounted or wall-mounted unit designed especially for indoor use, but can also be utilized for some outdoor applications.
- Is named such for its sleek, thin and cylindrical shape.
- Is not designed to have PTZ control but to capture images from a fixed location.

Hidden Cameras

- Offers the best surveillance.
- Do not allow someone to know about the presence of a camera.
- The different kinds of smoke detectors include exit signs, clocks, motion and smoke detectors and sprinklers.
- Do not provide infrared capabilities and hence cannot perform in low light.
- Hidden cameras are usually placed in hotel lobbies, assisted living homes/facilities, pharmacies etc.

High-Definition Cameras

- Are often used in places like casinos.
- Allow the operators zoom in with maximum clarity, especially to monitor poker players who may try to cheat or act fishy.

Network Cameras

- Can be connected to IP-based networks
- Allows viewing and recording of footage remotely.
- Are also available in HD quality with greater image detail.

Thermal Imaging Cameras

- Provide the facility to detect through fog or smoke.
- Can detect infrared or heat radiation invisible to the human eye.
- Are sensitive to a small difference in temperature ($1/10^{\text{th}}$ of a degree Fahrenheit).

Fig 2.2.1: Types of CCTV camera

Notes for Facilitation

- Give the participants a brief overview of what all will be covered in the program.
- Start the discussion by inviting the participants to participate.
- Introduce TV system to the participants and tell them about the open and closed-circuit TV system.
- Draw the given differences between open circuit television (OCTV) system and closed-circuit television (CCTV) system:

OCTV	CCTV
• Open circuit means wireless transmission.	• Closed circuit means the video signal goes through a wire.
• Open circuit being wireless is easier to install.	• Closed circuit is more reliable and secure.

Fig 2.2.2: Difference between OCTV and CCTV

- Briefly explain CCTV system.
- Tell them that CCTV System is the use of video cameras to transmit a signal to a specific, limited set of monitors.
- Tell them how it differs from broadcast television in that the signal is not openly transmitted, though it may employ point to point wireless links.
- CCTV is often used for surveillance in areas which need security, such as banks, casinos, and airports or military installations.
- CCTV includes one or more cameras which are used to send video images and audio data to a monitor.
- Explain that these camera systems use cameras to transmit the signals to a main hub which then records that data for later viewing or live viewing if a full-time security personnel is at the premises.
- Tell them that CCTV system can be used to:
 - Maintain security in medium and highly secured areas and installations.
 - Observe behaviour of confined and potentially serious patients in medical facilities.
 - Monitor traffic.
 - Oversee locations that may come out as hazardous.
 - Maintain building security.
 - Obtain a visual evidence of the activities where it is necessary to ensure proper security and access controls such as in banks, airports or in a diamond cutting operation.
- Tell them about the applications of the CCTV systems after the participants mention some of them.
- In addition, tell them CCTV system may be used in a hotel to allow:
 - The waiters to monitor the timing for the delivery of the next course in a restaurant .
 - The skiers at ski resorts to check the congestion.

- Inform them that CCTV system can also be used for:
 - video conferencing
 - sale presentations
 - distance learning
- Tell them basic operations on a CCTV system are as follows:

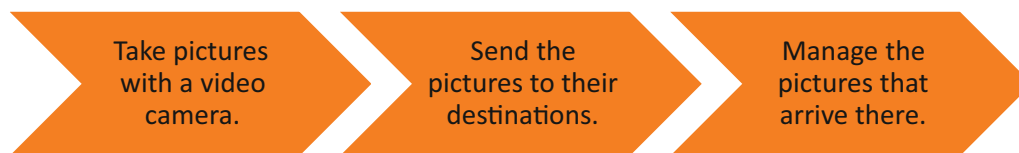


Fig 2.2.3: Basic operation of CCTV system

For these the components of a CCTV surveillance system include:

- Camera
- Monitor
- Recorder
- Switcher and Multiplexer
- Cables
- Tell them that the footage of CCTV camera is displayed on the monitor.
- In addition, tell them that monitors can be:

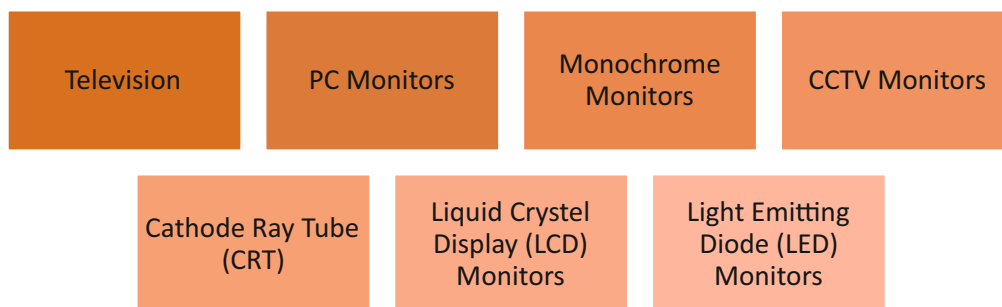


Fig 2.2.4: Type of monitor

- Briefly explain about the different types of cameras used in a CCTV system.
- Also, tell the advantages and disadvantages of wired and wireless CCTV cameras.

- The advantages are as follows:

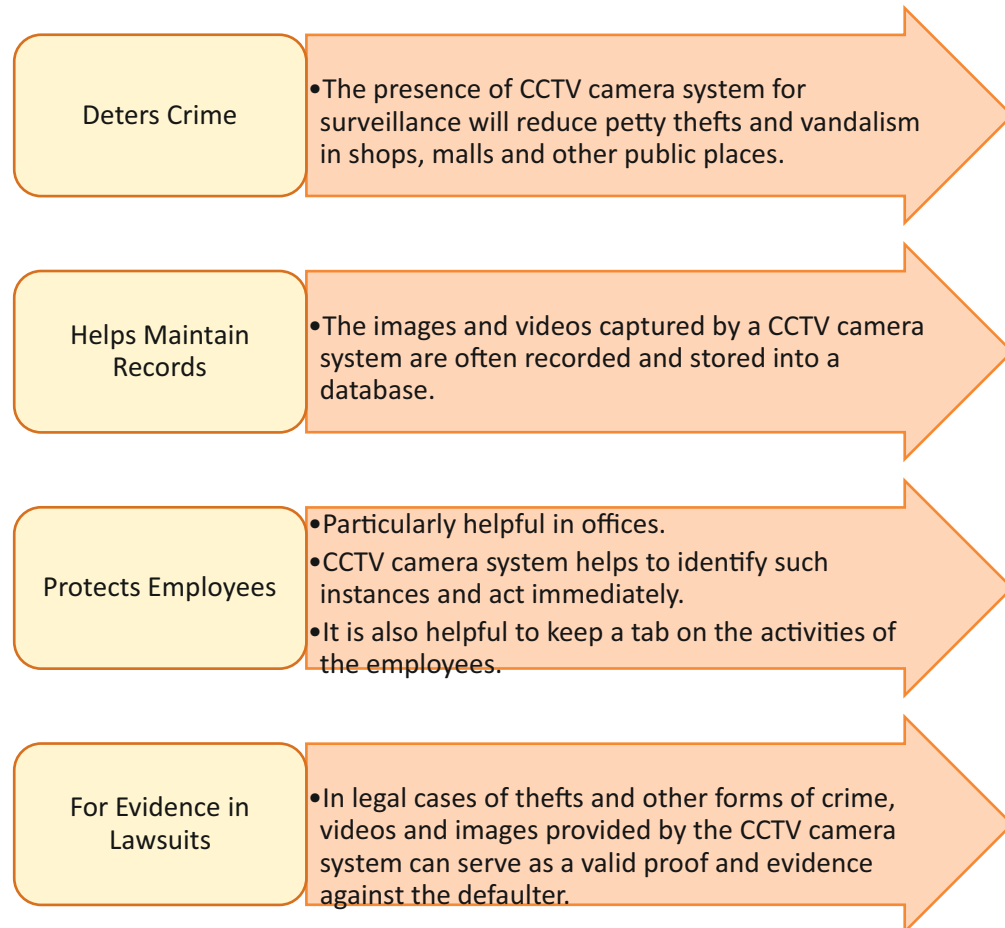


Fig 2.2.5: Advantages of wireless CCTV system

- The disadvantages are as follows:

Do Not Work Always

- CCTV camera system cannot monitor every area of your office or home at all times.
- Hence it cannot be considered as a foolproof method for crime prevention.

Privacy Concerns

- Invasion of privacy is the major issue when it comes to any security system device like the CCTV camera system.
- It lowers the employee morale and hampers productivity at times.
- Constant monitoring of every activity might put the workers ill at ease.

Initial Costs:

- The initial costs incurred per camera are high.
- The installation may also increase the initial expenditure.
- It depends upon the complexity of the CCTV camera system as well.

Fig 2.2.6: Disadvantages of wireless CCTV system

- Tell them that the size of fixed cameras varies, and these can be mounted in a wide range of locations such as on poles, inside cabinets, on fence lines, inside control panels, on roofs and so on.

- Inform them that dome camera is mostly used in the CCTV systems.
- Explain to them various features of a CCTV camera such as:

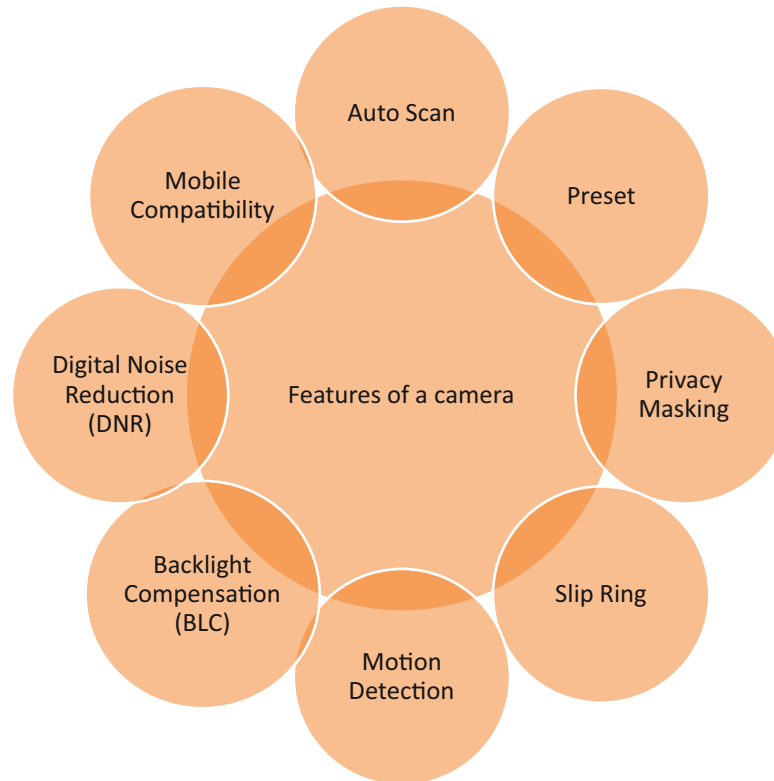


Fig 2.2.7: Features of CCTV system

- In addition, inform them that a camera can be pre-set in such a way that during an intrusion alarm, it can:
 - Focus on the access point at the location of triggering the alarm
 - Display the high-value assets in the surveillance area
- Tell them that PTZ cameras let to monitor a parking lot adjacent to an apartment building with the feature of masking the images of the building windows.
- Also, tell that BLC allows the operator to see the details of a person moving in front of a brightly lit window.

Ask

- Ask them whether they know about the sub-components of a camera.
- Ask them if they know what a lens is.
- Ask them if they have any idea about sensors used in cameras.
- Ask them about focal length, aperture and iris.
- Ask them about Digital Video Recorders (DVR).

Explain

- Explain section according to the topic now - lens, sensors, camera housing and so on.
- Explain the features of a camera.

Notes for Facilitation

- Explain lens as an important component of the camera.
- Explain the three different types of camera lenses with the help of the following figure:

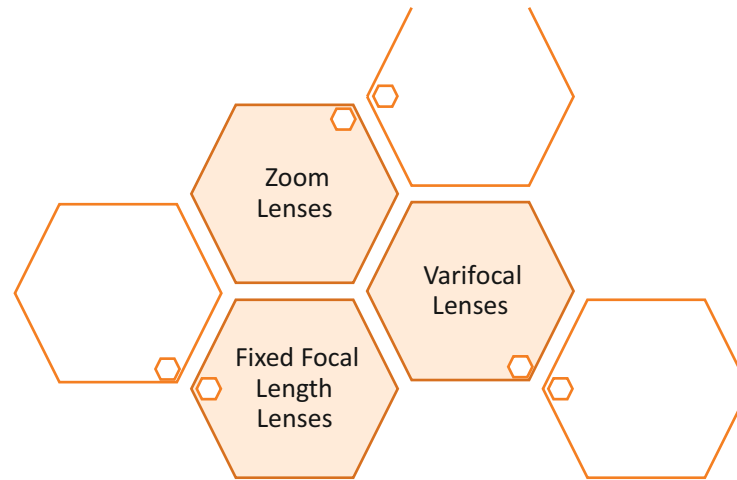


Fig 2.2.8: Type of camera lenses

- The lens on a CCTV camera is the first element in the imaging chain, which consists of the lens, camera, transmission system, image management and analysis software, and monitor.
- Systems that require superior quality images have lenses which are engineered to produce a high-quality image for the imaging sensor. While selecting a lens consider the following points:
 - Distance required to clearly focus on object
 - Field of vision
 - Size of the camera's imaging sensor
 - Lightning conditions.
- Lenses are identified by their focal length (in millimeters), largest aperture (in f number), and size of the image sensor for which the lens is designed. Explain to the participants about focal length, aperture and iris.
- Explain in detail about the two image sensors that are used in the CCTV cameras:
 - Charge-coupled device (CCD)
 - Complementary metal oxide semiconductor (CMOS)
- Explain the participants how a DVR receives the footage captured by the camera, archives the footage as recording to be reviewed later and shows the recording on a monitor to be viewed by the user.
- Explain that switchers and multiplexers enable the system to route the video signal to the output devices in the CCTV systems having number of cameras more than monitors and recorders.

- Talk about the different types of camera housing structures.

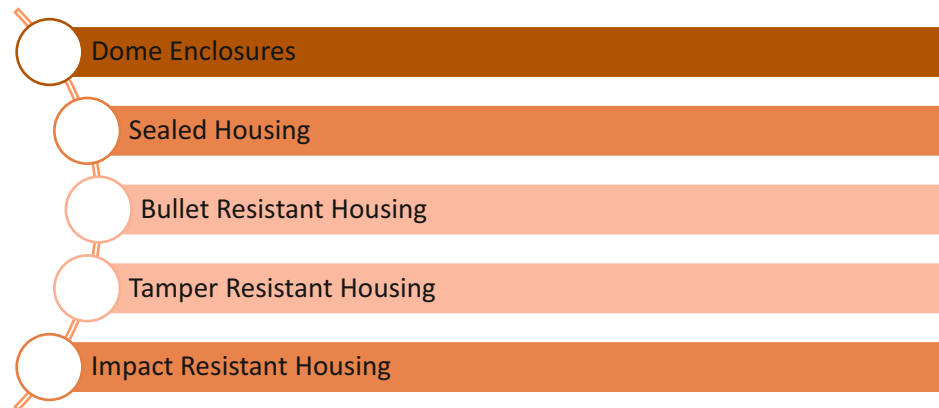


Fig 2.2.9: Type of camera

- Emphasise on the features of camera housing.

Sun shields can be used to protect the housing from direct sunlight as it may affect the life of the camera adversely. They help to reduce the heat on the camera and lens.

Wipers may be used to keep the housing's optical window clean.

Heaters and ventilators can be used to face the problem of fogging, moisture, and icing due to temperature differences in between interior and exterior part of the camera housing.

Fig 2.2.10: Features of camera housing

- Tell the participants about common types of camera mounts.

- Briefly tell about different types of camera mounts:

Wall Mount Bracket

- Ideal for mounting computer monitors to the wall.
- Able to tilt side to side to adjust the monitor's angle of view.

Dome Security Camera Bracket

- Allows you to wall mount non-3-axis domes to a wall instead of ceiling

Pole Mount Security Camera Bracket

- Enables pole mounting for security cameras.
- Enables pole mounting for security camera housings.

PTZ Camera pole bracket

- Enables pole mounting for PTZ-H101 camera housing

Celing Mount Bracket

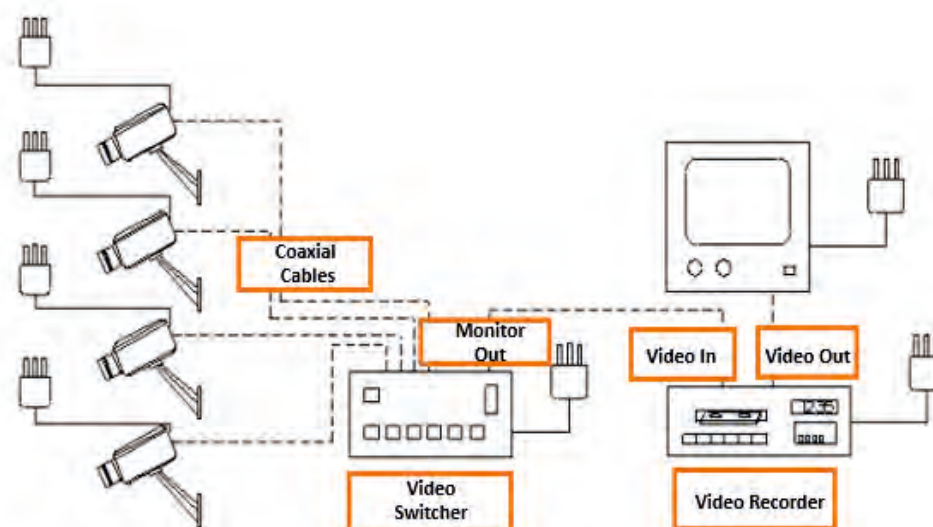
- Suitable for LCD monitors from 15" - 23"

Pole Mount Security Camera Bracket

- Enables pole mounting for security cameras
- Enables pole mounting for security camera housings

Fig 2.2.11: Types of camera mounts

- Activity handling strategy: Identification Game



UNIT 2.3: CCTV Technologies

Unit Objectives

At the end of this unit, the participants will be able to:

- Explain different CCTV technologies
- Describe remote control surveillance

Ask

- Enquire from the participants if they have ever seen a Video Cassette Recorder (VCR) and a Digital Video Recorder (DVR).
- Ask them if they know anything about CCTV surveillance technology.
- Enquire from them if they know about video compression formats. If they say yes, ask them to name a few of them.
- Ask them why is data compression necessary?

Notes for Facilitation

- Give the participants a brief overview of the evolution of the video surveillance technology.
- Then, explain to them about the evolution of the video surveillance recording system. In addition, tell them about some advantages of the DVR and Network Video Recorder (NVR) systems with the help of the following points:
 - These systems are appropriate for handling various cameras from a prime location.
 - They have the capacity to store larger volume of video files and for a longer duration in comparison with a camera.
 - The videos can be reviewed and analyzed through a single interface, rather than having to access them exclusively from each camera.

- Tell them that there are various CCTV surveillance technologies available in the market. Then briefly explain to them about the components of each technology with the help of the points given in the following figure:

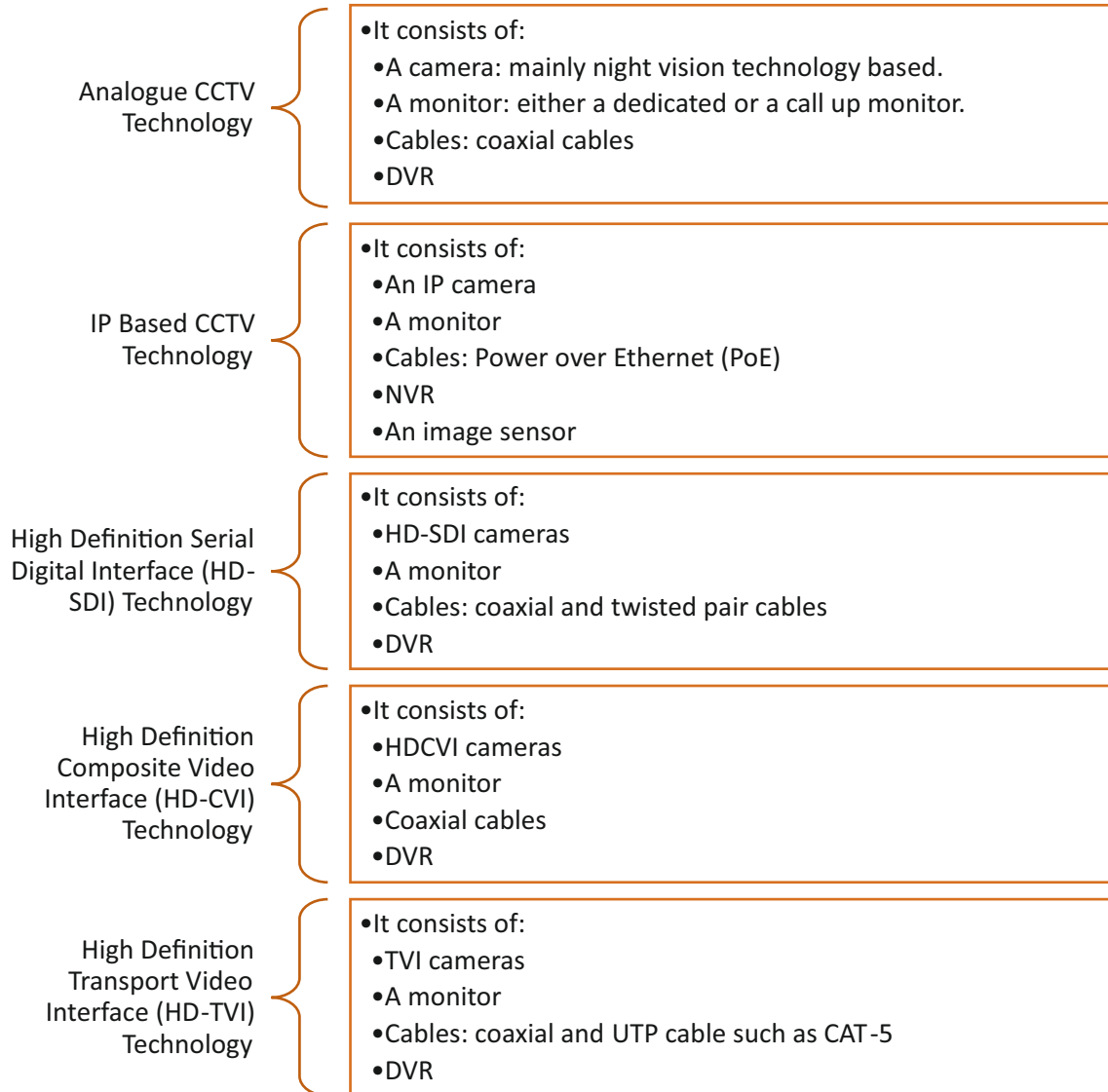


Fig 2.3.1: Type of CCTV technology

- Then, brief them about the advantages and disadvantages of each technology.
- Further, explain to them about remote-controlled surveillance. First tell them about the need for controlling the CCTV system remotely. It is controlled remotely when the distance between the camera and the security room is large (generally over 3 kilometers or 1.9 miles) and if cable installation is not possible. Then, explain to them about the block diagram of remote-controlled surveillance.

- In addition, also tell them about the different video transmission ways, which are laser, near-infrared light, spread spectrum, mobile, and telephone line and fiber optic cable.

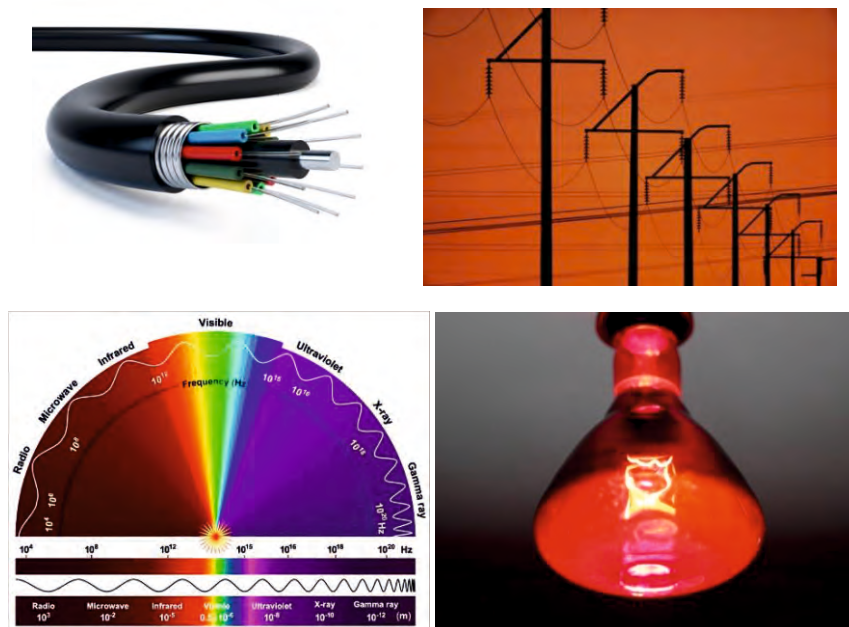


Fig 2.3.2: Type of video transmission ways

- Lastly, tell them about the a few video compression formats.
- Tell the participants that without a compression format, the volumes of data produced by digitising CCTV image streams would swamp the available storage and communications systems.
- Tell the participants about the four commonly used compression formats:

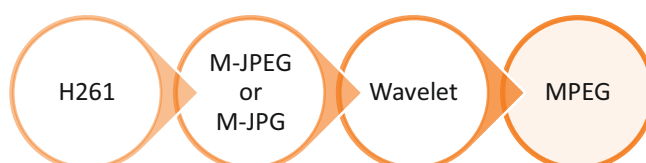


Fig 2.2.4: Compression formats

- Activity Handling Strategy:
 - Randomly choose participants to answer the given questions.
 - Then give the solutions and ask the participants to check if they had given the right answers.
 - Advantages of Analogue CCTV Technology:
 - Stable and well-established robust technology that is widely supported.
 - Easy to install, operate and maintain.
 - Cost effective
 - No compatibility issues among CCTV components
 - No loss of frames

- Provides better performance in a low light situation than other megapixel cameras with CMOS
- Advantages of HD Analogue CCTV Technology:
 - Similar to analogue CCTV technology with the exception that all cameras are connected to the associated DVR directly
 - Transmits video, audio and serial data simultaneously instead of only video
 - Electromagnetic interferences are common while signals are transmitted
 - No compression, latency and delay
 - HD quality video is delivered
 - Low maintenance cost
 - Open standard compliance assures compatibility among the devices which are run on the same technology made by different manufacturers
- Disadvantages of IP Network Technology:
 - Poorer performance in low light conditions than the analogue counterparts
 - More fragile than analogue ones. If the network fails, no live video can be monitored or recorded
 - Delay in receiving the video signal because of network traffic
If not designed properly, the system can suffer missing frames, delays and latency.
 - Compatibility limitations among the components and software
 - Fast and robust infrastructure required for a larger system.
 - More storage space required for them than for analogue ones
- Disadvantages of HD-SDI Technology:
 - Though cheaper than IP CCTV systems, the equipment cost is still high
 - It has the limitation that there is a maximum of 100m cable running between the camera and DVR
 - Electromagnetic interference and noise is commonly present in the transmission of video signals.
 - The storage capacity required for them is more than that for an analogue CCTV
There is not as much in the way of tools, applications and support available in the market as there is for IP or analogue CCTV systems





3. Designing of the CCTV System

Unit 3.1 – Pre-installation Activities

Unit 3.2 – Customer Requirements and Site Analysis

Unit 3.3 – Selection of Components



ELE/N4609, ELE/N4610
ELE/N9909

Key Learning Outcomes



At the end of this module, you will be able to:

- List the pre-installation activities
- Identify the factors to be considered for the designing process
- Analyse the customers' needs and requirements
- Assess the site conditions
- Explain the factors of system layout and design considerations
- List the post survey activities
- List the factors for selecting the camera
- Explain the characteristics of a camera
- Identify the factors for selecting the camera lens
- Evaluate the selection of the switcher, the monitor and the multiplexer

UNIT 3.0: Objective of the Module

Objective of the Module



The objective of this module is to enable the participants to design a CCTV system. They will be able to identify the factors to be considered for the designing process. In addition, they will be able to explain the characteristics of a camera. They will be able to identify the factors to be kept in mind for selecting the camera lens, switcher, monitor and multiplexer.

Notes for Facilitation



- Initiate the session with the participants by discussing about the objectives of the module.
- Make the session interactive by asking the participants to share their expectations from the module on the blackboard/whiteboard.
- Introduce the topics to be covered and give some information about them.
- Give the participants a general idea about what will be covered in the module.

UNIT 3.1: Pre-installation Activities

Unit Objectives

At the end of this unit, you will be able to:

- List pre-installation activities
- Identify the factors to be considered for the designing process

Notes for Facilitation

- Tell the participants the importance of a good design process.
- Then, tell them that the system design for a CCTV installation should start with an assessment of the customer requirements and an analysis of the site conditions to ensure security and to make plans to mitigate the identified risks.
- In addition, tell them that a CCTV installer should follow the design process to ensure a smooth workflow in the installation process.
- Further, explain to them the steps involved in the pre-installation activities.
- Activity handling strategy:
Create a checklist for designing the CCTV system.

1. The system installed is in strict accordance with the agreed specification
2. Cable has been checked for continuity and is terminated correctly using proper connector
3. The resistance of the single loop cable has been tested according to the standard industry practices
4. The termination of the single loop cable has been tested according to the standard industry practices
5. The Cable length doesn't exceed the maximum capable distance for that particular cable type
6. Cabling is at least 5" from power lines of 2 kVA or less
7. Cabling is at least 12" from fluorescent lighting & power lines between 2 & 5 kVA
8. Cabling is at least 40" from transformers and motors
9. No Ground Loop issues are found / Proper isolators are used to eliminate ground loop issues
10. Adequate Power is provided to power the camera. (Check power cable at camera end to confirm)
11. 12 Camera lens used has the correct focal length and provides the required field of view
12. Cameras do not face directly into the sun when installed outdoors or any lighting when installed indoors
13. In locations that are directly facing a source of light (entrances and exits), WDR cameras have been used
14. The camera view is in focus all the time under changing lighting conditions
15. For Cameras that do not function in low light areas, to improve visibility supplementary lighting is provided
16. All installed cameras field of view covers the designated areas as per the local laws and regulation
17. Alarms interfaces are tested and are triggering correctly
18. If UPS is installed the system continues to operate correctly to specification when there is power outage
19. Night recording has been tested for the IR Cameras installed
20. For PTZ Camera Pan, Tilt, Zoom, features has been tested
21. All cameras have been tested for proper video quality using a monitor before connecting to the DVR



UNIT 3.2: Customer Requirements and Site Analysis

Unit Objectives

At the end of this unit, you will be able to:

- Analyse customers' needs and requirements
- Assess the site conditions
- Explain the factors of system layout and design considerations
- List the post survey activities

Say

- Inform the participants that it is necessary for a CCTV installer to interact with the customer to understand the various factors involved in the design of the CCTV surveillance system.
- Tell them that a CCTV installer should conduct a thorough risk and need assessment for identifying the locations and assets that will enjoy the benefits from the installed CCTV surveillance system.

Notes for Facilitation

- Draw the following flowchart of the design process of the CCTV system on the black/white board to give the participants an overview of the design process:

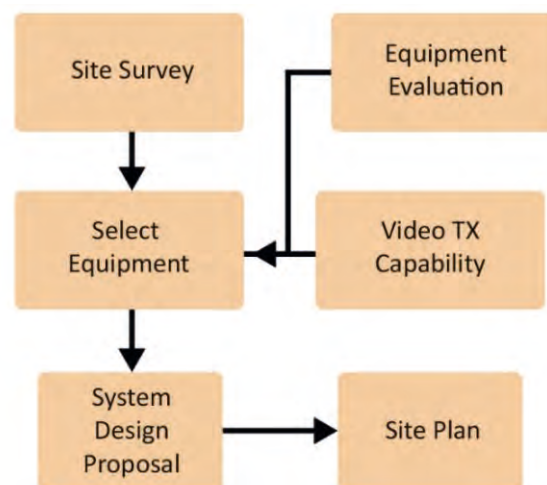


Fig 3.2.1: Flowchart of design process of CCTV system

- Tell the participants that the design of the CCTV surveillance system depends on various factors which are risk perception, budget, ability and the installation purpose of the customer.
- Inform them that to understand these factors, the installer needs to ask relevant questions to gather all the necessary information about the customer's needs. Also tell them that good planning is based on asking good questions.
- In addition, tell them that there are various stages involved in CCTV designing and

installation, such as:

- Location survey/Site plan
- System design
- System Design Proposal (SDP) document
- Installation planning
- System installation
- Testing
- Further, tell them how to assess a customer's needs.
- Enquire from them if they know anything about risk and need assessment. Then, tell them that they should conduct a thorough risk and need assessment for identifying the locations and assets that will enjoy the benefits from the installed CCTV surveillance system.
- Ask them if they can tell about some basic requirements of the customer for getting a CCTV installed. Then, tell them some common requirements such as for monitoring the traffic, monitoring the patients, observing a classroom, monitoring a store and so on.
- In addition, tell them some more specific CCTV surveillance requirements in public places, such as:

Helps in keeping public safety

Helps in catching a criminal

Helps in crime prevention

Provides a sense of security

Helps in collecting evidences

Fig 3.2.2: CCTV surveillance requirements

- Next, tell them that a successful integration of a CCTV system with other security systems requires a comprehensive site survey that will help to generate detailed equipment specifications and the installation design.
- Explain to them the activities that should be performed by a CCTV installer while conducting a site analysis such as understand the area and other specifications, identify installation locations for CCTV camera such that maximum area is covered in the video and so on.
- Inform them that the location survey should have sufficient details so that the security needs of the customers can be fulfilled. In addition, tell them that the location survey should include the following points:
 - Risk
 - Contents
 - Building

- Supervision levels
- Explain to them the key components of a survey checklist. In addition, tell them about some more points of the CCTV installation checklist with the help of the following images:

Customer's Need and Requests

- ☐ System design addresses risks and meets a customer's overall needs.
- ☐ Products used meet the system features that customer requested.

COMMENTS:

Detectors

- ☐ Installed to manufacturers installation instructions.
- ☐ Cover within site boundaries.
- ☐ All cabling and detection devices incorporate tamper protection.
- ☐ Each unique detector can be identified by the system.

COMMENTS:

Positioning and Configuration

- ☐ Camera's field of view covers area of associated detectors.
- ☐ Cameras do not face the sun or light directly.
- ☐ Cameras do not overlook public places.
- ☐ Camera type is appropriate for position and use.

COMMENTS:

Fig 3.2.3: CCTV installation checklist

- Further, explain to them the information to be considered while designing a CCTV system with the help of the following points:
 - System Layout Considerations:
 - The system layout plays an important role for designing an outdoor CCTV system.
 - The factors to be considered for making a system layout are coverage of the access points, the critical assets, the desired field of view and the location of the transmission hub.
 - System Design Considerations:
 - The CCTV installer should be aware of the specifications of the CCTV system components along with some other important factors.
 - The factors to be considered for creating the layout and the design of a CCTV system are lighting, power distribution, video transmission, cost, infrastructure, reliability and maintainability.
- Activity Handling Strategy:
 - Randomly choose the participants to mention one factor each.
 - The factors to be considered for creating the layout and the design of a CCTV system include:
 - Lighting
 - Power Distribution
 - Video Transmission
 - Cost
 - Infrastructure
 - Reliability and Maintainability.

UNIT 3.3: Selection of Components

Unit Objectives

At the end of this unit, you will be able to:

- List the factors for selecting the camera
- Explain the characteristics of a camera
- Identify the factors for selecting the camera lens
- Evaluate the selection of the switcher, the monitor and the multiplexer

Ask

- Enquire from the participants if they know about the characteristics of a camera. If they say yes, then ask them to list some of them.
- Ask them if they know anything about the different types of lenses.
- Ask them if they know what the functionality of sensors is.
- Enquire from them if they know anything about multiplexers.
- Ask the participants how to provide sufficient power to security cameras?

Notes for Facilitation

- Tell the participants that the performance of a CCTV system depends on the individual components of the system. Then, tell them that the important components of a CCTV system are a camera, a camera lens, a switcher, a monitor and a multiplexer.

- Then, tell them that the following figure lists the factors that impact the selection of a camera.

What is the need for the CCTV System system?

Do you want the cameras to be discrete or out in the obvious?

The type of lens, what distance do you want the footage to capture and how recognisable do you want human faces to be?

How large the lens has to be – How large of an area do you want to capture the footage?

Will cameras be indoors – selecting CCTV systems with correct lighting levels?

What of the lighting conditions, do you want to install it?

Do you require audio on your CCTV footage?

Will you prefer a wireless network system?

How much storage will your business need and will you want to store it on site?

What is the correct resolution level?

What part of your business do you want covered by the CCTV Surveillance?

What are the expected challenges do you want to overcome?

Choosing the right sensor – sensor size and sensor type

Think about where you want that light to be

Ensure that the Camera is Legal

Fig 3.3.1: Factors that impact the selection of a camera

- Further, elaborate the following characteristics of a camera:
 - Weatherproof
 - Infrared Capability
 - Remote Video Monitoring
 - Vandal Resistant
- In addition, also tell them about the various types of cameras with the help of the following points:
 - Box Cameras: It is a type of fixed camera and is suitable if no movement or adjustment is needed once it is installed. However, box cameras can combine with a modular pan/tilt driver.

- Zoom Cameras: It is a special type of box camera that includes an optical and mechanical zooming device. The camera movement is not available once it is installed; but its zoom capability provides the zooming function so as to enlarge and reduce the acquired images, when required.
 - Dome Cameras: A Dome camera is a fixed type of camera designed to be installed on a ceiling. The lens module included with the dome camera should be adjusted to frame the desired monitoring angle during installation.
 - Infrared Cameras: These types of cameras have built-in IR (Infra-Red) LED illuminators. They create brighter and clearer images under low-illuminated situations compared to non-IR illuminated cameras. The camera's visible range and other conditions depend on the specification and number of IR LEDs.
 - PTZ Cameras: PTZ cameras are capable of being remote controlled for their directional and zoom movement after installation. PTZ means Panning (side to side), tilting (up and down) and zooming (in and out). A PTZ camera is suitable for monitoring multiple areas or moving objects rather than fixed views.
- Next, brief them about the selection of lenses.
 - Tell them that Angle of View settings plays a vital role in selection of lenses.
 - Inform them that the main use of CCTV monitors is in industries. They cannot receive any TV broadcast as there is no in-built TV tuner.

- Tell the participants about the camera sensors:

Field of View (FOV)

- Field of View is the area, in width, that the lens will allow to see.

Monofocal vs. Varifocal

- Monofocal lenses or 'fixed' lenses can only focus at a specific distance.
- Varifocal lenses will usually have a range, like 2.5-6mm or 5-50mm.

Zoom Lenses

- Zoom CCTV lenses are bit more expensive because, well, they are better.

Manual vs. Auto Iris

- A manual or "fixed" iris lens is one you use if you are in an area where the lighting does not change, like an office.
- An auto iris lens will automatically adjust for light variations. You'll probably need an auto-iris lens for outdoor surveillance.

Camera/Image format

- most CCTV cameras list either 2/3", 1/2", 1/3", or 1/4" for their CCD image sensor. This will affect your field of view.
- The larger the image sensor, the larger the field of view the camera has.

Aperture Rate (F-Stop)

- Aperture, measured in F numbers, is the camera's ability to gather light.
- The lower this F number is, the larger the lens aperture will be, the more open your lens, and the better it will be at allowing light to pass through and onto the CCD image sensor.

Fig 3.3.2: Camera sensors

- Explain the participants how to provide sufficient power to security cameras.
- Explain the security camera needs large current when it firstly boots, plus the transmission consumption, therefore, to calculate total required power supply, doesn't mean rated power of each camera is simply added together.
- Explain that the correct method is adding the rated power, then multiply 1.3, the result is the real required power supply for security cameras, and additionally it is essential to consider the cable power consumption and power budget.
- Give them an example:
If we install 100 units' security cameras in a commercial building, the rated power consumption is 4W for the security camera. How to calculate the required power supply?
 - Security camera power consumption: $4W \times 100 \text{ unit's} \times 1.3 = 520W$
After the consumption, the needed power rating: $520W \times 1.3 = 676W$
Cable consumption and power budget: $676W \times 1.3 = 878W$
- Tell the participants why using a centralized or one power supply source must be avoided. The reason as below:
 - When turn on/off power supply to repair video camera system. All security cameras start to boot, the required boot current is huge, this will have great impact to power

- supply, may lead to damage the power supply.
- If all the security cameras use a single power supply. Once the power supply encounters problem, the whole video security cameras will turn off. Especially for some important entry-points where you can't monitor.
- Tell them about some features of an LCD monitor such as space-saving thinness, low power consumption, off angle viewing and so on. In addition, tell them some of its advantages with the help of the following points:

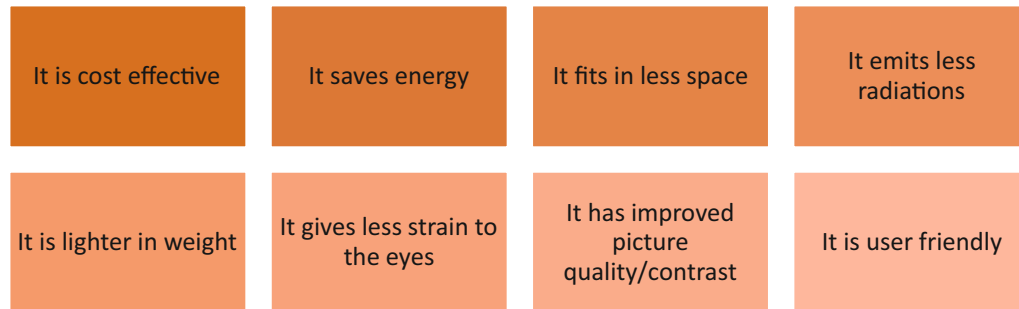


Fig 3.3.3: Advantage of LCD monitor

- Tell them that a switcher enables the operator to view the screens on the same monitor. Switchers enable the switching of the output of a camera in a sequence or by the means of a split screen on a single monitor.
- Further, explain to them about the different types of switchers.
- Next, tell them that the main functionality of a multiplexer is that it selects one of several analog or digital input signals and forwards the selected input into a single line. Then, tell them about the function of a multiplexer in a CCTV system with the help of the following link: http://www.cctv-information.co.uk/i/What_is_a_Multiplexer%3F
- Inform them that for video signal transmission, coaxial cables are generally used with an impedance of 75 Ω . In addition, also tell them about the characteristics of different high frequency cables as shown in figure:



Fig 3.3.4: High frequency cable

- Further, explain to them about the different types of switchers.
- Activity handling strategy:
 - Match the following conditions that an installer must be aware of with the appropriate tools to be used in that situation.

Conditions to be Determined	Equipment/Tool to be selected
Target and observation range	Lens (wide-angle, standard and zoom), number of cameras and motorized pan/tilt head
Synchronization Method	Vertical gen-lock and drive unit

Installation place	Camera housing and outdoor box
Number of monitors	Video signal splitter, switcher, Multi-viewer, multiplexer and Matrix switcher
Monitor screen size	Monitor: CRT or LCD typically
Instant response Capability	Sensor and present memory system



4. CCTV Camera Installation

Unit 4.1 – Planning for CCTV Camera Installation

Unit 4.2 – Installing the Camera

Unit 4.3 – Checking the Camera Functions



ELE/N4611

Key Learning Outcomes



At the end of this module, you will be able to:

- Explain the positioning of camera
- Identify the protection grades
- Perform the steps for installing a dome camera
- Identify the steps of installing a box and a PTZ camera
- Perform activities for achieving standards
- Identify various camera functions
- Explain synchronization of camera

UNIT 4.0: Objective of the Module

Objective of the Module

The objective of this module is to enable the participants to identify the correct position of the camera. They will be able to identify the protection grades. In addition, they will be able to perform the steps for installing a dome camera. They will be able to identify the steps of installing a box and a PTZ camera. In addition, they will also learn the various camera functions. Lastly, they will learn how to synchronize the camera.

Notes for Facilitation

- Initiate the session with the participants by discussing about the objectives of the module.
- Make the session interactive by asking the participants to share their expectations from the module on the blackboard/whiteboard.
- Introduce the topics to be covered and give some information about them.
- Give the participants a general idea about what will be covered in the module.

UNIT 4.1: Planning a CCTV Camera Installation

Unit Objectives

At the end of this unit, you will be able to:

- Explain the positioning of camera
- List the environmental conditions to be considered for camera installation
- Identify the protection grades
- Draw the layout for installation

Notes for Facilitation

- Tell the participants that a CCTV installer must be aware of the CCTV installation process to be able to carry out the installation correctly.
- Tell them that the installation of CCTV camera includes:
 - Mounting the camera
 - Placing the DVR
 - Managing the cables
 - Connecting the wires
 - Powering on the system
- You may draw following diagram showing a CCTV connection:

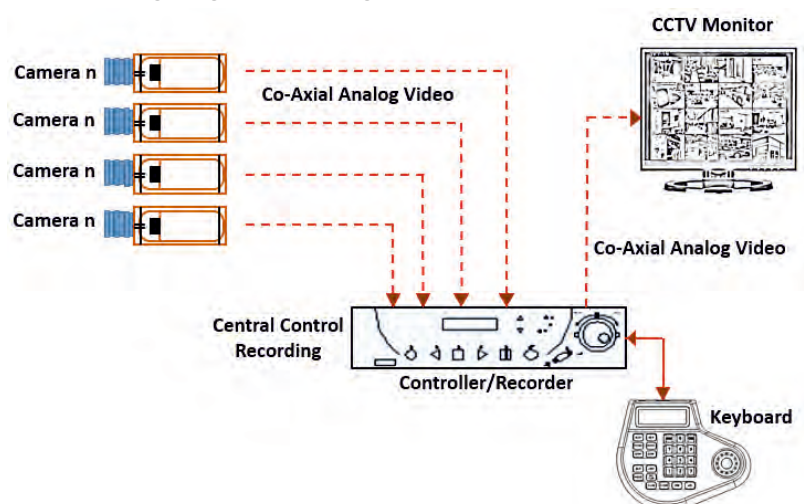


Fig 4.1.1: CCTV connection

- Ask the participants the following question:
When assessing which type of network cable to be installed, which type of cable should be selected?
- After you have got a few answers, tell them that copper has some advantages, including the fact that it already exists in many places and is less expensive to connect network devices.
- Tell them, while fibre optic cables are more expensive, there are several advantages that make it a more enticing cable infrastructure solution than its copper counterpart.

- Tell the participants about reasons of choosing Fibre Optic Cables against Copper Optic Cables:

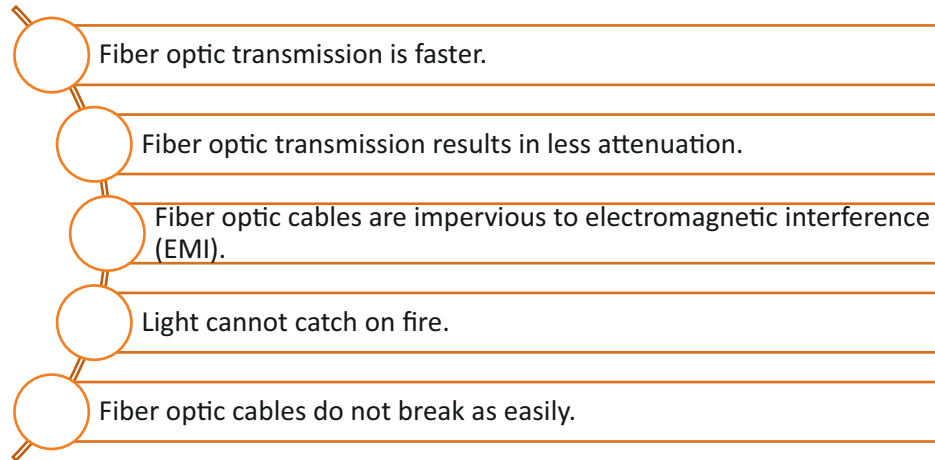


Fig 4.1.2: Reason of choosing fibre optic cable

- Also, inform the participants that while placing the CCTV cameras, efforts should be made to find the most suitable position that has maximum area coverage. The appropriate position of the camera will ensure better monitoring task.
- Further explain to them the factors helpful in determining the correct position of the camera such as:
 - The first step when setting up any CCTV system is to plan exactly what and how much area of a room or surrounding needs to be monitored.
 - Another important consideration is the height at which the camera needs to be placed.
- In addition, tell them some environmental conditions that should be considered while installing the CCTV camera such as brightness, temperature and humidity, lightning and so on.
- Explain a few pointers related to the environmental conditions affecting CCTVs in the form of things that should be done and what should not be done as shown:

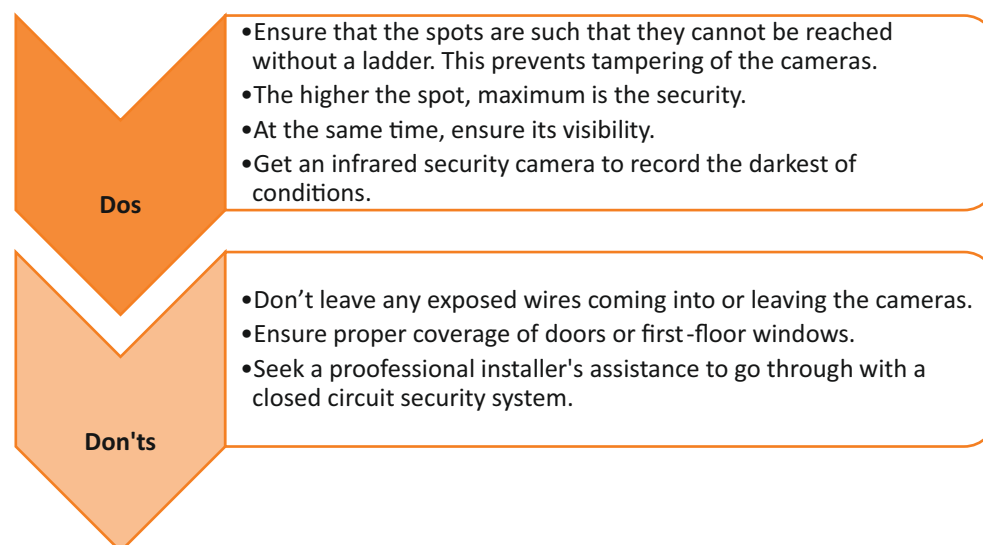


Fig 4.1.3: Dos and don'ts that affect CCTVs

- Next, tell them that camera housings should be manufactured as per International Electro Technical Commission (IEC) standards. Also tell them a few IEC529 protection grades. Give an insight of protection grades under harsh environment conditions such as shown in figure:



Fig 4.1.4: Insight of protection grades under harsh environment conditions

- Depending on the requirements and components of the CCTV system, next step is to create a layout for the components in a block diagram, as shown in the following image:

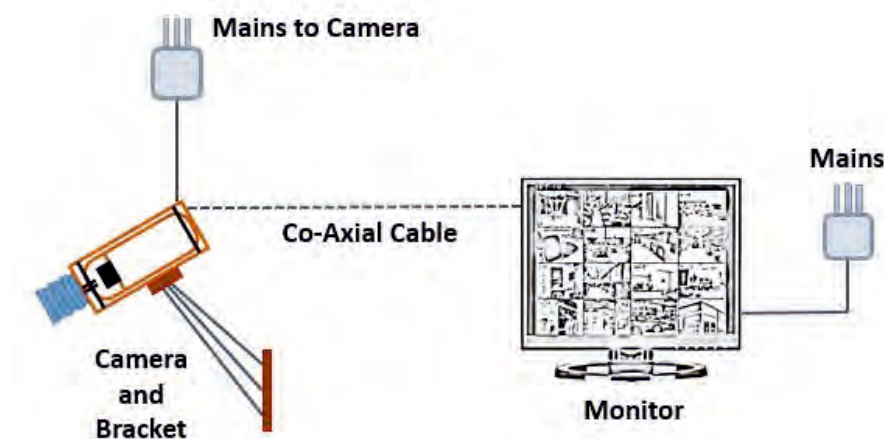


Fig 4.1.5: Block diagram of layout of CCTV system

- Tell them that a block diagram includes the scheme or strategic placement of video cameras.

- Show the participants the following images of surveillance CCTV cameras layout:

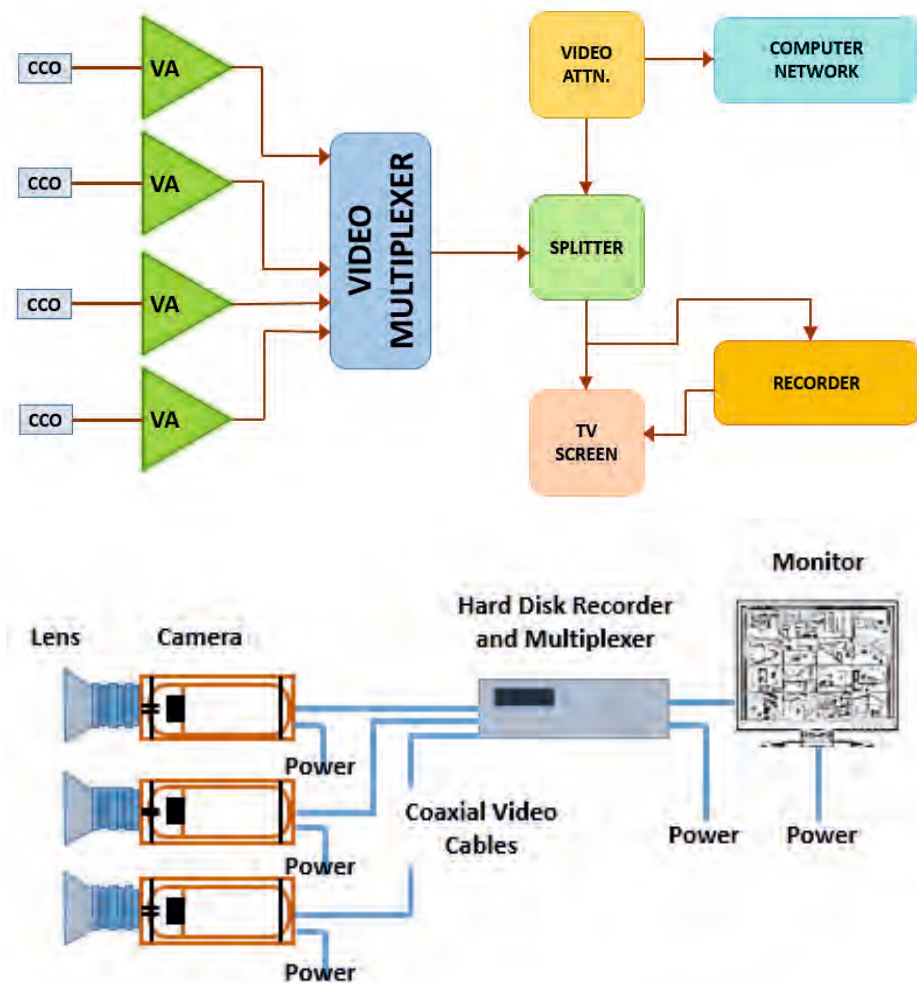


Fig 4.1.5: Surveillance CCTV cameras layout

- Further draw the various shapes used in the block diagram on the black/white board .

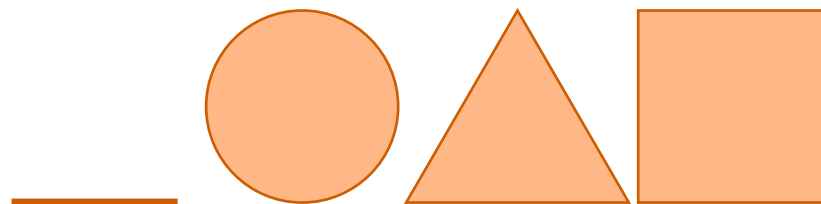
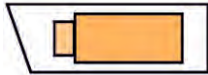
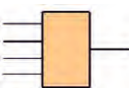


Fig 4.1.6: Shapes used in the block diagram

- Activity Handling Strategy:
 - Ask the participants to identify the shapes of the given components.
 - Solution:

1.	Switcher	a.	
2.	Monitor	b.	
3.	DVR/VCR	c.	
4.	Camera Protection Case	d.	
5.	Camera	e.	

- Activity Handling Strategy:
 - Randomly choose the participants to answer the given questions.
 - Solution:
 - 1 - b
 - 2 - b
 - 3 - b
 - 4 -c

UNIT 4.2: Installing Camera

Unit Objectives

At the end of this unit, you will be able to:

- Identify the steps of installing a dome camera
- List the steps of installing a box camera
- List the steps of installing a PTZ camera
- Identify the activities for achieving standards

Demonstrate

- Steps of installing a Dome camera.
- Steps of installing a Box camera
- Steps of installing a PTZ camera.

Resources

- Tool box
- Dummy CCTV camera – Dome, Box and PTZ
- Checklist

Notes for Facilitation

- Demonstrate the steps for installing the dome, box and PTZ cameras.
- Show the following image for reference to the participants while installing a dome camera:
 1. Fixing camera base on ceiling as shown in the figure:



Fig 4.2.1(a): Fixing camera base

2. Adjusting lens to suitable position as shown in the figure:



Fig 4.2.1(b): Adjusting lens

3. Fixing dome cover on base as shown in the figure:



Fig 4.2.1(c): Fixing dome cover

- Show the following image for reference to the participants while installing the bracket of a dome camera:

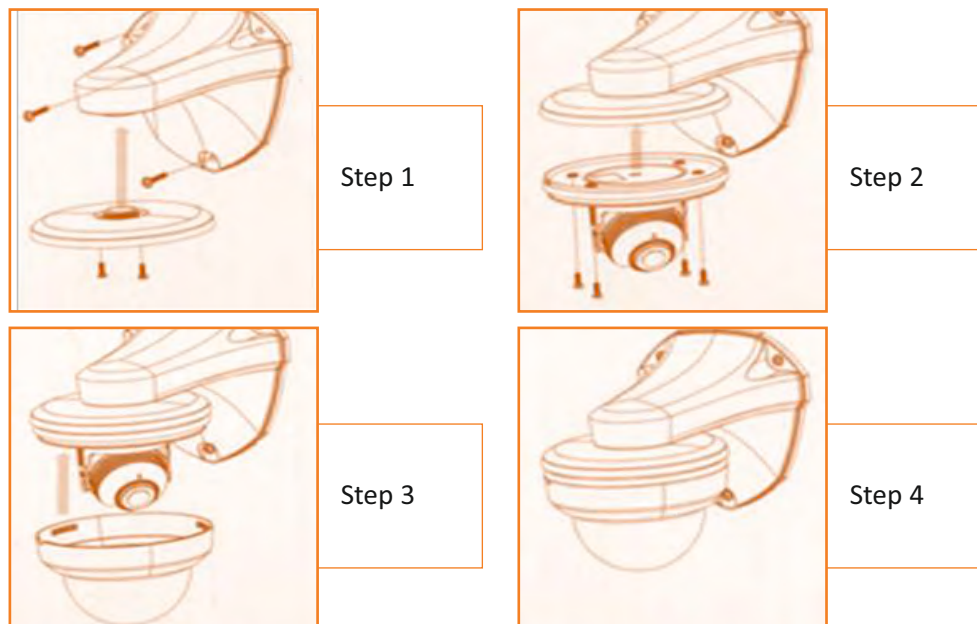


Fig 4.2.2: Steps for installing the bracket of a dome camera

- Further explain to them some safety precautions while installing the cameras with the help of following points:

Select a proper location and use safe hoist for installing speed dome cameras.

Confirm that the hoist is capable of lifting to the installation position.

Follow the protective measures that are provided for the hoist, for its protection.

Ensure that power supply is 110V/220V.

Ensure safety precautions for preventing electric shock.

Fig 4.2.3: Safety precautions while installing the cameras

- In addition, tell them some precautions to be followed while installing the camera:

The installation process must comply with local safe regulations.

Ensure that all the required accessories are complete.

Check if the installation location is at sufficient height.

Ensure that the installation location is strong enough for supporting the camera(s).

Select appropriate cable length for the installation distance.

Prior to installing the camera, camera self-testing needs to be executed.

After unpacking the camera, it is necessary to dispose the packaging properly.

Proper safety precautions and protective measures must be taken into consideration while installing the camera.

Before switching on the power, make a final check to confirm correct wiring.

Fig 4.2.4: Precautions to be followed while installing the camera

- Lastly, tell them the activities to be performed during installation to achieve desired standards.

UNIT 4.3: Camera Functions

Unit Objectives

At the end of this unit, you will be able to:

- Identify various camera functions
- Explain synchronization of camera

Ask

- Enquire the participants if they have heard about the following terms before:
 - Backlight Compensation (BLC)
 - Automatic Sensitivity Adjustment (AES)
 - Wide Dynamic Range (WDR)
 - Image Enhancer
 - Flicker Reduction
- If they say yes, then ask them to tell something about these terms.
- Ask them what they understand by the term synchronization.

Notes for Facilitation

- Tell the participants that the CCTV installer needs to be aware of various functions of the camera.
- Then explain to them various functions of the camera with the help of following points:

Backlight Compensation (BLC)	When bright light falls on the screen, the brightness is modified to accommodate the bright area of the image such that the front object becomes dark.
Automatic Sensitivity Adjustment (AES)	This function enables the camera to adjust the screen brightness and maintain it at a certain level by modifying the speed of the shutter.
Wide Dynamic Range (WDR)	WDR functions enable the cameras to release automatic electric shutters (AES) two times per frame, and then process the resulting images in such a way that both bright and dark objects are easily visible.
Image Enhancer	This function adjusts and sharpens the contours of objects for reproducing better images with full clarity.
White Balance	This functions helps in making the appearance of white objects correctly using various color reproductions.
Day and Night Function	This function is similar to the high sensitivity accumulation function.
Automatic Gain Control (AGC)	This function helps in maintaining consistency of screen brightness by electronically adjusting the video signals.

Fig 4.3.1: Various functions of the camera

- Similarly, tell them about flicker reduction, high-sensitivity accumulation and privacy masking.
- Further, explain to them about synchronization. Tell them that synchronization involves the timing of scanning of video images.
- In addition, tell them about internal and external synchronization.
- Tell them about line lock synchronization.
- Lastly, brief them about the basic terms related to CCTV surveillance system:

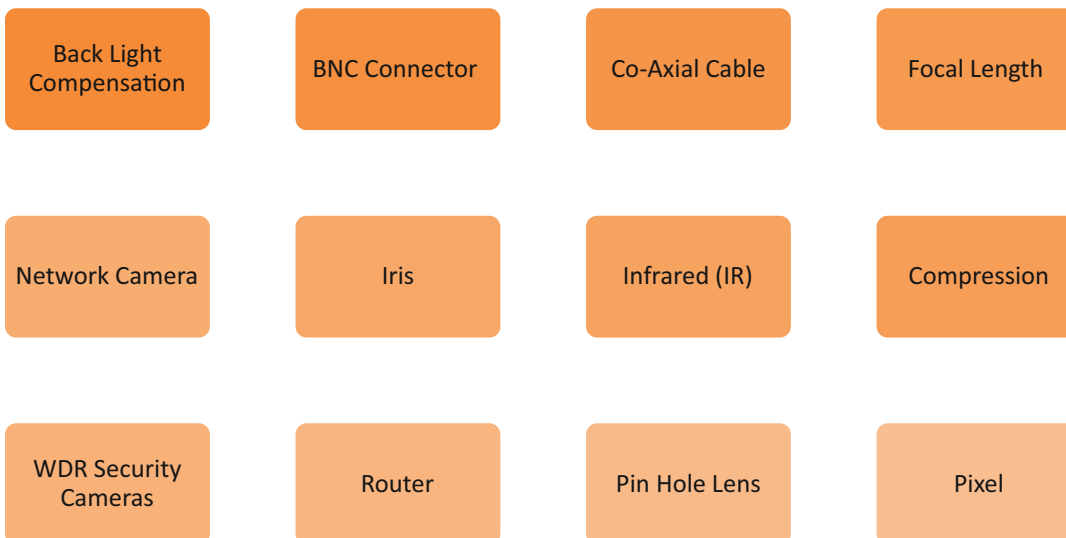


Fig 4.3.2: Basic terms related to CCTV surveillance system





5. Set Up CCTV Surveillance System

Unit 5.1 – Connecting Camera and DVR with System

Unit 5.2 – Configuring Network Settings

Unit 5.3 – Checking the Functioning of the System



ELE/N4611, ELE/N4610
ELE/N4609

Key Learning Outcomes



At the end of this module, you will be able to:

- List the steps of DVR installation
- Explain the operation of DVR
- Identify the controls of DVR
- Configure network settings
- Explain on-screen display settings
- Manage hard disk drives
- List various PTZ controls
- Check camera functioning
- Achieve quality standards and productivity

UNIT 5.0: Objective of the Module

Objective of the Module

The objective of this module is to enable the participants to list the steps of DVR installation. A participant will understand about operation and controls of Digital Video Recorder (DVR). The module also details out configuring network settings, explains about on-screen settings and managing hard disk drives. Further, it lists various PTZ controls along with steps to check camera functioning and achieving quality standards and productivity.

Notes for Facilitation

- Initiate the session with the participants by discussing about the objectives of the module.
- Make the session interactive by asking the participants to share their expectations from the module on the blackboard/whiteboard.
- Introduce the topics to be covered and give some information about them.
- Give the participants a general idea about what will be covered in the module.

UNIT 5.1: Connecting Camera and DVR with System

Unit Objectives

At the end of this unit, you will be able to:

- List the steps of DVR installation
- Explain the operation of DVR
- Identify the controls of DVR

Ask

- Ask the participants if they know about the steps to install a Digital Video Recorder (DVR).
- Ask them about the different ports of a DVR and its features.
- Ask them if they can operate a DVR.
- Ask them about the controls of a DVR.

Explain

- Explain to the participants the basic steps involved in installing a DVR, such as:
 - Unpack and position the Digital Video Recorder (DVR) in the best suited location as per customer's need
 - Connect the cameras installed to the DVR
 - Connect the monitor (TV/PC) to the video output connection in the DVR
 - Connect speakers for audio output to DVR
 - Connect the optional camera controls to DVR
 - Use DVR link option to connect with other DVRs in the network
 - Connect the DVR to router, if required, for remote monitoring

- Use pictures to explain in detail about the following steps for DVR installation:
 - Open the screws using a screwdriver and remove the cover of DVR unit. Check the DVR as shown in the figure:

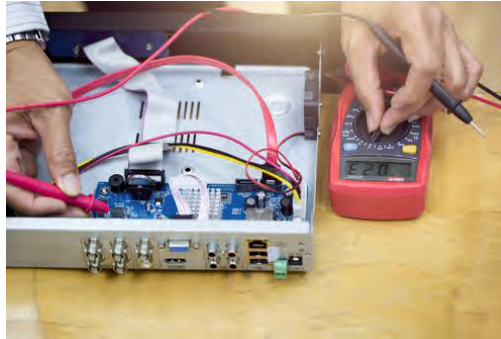


Fig 5.1.1(a): Checking the DVR

- Connect data cable to the specified data port on the panel board as shown in the figure:

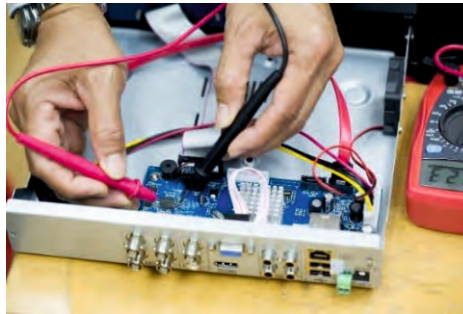


Fig 5.1.1(b): Connecting data port on the panel board

- Place the hard disk within the DVR unit and fix it in the unit with screws as shown:



Fig 5.1.1(c): Placing hard disk within DVR

- Close the cabinet placing the cover back on it and fixing it the screws.
- Attach the power adapter connector to the DVR unit and connect the USB mouse as shown below:



Fig 5.1.1(d): Connecting power adapter and mouse to DVR

- Attach the cables coming from the camera to the connector specified on the DVR.

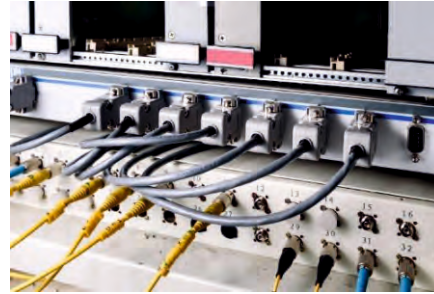


Fig 5.1.1(e): Connecting cables to DVR

- Brief the participants about the ports of a DVR panel, such as shown in figure:

Video Out	• Attaches BNC connector.
Video Spot Out	• Connects BNC connector for monitor having a single window view.
Video In	• Connects BNC connectors for analog video image input.
Audio In	• Connects RCA connectors for analog input audio.
Audio Out	• Connects RCA connector for output audio.

Fig 5.1.2: Ports of a DVR panel

- Tell the participants about the important steps after completing the installation of a DVR:
 - Give a demo of DVR system operations to the customer.



Fig 5.1.3: Demo of DVR system

- Make sure that the controls of the system work properly.
- Make sure that optional camera properties such as pan, tilt, zoom work properly.
- Monitor and try to switch to other cameras connected in the system.
- View, record and replay the video captured in the system.
- Correct/fix issues such as no video, lack of clarity in the system, if any.
- Explain ways for navigating and operating the DVR.
- Tell the participants that a DVR can be controlled using the front panel controls, Infrared (IR) remote or a mouse/soft keyboard.

- Some common controls of a Remote are:

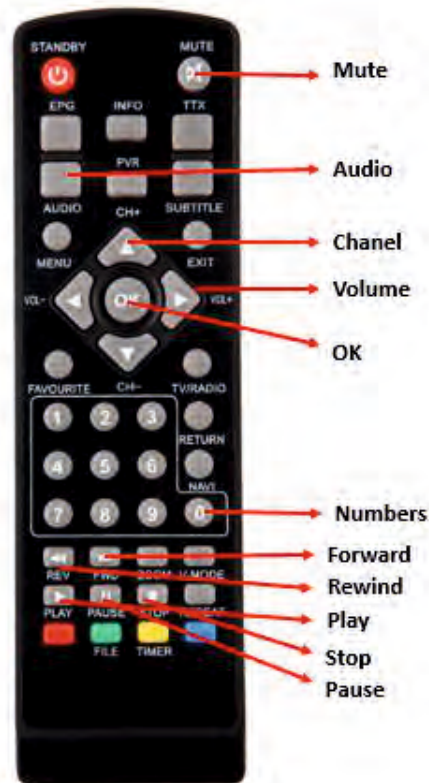


Fig 5.1.4: Common controls of a Remote

- Activity handling strategy: Practical
 - Perform the task of installation of CCTV with DVR at a customer site.
The candidate must be able to:
 - Greet the customer politely.
 - Look for the place where the CCTV is to be installed.
 - Remove the DVR set from the package, which includes DVR unit, mouse, power supply adapter and cords.
 - Open the screws using a screwdriver and remove the cover of DVR unit.
 - Connect data cable to the specified data port on the panel board.
 - Place the hard disk within the DVR unit, at the space provided and fix it in the unit with screws.
 - Close the cabinet placing the cover back on it and fixing it the screws.
 - Attach the power adapter connector to the DVR unit. Connect the compatible USB mouse to the DVR.
 - Attach the cables coming from the camera to the connector specified on the DVR.
- Activity handling strategy: Install an IP Camera at a customer site.
The candidate must be able to:
 - Greet the customer politely.
 - Look for the place where the CCTV is to be installed.
 - Remove the set from the package.

- Assemble the stand:
 - The assembly of camera can be done in two different ways, from:
 - a. the top of the unit
 - b. the bottom of the unit
 - Use the three plugs along with screws for fixing the stand bracket to a wall/ceiling/any fixing point.
 - Adjust the stand to allow the camera to rotate at full 360° and a pan and tilt action.
 - Follow the above steps to mount from the base of the unit, attaching the stand bracket to the mounting point on the base of the unit.
- Connect the camera to an Ethernet hub or switch using a standard cable. You can also connect the camera directly to a computer using the supplied cable.
- Connect the power adapter to the DC-IN socket on the camera.
- To install the camera on a network, you first need to give it an IP address.
- Ask the network administrator to obtain an IP address suitable for the given network, along with:
 - Netmask
 - Gateway address
 - http port

UNIT 5.2: Setting Up the System

Unit Objectives

At the end of this unit, you will be able to:

- Configure network settings
- Use on screen display settings
- Manage hard disk drives

Ask

- Ask the participants if they can carry out the basic network settings for remote monitoring.
- Ask them about the PPPoE settings or if they remember what PPOE is.
- Ask them if they can configure Network Time Protocol (NTP) Server.
- Ask them about the controls of a DVR.
- Ask them if they can set up a Remote Alarm Host.

Explain

- Explain the participants about the basic steps to be carried out by the installer for configuring the system for remote monitoring.
- Brief the participants about basic network settings.
- Explain the participants that PPPoE access settings can be done using the following steps as shown in the figure:

Select Menu → Setting → Network.



Click the PPPoE tab.



Enter the IP address and subnet mask or select the checkbox to obtain the IP address automatically.



Enter username and password.

Fig 52.1: PPPoE access settings

- Tell the participants about the following steps for setting up a remote alarm host as shown:

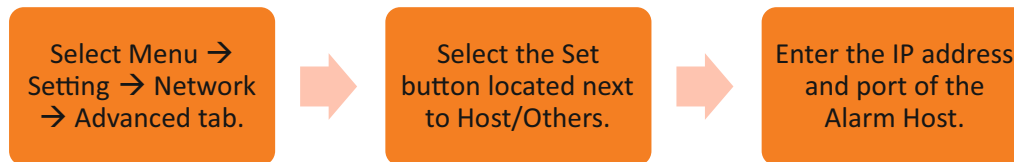


Fig 5.2.2: Steps for setting up a remote alarm host

- Explain the participants about configuring On Screen Display (OSD) settings.
- Tell them that OSD settings allows the operator to adjust brightness, contrast and privacy masking and that its settings can be done following the given steps:

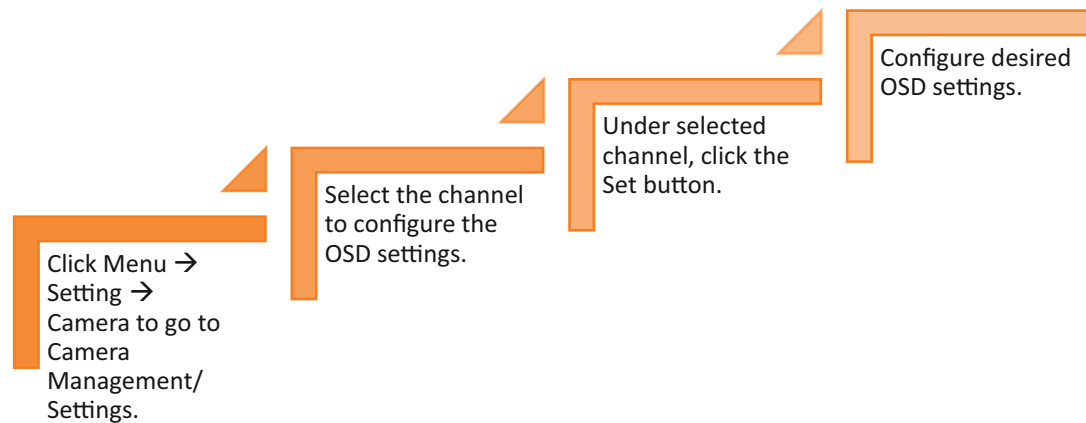


Fig 5.2.3: Steps for OSD settings

- Explain the definition of Hard Disk Drives (HDD). Show them some images of typical hard disk drives used in DVRs, such as:



Fig 5.2.4: Hard disk drives

- Tell them that a hard disk drive (HDD), hard disk, hard drive or fixed disk is a data storage device that uses magnetic storage to store and retrieve digital information using one or more rigid rapidly rotating disks (platters) coated with magnetic material.
- Explain how HDD can be managed:
 - Initializing HDD
 - Go to HDD Management menu, by clicking Menu → HDD.
 - Grouping HDD
 - Videos from designated channels can be set in a way such that it can be recorded on a particular HDD group.
 - Go to the HDD Management menu and select the HDDs that are to be added to group.
 - Go to Group Settings by selecting Group button.
 - Set HDD Group Number
 - Setting HDD Status
 - Behaviour of HDD can be changed by modifying its status. The status of a HDD can be set to redundancy, read-only or read/write (R/W).
- Activity handling strategy: Perform the task of setting up the DVR for remote surveillance. The candidate must be able to:
 - Login to DVR. Press the menu button on the DVR or on the wireless remote control.
 - Press the OK button on the DVR or remote. If an admin password is set up for DVR, then press OK.
 - Select External Device from the menu.
 - Select TCP/IP Setup.
 - Select DHCP setup and press enter.
 - Confirm that the DHCP mode is set to automatic.
 - Select Detect IP and press enter. The screen should refresh and populate values below.
 - Note the IP address.
 - Select DHCP Mode and press OK.
 - Press the menu button to return to the TCP/IP setup screen.
 - On the TCP/IP setup screen, select IP configuration setup and press enter. On the IP configuration setup screen, confirm the port number of your DVR as seen below.
 - Press the Menu several times on your DVR or remote until one exits out of the DVR menu system.
 - See the live view of your cameras.
- Activity handling strategy: Perform the task of assignment of an IP Address to DVR. The candidate must be able to:
 - Disable DHCP on the DVR.
 - Assign the designated local IP address of the DVR.
 - Write down the MAC address of DVR.
 - In the "DHCP Reservation List", enter the DVR's MAC address, and the desired IP.
 - Open the LAN menu by clicking on Main Menu > LAN.
 - Enter the desired IP address that is in the range specified by the router.
 - Disable DHCP.

- Right-click to save settings.
- Click on LAN & DHCP Server, under the main menu
- Configure the following:
 - a. Static DHCP: Select Enabled and then click Apply
 - b. Name: Enter the desired name of your device
 - c. IP Address: Enter the IP address that must be the same address specified in the DVR
- Click Add. The DVR info appears in the Static DHCP list.

UNIT 5.3: Checking the Functioning of the System

Unit Objectives

At the end of this unit, you will be able to:

- Identify various PTZ controls
- Check camera functioning
- Achieve quality standards and productivity

Ask

- Ask the participants if they can carry out the basic network settings of remote monitoring.
- Ask them about the PTZ controls.
- Ask them how they can ensure customer satisfaction.

Resources

- DVR
- Cables
- Cameras
- Remotes

Explain

- Explain the participants the importance of ensuring that the CCTV system is functioning properly and the output is as per the customer's expectation. You may use the following image to show the various features that can be captured using the CCTV camera:



Fig 5.3.1: Various features that can be captured using the CCTV camera

- Explain the participants that a customer must be educated about certain controls of the camera.

- The CCTV placed on a ceiling would be as shown in the figure:



Fig 5.3.2: CCTV placed on a ceiling

- Detail out the steps to the participant for checking camera performance:
 - Check the performance of the camera in all the available light levels. For outdoor cameras, check the performance during both day and night time.
 - Check the coverage area of the lens for each location and ensure the lens fills the specified condition.
 - Check the number of cameras and ensure that all of them provide the required coverage
 - For zoom lenses, ensure that they have been properly back focused that enables the lens to focus on the object of interest during the zooming in and out.
 - Check that all cameras are synchronized properly. The lack of synchronization can result a lot of problems.
 - Watching jumping images continuously, makes the operator irritated.
 - It may lead to poor quality recording such as colour disorientation, skipping of picture frames.
- Explain the participants that resolution and sensitivity are considered the main criteria for a camera performance.
- Define sensitivity by telling them that it is the minimal amount of light used by a camera to produce a useable image.
- Explain the term resolution by defining it as the measure of a picture's detail in the image produced by the camera.
- Tell them that resolution is measured in lines.
- A resolution is normally horizontal.
- Emphasise that an installer must check the performance of other components such as DVR, switcher etc.

- Tell the participants about a few commonly used symbols such as shown in figure:

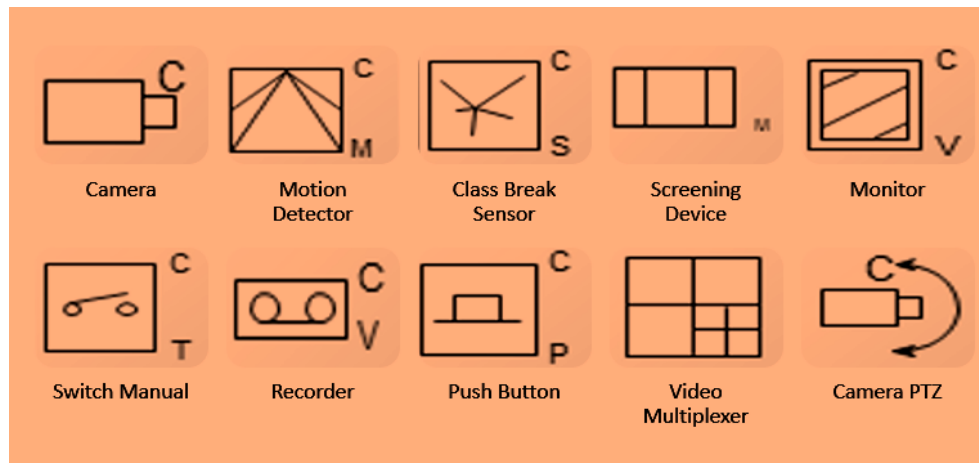


Fig 5.3.3: Commonly used symbols

- Tell the participants about the checks that must be performed by an installer:

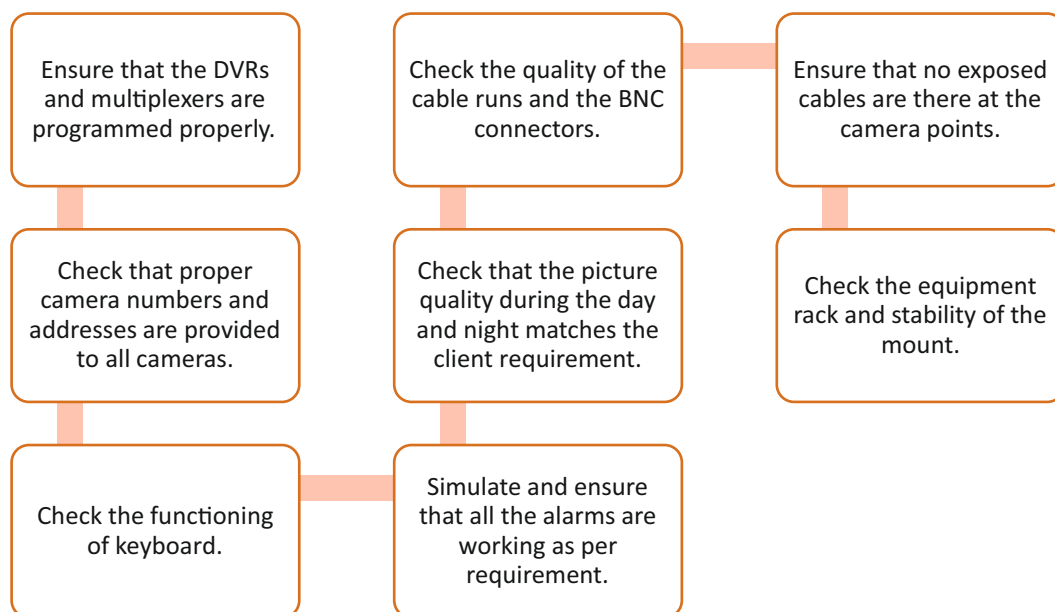


Fig 5.3.4: Checks that must be performed by an installer

- Explain the participants of the necessary documents that must be handed over to the customers.

- List a few documents for the participants, that are as shown in figure:

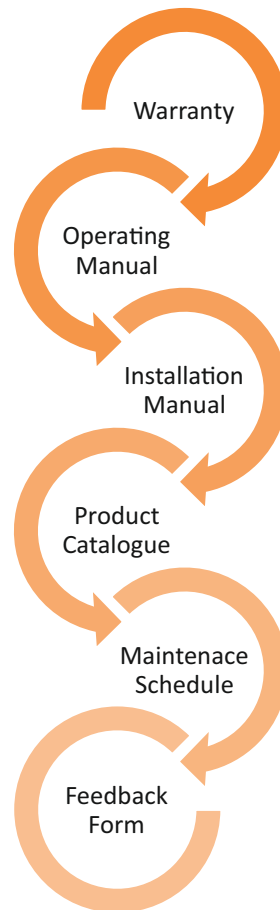


Fig 5.3.5: Documents for the participants

- Explain to them about SLA by saying that a Service Level Agreement is a formal contract between the service provider and the customer, defining services, responsibilities, scope and duties of both the parties.
- Tell them about the importance of an SLA. An agreement of a sort is therefore important to understand that both the parties – customer and organisation– have duties and responsibilities to each other and these must be properly detailed. This is where SLA comes in. An SLA is a formal contract between the service provider and the customer, defining services, responsibilities, scope and duties of both the parties. For instance, an IT hardware company may offer routine inspection and maintenance service for a certain period of time as part of one-time cost at the time of purchase of equipment.

The following image shows an SLA:



Fig 5.3.6: Service level agreement

- Further, tell them that it's important for the service engineer to read and understand the SLA before visiting a customer, so that all the queries, support and service can be addressed according to the terms specified. This will minimize all the issues related to service expectations of a customer.
- Explain to the participants that there is a formal process of addressing IT related issues and problems when they appear known as escalation process.
- Talk to the participants about why a plan needs to be flexible.
- Tell them about following a proper code of conduct in terms of behaviour and work output delivered.
- Explain the challenge at a workplace of discovering ways for increasing productivity and keeping the quality of production intact.
- Tell them the importance of being healthy such as:
 - Helps to prevent absence from work
 - Improves work performance
 - Demonstrates work responsibility
 - Reduces accidents and work-related ill health
- Activity handling strategy: Create a checklist for performing the post installation activities.

Activity	Status (Done/Not Done)
Number of cameras	Done
DVR modules checked	Done
Cameras connected to DVR	Done
Synchronization	Done
Functioning of CCTV DVR	Done
Functioning of Cameras	Done
Audio IN	Not Done
Video IN	Done





6. Soft Skills

Unit 6.1 – Basic Communication Skills

Unit 6.2 – Interact with Supervisor

Unit 6.3 – Coordination with Colleagues



ELE/N9909

Key Learning Outcomes



At the end of this module, you will be able to:

- Identify the basic communication skills
- Define listening, communication, critical thinking and decision making
- Identify reflective and critical thinking skills
- Recognize factors that limit decision making skills
- Identify work requirements
- Describe the right work ethics
- Identify the right way to interact with supervisor
- Define the role of team members
- Identify the correct way to interact with colleagues
- Identify work place relationships

UNIT 6.0: Objective of the Module

Objective of the Module



The objective of this module is to enable the participants to identify the basic communication skills. It would explain listening, communication, critical thinking and decision making. Also, the module will explain reflective and critical thinking skills. The participants will be able to recognize factors that limit decision making skills. They will also be able to identify work requirements, describe the right work ethics, and identify the right way to interact with supervisor and colleagues. Moreover, they will be able to understand the role of team members and identify work place relationships.

Notes for Facilitation



- Initiate the session with the participants by discussing about the objectives of the module.
- Make the session interactive by asking the participants to share their expectations from the module on the blackboard/whiteboard.
- Introduce the topics to be covered and give some information about them.
- Give the participants a general idea about what will be covered in the module.

UNIT 6.1: Basic Communication Skills

Unit Objectives

At the end of this unit, you will be able to:

- Identify the basic communication skills
- Define listening, communication, critical thinking and decision making
- Identify reflective and critical thinking skills
- Recognize factors that limit decision making skills

Ask

- Ask the participants if they know how to communicate with colleagues.
- Ask the participants if they can share their experiences of any discords between people.
- Ask the participants if they know about the importance of adherence to time and quality.
- Ask the participants if they know about the personality traits and skills required for the job of a technician.

Say

- Tell the participants that they should know the right way to handle the customers, understand their needs and provide the right service to them as per the company's standards and policies.

Explain

- Explain how to communicate with colleagues.
- Explain the importance of listening skills and customer feedback.

Demonstrate

- Show the participants:
 - A sample of a job sheet to be filled by a technician
 - A sample of an invoice given to the customers by a technician
 - A sample of a checklist to be filled for a specific job/task.

Notes for Facilitation

- Make the session interactive by involving the participants in a discussion and introduce the topics to them.
- Give the participants a brief overview of what all will be covered in the course.

- Ask the participants about the expectations from the course. Then, inform them briefly about the major topics that will be covered in this course.
- Tell the participants that it is important to follow workplace ethic to maintain harmony and peace among colleagues.
- Tell them about the proper way of completing documents and their importance.
- Invite the participants to share their experiences, good or bad related to communication at the workplace.
- Tell the participant about communication and define communication as a two-way process.
- Explain to the participants that the sender of a message is someone who has a need to communicate with another person, the receiver of the message and is the person who sends a message. This happens in a medium and then reaches the receiver who then responds, based upon the understanding of the message.
- Discuss with the participants how communication is said to be complete when the receiver understands the message in context in which it was meant to be understood.
- Tell the participants that communication includes:
 - Verbal communication – It mainly consists of the spoken words, such as, you are talking to your team members, talking on phone with the customer and so on.
 - Non-verbal communication – It consists mainly of gestures, facial expressions, movement and so on. You show a thumbs up to say that the projector is now set and ready to be used while standing at a distance from the instructor.
 - Written communication – It is the written form of communication such as, reports, analysis, e-mails and so on.
- Explain to the participants about some basic dos and don'ts of communication using the following points:

Dos	Don'ts
Communication should be very clear and precise. Mention all the details required to take action. Also, mention clearly the action intended.	Do not communicate when not sure. Also, never give incorrect details.
Communication should be concise or short. It should not have irrelevant details which are of no concern to the recipient of the message.	Never give an incomplete message.
Communication should be concrete. Mention the specific and actionable things.	Never communicate in an uncourteous way
The message in communication should be coherent or should be related. If there is something extra to be mentioned, then mention clearly that it is an addition. Meaning is derived when the entire message is in context.	Do not use jargons that the recipient may be unfamiliar with. Do not use complex words or sentences.

Fig 6.1.1: Dos and don'ts of communication

- Explain to the participants that to be able to listen actively and to ensure that they can respond and understand efficiently, they need to:
 - Stop talking to listen to what the other person has to say.
 - Not jump to a conclusion or respond the moment the other person begins to speak.
 - Try not to be defensive in a conversation, especially while receiving a feedback.
 - Show interest in listening to a person who is speaking through non- verbal clues such as a nod or words such as 'hmm', 'yes' and so on.
 - Ask for details to get complete information so that nothing is missed out.
- Tell the participants that the decision-making process has the following steps:
 - The first step in a decision-making process is to identify the problem.
 - Then, gather details about the problem and its possible solution. The more data they have the better decision making they can do.
 - Third step is to analyse the problem. They may need to use mathematical or statistical tools to arrive at a point which will help them to take a decision.
 - Develop alternatives, which will help to have a plan B in case plan A does not work.
 - Finally, choose the best option.
- Then, tell the participants about some pointers that they need to keep in mind for decision making and critical thinking.
 - It is based upon previous knowledge and they will draw their learning from it.
 - It will help them to understand the process and suggest improvements by eliminating the waste.
 - It requires them to be thorough with the process and also to be updated with new developments.
 - It will help them to spot process disruptions and the reasons for them.
 - It will help them to analyse the reason for delay and how improvements can be done.
- The critical thinking process can be defined as given in the following figure:



Fig 6.1.2: Critical thinking process

- Explain to the participants how listening reduces conflicts between people working together, reflects a caring attitude, increases the rate at which work is being done and decreases a scope of duplication of efforts.
- Mention about the different types of listening to the participants namely:
 - Critical listening
 - Empathetic listening
 - Discriminative listening
 - Comprehensive listening
 - Appreciative listening
- Tell the participants about the job sheet filling procedure in detail along with its importance.

- In addition, tell them the content of a job sheet as shown in the following figure:

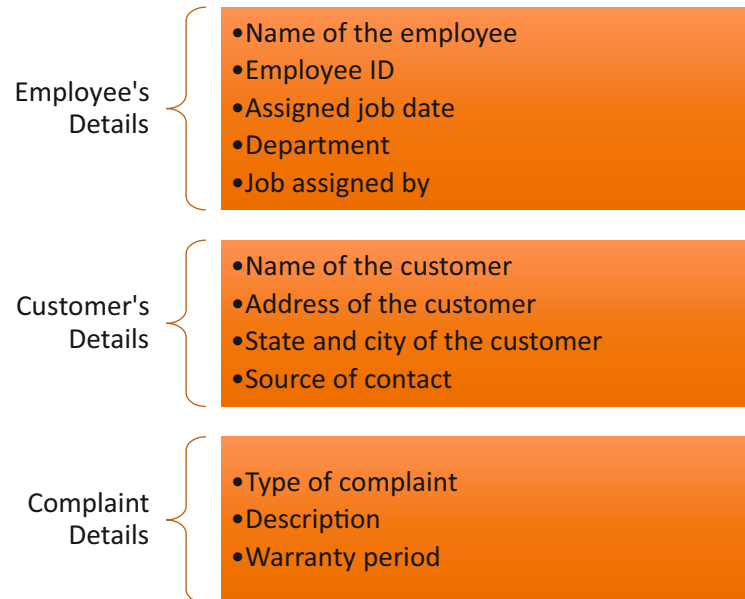


Fig 6.1.3: Content of a job sheet

- Tell the participants that sometimes it is possible that the technician has to fill some field in the invoice.
- In addition, tell them a technician may also need to adhere to and fill a checklist for a specific job/task.
- Tell the participants that to fill the checklist, the technician should be able to read it correctly and then fill the correct responses based on the task completed.
- Discuss about the 5 C's of communication skills as shown in the following figure:

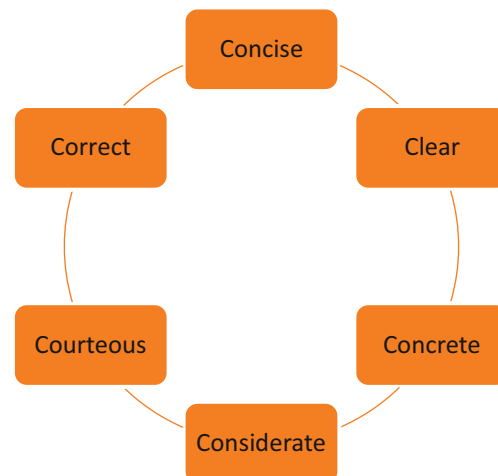


Fig 6.1.4: 5 C's of communication skills

- Explain to the participants about the importance of communication with the customers so as to know their requirement.
- A technician should be able to understand the correct requirement in order to give the right kind of service. The complaints or work requirements will flow in from the customer care centre or from the supervisor.

- Tell the participants that if a complaint has been lodged, the technician should have clarity about the work, customer location and details of the product's problem before going to visit the customer.
- Tell them about how there a situation can be when a technician might be able to understand the real problem only after physical examination, but it always helps to understand the problem briefly before paying a visit to the customer.
- Tell the participant how a situation may save an extra visit that could hap pen because of incomplete information.
- Explain to the participants about the importance of personal grooming.
- Tell the participants that they represent the company in front of the customer and therefore they should take care of personal grooming.
- Explain to the participants the importance of personal hygiene, for e.g. when they visit the customer:
 - Their clothes should be neat and tidy.
 - Their hair should be trimmed.
 - They must not smell of sweat as this creates an unhealthy impression in front of the customer.
- Explain to the participants the importance of following workplace etiquette.
- Explain how workplace etiquette is the accepted social behaviour while working along with others in a team. It includes the norms as shown in the following figure:



Fig 6.1.5: Norms of workplace etiquette

- Activity handling strategy:



UNIT 6.2: Interact with Supervisor

Unit Objectives

At the end of this unit, you will be able to:

- Identify work requirements
- Describe the right work ethics
- Identify the right way to interact with supervisor
- Use customer feedback

Ask

- Ask the participants if they can suggest steps that can be taken for work process improvement.
- Ask the participants if they can define formal and informal processes.
- Ask the participants if they have experienced any major changes in an existing process.

Explain

- Explain to the participants that all work processes are designed in a way that they streamline work.
- Explain what work ethics means.
- Explain issues to be informed to the supervisor.
- Explain guidelines to resolve issues and maintaining health and safety.

Notes for Facilitation

- Tell the participants about which work requirements need to be understood:
 - Follow the line of authority.
 - Follow the routine and participate in events, whenever it is needed.
 - Understand the reporting structure.
 - Follow the institution's code of conduct. An institution's code of conduct is a written set of rules and regulations for all the employees who need to follow it. These rules are made to protect the organization's business and at the same time notifies the employees as to what is expected of them.
 - Keep up to date with new developments. An employee is expected to stay well informed about all the relevant happenings in the organization.

- Understanding work requirement involves the factors listed in the following figure:

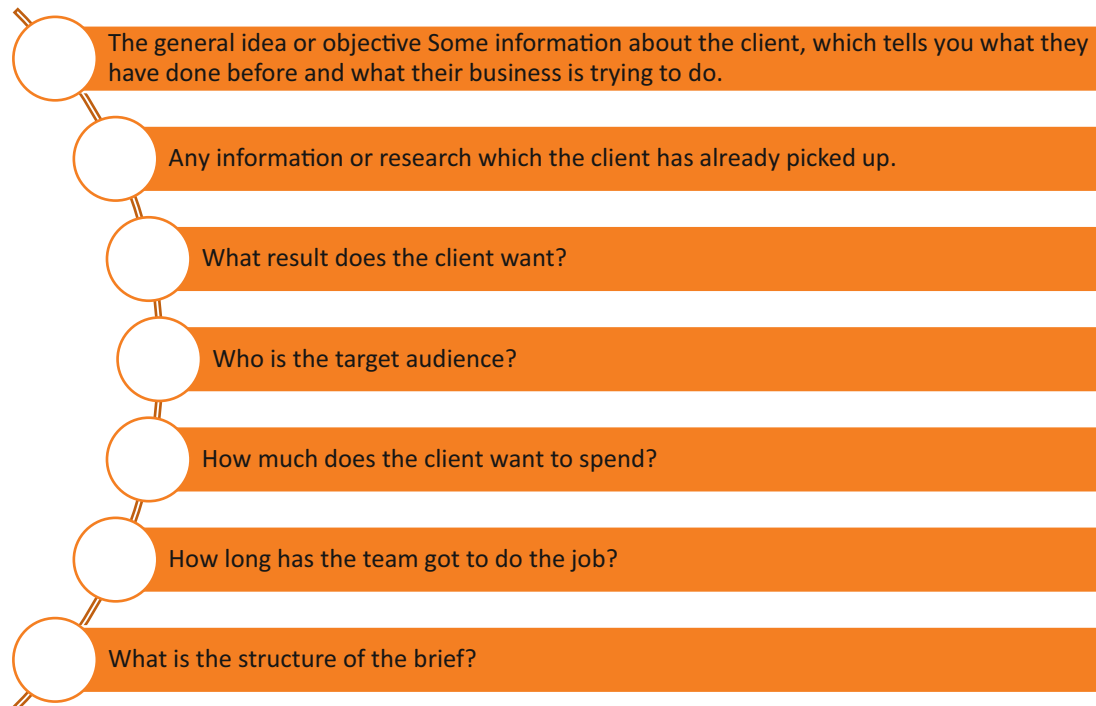


Fig 6.2.1: Understanding work requirement

- Explain work ethics involving certain principles as shown in figure:

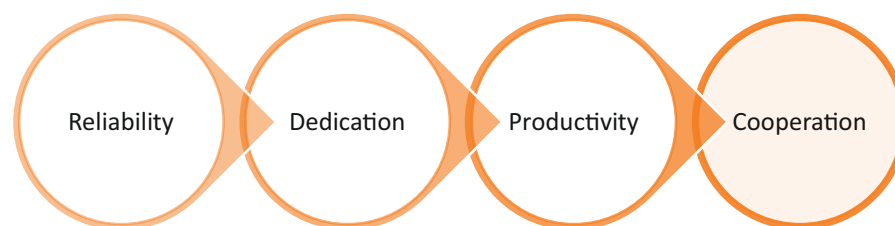


Fig 6.2.2: Work ethics involving certain principles

- Highlight the points for which a panel installer must interact with the supervisor:

Planning and organizing work

Completing the task assigned

Working as per the guidelines and targets

Reporting any incidents or hazards at the workplace

Receiving feedback on behaviour and attitude

Resolving any personnel issue

Escalating problems related to repetitive defects, machine failures, process disruptions and repair and maintenance of machines

Fig 6.2.3: Points for which a panel installer must interact with the supervisor

- Explain to the participants about the core concepts which are involved in achieving targets.
- Discuss with the participants about performance indicators.
- Explain how it sets performance standards and assesses overall success of an organization. KPI's, as it is commonly known, are meaningful and measurable.
- Explain what is success?
- Answer by explaining that success is the progress a person makes towards operational or strategic goals like profit margins, customer satisfaction level or zero defect.
- Make them understand by saying that, in order to succeed, an employee needs to achieve set targets which must be simple and clear to understand.
- Explain that in case of any conflicts or queries, the matter should be resolved by communicating with the concerned people.
- Discuss with the participants about goal setting.
- Explain how it is important that the goals set for people to achieve must be clear and concise to meet performance standards.
- Discuss with the participants about motivation and how can people self-motivate themselves.
- Tell the participants that if there is no motivation, the efficiency and productivity of an employee will never come out.
- Tell the participants about formal and informal business processes.

- Brief the participants that formal processes are the important procedures or stipulated steps that need to be followed related to the following reasons:



Fig 6.2.4: Steps to be followed in formal process

- Give the participants an example of fire safety drill or fire emergency procedure under formal processes.
- Brief the participants that informal processes are the ones which a person creates but may not have the steps written.
- Give the participants an example of carrying out a product research or an in-depth communication with users to understand issues under informal processes.
- Explain to the participants that all work processes are designed in a way that they streamline work.
- Describes the types of evaluation done for a project – formative, summative and confirmative.
- Tell the participants about the problems that may arise as shown in the following figure:

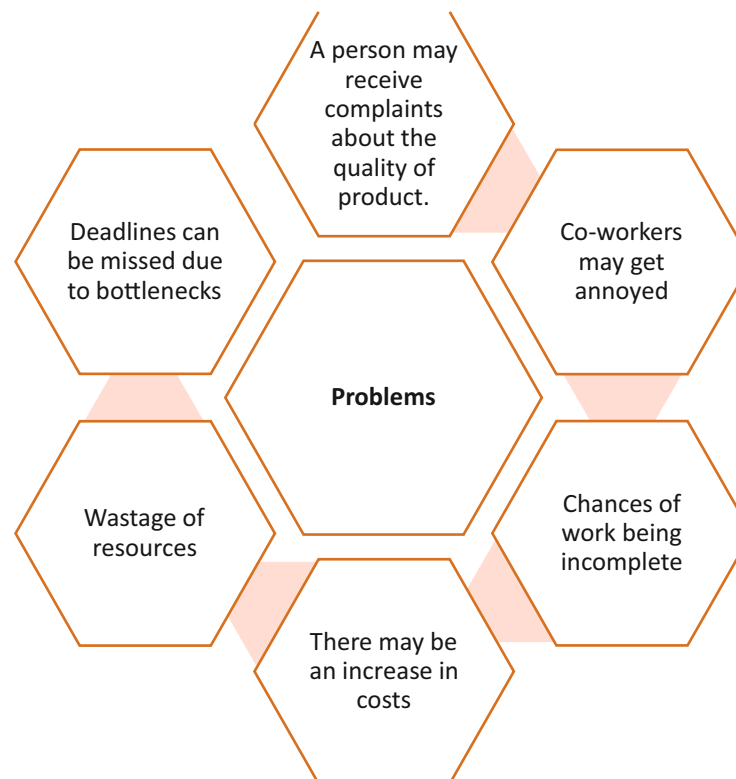


Fig 6.2.4: Problems that may arise in installation

- Explain to the participants about the steps for updating and reviewing a particular process.

- Discuss the steps as follows:
 - Explain the first step of mapping the process. It is essential to explore a phase in detail because there are chances of some processes having sub steps that a person might not be aware of. One must consult people using the process regularly so that no point is missed.
 - Discuss the second step of analysing a process, where a person will have to consider a few questions:
 - If the people working with you are frustrated?
 - What are the steps creating a bottleneck?
 - What are the factors behind the costs going up/down?
 - Which steps require lengthy time and are a cause of delay?
 - Tell the participants about the third step of redesigning a particular process. This process is about eliminating all the issues that a person identified in the previous step. The best strategy is to work with people who are involved and working in the process directly. Such people accept changes easily, especially if they have been in the process from an early stage.
 - Explain the fourth step of acquiring resources, which involves changing systems or processes which are in place already.
 - Discuss the fifth step of implementation of a new process and communication related to it. Management and planning of the new process is important as rolling it out can be a cumbersome task.
 - Tell the participants about the last step of reviewing a process. This step includes testing the process over weeks and months and further, fixing any issues as they come up.
- Explain that collecting feedback from the customers regularly will enable improvement in the goods/services.

- Explain to them about the features of customer service standards with the help of the following figure:

Timeliness

- With the fastening-up of the e-commerce world, the expectation level of the customers from the organisation has also risen.
- Customers want that the services offered from any organisation should take minimum amount of time possible.

Accuracy

- Accuracy in all the services extremely improve the overall customer's experience.
- If an organisation has successfully managed accuracy, then it will result in a happy customer who will hopefully become a long-time advocate for the organisation.

Appropriateness

- Appropriateness refers to how well the customer's expectations are met.
- The technician needs to ensure that the best possible solution is selected to resolve an issue.

Measurability

- To be effective, the standards need to be measurable.
- In addition to setting standards, guidelines should be created for monitoring them and the results should be analysed.
- The technician should use these guidelines to pinpoint problem areas and consistently maintain the service standards.

Fig 6.2.5: Features of customer service standards

- Tell them that a technician should get in touch with the higher management if the raised concerns are not being addressed. There can be unnecessary bottlenecks created by supervisors and such behavioural anomalies can hamper the productivity of a facility.
- Next, tell them that it is important to understand that all the possible hazards that can happen in a facility are the responsibilities of a technician.
- Explain that one possible cause of a hazard could be the lack of clear understanding about the company's code of conduct or reference handbook.

- Tell them about the steps required to be taken to report any hazard to a superior as shown in the following figure:

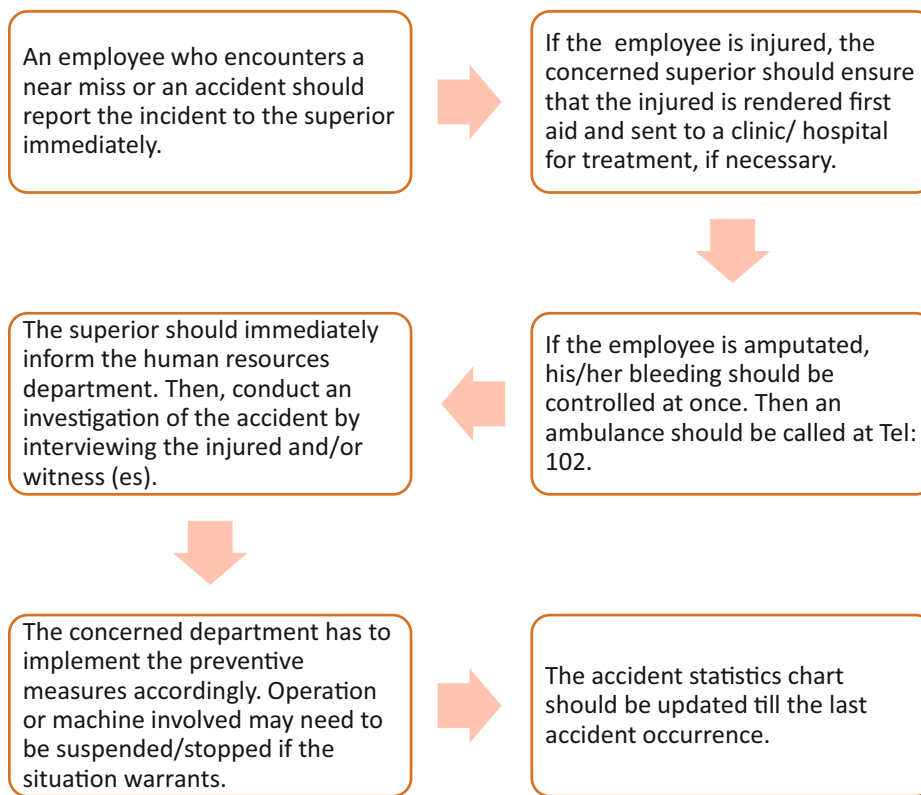


Fig 6.2.6: Steps required to be taken to report any hazard to superior

- Tell the participants about the types of risks - risk that is not yours to take, risk that is unnecessary, risk that you can afford to take, risk that you cannot afford to take and risk that you can't afford not to take.
- Workplace etiquette includes the norms as shown in the following figure:

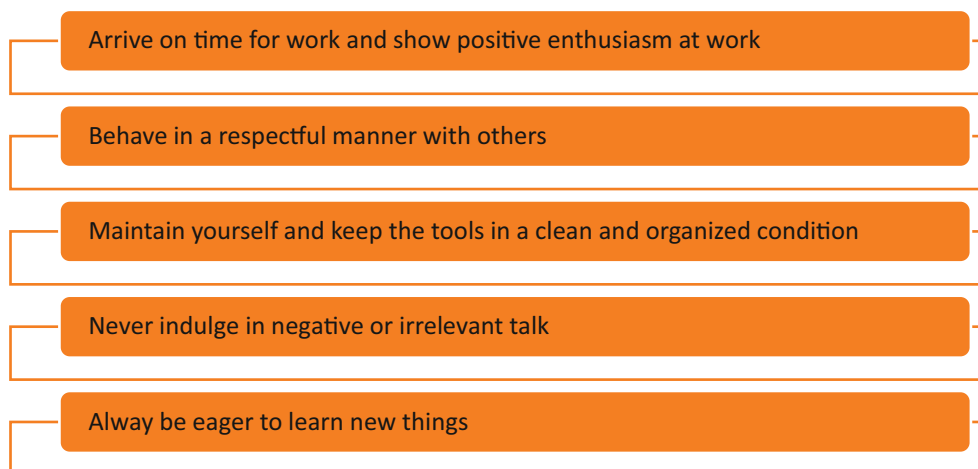


Fig 6.2.7: Workplace etiquette norms

- Brief the participants about a few of the good practices classified under different aspects of grooming:
 - Understand what's appropriate in your industry.
 - Make sure your clothes fit.
 - Pay attention to your bag.
 - Wear well-kept, polished shoes.
 - Avoid facial hair.
 - Clothes should be neat and clean.
 - Clothes should be ironed.
 - If a company has a uniform, it should be worn
 - Body odor and sweating should be taken care of.
- Activity handling strategy: List a few steps taken by you related to personal grooming before you leave for work.
 1. Clothes should be neat and clean.
 2. Clothes should be ironed.
 3. Nails and hair should be cut.
 4. Teeth should be clean.
 5. Body odor and sweating should be taken care of.

UNIT 6.3: Coordination with Colleagues

Unit Objectives

At the end of this unit, you will be able to:

- Define the role of team members
- Identify the correct way to interact with colleagues
- Identify work place relationships

Ask

- Ask the participants how can members in team work effectively .
- Ask them if they can tell what interpersonal relationships are about .
- Ask them if they interacted with the spare parts center.
- Ask them if they can recall any point from the checklist.

Notes for Facilitation

- Explain to the participants that a technician should be able to work in harmony with the colleagues or members in a team. In case of any conflict, the matter should be resolved by communicating with them. If the need for an intervention by a senior is felt, then the matter should be reported to the supervisor.
- Draw the following figure on the black/white board which represents the key points to consider while interacting with colleagues:



Fig 6.3.1: Key points to consider while interacting with colleagues

- Tell them that getting the job done in a process depends on information communication. Furthermore, the accuracy of the end result entirely depends on effective inter -personnel communication.

- Further, tell them that to maintain a healthy interpersonal relationship, it is important to adhere to the points shown in the following figure:

Inter-Personal Relationship	Resolve interpersonal conflict and ensure smooth flow of work
	Pass on customer complaints to colleagues in respective geographical locations
	Assist colleagues to resolve field problems

Fig 6.3.2: Points to maintain a healthy interpersonal relationship

- Tell them that while doing work and any interaction related to work the interest of the organization should be the focus.
- Tell that all the members may work together or may work on individual projects to fulfil the organizational goals.
- Inform them that it is important to understand the role and responsibility of each one of the team members and the task being performed by that person.
- Explain that teamwork is defined as coming together of people to achieve a common goal. The goal here are the organizational goals. The daily tasks which are assigned are a part of the organizational goals. Team work means that each member in the team is contributing their bit to the overall tasks.
- Next, explain to them about cross functional interaction by saying that the success of an organizational plan depends on effectiveness of training, goal-oriented action planning and motivation. However, another key element that deserves a special consideration is cross-functional communication. It is a method of understanding the importance of liaising and collaborating with other key departments of an organization.
- Explain to them about team work with the help of the following points:

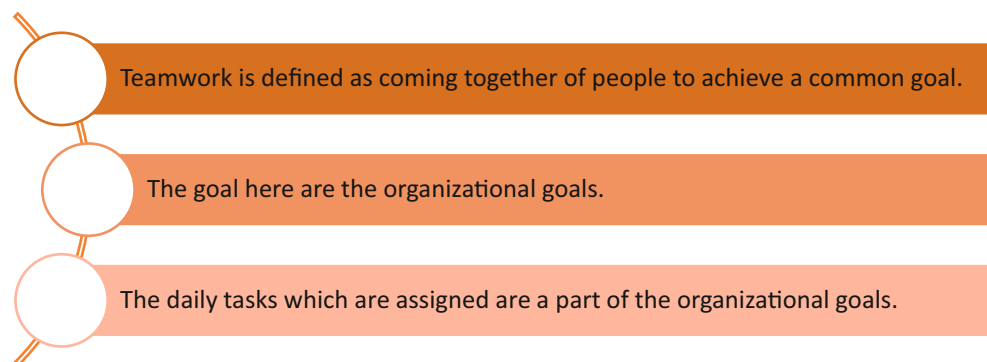


Fig 6.3.3: Team work

- Team work means that each member in the team is contributing their bit to the overall tasks.
- Tell that in a team, all the members are important and might be dependent on each other for work. Sometimes, the members do the work individually. However, the Collective result is a team effort, similar to what will be seen in a game of cricket, or

during the construction of a building or building an aircraft. It is also important to understand that the work may depend on the completion of the tasks. Therefore, for smooth progress of work, the tasks should be completed on time.

- Tell the participants that every organization has its own defined work processes to manage IT operations at its facility. For a technician, it is important to learn these work processes and follow them.
- Explain the work processes briefly.
- Tell that it is also important to understand that the progress of work may depend on the completion of the tasks. Therefore, for smooth progress of work, the tasks should be completed on time.
- Tell them that generally, most of the work processes are automated by IT support software systems while others need to be performed manually or physically.
- Explain that a technician should be aware of the common IT work processes of the organization he/she works in, to work efficiently.
- Tell the participants to consider a situation where a customer complains that a computer lost network connectivity. There can be numerous explanations for the problem such as:
 - Defect in a physical component such as a cable break or a faulty router.
 - A faulty configuration on the computer or a network device.
 - Loss of network connectivity to a network resource such as an email, which led the customer to assume that all network connectivity was lost.
- Tell that a successful technician uses critical thinking skills to isolate the real cause of the issue by formulating questions, gathering information, and determining what is relevant.
- Tell the participants that when on a visit to a customer's site, to ensure good service, the customer's requirement should be understood, and a solution should be suggested.
- Explain to the participants about the company policies in terms of installation and servicing of CCTV's which the technician should understand and follow.
- Tell them how it ensures that the company's service standards are always met.
- Brief them that the proper knowledge of these policies requires a technician to be aware of points as shown in the following figure:

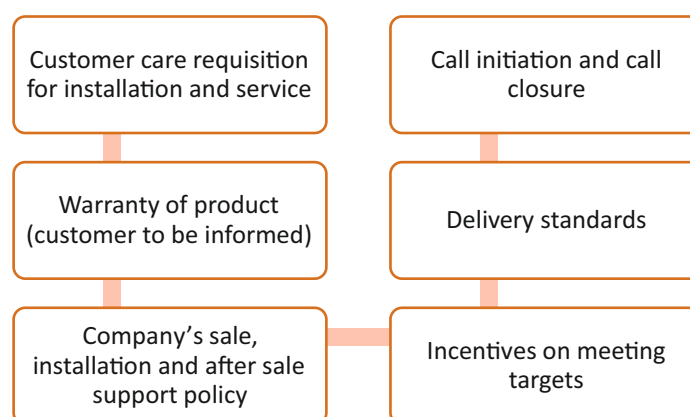


Fig 6.3.4: Required policies for a technician

- Activity handling strategy: Make four groups of the participants. Give the four topics to the groups for discussion, one to each for the discussion.
 - Group 1 – Policy Framework:
 - Customer care requisition for installation and service.
 - Warranty of product (customer to be informed) .
 - Group 2 – Day in the life of a CCTV Technician :
 - Take the briefing of the task from the Supervisor .
 - Draw wiring connections as per the wiring diagram.
 - Group 3 – Coordination and communication at multiple levels:
 - Coordinate with the contractor, fellow technicians and the site engineer.
 - Consult with other stakeholders before planning an installation.
 - Group 4 – Managing interpersonal relationship :
 - Resolve interpersonal conflict and ensure smooth flow of work.
 - Pass on customer complaints to colleagues in respective geographical locations .





Introduction: Employability and Entrepreneurship Skills

This Facilitator's guide includes various activities which will help you as a facilitator to make the sessions participative and interactive.

Ice breaker

- You can begin the module with the following ice breaker:

Five of Anything Ice Breaker Steps:

- Divide the participants into groups of four or five by having them number off. (You do this because people generally begin a meeting by sitting with the people they already know best.)
- Tell the newly formed groups that their assignment is to share their five favorite movies of all time, their five favorite novels or their five least liked films. The topic can be five of anything - most liked or disliked.
- This ice breaker helps the group explore shared interests more broadly and sparks lots of discussion about why each person likes or dislikes their selected five.
- Tell the groups that one person must take notes and be ready to share the highlights of their group discussion with the class upon completion of the assignment.

Expectation Mapping

During the first session and after ice breaker session, ask the participants to answer the following question: "What do I expect to learn from this training?"

1. Have one of the participants write their contributions on a flip chart sheet.
2. Write down your own list of covered material in the training on another flip chart sheet.
3. Compare the two sheets, commenting on what will and what will not be covered during the training.
4. Set some ground rules for the training sessions. Ask the participants to put these rules on a flipchart and display it in the class.
5. You may get back to those sheets once again at the end of the last session of the training.
6. Benefits of doing this activity:
 - Participants feel better as their opinions are heard.
 - Participants get to know what they should expect from the training.
 - The facilitator gets to know which points to emphasize, which to leave out, and which to add during the training.
7. Expectations from the participants:
 - Must sign the attendance sheet when they arrive for class.
 - Conduct themselves in a positive manner
 - Be punctual, attentive, and participative
8. Explain the contents that are going to get covered one by one and connect it with the expectation mapping done earlier.
9. By the end of this exercise, the participants should have a clear understanding of what to

expect from the session and what are the areas that will not get covered.

Defining Objectives

1. Defining the objectives in the beginning of the units sets the mood for the unit.
2. To begin with the end in mind sets the expectations of the participants as what could be the important takeaways from the session.
3. It is also a way of making participants take responsibility of their own learning process.
4. For the facilitator, the objectives decide a designed path to progress on so that the learning stays aligned and on track.
5. Read the objectives slowly, one by one, and ask the participants to explain what they think it means.
6. At the end of the session, you could again revisit the objectives to find out from the participants about how many objectives have been achieved.

In order to effectively facilitate this workshop:

1. You must have thorough knowledge of the material in the Participant Handbook and be prepared to answer questions about it.
2. You may also wish to read other material to enhance your knowledge of the subject.
3. There may be issues raised with which you are not able to deal, either because of lack of time or knowledge.
You can either state that you will obtain answers and get back to the participants with the information. In case the query can be turned to an assignment to the class, do so. You can work with the participants on the assignment.
4. You must have a very clear understanding of what the participants want to accomplish by the end of the workshop and the means to guide the participants.
5. As the facilitator, it is your responsibility to make sure that all logistical arrangements are made for the workshop. This may involve doing it yourself or confirming that someone else has made all necessary arrangements associated with the workshop. Assume nothing and check everything before the workshop begins.
6. To break the monotony and boredom during sessions, introduce mini breaks in the form of stretching exercises, jokes, some group songs or games.
7. Invite discussion from the participants.
8. Probe the participants further and lead them to come to affirmative conclusions.
9. Let the participants answer. No answer is incorrect.
10. Ask one participant to write all the points on the whiteboard.
11. Build the sessions from the answers provided by the class.
12. Prepare for the sessions in advance so that the resources like flipcharts, handouts, blank sheets of paper, marker pens, etc. can be kept ready.
13. Ensure that resources like board, markers, duster etc. is available before your session starts.

General instructions for role playing:

1. You are not being asked to be an actor or to entertain. The purpose of the role play is to

provide a situation in which you can practice certain skills.

2. When you read the brief, try to imagine yourself in the situation described and behave in a way you feel to be natural – but be conscious of the fact that your role may require a different approach from that which you might normally use.
3. You (and others) may benefit from the change in approach and behavior. Therefore, try to use the approach you feel to be most appropriate for the circumstances described in your brief.
4. The brief is just the starting point. It simply sets the scene and the tone of session or activity. Try not to keep referring to the brief as this will affect the spontaneity of the meeting. Allow the role play to develop as you think it might in real life and change your reactions in line with the behavior and responses of others involved.
5. If you find that you have too little information to answer questions or to describe what has happened in the situation, do feel free to add your own thoughts and ideas. Try to keep these within the framework of the role you are taking and try to make your improvisations as realistic as possible.

UNIT 7.1: Personal Strengths & Value Systems

Key Learning Outcomes



At the end of this unit, participants will be able to:

1. Explain the meaning of health
2. List common health issues
3. Discuss tips to prevent common health issues
4. Explain the meaning of hygiene
5. Discuss the purpose of Swachh Bharat Abhiyan
6. Explain the meaning of habit
7. Discuss ways to set up a safe work environment
8. Discuss critical safety habits to be followed by employees
9. Explain the importance of self-analysis
10. Discuss motivation with the help of Maslow's Hierarchy of Needs
11. Discuss the meaning of achievement motivation
12. List the characteristics of entrepreneurs with achievement motivation
13. List the different factors that motivate you
14. Discuss the role of attitude in self-analysis
15. Discuss how to maintain a positive attitude
16. List your strengths and weaknesses
17. Discuss the qualities of honest people
18. Describe the importance of honesty in entrepreneurs
19. Discuss the elements of a strong work ethic
20. Discuss how to foster a good work ethic
21. List the characteristics of highly creative people
22. List the characteristics of highly innovative people
23. Discuss the benefits of time management
24. List the traits of effective time managers
25. Describe effective time management technique
26. Discuss the importance of anger management
27. Describe anger management strategies
28. Discuss tips for anger management
29. Discuss the causes of stress
30. Discuss the symptoms of stress
31. Discuss tips for stress management

UNIT 7.1.1: Health, Habits, Hygiene: What is Health?

Unit Objectives

At the end of this unit, the participants will be able to:

- Explain the meaning of health
- List common health issues
- Discuss tips to prevent common health issues
- Explain the meaning of hygiene
- Discuss the purpose of Swachh Bharat Abhiyan
- Explain the meaning of habit

Resources to be Used

- Participant Handbook

Ask

- What do you understand by the term “Health?”
- According to you, who is a healthy person?

Say

- Discuss the meaning of health and a healthy person as given in the Participant Handbook.

Ask

- When did you visit the doctor last? Was it for you or for a family member?

Say

- Discuss the common health issues like common cold, allergies etc. Refer to the Participant Handbook.
- Let us do a small activity. I will need some volunteers.

Role Play

- Conduct a small skit with volunteers from the class. Consider one of the villagers has been appointed as a health representative of the village, what measures will you as a health representative suggest to the common villagers to prevent common health issues discussed.
- You will need at least 4 volunteers (Narrator, Health Representative, Head of the Village,

Doctor).

- Explain the health concerns of the village to the Narrator. The Narrator will brief the class about the skit.
- Give the group of volunteers, 5 minutes to do discuss.
- At the end of 5 minutes, ask the group to present the skit to the class assuming them as the villagers.
- The class can ask questions to the group as a common villager.

Summarize

- Through this activity we got some tips on how we can prevent these common health issues.

Say

- Let us now see how many of these health standards we follow in our daily life.

Activity

- Health Standard Checklist from the Participant Handbook.

Ask

- How many of you think that you are healthy? How many of you follow healthy habits?

Say

- Let's do an exercise to find out how healthy you are.
- Open your Participant Handbook section 'Health, Habits, Hygiene: What is Health?', and read through the health standards given.
- Tick the points which you think are true for you.
- Try to be as honest as possible as this test is for your own learning.

Do

- Ensure that all the participants have opened the right page in the Participant Handbook.
- Read aloud the points for the participants and explain if required.
- Give them 5 minutes to do the exercise.
- At the end of 5 minutes, ask the participants to check how many ticks have they got.

Summarize

- Tell them that they need to follow all the tips given in this checklist regularly in order to remain healthy and fit.

Ask

Discuss:

- Is it necessary to practice personal hygiene every day? Why?
- How does a person feel when they do not practice good personal hygiene? Why?
- Can good personal hygiene help a person feel good about his/her self? How?

Say

- Discuss the meaning of hygiene as given in the Participant Handbook.

Activity

- Health Standard Checklist: Hygiene

Say

- Let's do an exercise to find out if we maintain good hygiene habits or not.
- Open the Participant Handbook and read through the Health Standard checklist given.
- Tick the points which you think are true for you.
- Try to be as honest as possible as this test is for your own learning.

Do

- Ensure that all the participants have opened the right page in the Participant Handbook.
- Read aloud the points for the participants and explain if required.
- Give them 5 minutes to do the exercise.
- At the end of 5 minutes, ask the participants to check how many ticks have they got.
- Ask them to calculate their score.
- Tell them what each score indicates by reading aloud what has been mentioned in the Participant Handbook.

Ask

- How many of you have heard about “Swachh Bharat Abhiyan”?
- Can you tell the class what it is about?

Summarize

- Tell them about Swachh Bharat Abhiyan as given in the Participant Handbook and request them to take a pledge to keep our country clean.

Ask

- What is a habit?

Say

- Discuss some good habits which can become a way of life.

Summarize

- Tell them about good and bad habits and the reasons to make good habits a way of life.

UNIT 7.1.2: Safety

Unit Objectives

At the end of this unit, participants will be able to:

- Discuss ways to set up a safe work environment
- Discuss critical safety habits to be followed by employees

Resources to be Used

- Participant Handbook
- Safety signs and symbols
- Safety equipment
- Blank papers
- Pens

Say

- There are many common safety hazards present in most workplaces at one time or another. They include unsafe conditions that can cause injury, illness and death.
- Safety Hazards include:
 - Spills on floors or tripping hazards, such as blocked aisles or cords running across the floor. Working from heights, including ladders, scaffolds, roofs, or any raised work area.
 - Unguarded machinery and moving machinery parts; guards removed or moving parts that a worker can accidentally touch.
 - Electrical hazards like cords, missing ground pins, improper wiring.
 - Machinery-related hazards (lockout/tag out, boiler safety, forklifts, etc.)

Team Activity

Safety Hazards

- There are two parts to this activity.
- First part will cover the potential safety hazards at work place.
- Second part will cover a few safety signs, symbols and equipment at work place.
- Use this format for the first part of the activity.

PART 1		
Hazard	What could happen?	How could it be

Ask

- How could you or your employees get hurt at work?

Say

- Let's understand it better with the help of an activity. You will be given a handout within your groups. You have to think about the possible hazards of your workplace, what damage these hazards could cause and about the corrective action.

Do

- Divide the class into five to six groups of four participants each.
- Put the format on the board for the activity.
- Give blank papers and pens to each group.
- The group is expected to think and discuss the potential safety hazards in the workplace.
- Ask the group to discuss and fill the format using the blank sheet.
- Give the groups 5 minutes for the activity.
- For the second part of the activity, show the class some pictures of safety signs, symbols and equipments.
- Now they will put down a few safety symbols, signs or equipment against the safety hazards identified.
- Give them 5 to 10 minutes to discuss and draw/note it.
- At the end of 10 minutes the groups will present their answers to the class.

Say

- Now, let's discuss the answers with the class.
- All the groups will briefly present their answers.

Do

- Ask the audience to applaud for the group presentation.
- Ask de-brief questions to cull out the information from each group.
- Keep a check on time.
- Tell the group to wind up the discussion quickly if they go beyond the given time limit.

Ask



De-briefing

- What did you learn from the exercise?
- As an entrepreneur, is it important to ensure the safety of your employees from possible hazards? Why?

Summarize



- Ask the participants what they have learnt so far.
- Ask if they have any questions related to what they have talked about so far.
- Close the discussion by summarizing the tips to design a safe workplace and non-negotiable employee safety habits.

UNIT 7.1.3: Self-Analysis- Attitude, Achievement Motivation: What is Self-Analysis?

Unit Objectives

At the end of this unit, participants will be able to:

- Explain the importance of self- analysis
- Discuss motivation with the help of Maslow's Hierarchy of Needs
- Discuss the meaning of achievement motivation
- List the characteristics of entrepreneurs with achievement motivation
- List the different factors that motivate you
- Discuss the role of attitude in self- analysis
- Discuss how to maintain a positive attitude .
- List your strengths and weaknesses

Resources to be Used

- Participant Handbook
- Old newspapers
- Blank papers
- Pencils/ pens

Activity

This is a paper pencil activity.

What are the three sentences that describe you the best?
What do you need to live happily?
What are your strengths and weaknesses?

Do

- Write the three questions on the board/ flipchart before the session begins.
- Give plain papers and pencils/ pens to each participant.
- Tell participants to write the answer for the three questions on the paper.
- Tell them the purpose of this activity is not to judge anyone but to understand more about self.

Say

- Discuss the concept of Self-Analysis and motivation with reference to Maslow's Hierarchy of Needs as discussed in the Participant Handbook.

Team Activity **Tower building**

- Each group which will create tower using the old newspapers.

Do

- Divide the class into groups.
- Give them some old newspapers.
- The task is to create a tower out of the newspapers.
- The group which will create the highest tower standing on its own will be considered the winning group.
- Groups can use as many newspapers as they want to and in any way, they want.

Ask

- What did the winning group do differently?
- If you were given a chance, how would you have made the tower differently?
- How did you feel while making the tower?
- Did you feel motivated?

Say

- Discuss the concept of achievement motivation and characteristics of entrepreneurs with achievement motivation as discussed in the Participant Handbook.

Ask

- Is your attitude positive or negative?

Say

- Let me tell you a story:

It's Little Things that Make a Big Difference.

There was a man taking a morning walk at the beach. He saw that along with the morning tide came hundreds of starfish and when the tide receded, they were left behind and with the morning sun rays, they would die. The tide was fresh, and the starfish were alive. The

man took a few steps, picked one and threw it into the water. He did that repeatedly. Right behind him there was another person who couldn't understand what this man was doing. He caught up with him and asked, "What are you doing? There are hundreds of starfish. How many can you help? What difference does it make?" This man did not reply, took two more steps, picked up another one, threw it into the water, and said, "It makes a difference to this one." What difference are we making? Big or small, it does not matter. If everyone made a small difference, we'd end up with a big difference, wouldn't we?

Ask



- What did you learn from this story?

Activity



What Motivates You?

- This is an individual activity.
- It is an exercise given in the Participant Handbook.

Do



- Ask the class to open their Participant Handbook and complete the exercise given in the section What Motivates You?
- Ensure that the participants have opened the correct page for the activity.
- Give the class 5 minutes to complete the activity.

Say



- Discuss the concept of attitude and how to cultivate a positive attitude as discussed in the Participant Handbook.

Summarize



- Close the discussion by summarizing how self-analysis, knowledge about what motivates you and your positive attitude can help in your business as well in life.

UNIT 7.1.4: Honesty & Work Ethics

Unit Objectives

At the end of this unit, participants will be able to:

- Discuss the qualities of honest people
- Describe the importance of honesty in entrepreneurs
- Discuss the elements of a strong work ethic
- Discuss how to foster a good work ethic

Resources to be Used

- Participant Handbook

Ask

- What do you understand by honesty?
- Why is it important for entrepreneurs to be honest?
- Do you remember any incident where your honesty helped you in gaining confidence?
- Do you remember any incident where someone lost business due to dishonesty?

Say

- Discussed in the Participant Handbook.
- “Let's understand it better with the help of some case scenarios. You will be given some cases within your groups. You have to analyse the case scenario that has been given to you and then find an appropriate solution to the problem.
- Keep your discussion focussed around the following:
 - What went wrong?
 - Who was at fault?
 - Whom did it impact- the customer or the businessman?
 - How would it impact the business immediately? What would be the long-term impact?
 - What could be done?
 - What did you learn from the exercise?

Do

- Divide the class into four groups of maximum six participants depending on the batch size.
- Give one case study to each group.
- Instruct them to read the case carefully.

- Put down the de-brief questions on the board and ask the groups to focus their discussion around these questions.
- The group is expected to analyse and discuss the case amongst them and find a solution to the given problem.
- Give the class 5-10 minutes to discuss the case and note down their solutions.
- At the end of 10 minutes the team should present their case solution to the class. The presentation can be a narration or a role play.
- Ask the group to select a group leader for their group. The group leader to discuss and assign roles to the group members for the presentation.

Team Activity

Case Study Analysis

Scenario 1

Aakash has a small mobile retail sales and repair shop in Allahabad. He has one of the most popular outlets and has great rapport with his customers. It's around 11 AM when a customer barges in to the shop and starts shouting at Aakash for giving her a faulty instrument. The screen of her mobile is cracked from one side. Aakash remembered thoroughly checking the handset before handing it over to the customer. The customer threatens to sue him and to go to Consumer Court for cheating her. Now, the problem occurred somewhere outside the shop but as other customers were listening to the conversation, it might impact his business. The situation needs to be managed very sensitively. What would you do if you were in Aakash's place?

Scenario 2

Rajni does beautiful Phulkari embroidery on suits and sarees. She has a small home-based business. She has a huge list of customers on Facebook and WhatsApp who give her orders regularly. Smita is one of her old and regular customers. As her sister-in-law's wedding was around the corner, Smita wanted to buy few handcrafted Phulkari duppatta. She placed an order for three duppattas via WhatsApp and requested Rajni to send them as soon as possible. When the parcel reached Smita through courier she found that out of the three duppattas, only one was hand embroidered and the other two had machine embroidery on them. Even the length and the quality of the material was not as desired. Smita was heartbroken. It was a complete waste of money and moreover she couldn't wear what she had planned to during the wedding functions. She sent a message to Rajni on WhatsApp, expressing her anger and disappointment.

Smita has also sent a feedback and expressed her disappointment on the social media... this will directly affect Rajni's business. What would you do if you were in Rajni's place?

Scenario 3

Shankar is a tattoo artist who has a small tattoo showroom in a big, reputed mall in New Delhi. Mr Saksham had an appointment for today, at 11:00 am but he reached at 11:50 am. Meanwhile, Shankar had to reschedule his next appointment. After availing Shankar's services, Mr Saksham started yelling in an abusive language, refusing to pay the requisite amount, and finding faults in the services provided by him. Who was at fault in this case? What should Shankar do? Should he confront Saksham or give in to the demands of the client?

Scenario 4

Shailender is an online cloth reseller who does business through social networking sites such as Facebook and WhatsApp. Priyanka made online payment for a dress to Shailender. But she did not receive the dress for a month. When she asked for a cancellation, Shailender started misleading her. For almost 45 days, he kept promising her that he will pay the amount today, tomorrow, day after etc. Even after repeated calls and messages when she did not receive the payment or the dress, she decided to write a post against him on a popular social media platform. As a result, Shailender lost lots of customers and his flourishing business faced a major crisis. How could this situation have been managed?

Say



- Now, let's discuss the problem and solution with the larger group.
- The group will first briefly describe the case to the class.
- Then discuss the issue identified and the proposed solution.
- Once the presentation is over, the class can ask their questions.

Do



- Congratulate each group for the group presentation.
- Ask the audience to applaud for them.
- Ask de-brief questions to cull out the information from each group.
- Keep a check on time. Tell the group to wind up the discussion quickly if they go beyond the given time limit.

Summarize



- Ask the participants what they have learnt from the exercise/ activity.
- Ask if they have any questions related to what they have talked about so far.
- Close the discussion by summarizing the importance of honesty and work ethics for entrepreneurs.

UNIT 7.1.5: Creativity and Innovation

Unit Objectives

At the end of this unit, participants will be able to:

- List the characteristics of highly creative people
- List the characteristics of highly innovative people

Resources to be Used

- Participant Handbook
- Chart papers
- Marker pens

Ask

- You must be aware of the term 'Rags to riches' and heard stories related to the term.
- What do these stories tell us?
- What was so special about these people?

Say

- Let's have a look at these stories.
- There are some inspiring stories about people which I would like to share with you.
- Narrate these stories to the class.

A.P.J. Abdul Kalam

Who has not heard of A.P.J. Abdul Kalam: Avul Pakir Jainulabdeen Abdul Kalam hailed from a very humble background. His father was a boat owner. To help his family, Kalam would work as a newspaper vendor. With limited resources, he graduated in Physics and studied aerospace engineering. He was instrumental in India's step towards nuclear energy. In 2002, he became the 11th President of India.

Water filter/purifier at source

Two young boys studying in classes 4 and 5, from Lingzya Junior High School, Sikkim designed a simple innovative low-cost water purifier.

Inspiration behind the idea: Most people today prefer to use a water filter/purifier at their home. Both the children have given idea to have filter/purifier at the source of water so that everyone has access to clean water without having to make an investment in purchasing a filter/purifier. Soring's idea is to have a centralized purification system at the point of distribution like water tank while Subash's idea is to have such purifiers attached to public taps.

Source: <http://www.rediff.com/getahead/report/achievers-top-31-amazing-innovations-from-young-Indians/20151208.htm>

Solar seeder

This is a story of a innovative solar seeder and developed by Subash Chandra Bose, a class 8, student from St Sebasthiyar Matriculation School, Pudukkottai, Tamil Nadu. Subash has developed a solar powered seed drill, which can undertake plantation for different size of seeds at variable depth and space between two seeds.

Source: <http://www.rediff.com/getahead/report/achievers-top-31-amazing-innovations-from-young-Indians/20151208.htm>

Looms for physically challenged

Now this is really inspiring of two sisters, Elakkiya a Class 6 student and Pavithra a Class 9 student of SRC Memorial Matriculation, Erode, Tamil Nadu.

The two sisters have come up with loom for lower limbed physically challenged. In their loom, they have replaced the pedal operated system with a motor and a gearbox attached to a pulley mechanism.

Source: <http://www.rediff.com/getahead/report/achievers-top-31-amazing-innovations-from-young-Indians/20151208.htm>

Ask

- If they can, why can't you?
- Discuss concepts related to 'Creativity and Innovation' with the participants as given in the Participant Handbook.

Say

- Recall the stories on motivation.
- What is the inner drive that motivates people to succeed?
- Let's learn more about such creative and innovative entrepreneurs with the help of an activity.

Team Activity

- This is a group activity.
- Think of any one famous entrepreneur and write a few lines about him or her.

Activity De-brief

- Why did you choose this particular entrepreneur?
- What is his/her brand name?
- What creativity does he/she possess?
- What was innovative about their ideas?

Do

- Instruct the participants that this is group work.
- Divide the class into small groups of 4 or 6 depending on the batch size.
- Give each group a chart paper.
- Tell the participants they have to write a few lines about any one famous entrepreneur.
- Give the participants 10 minutes to discuss and write.
- Keep a check on time. Tell the group to wind up quickly if they go beyond the given time limit.
- Ask each group to read out what they have written.
- Ask the de-brief questions.

Summarize

- Summarize the unit by asking participants if they know of some people who are highly creative and innovative in their approach.
- Ask them to share some experiences about these people with the class.

Notes for Facilitation

- Source for stories on innovations:
<http://www.rediff.com/getahead/report/achievers-top-31-amazing-innovations-from-young-Indians/20151208.htm>

UNIT 7.1.6: Time Management

Unit Objectives

At the end of this unit, participants will be able to:

- Discuss the benefits of time management
- List the traits of effective time managers
- Describe effective time management techniques

Resources to be Used

- Participant Handbook

Ask

Does this sound like you?

- I can never get enough time to finish what I am doing in a day.
- I have so many things to do that I get confused.
- I want to go for a walk and exercise, but I just do not have the time.
- I had so much to do, so I could not deliver that order on time.
- I would love to start my dream business; but, I just do not have the time.

Example

- Let's look at these two examples:

Example 1:

Ankita works from home as a freelance writer. She says she can easily put in 8 hours of dedicated work in a day. Because she works from home, she saves money on travel and has a comfortable work routine. But there is a challenge and it is distraction. As she works from home, she can easily just get up and sit down on the sofa to watch TV, wasting valuable time. She may have chores to do, errands to run and bills to pay. She ends up working only two to three hours a day and the result is, her work gets piled up. She is unable to take on more work due to this. Even though her quality of work is appreciated her clients are not very happy about the delay in submission.

Example 2:

Javed has started a successful online selling company from home and makes a good living from his sales. He has set up a small office space in his living room. As both his parents are working full-time, he also has the role of taking care of his two younger siblings. He almost spends half of his day with the younger kids. He does not mind it but it means taking time away from the work. He is still able to manage his online business with these commitments. He wants to spend some more dedicated hours so as to increase his profits. He also wants to look into new business avenues. What should he be doing.

Ask

- Does this happen with you too?
- Do you find it difficult to prioritize your work?
- Are you able to manage your time effectively?

Activity

- Conduct a group discussion based on the above examples.
- Direct the discussion on how to prioritize work and manage time effectively.

Say

- Time management is not only about how hard you work but also about how smart you work.
- Discuss “What is Time Management” with the participants as given in the Participant Handbook.

Ask

- Why is it important to manage time? How does it help?
- What happens when you don't manage your time effectively?
- Do you find it difficult to prioritize your work?

Say

- Discuss the benefits of time management given in the Participant Handbook.
- Let's learn effective time management with the help of an activity.

Activity

Effective Time Management

- This activity has two parts:

Part 1 To Do List

- You have to make a to-do list.
- List all of the activities/ tasks that you have to do.
- Try to include everything that takes up your time, however unimportant it may be.
- If they are large tasks, break them into action steps, and write this down with the larger task.
- You can make one list for all your tasks or have separate to -do lists for personal and professional tasks.

PART 2

URGENT-IMPORTANT GRID

- You have to make a grid as shown on the board here.
- This grid has four boxes. As you can see, each box has a different heading.
- At the heart of the urgent-important grid, are these two questions:
 - Is this task important?
 - Is this task urgent?
- Now, you have to think about each activity that you have written in your to-do list and put it into one of the four categories.
- **What do these categories depict?**
- **Category 1: Urgent/Important**
 - This category is for the highest priority tasks. They need to get done now.
- **Category 2: Not Urgent/Important**
 - This is where you want to spend most of your time.
 - This category allows you to work on something important and have the time to do it properly.
 - This will help you produce high quality work in an efficient manner.
 - The tasks in this category are probably the most neglected ones, but also the most crucial ones for success.
 - The tasks in this category can include strategic thinking, deciding on goals or general direction and planning – all vital parts of running a successful business.
- **Category 3: Urgent/Not Important**
 - This is where you are busy but not productive. These tasks are often mistaken to be important, when they're most often busywork.
 - Urgent but not important tasks are things that prevent you from achieving your goals.
 - However, some may be activities that other people want you to do.
- **Category 4: Not Important and Not Urgent**
 - This category doesn't really include tasks, but rather habits that provide comfort, and a refuge from being disciplined and rigorous with your time management.
 - Some may be activities that other people want you to do.
 - These might include unplanned leisure activities as well.

To – Do List Format

1	
2	
3	
4	
5	
6	

7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	

Fig 7.1.6.1: To-do-list format

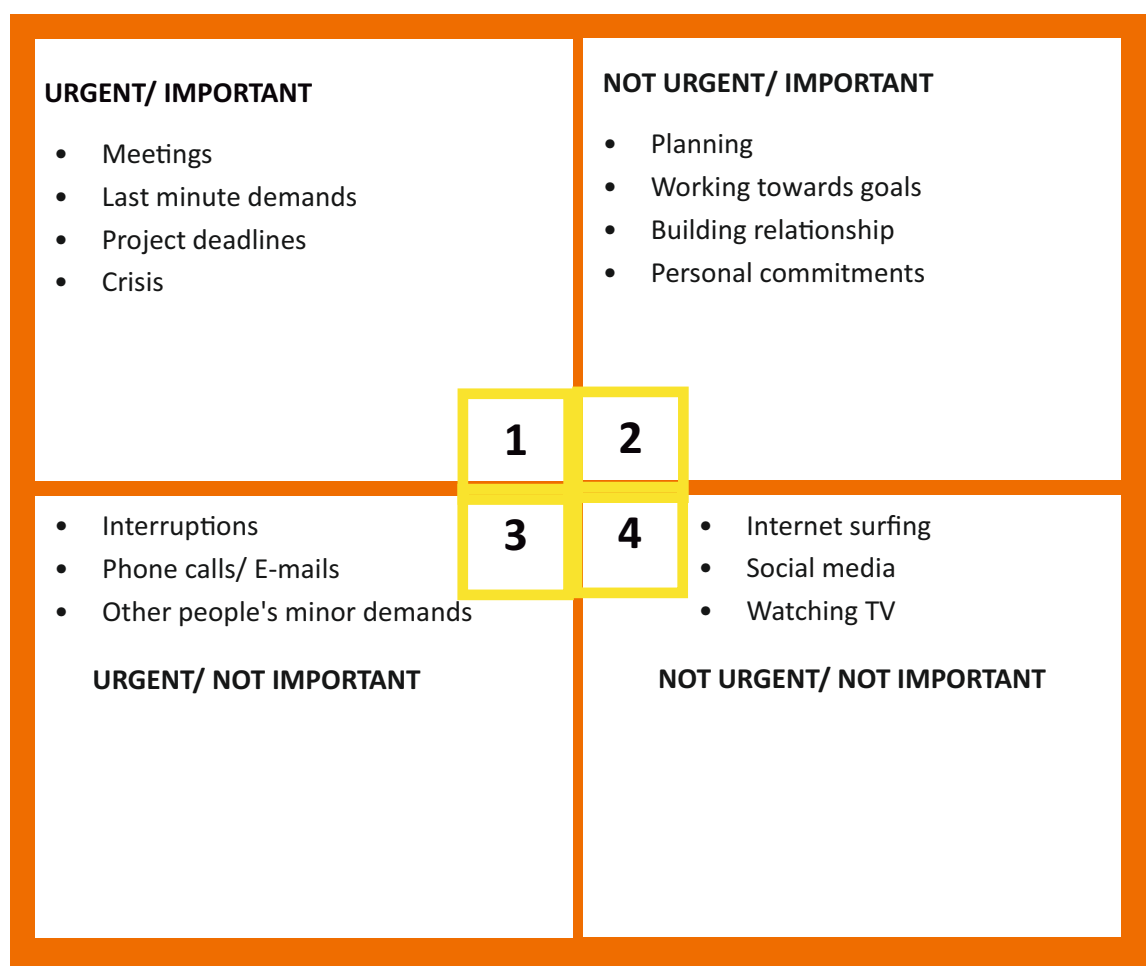
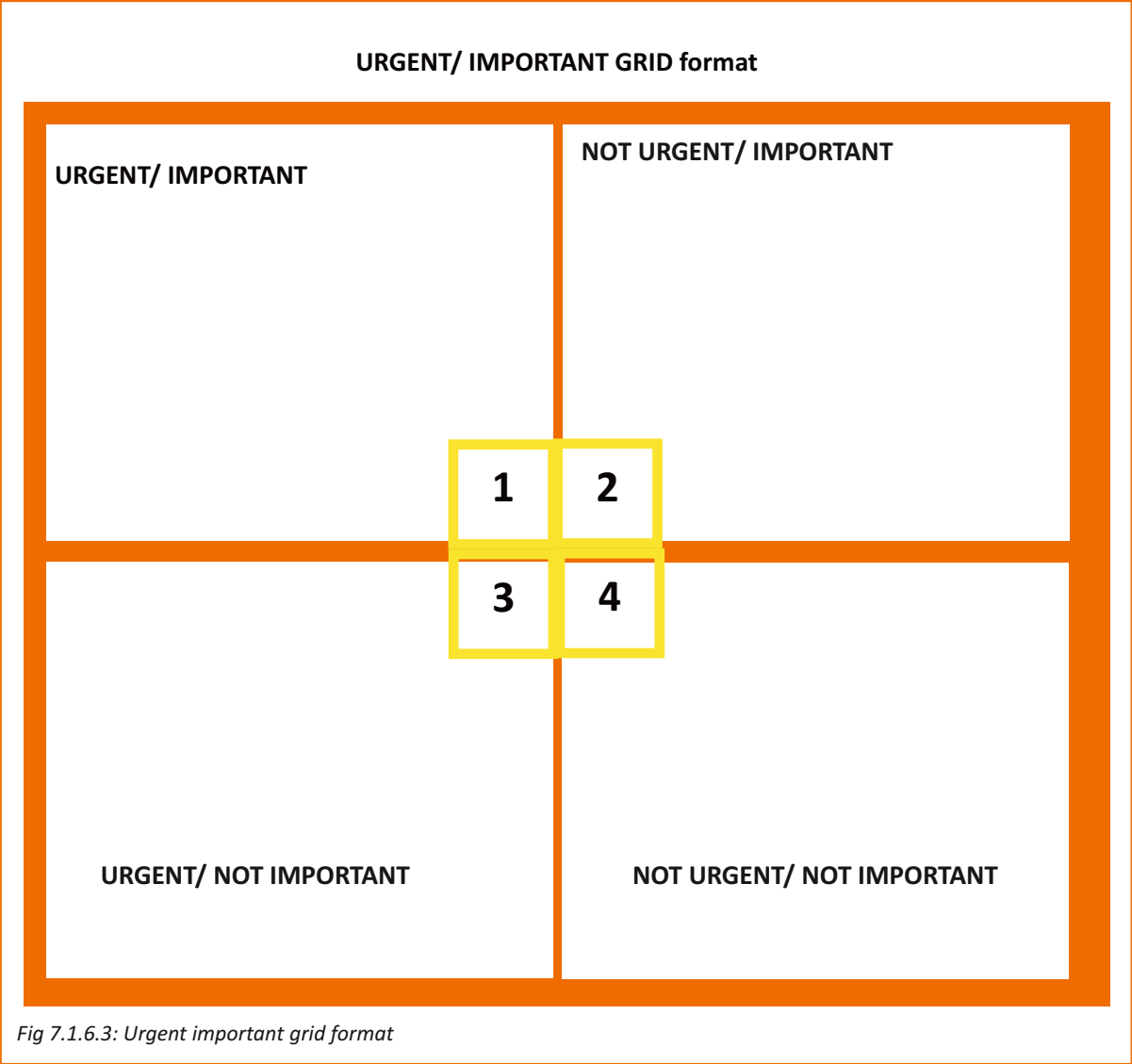
URGENT-IMPORTANT GRID

Fig 7.1.6.2: Urgent important grid



Do

- Put down the formats for the to-do list and the urgent/ important grid on the board.
- Instruct the participants to prepare their to-do list first.
- Give the participants 10 minutes to prepare the list.
- Once done, instruct them to divide the tasks in to-do list into the four categories.
- Explain the four categories to the participants giving examples specific to their context.
- As you explain the categories fill the grid with the type of tasks.
- Give the participants 40 minutes to fill the grid.
- Then explain how to balance the tasks between the four categories.
- Keep a check on time. Tell the group to wind up quickly if they go beyond the given time limit.

Say **Activity De-brief:**

How can we balance tasks between the four categories? How to manage time through this grid?

- **Category 1: Urgent/Important**
 - Try to keep as few tasks as possible here, with the aim to eliminate.
 - If you spend too much of your time in this category, you are working solely as a trouble shooter, and never finding time to work on longer-term plans.
- **Category 2: Not Urgent/Important**
 - Plan these tasks carefully and efficiently as they are most crucial ones for success.
 - If necessary, also plan where you will do these tasks, so that you're free from interruptions.
 - Include strategic thinking, deciding on goals or general direction and planning in your planning process.
- **Category 3: Urgent/Not Important**
 - Ask yourself whether you can reschedule or delegate them.
 - A common source of such activities is other people. Sometimes it's appropriate to say "no" to people politely, or to encourage them to solve the problem themselves.
- **Category 4: Not Important and Not Urgent**
 - You also want to minimize the tasks that you have in this category.
 - These activities are just a distraction – avoid them if possible.
 - You can simply ignore or cancel many of them.
 - Politely say "no" to work assigned by others, if you can, and explain why you cannot do it.
 - Schedule your leisure activities carefully so that they don't have an impact on other important tasks.
- Discuss the traits of effective time managers and effective time management techniques as given in the Participant Handbook.

Summarize



- Discuss the traits of effective time managers and effective time management techniques as given in the Participant Handbook.

Notes for Facilitation



- Here is a short story. You can conclude the session narrating the story. To make it more interesting you can perform the demonstration described and discuss the short story.
 - One day an expert in time management was speaking to a group of students. As he stood in front of the group, he pulled out a large wide-mouthed glass jar and set it on the table in front of him. Then he took out a bag of about a dozen rocks and placed them, one at a time, into the jar. When the jar was filled to the top and no more rocks would fit inside, he asked, "Is this jar full?" Everyone in the class said, "Yes." Then he said, "Really?"
 - He reached under the table and pulled out a bucket of gravel (small stones). He dumped some gravel in and shook the jar causing pieces of gravel to work themselves down into the space between the rocks. Then he asked the group once more, "Is the jar full?" By this time, the class began to understand. "Probably not," one of them answered. "Good!" he replied.
 - He reached under the table and brought out a bucket of sand. He started dumping the sand in the jar and it went into all of the spaces left between the rocks and the gravel. Once more he asked the question, "Is this jar full?" No!" the class shouted. Once again he said, "Good." Then he grabbed a jug of water and began to pour it in until the jar was filled to the brim. Then he looked at the class and asked, "What is the point of this illustration?" One student raised his hand and said, "No matter how full your schedule is, if you try really hard you can always fit some more things in it!" "No," the speaker replied, "that's not the point. The truth this illustration teaches us is: If you don't put the big rocks in first, you'll never get them in at all." What are the 'big rocks' in your life? Your children; your loved ones; your education; your dreams; a worthy cause; teaching or mentoring others; doing things that you love; time for yourself; your health; your mate (or significant other). Remember to put these BIG ROCKS in first or you'll never get them in at all. If you sweat about the little stuff (the gravel, sand, and water) then you'll fill your life with little things you worry about that don't really matter, and you'll never have the time you need to spend on the big, important stuff (the big rocks).
- End the story with these lines...
So, tonight, or in the morning tomorrow, when you are reflecting on this short story, ask yourself this question: What are the 'big rocks' in my life? Then, put those in your jar first.

UNIT 7.1.7: Anger Management

Unit Objectives

At the end of this unit, participants will be able to:

- Discuss the importance of anger management
- Describe anger management strategies
- Discuss tips for anger management

Resources to be Used

- Participant Handbook

Ask

- What is anger? Is anger good or bad?
- Is anger normal or an abnormal behaviour? How can anger harm you?
- Why is it important for entrepreneurs to manage their anger?

Say

- Talk about anger and the importance of anger management in entrepreneurs as discussed in the Participant Handbook.
- Let us do a small activity. This is an individual activity.
- Think of the incidents and situations that angered you and hurt you.

Do

- Instruct them to note down these situations under different categories (as given in the Activity).
- Give the class 3-5 minutes to think and note down their answers.
- At the end of 5 minutes, ask some participants to volunteer and present their answers.
- They can also share these situations with their fellow participants if they do not wish to share it with the entire class.

Activity

- Do you remember any incident which has hurt?
 - you physically
 - you mentally
 - your career
 - your relationships.

Ask

- Do you ever get angry?
- What are the things that make you angry?
- Do you remember any incident where your anger management helped you in maintaining healthy relationship?
- Do you remember any incident where someone lost business/ friend/ relationship due to temper (anger)?

Say

- There are a few strategies which can help in controlling your anger. Let's do an activity to understand the anger management process better.
- This is an individual activity.
- Think of the incidents/ situations which trigger your anger (the cause).
- Then think what happened as a result of your anger (the effect).
- You need to come up with some techniques to manage your anger.

Do

- Give the class the anger triggers (the cause) as listed in the activity.
- Put down the activity format (Anger Triggers, Result of your Anger, Anger Management Techniques) on the board and instruct the class to write the answers under different categories.
- Give the class 3-5 minutes to think and note down their answers.
- At the end of 5 minutes, ask the participants who wish to volunteer and present their answers.

Activity

Trigger points and Anger Management Techniques Activity

Anger Triggers

List of triggers that make you angry:
Someone says you did something wrong.
You want something you can't have now.
You get caught doing something you shouldn't have been doing.
You are accused of doing something you didn't do.
You are told that you can't do something.

Someone doesn't agree with you.

Someone doesn't do what you tell him to do.

Someone unexpected happens that messes up your schedule.

Result of your anger:

Write the techniques that you use to manage your anger:

Anger Management Techniques

Say



- Now, let's discuss the problems and solution with all.
- The individual will first briefly describe trigger points to the class.
- Then discuss the result of the anger. Other participants are requested to remain quiet while one is making the presentation.
- Post presentation, other participants may ask questions.

Do



- Congratulate each individual for sharing their points.
- Ask the audience to applaud for them.
- Ask de-brief questions after the presentation to the class.
- Keep a check on the time. Ask the participants to wind up the activity quickly if they go beyond the given time limit.

Ask

De-brief questions:

- In the situation described by the presenter, who was at fault?
- How could you have handled this situation alternatively?

Summarize

- Close the discussion by summarizing the strategies and tips of anger management for entrepreneurs.
- Ask the participants what they have learnt from this exercise/ activity.
- Ask if they have any questions related to what they have talked about so far.

Notes for Facilitation

- Encourage the participants to share information about them while presenting the situations to the class.
- Keep the format of the Activity prepared in a chart paper so that it can be displayed during the session.

UNIT 7.1.8: Stress Management: What is stress?

Unit Objectives

At the end of this unit, participants will be able to:

- Discuss the causes of stress
- Discuss the symptoms of stress
- Discuss tips for stress management

Resources to be Used

- Participant Handbook

Ask

- You are waiting in the reception for an interview or a very important meeting, suddenly your legs are shaky, your hands are cold, you are feeling nervous. Have you ever been in this kind of situation?
- Have you had days when you had trouble sleeping?
- Have you ever been so worried about something that you ended up with a terrible headache?

Say

- You've probably heard people say, "I'm really stressed out" or "This is making me totally stressed."

Ask

- What do you understand by stress?
- What gives you stress?
- How do you feel when you are stressed or what are the symptoms of stress?
- How can stress harm you?
- Why is it important for entrepreneurs to manage stress?

Say

- When we feel overloaded or unsure of our ability to deal with certain challenges, we feel stressed.
- Discuss about stress, causes of stress, and symptoms of stress as discussed in the Participant Handbook.
- Let's understand the causes of stress and how to deal with them with the help of some case scenarios.

- You will be given some cases.
- You have to analyse the case scenario and then find an appropriate solution to the problem.
- This will be a group activity.

Do

- Divide the class into four groups of 5- 6 participants (depending on the batch size).
- Assign one case scenario to each group.
- Instruct them to read the case carefully.
- The group is expected to analyse and discuss the case amongst them and find a solution to the given problem.
- Explain their discussion should result in getting answers for the following questions:
 - What was/ were the cause(s) of stress?
 - Was the stress avoidable or manageable under the given circumstances?
 - If yes, how do you think that the stress could be avoided (managed)?
 - If no, then why not?
- Give the class 10-12 minutes to discuss the case and note down their solutions.
- At the end of 12 minutes, the team should present their case solution to the larger group.
- Ask the group to select a group leader for their group.
- The group leader to discuss and assign roles to the group members for the presentation.

Team Activity**Case Study Analysis****Scenario 1**

Akash's alarm doesn't go off and he gets late getting out of the house. He hits traffic and ends up 15 minutes late to work, which his boss notices. He gets to his desk and finds he has to complete 2 reports in next one hour. Just when he is about to begin work, a message pops up "Telecon with the client begins in 10 minutes. Please be in the conference room in 5 minutes ." He is not prepared for the call. He is stressed. He does not want to speak to his boss about this. He is stressed, feeling uncomfortable and sick. Not in a position to attend the call or finish the reports on time.

Scenario 2

While paying his overdue bills, Rahul realised that it's the middle of the month and he has only Rs 500 left in his account. He has already asked all of his friends, and family for loans, which he hasn't paid back yet. He is still contemplating over the issue when his phone rings. His sister's birthday is due next week and she has seen a beautiful dress which she wants to buy but cannot tell the parents as it is a bit expensive. She wishes if Rahul could buy the dress for her. Rahul has promised to buy her the dress for her birthday.

Rahul is stressed, does not understand what to do. He is unable to concentrate on his work and unable to complete the tasks assigned. His team leader has already warned him of the delay.

Scenario 3

Sheela calls the cable company as she has unknown charges on her bill. She has to go through the automated voice mail menu three times and still can't get through to a customer care executive. After 15 minutes of repeated efforts, her call is answered. She explains the entire issue to the customer care executive but before the person could suggest a way out, the call drops.

Now Sheela has to call back and repeat the whole process all over again with a new customer care executive. She is very angry and calls again but cannot connect this time.

She has to leave to office so she decides to call from office and check. When she connects this time, she is angry and argues with the executive on the call. All her co-workers around are looking at her as her volume has suddenly increased. She bangs the phone and ends the call. Her co-worker Neelam enquires what has happened to her. She ignores her and just walks off. She has become irritable and her behaviour and tone with other co-workers is not acceptable.

Scenario 4

Arpit is a young entrepreneur who started doing business through Facebook few weeks back. He had always been into a job. Although Arpit has very few financial liabilities, it wasn't an easy decision to leave a comfortable job at once and look for newer pastures. Arpit's boss warned him of the consequences and the challenges of starting a business when nobody ever in his family had been in business.

He has not been able to get a good deal till now. This is an important life shift for him which comes with unknown variables. Arpit is nervous and is wondering if he has what it takes to fulfill the requirement of his new role, or the new experiences he's likely to face.

Ask



De-brief questions:

- What was/ were the cause(s) of stress?
- Was the stress avoidable or manageable under the given circumstances?
- If yes, how do you think that the stress could be avoided (managed)?
- If no, then why not?

Say



- Now, let's discuss the problem and solution with the larger group.
- The group will first briefly describe the case to the class.

- Then discuss the issue identified and the proposed solution.
- Post presentation, the other groups may ask questions to the group that has presented.

Do

- Congratulate each group for sharing their points.
- Ask the audience to applaud for them.
- Ask de-brief questions to cull out the information from each group.
- Keep a check on time. Tell participants to wind up the discussion quickly if they go beyond the given time limit.

Say

- While it is common and normal to feel some tension. This feeling nervous and tensed can interfere with your thinking process and can have a negative impact on your performance.
- Stress can deplete the most vibrant of souls. It can have a negative effect on every aspect of a person's life including their health, emotional well-being, relationships, and career. However, one needs to understand the causes and types of stress before looking for ways to manage it.

De-brief:

Scenario 1

The cause of stress was lack of time management and the habit of procrastinating. If Akash would have managed his time well, planned alternate ways to get up on time, finished prior tasks on time and planned for client meetings in advance then he wouldn't have faced stress.

Scenario 2

The cause of stress was lack of financial planning. Rahul should have planned his financial resources well in advance and saved some money for the rainy day. Also, differentiating between needs and wants and keeping a check on non-essential expenditure would have saved Rahul from this situation.

Scenario 3

Sometimes, stress is caused due to external factors instead of internal ones. In this case, the stress was unavoidable because we have no control over this customer care system. Every time, you will get in touch with a new executive and will have to explain all over again. This might cause stress but despite being frustrated and angry there is little that we can do about it. All Sheela could do was to find ways to calm herself down through some breathing exercises and meditation, reading some good book or listening to music and then start afresh.

Scenario 4

A positive, major life change can be a source of good stress. Regardless of how good the change is, it can be stressful. Stress caused by a positive and major life change can be beneficial because it causes a person to step out of their comfort zone and learn new skills. Here, Arpit may become a successful entrepreneur or learn new ways to do things differently. Now let us see this scenario, can I have a volunteer to read out this case to the class

Do

- Ask one of the participant who can volunteer and read out this scenario to the class.

Scenario 5

Rakesh lives in Kathmandu with his wife and two beautiful daughters Sarah and Sanya. Nepal was hit by a massive earthquake and Rakesh's building collapsed during the earthquake. During evacuation, Rakesh realised that though his wife and Sarah were fine and suffered only minor bruises, Sanya was nowhere in the scene. Panic stricken, he started calling her name and searching her frantically. A little later, he heard a meek voice from beneath the debris. He quickly removed the rubble to find a huge bed. Rakesh was pretty sure that Sanya was trapped underneath. Though he was badly bruised, he gathered all his courage and with all his might, he lifted the several-ton bed to save Sanya's life. Everyone was relieved to see Sanya alive and also extremely surprised to see this father's ability to access superhuman strength.

- Ask the audience to applaud for the participant after the scenario is read completely.
- Discuss the scenario, ask de-brief questions:
 - What kind of stress was Rakesh undergoing in this case?
 - Was the stress avoidable or manageable under the given circumstances?
 - What was the result of the stress?

Say**De-brief:**

- Not all stress is harmful; good stress is actually energizing. This was a case of lifesaving stress, or hero stress, which is an important example of good stress. You may have heard stories in which a person performs an impossible feat of physical strength in order to save their life or the life of someone they love. This type of stress causing a surge of adrenaline is good for us.

Summarize

- Close the discussion by summarizing the tips to manage stress as given in the Participant Handbook.
- Ask the participants what they have learnt from this exercise/ activity.
- Ask if they have any questions related to what they have talked about so far.

Notes for Facilitation



- Keep printed copies of the activities/ scenarios ready for the session.
- Put down the de-brief questions on a flip chart so that it can be displayed in the class during the activity.
- Encourage participation and make the discussions interactive.

UNIT 7.2: Digital Literacy: A Recap

Key Learning Outcomes

At the end of this unit, participants will be able to:

1. Identify the basic parts of a computer
2. Identify the basic parts of a keyboard
3. Recall basic computer terminology
4. Recall the functions of basic computer keys
5. Discuss the main applications of MS Office
6. Discuss the benefits of Microsoft Outlook
7. Identify different types of e-commerce
8. List the benefits of e-commerce for retailers and customers
9. Discuss Digital India campaign will help boost e-commerce in India
10. Describe how you will sell a product or service on an e-commerce platform

UNIT 7.2.1: Computer and Internet Basics: Basic Parts of a Computer

Unit Objectives

At the end of this unit, participants will be able to:

- Identify the basic parts of a computer
- Identify the basic parts of a keyboard
- Recall basic computer terminology
- Recall the functions of basic computer keys

Resources to be Used

- Participant Handbook
- Computer Systems with the required applications

Say

- Let's take a quick recap of the basic computer parts.
- Discuss 'Basic Parts of Computer' and 'Basic Parts of a Keyboard' with the class as given in the Participant Handbook.

Explain

- Explain all the parts of the computer and the keyboard by demonstrating on the real system.

Ask

- Do you know about internet?
- Have you ever used internet?
- Why do you think internet is useful?
- What was the last task you performed on internet?

Say

- Let's look at some basic internet terms.
- Discuss 'Basic Internet Terms' with the participants as given in the Participant Handbook.

Summarize

- Ask the participants what they have learnt from this exercise/ activity.
- Ask if they have any questions related to what they have talked about so far.

- Close the discussion by summarizing the importance of computer and internet for entrepreneurs.

Practical

- Conduct a practical session.
- Ask the participants to assemble in the computer lab.
- Give some hands-on practice exercises.

Do

- Group the participants for the activity depending on the batch size and the number of computer systems available in the lab.
- Explain the purpose and duration of the activity.
- Ensure the participants complete the practical exercises assigned.

UNIT 7.2.2: MS Office and Email: About MS Office

Unit Objective

At the end of this unit, participants will be able to:

- Discuss the main applications of MS Office
- Discuss the benefits of Microsoft Outlook

Resources to be Used

- Participant Handbook
- Computer Systems with the required applications

Ask

- What is the most frequent activity that you do on the computer?
- Do you know how to make presentations on the computer?

Say

- Give a brief introduction of MS Office as given in the Participant Handbook.
- Discuss the most popular office products. Explain in brief their application, benefits and working.
- Microsoft Word is a word processing program that allows for the creation of documents. The program is equipped with templates for quick formatting. There are also features that allow you to add graphics, tables, etc.
- Microsoft Excel is a tool for accounting and managing large sets of data. It can also simplify analysing data. It is also used to create charts based from data, and perform complex calculations. A Cell is an individual data box which will have a corresponding Column and Row heading. This gives the cell a name, referred to as the Cell Reference. There can be multiple pages in each workbook. Each page, or sheet, is called a Worksheet. When you open a new Excel file, it automatically starts you with three worksheets, but you can add more.

Explain

- Explain the working and frequently used features of Office on a real system.

Ask

- What do you know about e-mails?
- Do you have an email id?
- How often do you check your e-mails?

Say



- Communication is vital for every business. The fastest and the safest way to communicate these days are through emails. MS Outlook helps to manage your emails in a better way and also offers a host of other benefits.
- Discuss “Why Choose Microsoft Outlook?” with the participants as given in the Participant Handbook.

Do



- Ask the participants to assemble in the computer lab.
- Explain the working of Outlook on a real system.

Demonstrate



- Demonstrate how to create email id.
- Demonstrate how to write new mails, send mails.
- Demonstrate how to use MS Office application to create a letter and send it as attachment in an email.
- Demonstrate how to use other MS Office applications.

Practical



- Give some hands-on practice exercises
- Group the participants for the activity depending on the batch size and the number of computer systems available in the lab.
- Explain the purpose and duration of the activity.

Summarize



- Ask the participants what they have learnt from this exercise/ activity.
- Ask if they have

UNIT 7.2.3: E-Commerce

Unit Objective

At the end of this unit, participants will be able to:

- Identify different types of e-commerce
- List the benefits of e-commerce for retailers and customers
- Discuss Digital India campaign will help boost e-commerce in India
- Describe how you will sell a product or service on an e-commerce platform

Resources to be Used

- Computer Systems with internet connection
- Participant Handbook

Ask

- How many of you have done shopping online?
- Can you name at least five shopping websites?
- What is the product that you most frequently buy online?
- Why do you do shopping online instead of going to the market?

Say

- Give a brief introduction of “What is E-commerce”. Refer to the Participant Handbook.
- E-commerce emerged in the early 1990s, and its use has increased at a rapid rate. Today, many companies sell their products online. Everything from food, clothes, entertainment, furniture and many other items can be purchased online.

Ask

- What other types of transactions have you performed on the internet other than buying products?

Say

- Give examples of e-commerce activities from Participant Handbook.

Team Activity

E-commerce examples

- Instruct the participants to list some of the payment gateways that they have used for e-commerce activities.

- Give them 5 minutes to make this list.
- Discuss payment gateways and transaction through payment gateways.
- Conclude the discussion by mentioning how important e-commerce has become in our day to day transactions.

Say



- E-commerce activities can be classified based on the types of participants in the transaction.
- Discuss “Types of E-commerce” from the Participant Handbook.

Do



- Discuss all types of E-commerce by giving examples and names of some popular websites which use them.
- Make the discussion interactive by asking the class to share some popular e-commerce sites of each type.

Say



- E-commerce activities bring a host of benefits for both, retailers and customers.
- Discuss benefits of E-commerce from the Participant Handbook.

Explain



- The majority of the population that uses E-commerce activities lives in tier-1 and tier-2 cities. To encourage the use of digital money in tier -3 and 4 areas, PM Mr. Modi launched the “Digital India Campaign”.
- Discuss “Digital India Campaign” from the Participant Handbook.
- By Digital India project the government will deliver services via mobile connectivity and in doing so, is expected to bring the internet and broadband to remote corners of the country. This connectivity will in turn enhance e-commerce activities also. Furthermore, the Indian Government is also modernizing India Post and aims to develop it as a distribution channel for e-commerce related services.

Say



- Now let us discuss how to sell a product using E-commerce.
- Every product has to be sold on a platform on the internet. Think of it as a shop that you have to sell your product. Now this shop can be your own or shared or rented. If the shop is your own or rented there will be only your products in that shop. If the shop is shared, there will be products of multiple sellers in that shop. A common example is a departmental store which has products from multiple brands in the shop.

- Similarly, in E-commerce the shop is the website where your products are displayed. If it is your own website it will exclusively showcase your products. In this case the cost that you will incur will be:
 - Developing the website
 - Hosting the website
 - Maintenance of the website
- If you rent a website it will also showcase your own products but the development, hosting and maintenance parts goes to the owner. This saves time and the cost to manage these activities.
- Smaller companies usually go for renting a website and the bigger ones develop their own website.
- The concept of shared platforms has become very popular in recent times. In this platform, the sellers have to register and then they can sell their goods on a common platform. Among the most popular of these are Amazon, Myntra, Flipkart, etc.

Role Play

- Tell the participants to choose a product or service that they want to sell online.
- Tell them to write a brief note explaining how they will use existing e-commerce platforms or create a new e-commerce platform to sell their product or service.

Ask

- How much money are you carrying in your wallet?
- Do you have a credit/debit card?
- How do you make payments while doing online shopping?

Say

- Demonetization has made carrying cash in the wallet very difficult. People either shop through cards or some other form of digital money.
- So, what do you think is digital money?
- In this form, the money is both paid and received digitally. There is no hard cash involved. It is an instant and convenient way to make payments.
- There are various types of digital payments. Let us discuss some of them in brief here.
- The first one is the most commonly used system i.e. the cards. Debit card, credit card, prepaid card, all fall under this category.
- Then is the e-wallet or the mobile wallet. This has become the most used form of digital money after demonetization. Examples are Paytm, state bank buddy, Free charge, etc.
- Many other forms of digital money are also coming up in market like mobile apps, Aadhar card-based payment, etc.

Do

- Demonstrate how to make and receive payments through digital models like Paytm and state bank buddy.

Ask

- Why do you think people have started using digital money instead of hard cash? Is demonetization the only reason?

Say

- Digital money gives a lot of advantages over the conventional hard cash. Some of them are:
 - Digital payments are easy and convenient. You do not need to take loads of cash with you, a mobile phone or a card will suffice.
 - With digital payment modes, you can pay from anywhere anytime.
 - Digital payments have less risk.

Summarize

- Ask the participants what they have learnt from this exercise/ activity.
- Ask if they have any questions related to what they have talked about so far.
- Close the discussion by summarizing the importance of e-commerce and digital money.

UNIT 7.3: Money Matters

Key Learning Outcomes



At the end of this unit, participants will be able to:

1. Discuss the importance of saving money
2. Discuss the benefits of saving money
3. Discuss the main types of bank accounts
4. Describe the process of opening a bank account
5. Differentiate between fixed and variable costs
6. Describe the main types of investment options
7. Describe the different types of insurance products
8. Describe the different types of taxes
9. Discuss the uses of online banking
10. Discuss the main types of electronic funds transfer

UNIT 7.3.1: Personal Finance – Why to Save?

Unit Objective

At the end of this unit, participants will be able to:

- Discuss the importance of saving money
- Discuss the benefits of saving money

Resources to be Used

- Participant Handbook

Ask

- How many of you save money?
- Why do you feel the need to save it?
- Do you plan your savings?
- Where do you keep the money you save?
- How do you use the money that you have saved?

Example

- Let's look at these two examples:

Example 1:

Suhani works in a good company and earns Rs.30, 000 months. She always saves 5000 per month and keeps it aside as a personal saving. She keeps the money at home and has saved quite a lot. One day her mother has a medical emergency and has to be taken to the hospital. Her family is worried about the amount they have to spend for the treatment. It will cost them atleast 40,000.

Suhani says tells her family not to worry and that she has about 50,000, which she has saved over the months.

Example 2:

Jasmeet works in the same company and earns the same as Suhani. She is very fond of shopping and spends most of her money on buying new clothes. At the end of the month, she is always asking her father for money as her pay is finished.

Ask

- Who do you identify with –Suhani or Jasmeet?
- How do you think Suhani manages to save money which Jasmeet is unable to do?

Say

- We should always set aside some and save some money from our monthly pay. The future is unpredictable. Saving money not only gives you a sense of financial security but it can be used in case of emergencies.
- Discuss “Importance of Saving” with the participants as given in the Participant Handbook.

Ask

- What are the benefits of saving money?
- What does being financially independent mean to you?

Say

- Discuss “Benefits of Saving” with the participants as given in the Participant Handbook.
- Now let us continue with Suhani's story. Suhani has told her family not to worry and that she has about 50,000, which she has saved over the months. The family is happy about Suhani's decision of saving money, which will be of great help for them now. Suhani is going to the hospital today to pay the first instalment for the treatment. Suddenly finds only 35,000 in her cash box when she counts and does not remember using it. She has not kept any record and now she is upset.

Ask

- Was it a good decision by Suhani to save a part of her earnings every month?
- Was it a wise decision to keep all her savings as cash in a cash box?
- Could she have managed to save money in a better and more effective manner?
- Do you want to learn how to save money and use it effectively?

Say

- Let's learn personal saving with the help of a group activity.

Team Activity



Personal Finance- Why to save

- This activity has two parts:

PART 1

WAYS TO SAVE MONEY

- You are earning 30,000/- per month. You have recently changed your job and have to move to a metropolitan city. You are now living as a paying guest paying 8,000/- per month. Your other estimated expenditures like travel, food, recreation would be around Rs. 17, 000 per month.
- Make a list of different ways to save money.

PART 2

HOW WILL YOU USE THE MONEY?

- After a year how much have you been able to save?
- How will you use the money that you have saved?

Do



- Divide the class into groups of four.
- Instruct the participants to think and prepare a list of the various ways they can save money.
- Give the participants 10 minutes to prepare the list.
- Once done, instruct them to think of how they could use the money they have saved.
- Give the participants 10 minutes to prepare the list.
- Keep a check on time. Tell the group to wind up quickly if they go beyond the given time limit.

Activity De-brief

- What were the different ways you could save money?
- How much money were you able to save?
- How will you use the money you have saved in one year?

Say



- Discuss the importance of personal finance and why it is important to save money.

Summarize

You can summarize the session by discussing:

- The importance of saving money.
- Ways to save money.
- How the money saved can be used for different purposes.

UNIT 7.3.2: Types of Bank Accounts, Opening a Bank Account

Unit Objective

At the end of this unit, participants will be able to:

- Discuss the main types of bank accounts
- Describe the process of opening a bank account

Resources to be Used

- Account opening sample forms
- Participant Handbook

Ask

- How many of you save money?
- Where do you keep the money you save?
- How many of you have a bank account?
- What type of account do you have?

Example

- Let's look at the given example:

Reena is in the third year of college but in the evening, she gives tuitions for children living in her colony. She earns 15,000/- per month. As her students stay in different parts of the city, she has to walk a lot.

To save time, she decides to buy a second-hand scooter for herself. But she has to save money for it. Her class mate advises her to open a recurring deposit account in the bank.

She goes to the bank close to her home. The personal manager gives her some forms to fill. She is confused as she has never done this before. Her elder sister has an account in the same bank. She asks for help from her sister. She goes to the bank the next day with her sister. The personal banker gives her a list of documents that she will need to submit with the form for opening an account. The banker advises her to open a 6 months recurring deposit.

Ask

- Do you try to save money monthly but have to spend it on unforeseen expenditure?
- Have you ever thought of depositing your savings in a bank?

Say

- Before opening a bank account, you need to know the types of accounts we have in India.
- Discuss “Types of Bank Accounts” with the participants as given in the Participant Handbook.

Ask

- Can someone say what are the different types of bank accounts?

Say

- Let's learn about the different types of bank accounts through an activity.

Team Activity

- Divide the class in four groups.
- Label the groups as savings account, current account, recurring account and fixed deposit.
- On a chart paper, ask them to write the key points of their account.

Activity De-brief

- Ask each group to present the key points of their account.

Say

- Now that you know about the four different types of accounts, let's learn how to open a bank account.
- Discuss “Opening a Bank Account” with the participants as given in the Participant Handbook.
- Discuss “Tips” that the participants should keep in mind while opening a bank account as given in the Participant Handbook.

Ask

- What are the main documents required for opening a bank account?
- What are some important points to ask the bank personnel while opening an account?

Say

- Mention officially valid KYC documents (refer to the Participant Handbook)
- Now, let's understand the procedure of opening a bank account through an activity.

Team Activity



Opening a Bank Account

- This activity is done in groups.
- Divide the class in groups of four or six

PART 1

FILLING A BANK ACCOUNT OPENING FORM

- You have to fill a bank opening form.
- You can refer to the section “Opening a Bank Account” of your Handbook for reference.
- List all the steps that you will be required to fill in the form.
- List the documents that you need for filling the form.
- Now fill in the form.

Activity De-brief

How did you design the form?

- What all details did you fill in the form?
- What were your KYC documents?
- How would this activity help you in future?

Do



- Instruct the participants to read the section “Opening a Bank Account” of the Participant Handbook.
- Give each group one sample account opening form.
- Give the participants 5 minutes to read the form.
- Give them 15 minutes to fill it.
- Assist them by explaining each category and how to fill it.
- Keep a check on time.
- Tell the group to wind up quickly if they go beyond the given time limit

Summarize



Note:

- You can summarize the unit through a role play.
 - A person wanting to open an account in the bank.
 - What is the procedure that he will go through?
 - Discuss the key points of different types of bank accounts.
 - How to select the type of account
 - How to fill the account opening form.

- A sample account opening form is given in the following page for reference. Use it for the activity in the class.

Sample Bank Account Opening form.

Photograph

XXX Bank

SAVING BANK ACCOUNT OPENING FORM

Account No.: _____ Date: _____

Name of the Branch			
Village/Town			
Sub District / Block			
District			
State			
SSA Code / Ward No.			
Village Code / Town Code	Name of Village /		

Applicant Details:

Full Name	Mr./Mrs./	First	Middle	Last Name
Marital Status				
Name of				
Spouse/Father				
Address				
Pin Code				
Tel No. Mobile			Date of Birth	
Aadhaar No.			Pan No.	
MNREGA Job Card No.				
Occupation/Profession				
Annual Income				
No. of Dependents				

Detail of Assets	Owning House : Y/N	Owning Farm : Y/N		
	No. of Animals :	Any other :		
Existing Bank A/c. of family members / household	Y / N If yes, No. of A/cs. _____			
Kisan Credit Card	Whether Eligible Y / N			
I request you to issue me a Rupay Card .				
I also understand that I am eligible for an Overdraft after satisfactory operation of my account after 6 months of opening my account for meeting my emergency/ family needs subject to the condition that only one member from the household will be eligible for overdraft facility. I shall abide by the terms and conditions stipulated by the Bank in this regard.				
Declaration:				
I hereby apply for opening of a Bank Account. I declare that the information provided by me in this application form is true and correct. The terms and conditions applicable have been read over and explained to me and have understood the same. I shall abide by all the terms and conditions as may be in force from time to time. I declare that I have not availed any Overdraft or Credit facility from any other bank.				
Place:				
Date:		Signature / LTI of Applicant		
Nomination:				
I want to nominate as under				
Name of Nominee	Relationship	Age	Date of Birth in case of minor	Person authorised in case to receive the amount of deposit on behalf of the nominee in the event of my /minor(s) death.
Place:				
Date:				Signature / LTI of Applicant
Witness(es)*				
1. _____				
2. _____				
*Witness is required only for thumb impression and not for signature				

Fig 7.3.2.1: Sample account opening form

UNIT 7.3.3: Costs: Fixed vs. Variables: What are Fixed and Variable Costs?

Unit Objective

At the end of this unit, participants will be able to:

- Differentiate between fixed and variable costs

Resources to be Used

- Participant Handbook
- Blank sheets of paper
- Pens

Ask

- What is cost?
- Will a telephone bill fall under the category of a fixed or variable cost?

Say

- Discuss: Fixed and Variable cost with examples. Let us do a small activity.

Team Activity

Identify the type of cost

1. Rent
2. Telephone bill
3. Electricity bill
4. Machinery
5. Insurance
6. Office supplies/ Raw materials
7. Employee salaries
8. Commission percentage given to sales person for every unit sold
9. Credit card fees
10. Vendor bills

Do



- Divide the class into two groups. Read out the list of costs given in the activity.
- Read out each item from the cost list and ask the groups in turns to identify whether it is a fixed or variable cost.

Say



- We saw that your utility bills like rent, electricity, telephone etc. are all fixed costs because you have to pay it every month.
- Variable costs is an expense which varies with production output or volume. For example, commission, raw material etc.
- Discuss “Cost: Fixed vs. variables” with the participants as given in the Participant Handbook.
- Illustrate the relation between the costs with a graph.

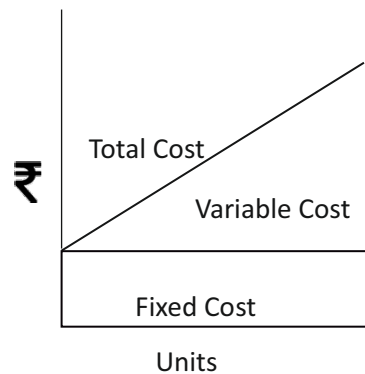


Fig 7.3.3.1: Relation between costs

- Let's learn the difference between fixed and variable cost with the help of an activity.

Team Activity

**Fixed vs. Variable Costs**

- This is a group activity.
- You want to start your own entrepreneur business.
- State the type of business you want to start.
- List down all the cost or requirements for your business.
- How will you differentiate between the fixed and variable cost.

Activity De-brief

- What is the total cost of your business?
- What are the fixed costs?
- What are the variable costs?
- How did you differentiate between the fixed and variable costs?

Do



- Instruct the participants that this is group work.
- Divide the class into small groups of 4 or 6.
- Give each group a sheet of paper.
- Tell the participants that they have to start their own entrepreneur business.
- Ask them the type of business they want to start.
- Instruct them to differentiate between the fixed and the variable costs of the business they want to start.
- Give the participants 15 minutes to discuss and write.
- Keep a check on time. Tell the group to wind up quickly if they go beyond the given time limit.

Summarize



- Note: You can summarize the unit either by having a role play between a consultant and a budding entrepreneur explaining the differences between fixed and variable costs or by discussing the key points of the unit.

Notes for Facilitation



Answers for the activity - Identify the type of cost

1. Rent	(Fixed)
2. Telephone bill	(Fixed)
3. Electricity bill	(Fixed)
4. Machinery	(Fixed)
5. Insurance	(Fixed)
6. Office supplies/ Raw materials	(Variable)
7. Employee salaries	(Fixed)
8. Commission percentage given to sales person for every unit sold	(Variable)
9. Credit card fees	(Variable)
10. Vendor bills	(Variable)

UNIT 7.3.4: Investments, Insurance and Taxes

Unit Objective

At the end of this unit, participants will be able to:

- Describe the main types of investment options
- Describe the different types of insurance products
- Describe the different types of taxes

Resources to be Used

- Participant Handbook

Ask

- Ask the participants- “What do you see first thing in when you get your mobile bill? Apart from the amount and due date do you have a look at the taxes you are being billed for?”
- Why do you think people get their cars insured or have a medical insurance?
- You have saved money and want to invest it; how would you decide what is the best investment for your money?

Example

- Let's have a look at a few scenarios.

Ranbir has sold his house and deposited the money in his bank. His Chartered Accountant tells him that he will have to re-invest the money otherwise he will have to pay capital tax. What is capital tax and how is it different from income tax?

Jasmeet and Anup are blessed with a baby girl. They decide to have an insurance policy that will mature when their daughter is ready to higher education.

Shivani is working in a corporate office and getting good pay. She will have to pay income tax, so she decides to invest her money in tax saving schemes. She goes to the bank manager to discuss the best products in which she can invest.

Say

- Discuss the Investment, Insurance and Taxes as given in the Participant Handbook.

Ask



- How do investments, insurances and taxes differ from each other?

Say



- Let's learn the differences between the three by having an activity.

Say



- We will have a quiz today.

Team Activity



- The activity is a quiz.

Do



- Divide the class into groups of three and give a name to each group
- Explain the rules of the quiz. For each correct answer, the group gets 1 mark. If the group is unable to answer the question is rolled over to the next group.
- Explain the purpose and duration of the activity.
- On the blackboard write the names of the groups.
- Ask the questions of the quiz.
- Keep a score for the groups.
- Set guidelines pertaining to discipline and expected tasks.

Summarize



- Summarize the unit by discussing the key points and answering question

Notes for Facilitation

**Questions for the quiz**

1. Mr. Das gets monthly return on one of his insurance policies. Name the policy?

Money Back Life Insurance

2. What are bonds?

Bonds are instruments used by public and private companies to raise large sums of money.

3. Who issues the bonds?

Private and public companies issue the bonds.

4. Why are bonds issued?
To raise large amount of money as it cannot be borrowed from the bank.
5. Who is the buyer of stocks and equities?
The general public is the buyer.
6. What types of scheme is the Sukanya Samriddhi Scheme?
Small Saving Scheme
7. What is the difference between mutual and hedge funds?
Mutual funds are professionally managed financial instruments that invest the money in different securities on behalf of investors. Hedge funds invest in both financial derivatives and/or publicly traded securities.
8. Why is a loan taken from the bank to purchase real estate?
To lease or sell to make profit on appreciated property price.
9. Name the two types of insurances?
Life Insurance and Non-life or general insurance
10. Which insurance product offers financial protection for 15-20 years?
Term Insurance
11. What is the benefit of taking an endowment policy?
It offers the dual benefit of investment and insurance.
12. What are the two benefits of a Whole Life Insurance?
It offers the dual benefit of investment and insurance
13. Which policy covers loss or damage of goods during transit?
Marine Insurance
14. After what duration is the income tax levied?
One financial year
15. What is long term capital gain tax?
It is the tax payable for investments held for more than 36 months.
16. Name the tax that is added while buying shares?
Securities Transaction Tax
17. What is the source of corporate tax?
The revenue earned by a company.
18. Name the tax whose amount is decided by the state?
VAT or Value Added Tax
19. You have bought a T.V. What tax will you pay?
Sales Tax
20. What is the difference between custom duty and OCTROI?
Custom duty is the charges payable when importing or purchasing goods from another country. OCTROI is levied on goods that cross borders within India.

UNIT 7.3.5: Online Banking, NEFT, RTGS, etc.

Unit Objective

At the end of this unit, participants will be able to:

- Discuss the uses of online banking
- Discuss the main types of electronic funds transfer

Resources to be Used

- Participant Handbook
- Computer System with internet connection
- Debit card

Ask

- When was the last time you visited a bank?
- How do you pay your bill for electricity and telephone?
- Have you ever tried to transfer money from one bank account to another bank account using the online banking facility?

Say

- Most of us lead a busy life. Time has become more important than money. In this busy schedule, no one has time to stand in bank queues. That's where Online Banking comes in. Online banking or internet banking means accessing your bank account and carrying out financial transactions through the internet.
- Discuss "What is online banking?" from the Participant Handbook.
- There are various advantages of online banking:
 - It saves time, as you need to visit the branch.
 - You can conduct your banking transactions safely and securely without leaving the comfort of your home.
 - Online Banking also gives you round the clock access.
 - Online Banking makes it possible for you to pay your bills electronically.

Do

- Show them how they can use the internet banking.
- Use the computer system and show the demo videos on how to use internet banking provided on most banking sites. the computer system.
- Tell the class the various features of online banking :
 - Through their website set-up your online account.

- Choose a secure username and password.
- Set-up your contact information.
- Once your information is verified, you are good to go.
- Once you enter the portal explore all the features and learn your way through the portal.

Say



- One of the biggest advantage that online banking offers, as discussed earlier, is transferring money from one account to another. This transaction is called electronic funds transfer. Electronic transfers are processed immediately with the transferred amount being deducted from one account and credited to the other in real time, thus saving time and effort involved in physically transferring a sum of money.
- Discuss “Electronic Funds Transfer” from the Participant Handbook.

Do



- Discuss how to transfer money from one account to another using online banking (NEFT/RTGS, etc.).
- Illustrate with an example.

Summarize



- Close the discussion by summarizing the about online banking.
- Ask the participants if they have any questions related to what they have talked about so far.

UNIT 7.4: Preparing for Employment & Self-Employment

Key Learning Outcomes



At the end of this unit, participants will be able to:

1. Discuss the steps to follow to prepare for an interview
2. Discuss the steps to create an effective Resume
3. Discuss the most frequently asked interview questions
4. Discuss how to answer the most frequently asked interview questions
5. Identify basic workplace terminology

UNIT 7.4.1: Interview Preparation: How to Prepare for an Interview?

Unit Objective

At the end of this unit, participants will be able to:

- Discuss the steps to follow to prepare for an interview

Resources to be Used

- Participant Handbook

Ask

- Have you ever attended an interview?
- How did you prepare before going for an interview?

Say

- An interview is a conversation between two or more people (the interviewer(s) and interviewee) where questions are asked by the interviewer to obtain information from the interviewee.
- It provides the employer with an opportunity to gather sufficient information about a candidate and help them select the ideal candidate.
- It also provides the interviewee with an opportunity to present their true potential to the employer, build confidence and help make a decision about the job by asking questions regarding designation, salary, perks, benefits, promotions, transfers, etc.
- Let's do an activity to understand how to prepare for interviews better.

Activity 1

- Introducing Yourself

Do

- Select a participant and ask him/her to answer the following questions: "What can you tell me about yourself?"
- Give the participant at least one minute to speak.
- Once he/she is done, ask the rest of the participant what they gathered about the participant who was providing information.
- Now repeat the exercise with five other participants.

Ask

- What information you should include when you are describing or introducing yourself in an interview?
- What information you should not include when you are describing or introducing yourself in an interview?

Say

- Tell the participants that when an interviewer asks you to say something about yourself, he/she is not asking you to present your life history.
- Introduction should be short and crisp and should present you in a positive light. It should include the following points:
 - Any work experience that you might have
 - A brief summary of your educational qualifications
 - Your strengths and achievements
 - Any special projects that you might have been part of
- The following topics should be avoided during an introduction:
 - Detailed description of your family (unless you are specifically asked to do so)
 - Too much information about your weaknesses
 - Information that is not true

Do

- Congratulate each participant for sharing their points.
- Ask the audience to applaud for them.
- Ask de-brief questions to cull out the information from each group.
- Keep a check on time.

Activity 2

- Planning the right attire

Do

- Describe 2 individuals to the participants. One is wearing a casual t-shirt, jeans, and slippers. He has not combed his hair and neither has he trimmed or shaved his beard. The other individual is dressed formally with a shirt and pant and is well-groomed. He has also worn formal shoes and a belt. Ask the participants which person would they prefer to hire in their organization and why?

Summarize



- Close the discussion by discussing 'how to prepare for an interview' as discussed in the Participant Handbook.
- You can add the following points to it:
 - Tell the participants to create a positive and good impression in an interview. It is important for them to prepare for an interview beforehand.
 - The interviewer analyses not only your technical knowledge in relation to the job, but also whether or not you are a fit for the organization.
 - Every employer looks at the whole package and not just one or two things in isolation. Therefore, the way you dress and the way you present yourself is also important along with your skills and talents.
 - The participants will get only one chance to create a good first impression.

UNIT 7.4.2: Preparing an Effective Resume: How to Create an Effective Resume?

Unit Objective

At the end of this unit, participants will be able to:

- Discuss the steps to create an effective Resume

Resources to be Used

- Participant Handbook
- Blank Papers
- Pens

Ask

- When preparing for an interview, what are the most important things that you need to do?
- What documents do you carry with you, when you go for an interview?
- What is a resume?
- Why do you need a resume?

Say

- Resume is not just a sheet of paper with your qualifications printed on it.
- It is a selling tool that will help the employer to see how and what you can contribute for company.
- Talk about the steps involved in creating an effective/attractive resume discussed in the Participant Handbook.
- Now let's prepare a resume to understand the process in a better way.

Do

- This is an individual activity.
- Give the details of the activity.
- Instruct them to read the activity carefully.
- The participant is expected to make an attractive resume based on the information provided.
- Give the class 25-30 minutes to study the case and create a resume.
- At the end of 30 minutes, the participants should exchange the resume with the person sitting next to him or her.
- Every participant will evaluate the resume prepared with their fellow participants.

Say

- Do you think the candidate should apply for the job posting described in the advertisement?
- We have already discussed the steps involved in creating an effective/attractive resume.
- Now let's prepare a resume for the candidate details given in the activity.

Activity

Case Study Analysis

- In the first section of the activity, you are being given the information about a candidate who is applying for a particular job.
- In the second section, you are being given the detailed description of the job posting. Create a resume for the candidate to apply for the job posting.
- Use the information that has been provided about the candidate to create this resume

Candidate Details

Nipesh Singla was born on 20th April, 1988 in Chandigarh, India. He currently resides at 1XX7, Sector XX D, Chandigarh –160018. His mobile number is 988XXXXX01, and e-mail address is nxxxxxxxla@gmail.com. Nipesh attended middle and senior school at Government Boys Senior Secondary School, Sector 15, Chandigarh. He has been a very talented boy since school. He was fond of painting and watching old Hindi movies. As part of a school charity program, he volunteered at the children's hospital during his senior years.

In July 2007, he joined Westwood School of Hotel Management, Zirakpur to pursue a diploma course in Hotel Management and Catering. After completing this course, he joined XYZ Group of Hotels as a Housekeeping intern in June 2010 for six months. In this role, he was responsible for cleanliness and maintenance of one floor in the hotel. Taking advantage of his strong interpersonal skills, he also got opportunities to make housekeeping arrangements for corporate meetings. While pursuing education, he gained working knowledge of Microsoft Word, Excel, Access and PowerPoint.

Nipesh is detail-oriented, flexible and adaptable. He has successfully worked with a diverse work force. He gelled well with his peers, both in college and during his internship. After completing the internship, his objective has been to find a job opportunity where he can use his skills and experience. Backed by experience, he is confident about his skills as housekeeping assistant.

Job Posting

*Do you see yourself as a HOUSEKEEPING SUPERVISOR?

What's your passion? Whether you're into cricket, reading or hiking, at IHG we are interested in YOU. At IHG, we employ people who apply the same amount of care and passion to their jobs as they do in their hobbies people who put our guests at the heart of everything they do. And we're looking for more people like this to join our friendly and professional team.

THE LOCATION:

At the moment, we are looking for HOUSEKEEPING SUPERVISOR to join our youthful and dynamic team at Holiday Inn Amritsar, Ranjit Avenue in Amritsar, Punjab (India). Holiday Inn Amritsar is ideally located in Amritsar's commercial district on Ranjit Avenue with the world famous Golden Temple located only a short distance away. Sparkling chandeliers mark an incomparable arrival experience as you escape to the welcoming environment that is, Holiday Inn Amritsar. The fresh international brand to celebrate and explore Amritsar.

Salary: Negotiable

Industry: Travel / Hotels / Restaurants / Airlines / Railways

Functional Area: Hotels, Restaurants

Role Category: Housekeeping

Role: Housekeeping Executive/Assistant.

Desired Candidate Profile

Friendly, pleasant personality, Service - oriented.

You should ideally be Graduate/ Diploma holder in HM and at least 2 years of experience as a supervisor in good brand with good communication skills, English is a must.

In return we'll give you a competitive financial and benefits package. Hotel discounts worldwide are available as well as access to wide variety of discount schemes and the chance to work with a great team of people. Most importantly, we'll give you the room to be yourself.

*Please get in touch and tell us how you could bring your individual skills to IHG. Education-

UG: Any Graduate/ Diploma holder

PG: Post Graduation Not Required

Say

- Now, let's share the resume with the fellow participant sitting next to you and evaluate each other's effort.

Do



- Congratulate each participant for making their first attempt towards creating an effective resume.
- As a follow up activity, you can suggest them to prepare their own resume and show it to you the next day.

Summarize



- Close the discussion by showing some effective resume samples to the candidates.
- Ask the participants what they have learnt from this activity.
- Ask if they have any questions related to what they have talked about so far.

Notes for Facilitation



- Keep printed copies of the activity ready for the session.
- Put down the suggested format of the resume on the board while explaining the steps in preparing a resume.
- Do check the participants' resume and suggest necessary changes.
- Suggested example for the case presented:

Nipesh Singla
 #1XX7, Sector XX-D
 Chandigarh-160018
 Mobile No: 91-988XXXXX01
 E-mail: nxxxxxxxxla@gmail.com

Objective: Seeking an opportunity to use my interpersonal skills and experience to contribute to your company's growth, profitability and objectives.

Professional strengths:

- Proficient in housekeeping
- Experienced in and capable of working with a diverse work force
- Team player and friendly in nature
- Successful working in a multi-cultural environment
- Detail oriented, flexible, and adaptable
- Knowledge of Microsoft Word, Excel, Access and PowerPoint

Educational background

- Diploma in Hotel Management and Catering, Westwood School of Hotel Management, Zirakpur
- High School, Government Boys Senior Secondary School, Sector 15, Chandigarh

Professional internships:

- Housekeeping Intern, XYZ Group of Hotels, New Delhi (June 2010–August 2010)
 - Responsible for cleanliness and maintenance of one floor in the hotel.
 - Got opportunities to make housekeeping arrangements for corporate meetings.

Volunteer Work:

- Student volunteer at children's hospital in Chandigarh.

Nipesh Singla

UNIT 7.4.3: Interview FAQs

Unit Objective

At the end of this unit, participants will be able to:

- Discuss the most frequently asked interview questions
- Discuss how to answer the most frequently asked interview questions

Resources to be Used

- Participant Handbook

Say

- Tell the participants you will provide them with interview situation and questions and they have to try to answer them.
- Tell them you will also explain the different ways to approach these questions.

Do

- Divide the class in pairs and ask the participants to perform a role play.
- One partner will play the role of the interviewer while the other will play the role of the interviewee.
- Tell them the interviewer can start the interview by asking the interviewee to introduce himself/herself.
- Call all the pairs one by one in front of the class to enact the role play.
- Follow the same pattern for all other situations.
- Time allotted for each situation is 8-10 minutes.
- Congratulate each participant for giving their input.
- Ask the class to applaud each time a team has completed their role play.
- Keep a check on time.

Role Play

Conduct a role play for the situation given.

Situation 1

- The interviewer will start by asking the interviewee a few generic questions such as:
 - What is your name?
 - Tell me something about yourself?
 - Can you tell me something about your family?

- Then, the interviewer will bluntly ask the following questions:
 - How do you explain this huge time gap in your resume?
 - What is the reason for this?
 - Weren't you looking for a job or is it that no one selected you?

Say



De-brief:

- When you put information on your resume, you should be prepared to answer any questions about it.
- Be present and focused on the questions being asked to you.
- One way of tackling the blunt questions is to tell the interviewer you did not come across an opportunity where you were sufficiently satisfied with both the remuneration offered as well as the profile. Therefore, you waited for the right opportunity to come along while looking for an ideal job.

Role Play



Conduct a role play for the situation given.

Role Play – Situation 2

- The interviewer will start by asking the interviewee a few generic questions such as:
 - What is your name?
 - Tell me something about yourself?
 - Can you tell me something about your family?
- Then, at the end of the interview, ask the interviewee:
 - There are over 200 people who have applied for this job, some with excellent work experience. Why should I hire you?

Say



De-brief:

- There is nothing wrong with stating your strengths and achievements. However, do not come across as arrogant or too boastful.
- You need show the interviewee that you have unique skills or talents to contribute to the company. The interviewer needs to know how you stand apart from the rest of the crowd.
- Tell the interviewer you are looking forward to working with the company and that you are a hard-working individual.

Role Play

Conduct a role play for the situation given.

Role Play – Situation 3

- The interviewer will start by asking the interviewee a few generic questions such as:
 - What is your name?
 - Tell me something about yourself?
 - Can you tell me something about your family?
- Then, lean forward, clasp your hands on the table and in a soft voice ask the interviewee:
 - Did you ever experience any neglect or disregard from your previous office? In other words, did you ever suffer because your office or team displayed favouritism?

Say

De-brief:

- Keep this in mind: Do not criticize anyone during an interview.
- You are free to express your opinion, however, your language, answers, body language, and the tone of your voice should remain constructive and neutral.
- Since criticism will show you in negative light, you should keep your answers honest yet diplomatic.
- You can tackle such questions by saying, “I got along well with most of my faculty and peers.”

Role Play

Conduct a role play for the situation given.

Role Play – Situation 4

- The interviewer will start by asking the interviewee a few generic questions such as:
 - What is your name?
 - Tell me something about yourself?
 - Can you tell me something about your family?
- Then very bluntly ask the interviewee:
 - How long do you plan to stay with this company if you are selected?
- After the candidate responds, ask sarcastically:
 - Do you seriously mean that?

Say

De-brief:

- Don't provide unreal and idealistic answers.
- Your answers should be honest yet diplomatic. In a situation like this, the interviewer does not expect you to provide a specific timeline.

- You can say something like, “I would like to stay with the company as long as I can contribute constructively and develop as an employee, within the organization, professionally and financially.”

Role Play

Conduct a role play for the situation given.

Role Play – Situation 5

- The interviewer will start by asking the interviewee a few generic questions such as:
 - What is your name?
 - Tell me something about yourself?
 - Can you tell me something about your family?
- Ask him/her how important he/she thinks it is to be punctual in the corporate world.
- After he/she answers, look up sternly at the interviewee and in a crisp voice, say:
 - You were late for this interview by 10 minutes. That surely does not seem to be in line with what you just said?

Say

De-brief:

- Politely apologize for being late.
- You can add something such as, “I assure you this is not a habit”. All your future actions should be in line with this statement.
- Avoid giving any excuses.
- You might feel obligated to provide a justification for your tardiness, but the interviewer is not interested in that.
- Do not over apologize. Once this response is out of the way, turn your focus back to the interview.

Role Play

Conduct a role play for the situation given.

Role Play – Situation 6

- The interviewer will start by asking the interviewee a few generic questions such as:
 - What is your name?
 - Tell me something about yourself?
 - Can you tell me something about your family?
- After asking a few academic or job-related questions, ask the interviewee:
 - If you get this job, what salary package do you expect us to give you?

Say

De-brief:

- If there is no way for you to avoid this question, respond to the interviewer by providing a reasonable and well-thought out salary range.

Role Play

Conduct a role play for the situation given.

Role Play – Situation 7

- The interviewer will start by asking the interviewee a few generic questions such as:
 - What is your name?
 - Tell me something about yourself?
 - Can you tell me something about your family?
- Then, bringing the interview to a close, ask the interviewee:
 - Do you have any questions for me?

Say

De-brief:

- Ask relevant questions.
- Don't bombard the interviewer with questions.
- If you have questions about the result of the interview, you can limit your questions to 1 or 2. Keep them short and relevant like:
 - When will I be informed about the results of the interview?
 - What are the working hours?
 - Will the job require me to travel?

Explain

- Tell the participants to be prepared for answering different types of questions in an interview.
- Stay calm and focused and take a moment to think about how you should respond. Always maintain a confident tone.
- Even if you don't intend to, your body language conveys your level of discomfort with a particular question.
- Try to keep your actions, tone, and gestures neutral.
- Maintain your composure while answering personal question.

Do

- Tell all the participants to form pairs again.
- Tell them to use the following list of frequently asked interview questions to conduct mock interviews.

- They will use all or some of these questions to conduct mock interviews with their partners.
- One partner will play the role of the interviewer while the other will play the role of the interviewee.
- After they are through asking and answering the questions, the roles will be reversed.
- The same list of questions will be used again.
- After each mock interview ask the interviewer to provide feedback and clear any doubts that may arise.
- Time allotted for each situation is 30-35 minutes.

Activity



Mock Interview Questions

Mock Interview Questions
Tell me something about your family.
What qualities would you look for in a Manager or a Supervisor?
Why did you apply for this job?
What do you know about this company?
How do you deal with criticism?
How do you plan to strike a good work-life balance?
Where do you see yourself five years from now?
Have you applied for jobs in other companies?
What kind of salary do you expect from this job?
Do you have any questions for me?

Summarize



- Close the discussion by discussing the questions in the both activities.
- Ask the participants what they have learned from this activity.
- Ask if they have any questions related to what they have talked about so far.

UNIT 7.4.4: Work Readiness – Terms and Terminology

Unit Objective

At the end of this unit, participants will be able to:
Identify basic workplace terminology

Resources to be Used

- Participant Handbook
- Chart papers
- Blank sheets of paper
- Pens

Ask

- What do you understand by workplace terminology?
- Are offer letter and contract of employment the same?

Say

- Let's start this unit with an activity.

Team Activity

Workplace terminology

- This is a group activity conducted in three parts.

Part 1

Sheila received a call from the recruiter of MND Company. Before she is recruited by the company, think of the recruitment process she will have to go through. Start from the telephone call to signing her letter of acceptance. Write down all the words that come to your mind.

Activity De-brief

- Have the participants read out the words they have written
- Encourage all the participants to participate in the activity

Do

- Divide the class into small groups of 4 or 6.
- Instruct the participants that they will be doing a brainstorming activity.
- Give them one chart paper each. Tell them to divide the chart in two parts.
- Instruct them that they have to use one half of the chart paper now. The other half will be used later.
- The participants have to write all the words that come to their mind related to the recruitment process.
- Give them 10 minutes to do the activity.
- Tell them that there are no right or wrong answers.
- Keep a track of the time.

Say

- You all know quite a few words related to the terms used in the office.
- Let us talk about some new terms that have been missed out.
- Discuss “Work Readiness – Terms and Terminology” with the participants as given in the Participant Handbook.

Ask

- Why is it important to know the workplace terms?
- How do they help?
- Can the words be categorised further?

Say

- Let's now continue the activity.

Team Activity **Terms and Terminology**

- This is again a group activity. The members of the group remain the same as in Activity 1.

Part 2

- With the help of the new terms you have learned, make a flow chart of the hiring process of MND Company.

Activity De-brief

- Ask the groups to share the flow charts and the new terms they added while preparing the flow chart.

Do

- Instruct the participants that they have to use the 2nd half of the same chart they had used before.
- Using the new terminology and the terms they had previously written on the chart, they have to make a flow chart of the hiring process of the MND Company.
- Give them 10 minutes for this activity.
- Keep a check on time. Tell the group to wind up quickly if they go beyond the given time limit.

Say

- Let's go ahead with the activity.

Team Activity**Terms and Terminology**

- The activity continues with the same group members.

Part 3

Sheila now works for the MND Company. She is not aware of the company culture and policies. She goes to the HR Department to get her doubts clarified. Can you think of the terms for which she wants clarity? Make a list of those words.

Activity De-brief

- Ask the groups to share their list of words. Some of the words are benefits, comp. time, deduction, employee training, holidays, lay-off, leave, maternity leave, mentor, notice, paternity leave, and time sheet.

Do

- Instruct the participants to identify the key terms an employee of a company should know. They can use the same chart paper for this activity.
- Give them 5 minutes for this activity.
- Keep a check on time. Tell the group to wind up quickly if they go beyond the given time limit.

Summarize

- Note: You can either summarize the key points of the unit or have a role play where an employee has just joined a company and the HR Manager explains the terms of employment.

UNIT 7.5: Understanding Entrepreneurship

Key Learning Outcomes



At the end of this unit, participants will be able to:

1. Discuss the concept of entrepreneurship
2. Discuss the importance of entrepreneurship
3. Describe the characteristics of an entrepreneur
4. Describe the different types of enterprises
5. List the qualities of an effective leader
6. Discuss the benefits of effective leadership
7. List the traits of an effective team
8. Discuss the importance of listening effectively
9. Discuss how to listen effectively
10. Discuss the importance of speaking effectively
11. Discuss how to speak effectively
12. Discuss how to solve problems
13. List important problem-solving traits
14. Discuss ways to assess problem solving skills
15. Discuss the importance of negotiation
16. Discuss how to negotiate
17. Discuss how to identify new business opportunities
18. Discuss how to identify business opportunities within your business
19. Explain the meaning of entrepreneur
20. Describe the different types of entrepreneurs
21. List the characteristics of entrepreneurs
22. Recall entrepreneur success stories
23. Discuss the entrepreneurial process
24. Describe the entrepreneurship ecosystem
25. Discuss the purpose of the Make in India campaign
26. Discuss key schemes to promote entrepreneurs
27. Discuss the relationship between entrepreneurship and risk appetite
28. Discuss the relationship between entrepreneurship and resilience
29. Describe the characteristics of a resilient entrepreneur
30. Discuss how to deal with failure

UNIT 7.5.1: Concept Introduction (Characteristic of an Entrepreneur, types of firms/ types of enterprises)

Unit Objectives

At the end of this unit, the participants will be able to:

- Discuss the concept of entrepreneurship
- Discuss the importance of entrepreneurship
- Discuss the characteristics of an entrepreneur
- Describe the different types of enterprises

Resources to be Used

- Participant Handbook

Say

- Let's start this session with some interesting questions about Indian entrepreneurs.

Team Activity

Quiz Questions

1. Who is the founder of Reliance Industries?
Dhirubhai Ambani
2. Who is the Chairman of Wipro Limited?
Azim Premji
3. Who launched e-commerce website Flipkart?
Sachin Bansal and Binny Bansal
4. Who is the founder of Paytm?
Vijay Shekhar Sharma
5. Who is CEO of OLA Cabs?
Bhavish Aggarwal
6. Who is the founder of Jugnoo?
Samar Singla (autorickshaw aggregator)
7. Who is the founder of OYO Rooms?
Bhavish Aggarwal

Do

- Tell them that you will ask them few questions about a few entrepreneurs.

- Divide the class in to two groups.
- In turns ask the quiz questions to the groups.
- If the answer is incorrect pass the question to the other group.
- Share the answer if the groups are not able to answer.
- Congratulate the participants who answered correctly.

Ask



- What do you understand by entrepreneurs?
- What is the importance of entrepreneurship in today's scenario?
- What do you think are the characteristics of successful entrepreneurs?
- What are different types of enterprises that an entrepreneur in India can own and run?

Say



- Talk about entrepreneurs, importance of entrepreneurship, characteristics of successful entrepreneurs, and different types of enterprises in India as discussed in the Participant Handbook.
- Tell the participants, stories of successful Indian entrepreneurs - their struggles, the moments of heartbreak, the perseverance and triumph.
- Ask them if they know of any such entrepreneur.

Summarize



- Close the discussion by summarizing about the opportunities for entrepreneurs in India.

Notes for Facilitation



- Check out different Government schemes for small entrepreneurs. Share the information with the participants.
- You can tell them about the government websites like Start Up India, mudra.org.in etc.
- Discuss about various schemes and policies by the Government of India for entrepreneurs.

UNIT 7.5.2: Leadership and Teamwork

Unit Objectives

At the end of this unit, participants will be able to:

- List the qualities of an effective leader
- Discuss the benefits of effective leadership
- List the traits of an effective team

Resources to be Used

- Participant Handbook
- Blank sheets of paper
- Pens

Do

- Show the picture given below to the class.
- Ask them to quickly write on a piece of paper what comes to their mind after seeing the picture.
- Now ask them, “What do you understand from this picture?”
- Encourage participants to share their thoughts.



Fig 7.5.2.1: Encouraging participants

Say

- This picture depicts the qualities of a leader and the difference between a leader and a boss.
- A boss focuses on structure and inspires fear whereas a leader follows vision and generates enthusiasm.
- A boss blames employee for the breakdown whereas a leader fixes breakdown.
- A boss depends on authority whereas a leader depends on goodwill.
- A boss says “I” and a leader says “We.”
- A boss drives employee whereas a leader coaches them.
- A boss takes credit whereas a leader gives credit.

Say 

- Talk about leadership and leadership qualities for an entrepreneur as discussed in the Participant Handbook.

Ask 

- Why is it important for a leader to be effective? How does it help the organization?

Say 

- Let us discuss benefits of effective leadership as discussed in the Participant Handbook.
- “Out-of-the-box thinking” is one of the new leadership styles. It means thinking differently and from a new perspective.

Ask 

- Do you consider yourself a team player?

Team Activity 

Long Chain

- This is a group activity.

Do 

- Divide the class into 2 teams.
- Ask each team to create a chain using materials they have in class such as shoe laces, belts, paper, handkerchief, ribbons, etc.
- The team that creates the longest chain wins the game.
- Observe if the participants are interacting with their team or working in isolation.
- Share your observations with the class.

Say 

De-brief:

- What did the winning team do differently?
- Who was responsible for the winning team's success?
- How does this activity explain the role of teamwork in entrepreneurial success?

Say 

- Tell the class that both the teams performed well.

- Discuss that the objective of this activity was to open communication channels and how this has been achieved.
- The participants should aim to keep the communication channels open when interacting with their peers and team members.
- It will set the pace and enthusiasm required for all the ensuing teamwork activities.
- Talk about teamwork and importance of teamwork in entrepreneurial success as discussed in the Participant Handbook.

Summarize

- Close the discussion by summarizing about the importance of teamwork for employees.
 - Teamwork helps in reducing stress for the employees.
 - Teamwork helps employers in generating more number of solutions to a problem and developing improved communication amongst employees.
- Ask the participants what they have learned from these exercises.
- Ask if they have any questions related to what they have talked about so far.

UNIT 7.5.3: Communication Skills: Listening & Speaking: The Importance of Listening Effectively

Unit Objectives

At the end of this unit, the participants will be able to:

- Discuss the importance of listening effectively
- Discuss how to listen effectively
- Discuss the importance of speaking effectively
- Discuss how to speak effectively

Resources to be Used

- Participant Handbook

Activity

Activity – Chinese Whisper

Step 1: Form a circle.

Step 2: Start a whisper chain. Any one participant will whisper a message into his/her neighbor's ear. No one else must hear the message. The message can be serious or downright silly.

Step 3: The next person who first heard the message should whisper the message very quickly to the person sitting next to them.

Step 4: The game goes on until the last person says whatever they heard out loud and the first person reveals the real message.

Compare them and have a great laugh!

Ask

De-brief questions:

- Was the original message the same as the message that is communicated at the end of the game?
- Why do you think there was a difference in the messages?

Say

- No, the original message was not same at the end of game.
- The barriers to communication like language, disturbance and noise, poor listening skills, boredom, poor speaking skills, etc. are the potential reasons this happens.

- There are various aspects to communication. Speaking skills and listening skills are two major components to any communication. There is always some room for improvement in the way we communicate.
- It is important to accept the reality of miscommunication and work to minimise its negative impacts.

Say



- Communication is a two-way process where people exchange information or express their thoughts and feelings
- It involves effective speaking and effective listening.
- If I go to the store to get bread, I exchange money for the bread. I give something and get something in return.
- Communication takes place in the same manner. You have to provide and receive information for communication to take place.

Ask



- How often do you hear these statements?
 - "You're not listening to me!"
 - "Why don't you let me finish what I'm saying?"
 - "You just don't understand!"
- What do you think the other person is trying to convey to you through these sentences?
- We will not talk about the importance of listening effectively as discussed in the Participant Handbook.

Say



- Let's play a game to understand effective listening process better.

Do



- This is a class activity.
- The participants need to answer the questions they hear.
- Instruct them to listen carefully.
- You will read it at a stretch and if need be repeat it once more.
- Tell the participants to raise their hand if they know the answer to the question asked.
- Keep a check on time.

Activity

Riddles:

Is there any law against a man marrying his widow's sister?

If you went to bed at eight o'clock at night and set the clock's alarm to ring at nine o'clock, how many hours of sleep would you get?

Do they have a 26th of January in England?

If you had only one match and entered a dark room that had a kerosene lamp, oil heater, and a wood stove, what would you light first?

The Delhi Daredevils and the Chennai Super Kings play five IPL matches. Each wins three matches. No match was a tie or dispute. How is this possible?

There was an airplane crash. Every single person died, but two people survived. How is this possible?

If an airplane crashes on the border of two countries, would unidentified survivors be buried in the country they were travelling to or the country they were travelling from?

A man builds an ordinary house with four sides except that each side has a southern exposure. A bear comes to the door and rings the doorbell. What is the colour of the bear?

Answers:

There's no law against a man marrying his widow's sister, but it would be the neatest trick in the book since to have a widow, the man would have to be dead.

You'd get one hour's sleep since alarm clocks do not know the difference between morning and night.

Oh, yes. They have a 26th of January in England. They also have a 27th, a 28th, and so on.

First of all, you would light the match.

Who said the Delhi Daredevils and the Chennai Super Kings were playing against each other in those games?

Every SINGLE person died, but those two were married.

You can't bury survivors under any law especially if they still have enough strength to object.

The bear that rang the doorbell would have to be a white bear. The only place you could build a house with four southern exposures is at the North Pole where every direction is in South.

Ask

De-brief question:

- What were the barriers that came into your way of listening?
- How can you overcome barriers to listening?

Say



- There is a difference between hearing and listening.
- If you don't listen properly, the message may be misunderstood.
- Be open-minded while listening to someone.
- It is important to listen effectively and carefully without making assumptions.

Activity

**Elevator Pitch:**

You are in the lift of a hotel and you bumped into your former client who is a famous businessman. He has financed a lot of small business ventures and can finance your new start-up too. After exchanging pleasantries, he asks you what your new company does. You open your mouth, and then pause. Where do you even begin?

Then, as you try to organize your thoughts, his meeting is called, and he is on his way. If you would have been better prepared, you're sure that he would have stayed long enough to schedule a meeting with you too.

If you were given another chance, what would you have said to this person?

Do



- Start off the task by providing a beginning sentence to get the story started, and then go around the classroom getting each one to add a new sentence to keep the story going.
- This task should be done spontaneously allowing only a little time to think (30 seconds).
- For example: There was once a student who was looking for a job after graduation.

Notes for Facilitation



- Tell the participants to follow these steps to create a great pitch, but bear in mind that you'll need to vary your approach depending on what your pitch is about.
 1. **Identify Your Goal:** Start by thinking about the objective of your pitch. For instance, do you want to tell the potential clients about your organization? Do you have a great new product idea that you want to pitch to an executive or do you want a simple and engaging speech to explain what you do for a living?
 2. **Explain What You Do:** Start your pitch by describing what your organization does. Focus on the problems that you solve and how you help people. Ask yourself this question as you start writing: what do you want your audience to remember most about you? Keep in mind that your pitch should excite you first. After all, if you don't get excited about what you're saying neither will your audience. People may not remember everything that you say, but they will likely remember your enthusiasm.
 3. **Communicate Your USP:** Your elevator pitch also needs to communicate your unique selling proposition or USP. Identify what makes you, your organization or

your idea unique. You'll want to communicate your USP after you've talked about what you do.

4. **Engage with a Question:** After you communicate your USP, you need to engage your audience. To do this, prepare open-ended questions (questions that can't be answered with a "yes" or "no" answer) to involve them in the conversation. Make sure that you're able to answer any questions that he or she may have.
5. **Put it all Together:** When you've completed each section of your pitch, put it all together. Then, read it aloud and use a stopwatch to time how long it takes. It should be no longer than 20-30 seconds. Remember, the shorter it is, the better!

Example:

Here's how your pitch could come together:

"My company deals with cloth retail online business and we use various e-commerce platforms to sell our products. This means that you can do shopping with ease and spend time on other important tasks. Unlike other similar companies, we have a strong feedback mechanism to find out exactly what people need. This means that, on average, 95 percent of our clients are happy with our products. So, how can you help us in creating our own web portal?"

6. **Practice:** Like anything else, practice makes perfect. Remember, how you say it is just as important as what you say. If you don't practice, it's likely that you'll talk too fast, sound unnatural or forget important elements of your pitch. Set a goal to practice your pitch regularly. The more you practice, the more natural your pitch will become. Practice in front of a mirror or in front of colleagues until the pitch feels natural.

Summarize



- Close the discussion by summarizing how to speak effectively as discussed in the Participant Handbook.

UNIT 7.5.4: Problem Solving & Negotiation Skills

Unit Objectives

At the end of this unit, participants will be able to:

- Discuss how to solve problems
- List the important problem-solving traits
- Discuss ways to assess problem solving skills
- Discuss the importance of negotiation
- Discuss how to negotiate

Resources to be Used

- Participant Handbook

Ask

- What is a 'problem'?
- What do you think are the problems you may face in the process of becoming a successful entrepreneur?

Say

- Discuss the definition of problem as given in the Participant Handbook.
- In a hurdle race the hurdles are the obstacles on the way to reach your goal.
- Similarly, obstacles are the hurdles you may face while reaching your goal i.e. to set-up your own business.
- Your goal will be to reach the finishing line after crossing these hurdles.

Ask

- What do you do when you face a problem?
- How do you resolve it? You can pick examples from the question asked previously 'the problems they are likely to face in the process of becoming a successful entrepreneur'.

Say

- Discuss how to solve problems as given in the Participant Handbook.

Team Activity

- This is a group activity.
- The groups will solve the problem and come up with the best solution in each case.

1. Unable to arrange for some extra finance for setting up a beauty parlour. The loan sanctioned and disbursed is not enough. You have tried all your contacts, friends and relatives. But unable to manage the extra amount. Bank will not sanction more amount as you have used up the complete sanction limit.
2. You have rented a space for your business and all arrangements are done. You will be operating from the office space rented in two days. Now the owner comes up to you and says he wants to sell the place and wants you to vacate in 15 days.
3. You have just set up your business and need extra human resource. You have tried inviting a few also tied up with an agency for getting the right candidate. But you are unable to get the right candidate. If the candidate is good, you cannot offer the salary demanded. If the candidate agrees to the salary, he/she has other demands like working hours to be reduced, leaves etc. which may not work for your set up.

Do

- Divide the class into three groups. Give one scenario to each group.
- Explain the purpose and duration of the activity.
- Ask the groups to build on the scenario and present their solution as a role play.

Say

De-brief questions:

1. What was the problem?
2. Is there any other alternative solution?
3. Is this the best solution presented?

Ask

- Try to think of some people around you who are able to solve problems very easily. Even you or your friends might be approaching them when there is a problem. What qualities do they have? What personality traits do such people possess?

Say

- Discuss the important traits for problem-solving as given in the Participant Handbook.

Ask

- In order to build a successful organization, you need to hire people who possess good problem-solving skills.
- How would you assess the level of problem solving skills of potential candidates before hiring them?

Say

- Discuss how to assess for problem-solving skills as given in the Participant Handbook.

Summarize

- Ask the participants the things that they have learnt so far.
- Ask if they have any questions related to what they have talked about so far.
- Summarize the discussion on problem solving.

Activity

- The activity is to organise an election event. Select three volunteers from the group. They have to give a speech on their election manifesto to the class. They have to negotiate with the fellow participants and convince them to vote for them. The best negotiator will win the election.

Do

- Ask three participants to volunteer for the activity.
- Explain the purpose and duration of the activity.
- Set guidelines pertaining to discipline and expected tasks.

Ask

- Out of the three contestants, whom would you support? Why? What did they say or do which convinced you to make your decision?
- Have you ever tried to negotiate in your personal or professional life?
- Ask the class to share some of their experiences where they have been able to strike a deal by negotiating.

Say

- Discuss “What is Negotiation?” as given in the Participant Handbook.

Ask

- Why is it important to negotiate? As an entrepreneur, where do you think that negotiation skills will be needed?

Say

- Discuss the importance of negotiation while starting a business as given in the Participant Handbook.

Say

- Discuss the important steps to negotiate as given in the Participant Handbook.

Role Play

- Conduct a role play activity.
- Ask the participants to assemble together.
- Explain the purpose and duration of the activity.
- Set guidelines pertaining to discipline and expected tasks.

Do

- Divide them into groups of four (4) (depending on the batch size).
- Give them the hand-outs for role play scenarios.
- Two groups to be given scenarios on problem solving.
- Other two groups to be given scenarios on negotiation.
- The groups will build on the scenarios and prepare for the role play.
- Give the groups atleast 5 mins to discuss and be ready with the role play.
- Invite each group one by one to come and present their role play.

Problem solving Scenario 1

Avinash has a Mobile Repair Store in Allahabad. His outlet is one of the most popular one in the vicinity and he has great rapport with his customers. He is always well-dressed, jovial and full of energy.

It's around 11 AM, when a customer barges in to the shop and starts shouting at Avinash for giving her back the instrument which is still not working. The screen of her mobile is also cracked from one side. Avinash remembered thoroughly checking the handset before handing it over to the customer. The customer threatens to sue the company and to go to Consumer Court for cheating her.

Problem solving Scenario 2

You are running a successful small scale business, Shreeji Aggarbattis,. Your staff members do door to door selling and organise marketing campaigns in local markets. Your brand has established its name in last few years.

Recently, lot of customers have been coming to you and lodging complaints that your staff members indulge in malpractices. Few of them informed you that a staff member engaged them in a friendly conversation. In the meanwhile, the other gave them lesser packets of aggarbattis than they paid for.

Another set of customers lodged complaint about the misconduct and rude behaviour of a particular staff member. You often hear from your customers that the orders don't get delivered on time or wrong products get delivered. You have already been struggling with shortage of staff and such complaints are a serious concern as it is hampering your brand image. What strategies will you adopt to solve this problem?

Negotiation Scenario 1

You have interviewed a prospective new employee who could be a key member of your new entrepreneurial venture. The new person is demanding a salary that is 20% higher than you thought based on your business plan. Finances are tight, yet you believe this person could make a significant impact on future profits. If you paid the required salary for the new person, then you would have to restructure your entire business plan. You've been searching for an individual with this skill level for three months. The candidate is waiting for your response. Now you have to call him in to make the final negotiations.

Negotiation Scenario 2

You are a young entrepreneur who has just registered his start up project and applied for a bank loan accordingly. You receive a letter saying that your loan application has been rejected as your start up idea did not appeal to the bank and they think that it is not a revenue generating model. You have taken an appointment to meet the manager and show your negotiation skills to get your loan approved.

Notes for Facilitation

Facilitating Role Plays**Preparing for the activity**

1. Carefully review the details of the scenario and the character descriptions.
2. Become familiar with the key issues being addressed in the scenario.
3. Study the provided material so that you are ready to address issues related to the situations depicted in the role-plays.
4. Anticipate and know how to address issues participants might raise during the activity.

Conducting the activity

1. Introduce the activity. Emphasize that role-playing provides participants with an opportunity to apply their new knowledge, skills, and tools in situations that simulate actual interactions with customers.
2. Ask participants to form pairs. Direct the members of each group to choose who will play the roles. Remind the groups that each participant should be given the opportunity to play/practice the different roles.
3. Conduct a demonstration so that participants become familiar with the expectations related to the roles and support materials.
4. Give the pairs/ groups 10 to 15 minutes to conduct the role-play (depending on the duration of the session).
5. After all the groups have finished with the role-play, conduct a debriefing session on each role-play.
6. Ask the groups to take five minutes to talk about what happened during the role-play. The groups should discuss the questions given in the debriefing for each role-play.

Encourage participants to provide constructive criticism during their discussions.

Summarize

- Wrap the unit up after summarizing the key points and answering questions.

UNIT 7.5.5: Business Opportunity Identification: Entrepreneurs and Opportunities

Unit Objectives

At the end of this unit, the participants will be able to:

- Discuss how to identify new business opportunities
- Discuss how to identify business opportunities within their business

Resources to be Used

- Participant Handbook
- Blank sheets of paper
- Pens

Ask

- How does an entrepreneur identify an opportunity?
- What do you think are the common queries or concerns faced by entrepreneurs?
- How can you identify new business opportunity?

Say

- Let's talk about opportunity, common queries or concerns faced by entrepreneurs, idea as an opportunity, factors to consider when looking for opportunities, ways to identify new business, and opportunity analysis as discussed in Participant Handbook.
- Let's do an activity to understand ways to identify business opportunities within your business.

Do

- Tell the class that this is an individual activity.
- Tell the participants to create a matrix on their notebooks.
- There will be four boxes in your matrix.
- Strength, Weakness, Opportunity and Threats will be the four headings of the matrix. This is called the SWOT matrix.
- Read out the questions to them and tell the participants they need to answer the questions asked in each matrix.
- Tell them they can also use their own understanding of themselves to fill the SWOT matrix.

Activity

Do your SWOT analysis

Strength What are your strengths? What unique capabilities do you possess? What do you do better than others? What do others perceive as your strengths?	Weakness What are your weaknesses? What do your competitors do better than you?
Opportunity What trends may positively impact you? What opportunities are available to you?	Threat Do you have solid financial support? What trends may negatively impact you?

Do

- Congratulate everyone for the class activity.
- Ask the audience to applaud for themselves.
- Allot the participants sufficient time to complete this activity but do keep a check on time.
- Ask de-brief questions to cull out information from the participants.

Ask

De-brief questions:

- What are your weaknesses according to your SWOT analysis?
- Do you think you can change your weakness into strength? How?
- Do you think you can work on your threats? How?

Summarize

- Close the discussion by summarizing ways to identify business opportunities within your business.
- Ask the participants what they have learned from this exercise.
- Ask if they have any questions related to what they have talked about so far.

UNIT 7.5.6: Entrepreneurship Support Eco-System

Unit Objectives

At the end of this unit, participants will be able to:

- Explain the meaning of entrepreneur
- Describe the different types of entrepreneurs
- List the characteristics of entrepreneurs
- Recall entrepreneur success stories
- Discuss the entrepreneurial process
- Describe the entrepreneurship ecosystem
- Discuss the purpose of the 'Make in India' campaign
- Discuss the key schemes to promote entrepreneurs

Resources to be Used

- Participant Handbook
- Chart papers
- Marker pens
- Pencils
- Colour pencils
- Scale
- Eraser
- Other requisite stationery material

Ask

- Do you think that entrepreneurs need support?
- What do you think is an eco-system?
- What do you think 'entrepreneurship support eco-system' means?

Say

- Let's learn what entrepreneurship support eco-system means.
- Discuss 'Entrepreneurship Support Eco-System' as given in the Participant Handbook

Ask

- Can you define entrepreneurship support eco-system?
- What are the key domains of the support eco-system?

Say

- Let's learn more about these domains by conducting an activity.
- You have to make a poster showing the components of the six main domains of entrepreneurship support eco-system.

Team Activity

- Making a poster showing the entrepreneurship support eco-system.

Do

- Divide the class into groups of four or six.
- Hand out chart paper and coloured pens.
- Explain the purpose and duration of the activity.
- Go around checking the progress of each group.
- Set guidelines pertaining to discipline and expected tasks.

Activity De-brief

Ask each group to display their poster and explain the key domains of entrepreneurship support eco-system.

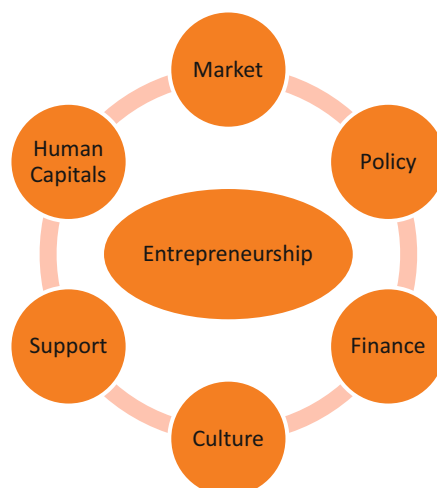


Fig 7.5.6.1: Key domains of entrepreneurship

Ask

- What kind of government support eco-system is available for entrepreneurs in India?

Say

- Discuss 'Make in India' campaign as given in the Participant Handbook.

Team Activity

- Presentation on key schemes to promote entrepreneurs

Do

- Divide the class into pairs.
- Number each pair from 1-15.
- Assign a scheme, same as their group number, to each group.
- Ask them to read the scheme carefully and present it to the class.
- Explain the purpose and duration of the activity.
- Go around checking the progress of each group.
- Set guidelines pertaining to discipline and expected tasks.

Activity De-brief

- Ask each group to explain the scheme offered by government to promote entrepreneurs.

Summarize

- Summarize the unit by discussing the key points and answering questions the participants may have.

UNIT 7.5.7: Risk Appetite & Resilience



Unit Objectives



At the end of this unit, participants will be able to:

- Discuss the relationship between entrepreneurship and risk appetite
- Discuss the relationship between entrepreneurship and resilience
- Describe the characteristics of a resilient entrepreneur

Resources to be Used



- Participant Handbook
- Chart papers
- Blank sheets of paper
- Pens
- Marker pens

Ask



- Can you define risk or explain what constitutes a risk?
- What do you people mean when they say, “This may be a risky proposition”?
- What risks are they talking about?

Example



- Let's have a look at these two examples:

Rohit and his family were travelling by car from Delhi to Nainital. It was their second trip there. Rohit was familiar with the road. His friends told him that the highway after Rampur was in a bad condition. They advised him to take a shortcut and turn left from Moradabad and take the Kaladhungi road. This road is in a better condition.

Since he was going with his family, and did want to take the risk of getting lost, he left early. He took the Kaladhungi road and reached Nainital well in time.

Suresh and his family too were travelling by car from Delhi to Nainital. It was their second trip there. His friends too advised him to take a shortcut and turn left from Moradabad and take the Kaladhungi road as this road was in a better condition.

Suresh too decided to take the Kaladhungi road but he left Delhi in the afternoon. It was dark by the time he reached Kaladhungi, and he was sure that he was taking the correct turn. As it was late, he could not find anyone to give him directions. He ended up being in a n unknown place that was scarcely inhabited.

Say

- Let's see what type of risks Rohit and Suresh took.
- Discuss 'Risk Appetite and Resilience' with the participants as given in the Participant Handbook.

Say

- Let's learn more about risk appetite and resilience with the help of an activity.

Team Activity

Risk Appetite

- This is a group activity.
- In the previous unit, you read success stories of Mr Dhirubhai Ambani and Dr Karsanbhai Patel.
- Mr Ambani left his job and started his company Reliance with just Rs. 50,000/-.
- Dr Patel kept his job, went door-to-door to sell Nirma, and only when the brand started gaining popularity did he start his own company.
- What types of risk did both of them take?
- What risk factors, do you think, did they keep in mind before launching their company?
- Write the Risk Appetite Statement of both the companies.

Activity De-brief

- Who took a greater risk?
- What are the differences between the Risk Appetite Statement of both the companies?

Do

- Instruct the participants that this is group work.
- Divide the class into small groups of 4.
- Give each group a chart paper.
- Tell the participants that they have to evaluate the risks taken by Mr Dhirubhai Ambani and Dr Karsanbhai Patel.
- Give the participants 15 minutes to discuss and write.
- Keep a check on time. Tell the group to wind up quickly if they go beyond the given time limit.

Ask

- Do you think all entrepreneurial ventures are successful?
- What happens if the first venture is not successful?

- Should the entrepreneur stop when faced with challenges or face them?

Example

- Let's have a look at the following example:

Vijay Shekhar Sharma is the founder of Paytm, which is a giant Indian e-commerce. He was born in a middle-class family in Uttar Pradesh. He started his first job at an MNC. He quit after six months and built a company One97 with his friends. As One97 grew bigger, it needed more money because it was running more servers, bigger teams, and had to pay royalty. At that time, the tech bubble popped and technology companies were running in losses. Finally, money ran out. So One97 took loans and then more loans at higher rates of interest, as high as 24 per cent, and became caught in a vicious cycle.

In 2014, Paytm was launched with online wallet services after which, the company enabled online payment transactions. The company got licenses from RBI in 2016 to launch India's first ever payment bank. Moreover, the main motive of Paytm was to transform India into a cashless economy.

After demonetization came into effect, Vijay Shekhar Sharma started promoting online and digital transactions to deal with the cash crunch. In fact, the service of the company's mobile wallet is accepted across India. The logo of Paytm is now popular almost everywhere from tea stalls to major companies.

Say

- Let's see what qualities made Vijay Shekhar Sharma a resilient entrepreneur.
- Discuss Entrepreneurship and Resilience with the participants as given in the Participant Handbook.

Say

- Let's learn more about entrepreneurship and resilience with the help of an activity.

Team Activity

Entrepreneurship and Resilience

- This is a group activity.
 - Think of some entrepreneurship ventures that faced challenging times, but later resulted in success stories.
 - Who is the founder of that company?
 - What challenging times did it face?
 - How did it overcome those challenges?
- List the resilient characteristics of the entrepreneur.

Activity De-brief

- Each group to give their presentation.
- Why did you choose this company?
- What is the success story of the company?

Do

- Instruct the participants that this is group work.
- Divide the class into small groups of 4.
- Give each group a chart paper.
- Tell the participants that they have to think of an entrepreneur who faced challenging times, but eventually succeeded.
- Give the participants 15 minutes to discuss and write.
- Keep a check on time. Tell the group to wind up quickly if they go beyond the given time limit.

Summarize

- You can summarize the key points of the unit.
- Ask the participants what they learned from the activities.
- Clarify any questions or doubts they might have.

UNIT 7.5.8: Success and Failures

Unit Objectives

At the end of this unit, participants will be able to:

- Discuss how to deal with failure

Resources to be Used

- Participant Handbook

Ask

- Have you heard the quote 'nothing is impossible'?
- What do you think it means?
- Do you think that all successful entrepreneurs became famous overnight or did they have to struggle or face failure before succeeding?

Example

- Let's have a look at this example.

Shah Rukh Khan, also known as, SRK or King Khan is a force to reckon with. Did he achieve stardom overnight?

Shah Rukh Khan, who has seen many struggles in his life – he has slept on streets, struggled to support himself and his sister at a very young age, and lost his parents very early in life, which led to his sister seeking mental health support. Amidst all the chaos and challenges, he kept pushing himself, and today he stands tall as the 'Badshah of Bollywood'. Certainly, those years were not easy for him.

When he was young, he stood at Marine Drive and said, “I will rule this city one day”. Failure was not just his companion during or before his stardom, it is still a substantial part of his life. Success does not come easy. What made him a star was his acceptance of failure and the urge to improve.

Say

- How do you define success and failure?
- What is fear?
- Discuss “success and failure” with the participants as given in the Participant Handbook.

Ask

- Have you felt or experienced fear?
- What led you to feel that emotion?
- How did you handle it?

Say

- Let's learn the about success and failure with the help of an activity.

Team Activity

- Divide the class into groups of four.
- Instruct them to think of one scenario where they have to interview a successful entrepreneur.
- Explain the purpose and duration of the activity.
- Set guidelines pertaining to discipline and expected tasks.
- They have to choose one person from the group as the interviewee and one as the interviewer.
- Go around and make sure they have understood what is to be done and are discussing the roles properly.
- Check that everyone understands their role. Give clarifications if needed. Give the participants about 5 minutes to discuss and decide their roles.
- Ask the groups to stop the discussion as soon as the time is over.
- Invite each group one by one to come and present their interview as a role play.

Notes for Facilitation

Facilitating Role Plays

Preparing for the activity

1. Carefully review the details of the scenario and the character descriptions.
2. Become familiar with the key issues being addressed in the scenario.
3. Study the provided material so that you are ready to address issues related to the situations depicted in the role plays.
4. Anticipate potential questions that might be raised by the participants and be ready to address them.

Conducting the activity

1. Introduce the activity. Emphasize that role playing provides participants with an opportunity to apply their new knowledge, skills, and tools in situations that simulate actual interactions with customers.
2. Ask participants to form pairs. Direct the members of each group to choose who will play the roles. Remind the groups that each participant should be given the opportunity to play/practice the different roles.

3. Conduct a demonstration so that participants become familiar with the expectations related to the roles and support materials.
4. To maintain spontaneity of the interactions during the role play, ask the participants not to discuss the details of their roles prior to the role play.
5. Give the pairs 15-20 minutes to conduct the role play.
6. Circulate among the groups to answer any questions that may arise and provide guidance as needed.
7. After all the pairs have finished with the role play, conduct a de-briefing session on each role play.
8. Ask the groups to take five minutes to talk about what happened during the role play. The groups should discuss the questions given in the de-briefing for each role play. Encourage participants to provide constructive criticism during their discussions.
9. Conclude the activity by asking participants to think about whether and how they might use scripted role plays in their real life.

Summarize



- Wrap the unit up after summarizing the key points and answering questions.

UNIT 7.6: Preparing to be an Entrepreneur

Key Learning Outcomes

At the end of this unit, participants will be able to:

1. Discuss how market research is carried out
2. Describe the 4 Ps of marketing
3. Discuss the importance of idea generation
4. Recall basic business terminology
5. Discuss the need for CRM
6. Discuss the benefits of CRM
7. Discuss the need for networking
8. Discuss the benefits of networking
9. Discuss the importance of setting goals
10. Differentiate between short-term, medium-term and long-term goals
11. Discuss how to write a business plan
12. Explain the financial planning process
13. Discuss ways to manage your risk
14. Describe the procedure and formalities for applying for bank finance
15. Discuss how to manage their own enterprise
16. List the important questions that every entrepreneur should ask before starting an enterprise

UNIT 7.6.1: Market Study/ The 4Ps of Marketing/ Importance of an IDEA: Understanding Market Research

Unit Objectives

At the end of this unit, participants will be able to:

- Discuss how market research is carried out
- Describe the 4 Ps of marketing
- Discuss the importance of idea generation

Resources to be Used

- Participant Handbook
- Chart papers
- Markers pens
- Blank sheets of paper

Ask

- Suppose, you want to open a restaurant, what are the factors you will consider?
- How will you promote your restaurant?

Example

- Let's have a look at this example.
Arjun was an MBA working in a company. But he wanted to start a low-cost budget hostel for foreign tourists coming to India. He did a lot of market research before starting the project. Based on the information he gathered, he made his business plan. His hostel is now flourishing, and he is thinking of expanding to other tourist destinations.

Say

- Discuss "Market Study" with the participants. Refer to the Participant Handbook.
- Let's learn about market study and research with the help of an activity.

Team Activity

Market Study

- This is a group activity.
- You want to start your own tuition centre.
- What type of research will you do?

Activity De-brief

- Ask each group to come forward and give a brief presentation.
- Encourage other groups to be interactive and ask questions.
- What factors did you keep in mind while doing your research?
- Based on our research would you go ahead and open a tuition centre?

Do

- Instruct the participants that this is group work.
- Divide the class into small groups of 4 or 6.
- Give each group a chart paper.
- Tell the participants that they have to start their own tuition centre.
- Give the participants 10 minutes to discuss and write the research work they need to do.
- Keep a check on time. Tell the group to wind up quickly if they go beyond the given time limit.

Say

- By opening a tuition centre you are offering a service.

Ask

- What factors will you keep in mind before opening it?

Say

- Discuss “The 4Ps of Marketing” with the participants as given in the Participant Handbook.

Say

- Let's learn about the 4Ps of Marketing with the help of an activity.

Team Activity**4 Ps of Marketing**

- This is a group activity.
- You have to sell a pen to four different segments:
 1. Rural villagers
 2. Rural middle class
 3. Urban middle class
 4. Upper end rich people (Niche market)

Keeping the 4Ps of Marketing in mind, what marketing strategy will you design to sell the pen?

Activity De-brief

- Ask each group to present their strategy.
- Encourage other groups to be interactive and ask questions.

Do



- Instruct the participants that this is group work.
- Divide the class into four groups.
- Give each group a chart paper.
- Assign each group a target audience for selling the pens:
 1. Rural villagers
 2. Rural middle class
 3. Urban middle class
 4. Upper end rich people
- Tell the participants that they have to design a marketing strategy keeping the 4Ps of Marketing in mind.
- Give the participants 20 minutes to discuss and come up with their strategy.
- Keep a check on time. Tell the group to wind up quickly if they go beyond the given time limit

Activity De-brief

- Ask each group to come forward and give a brief presentation.
- Ask each group what they kept in mind while designing their marketing strategy.
- Encourage other groups to be interactive and ask questions.

Say



- Each entrepreneur has an idea of wants he wants to sell. It may be a service or a product.
- Discuss “Importance of an IDEA” as given in the Participant Handbook.

Summarize



- Summarize the key points of the unit.
- Ask the participants what they learnt from the activities.
- Encourage them to ask if they have any doubts.

UNIT 7.6.2: Business Entity Concepts

Unit Objectives

At the end of this unit, participants will be able to:

- Recall basic business terminology

Resources to be Used

- Participant Handbook

Say

- Let's recall some basic business terminology.
- Discuss the Business Entity Concepts as given in the Participant Handbook.
- Let's learn some basic business terminology by having an activity.
- We will have a quiz today.

Activity

- The activity is a quiz.

Do

- Divide the class in two groups and give a name to each group.
- Explain the rules of the quiz. For each correct answer the group gets 1 mark.
- If the group is unable to answer the question is passed to the next group.
- Explain the purpose and duration of the activity.
- Ask the questions of the quiz.
- Keep a score of the groups.
- Set guidelines pertaining to discipline and expected tasks.

Summarize

- Summarize the unit by discussing the key points.

Notes for Facilitation

QUESTIONS FOR THE QUIZ

1. What does B2B mean?

Business to business

2. What is a financial report?
A comprehensive account of a business' transactions and expenses
3. Who is a sales prospect?
A potential customer
4. How is working capital calculated?
Current assets minus current liabilities
5. What is an estimation of the overall worth of a business called?
Valuation
6. You are buying a house. What type of transaction is it?
Complex transaction
7. How will you calculate the net income?
Revenue minus expenses
8. How is Return on Investment expressed?
As percentage
9. How will you calculate the cost of goods sold?
Cost of materials minus cost of outputs
10. 10. What is revenue?
Total amount of income before expenses are subtracted.
11. What is a Break-Even Point?
This is the point at which the company will not make a profit or a loss. The total cost and total revenues are equal.
12. What is the formula used to calculate simple interest?
 $A = P(1 + rt); R = r * 100$
13. What are the three types of business transactions?
Simple, Complex and Ongoing Transactions
14. The degrading value of an asset over time is known as
Depreciation
15. What are the two main types of capital?
Debt and Equity

UNIT 7.6.3: CRM & Networking

Unit Objectives

At the end of this unit, participants will be able to:

- Discuss the need for CRM
- Discuss the benefits of CRM
- Discuss the need for networking
- Discuss the benefits of networking

Resources to be Used

- Participant Handbook

Ask

- Can your business run without customers/buyers?
- Who is the most important entity in any business?

Say

- The key to every success business lies on understanding the customer's expectations and providing excellent customer service.
- Discuss about CRM and its benefits. Refer to the Participant Handbook.
- Providing excellent customer service entails:
 - Treating your customers with respect.
 - Be available as per their need/ schedule.
 - Handling complaints effectively.
 - Building long lasting relationships.
 - Collecting regular feedback.
- Handle customer complaints proactively. Ask “what happened”, “why it happened”, “how can it be avoided next time”, etc.
- Collecting feedback from the customers regularly will enable you to improve your good/service.
- “Let's understand it better with the help of some case scenarios. You will be given some cases within your groups. You have to analyse the case scenario that has been given to you and then find an appropriate solution to the problem.”

Do

- Divide the class into four groups of maximum six participants depending on the batch size.
- Give one case study to each group.

- Instruct them to read the case carefully.
- The group is expected to analyse and discuss the case amongst them and find a solution to the given problem.
- Put down the discussion points (de-brief questions) on the board. Give the class 5-10 minutes to discuss the case and note down their solutions.
- At the end of 10 minutes, the team should present their case solution to the class.

Team Activity



Case Study Analysis

Raju runs a business of wooden furniture. He has a huge list of customers on Facebook and WhatsApp who give him orders regularly. Ankita is one of his old and regular customers. She placed an order for a new chester and TV cabinet via WhatsApp and requested Raju to send them as soon as possible. When the parcel reached Ankita through courier she found that chester was broken and the TV unit was chipped from the bottom. Ankita was heartbroken. It was a complete waste of money. She sent a message to Raju on WhatsApp, expressing her anger and disappointment. Raju might lose an old customer forever if he doesn't satisfy the customer. What should Raju do to retain his customer?

Scenario 2

Rajni runs a boutique shop. She sells suits and sarees. She is one of the most successful designer in her city. Rajni swears that all the clothes in her boutique have unique designs. Smita has to attend her cousin's wedding; she goes to Rajni's boutique to buy a saree. Smita wanted a unique designer saree. Rajni customized a saree for her and sent it over the courier. When Smita had a look at the saree she realised her two friends had the same design sarees. She sent a message to Rajni on WhatsApp, expressing her anger and disappointment. Did Rajni make a false promise? Were her designs copied? What could happen to Rajni's image after this incident? What would you do if you were in Rajni's place?

Scenario 3

Shama is a beautician who offers parlour services to ladies by making home visits. Recently, Shama got her name registered on an e-commerce website. Two days earlier, she got a message from Mrs Sushma. The appointment was fixed for next day, 11:00 am and the remuneration for the services was decided beforehand. When Shama reached there at 10:50 am, Mrs Sushma was not at home. When Shama called her, she asked her to wait for a while. Mrs Sushma reached home at 11:45 am. Meanwhile, Shama had to reschedule her next appointment. After availing Shama's services, Mrs Sushma refused to pay the requisite amount and started finding faults in the services provided by her. Who was at fault in this scenario? What should you do in case the customer behaves unreasonably? What would you do if you were in Shama's place?

Scenario 4

Shailender is the manager of a car showroom. He proactively takes part in all the transactions that happen in his showroom. Vinita wants to buy a new car. She has chosen a car from Shailender's showroom. The salesperson has given her a very good discount and has also promised free service for one year. Vinita goes to the showroom and asks to complete all the formalities to purchase the car. When she sees the final bill she realize that she has not received the promised discount neither was there any mention of the free services. She immediately demands to see the Shailender. When Shailender's head asks how much discount Vinita was promised, he realised the discount will make the sale in loss. The car showroom owner might lose a customer and deal due to false commitments made by his manager. Besides, the customer might tell this to other people, creating a bad name and image for the showroom. If you owned that showroom, how would you have convinced your customer?

Say

- Now, let's discuss the problem and solution with the class.
- The group will first briefly describe the case to the class.
- Then discuss the issue identified and the proposed solution.
- Present the solution as a role play.
- Post presentation, the other groups may ask questions from the group that has presented.

Do

- Congratulate each group for the presentation/ role play.
- Ask the audience to applaud for them.
- Keep a check on time. Tell the group to wind up the discussion quickly if they go beyond the given time limit.

Say

- If your customers are happy with you they will give referrals which will help to grow your business.
- One more way of growing business is 'Networking'.
- Discuss Networking and its benefits. Refer to the Participant Handbook.

Activity**Group Discussion**

- Conduct a group discussion in the class on how they can do networking for their business.

Summarize



- Ask the participants what they have learnt from this exercise/ activity.
- Ask if they have any questions related to what they have talked about so far.
- Close the discussion by summarizing the importance of CRM and Networking for entrepreneurs.
- Close the discussion by summarizing the importance of CRM and Networking for entrepreneurs.

UNIT 7.6.4: Business Plan: Why Set Goals?

Unit Objectives

At the end of this unit, participants will be able to:

- Discuss the importance of setting goals
- Differentiate between short-term, medium-term and long-term goals
- Discuss how to write a business plan
- Explain the financial planning process
- Discuss ways to manage your risk

Resources to be Used

- Participant Handbook
- Chart papers
- Blank papers
- Marker pens
- Ruler

Ask

- Remember we had written SMART Goals in a previous session? Let's try and recall why it is important to set goals?
- While framing SMART goals, we talked about 'T' in SMART, which was 'Time Bound'? What do we mean by time bound goals?
- What time limit did you set for your goal- 3 weeks, 3 years, 10 years?

Say

- Talk about short term, long term and medium-term goals, as discussed in the Participant Handbook.

Ask

- As you are planning to become an entrepreneur, you must have thought of an idea for a start-up. What is your business idea?

Do

- Ask few participants to share their business ideas.

Ask

- Have you created a business plan for your business idea?
- Do you think it is important to have a business plan in place? Why/ why not?

Say

- Talk about 'Why Create a Business Plan' as discussed in the Participant Handbook.
- Let's understand it better with the help of an activity.

Team Activity

Writing a business Plan

- This is a group activity.
- Give the groups the required resources such as chart paper and markers.
- This activity is divided into two parts:
 1. Create a business idea
 2. Develop a business plan
- The group will discuss and come up with a new business idea and present their idea to the class.
- In the second part of the activity the group will develop a business plan for the business idea.
- The business plan prepared will be presented by the groups to the class.

MY BUSINESS PLAN
Executive Summary: What is your Mission Statement?
Business Description: What is the nature of your business?
Market Analysis: What is your target market?
Organization and Management: What is your company's organizational structure?
Service or Product Line: What is the lifecycle of your product/ service?
Marketing and Sales: How will you advertise and sell your products?
Funding Request: How much fund is required and from where?

Say

- Teams will need to brainstorm for this part of the activity.
- Use the blank papers for the second part of this activity
- Make your business plan on a chart paper based on the following parameters:
 1. Executive Summary
 2. Business Description
 3. Market Analysis
 4. Organization and Management
 5. Service or Product Line
 6. Marketing and Sales
- Explain each parameter in detail as done in the Participant Handbook.
- Discuss each parameter with the business idea examples of the groups.
- Groups will discuss and develop the business plan for their business idea.

Say

- Now, let's share our plan with the class.
- Each group will briefly describe the plan to the class.
- Post presentation, the other groups may ask questions to the group who have presented their plan.

Do

- Congratulate each group for sharing their points.
- Ask the audience to applaud for them.
- Keep a check on time. Tell group to wind up the discussion quickly if they go beyond the given time limit.

Say

- Along with a business plan, you need to create a financial plan and evaluate the risk involved with your start up.
- Discuss 'Financial Planning' and 'Risk Management' in detail as given in the Participant Handbook.

Summarize

- Ask the participants what they have learnt from this exercise/ activity.
- Ask if they have any questions related to what they have talked about so far.

Notes for Facilitation

- Keep the business plan format ready in a flipchart to display it during the activity.

UNIT 7.6.5: Procedures and Formalities for Bank Finance

Unit Objectives

At the end of this unit, participants will be able to:

- Discuss the importance of setting goals
- Differentiate between short-term, medium-term and long-term goals
- Discuss how to write a business plan
- Explain the financial planning process
- Discuss ways to manage your risk

Resources to be Used

- Participant Handbook
- Bank loan/finance form sample

Ask

- While preparing a business plan in the last session, we discussed financial planning to arrange financial resources for your start-up. Therefore, how will you collect funds to start your business?

Say

- While most entrepreneurs think 'product' is the most difficult thing to decide for a business, start-up capital poses an even a bigger obstacle. Though there are various ways of funding the business, to convince investors to invest money is the most challenging.
- Some of the funding options available in India are:
 - **Bootstrapping:** Also called self-financing is the easiest way of financing
 - **Crowd funding:** Funds are collected by consumers pre-ordering or donating for starting the business.
 - **Angel investors:** Individual or group of investors investing in the company
 - **Venture capitalists:** Venture capitals are professionally managed funds who invest in companies that have huge potential. They usually invest in a business against equity.
 - **Bank loans:** The most popular method in India.
 - Microfinance Providers or NBFCs
 - **Government programmes**
- Let us now discuss the most popular method i.e. bank finance in detail here.

Do

- Discuss the list of documents that are required to apply for a loan like letter of introduction, business brochure, references of other banks, and financial statements.
- Explain the details to be filled in a loan application form.
- Divide the class into groups. Give each group a loan application form.
- Ask the groups to discuss and fill the form.

Summarize

- Close the discussion by summarizing the important documents needed for bank loan.
- Ask the participants if they have any questions related to what they have talked about so far.

Notes for Facilitation

- Checklist of documents is provided as resources for the session.
- You can make some copies and distribute it during the group activity.
- Download sample loan application forms from any nationalised bank's website. Print sufficient copies to circulate it amongst the groups.

CHECKLIST OF DOCUMENTS TO BE SUBMITTED ALONG WITH LOAN APPLICATION
(Common for all banks)

1. Audited financial statements of the business concern for the last three years
2. Provisional financial statements for the half – year ended on _____
3. Audited financial statements of associate concern/s for the last three years
4. Copy of QIS II for the previous quarter ended on _____
5. Operational details in Annexure I
6. CMA data for the last three years, estimates for current year and projection for the next year
7. Term loan/DPG requirements in Annexure II
8. List of machinery in respect of machinery offered as security in Annexure III
9. Additional details for export advances furnished in Annexure IV
10. Property statements of all directors/partners/proprietor/guarantors
11. Copies of ITAO of the company for the last three years
12. Copies of ITAOs/WTAOs of the directors/partners/proprietor and guarantors
13. Copies of certificate from banks and financial institutions certifying the latest liability with
14. Copy of board resolution authorizing the company to apply to your bank for the credit facilities mentioned in application

- | |
|---|
| 15. Copy of memorandum and article of association (in case of limited company)/partnership deed (in case of partnership firm) |
| 16. Cash budget for the current year and next year in case of contractors and seasonal industries. |

Fig 7.6.5.1: Checklist of documents

UNIT 7.6.6: Enterprise Management – An Overview: How to Manage Your Enterprise?

Unit Objectives

At the end of this unit, participants will be able to:

- Discuss how to manage their own enterprise

Resources to be Used

- Participant Handbook

Ask

- Having set up a business, do you think it is possible to do everything on your own?
- Does one require trained persons for help?
- What does management mean?

Say

- Let's have a look at this example:
Kapil had a small business that was beginning to pick up pace. He wanted to expand his business, and therefore employed few more people. One day, as he was walking past Ramesh, one of his new employees, he overheard Ramesh talking rudely to a customer on the phone. This set him thinking. Kapil realised that he should have regular team meetings to motivate his employees and speak with them about any problems they might be facing during work. He should also conduct training sessions on new practices, soft skills, and technology, and develop work ethics manual for managing his enterprise.

Say

- Was Kapil correct in his approach or he should have scolded Ramesh instantly in front of his other employees?
- Discuss “Enterprise Management – An Overview” with the participants as given in the Participant Handbook.

Say

- Let's learn how to effectively manage an enterprise or business through an activity.

Team Activity



Enterprise Management

- This is a group activity.
- Design a matrix listing the topics and key words that are needed to run an enterprise effectively and smoothly.

Activity De-brief

- Have each group present their matrix.
- Encourage participants of the other groups to ask question about each other's presentation.

Do



- Instruct the participants that this is group work.
- Divide the class into small groups of 4.
- Give each group a chart paper and coloured pen.
- Tell the participants that they have make a matrix they need to fill.
- They have to write the main topics and key words that will them effectively manage their enterprise.
- Give the participants 15 minutes to discuss and write.
- Keep a check on time. Tell the group to wind up quickly if they go beyond the given time limit.

Summarize



- Ask the participants what they have learned from this exercise/activity.
- Ask if they have any questions related to what they have talked about so far.
- Close the discussion by summarizing the importance of effective management to run an enterprise as given in the Participant Handbook.

UNIT 7.6.7: 20 Questions to Ask Yourself before Considering Entrepreneurship

Unit Objectives

At the end of this unit, participants will be able to:

- List the important questions that every entrepreneur should ask before starting an enterprise

Resources to be Used

- Participant Handbook
- Blank sheets of paper
- Pens

Ask

- Why do you want to become an entrepreneur?

Say

- It is very important to know why you want to become an entrepreneur. Your personal goals for becoming an entrepreneur play a key role in the success of your business. Your goals should be clear well before you start your business.
- Apart from the goals, the other aspects of business that you need to bear in mind are the potential problems that you may face to set-up, your areas of interest, and all the other dimensions of the business.
- Let's understand it better with the help of some questions that every entrepreneur should ask before starting their own business.
- Open the Participant Handbook section named '20 Questions to Ask Yourself Before Considering Entrepreneurship'. You have to answer the questions individually.
- Then, we will have a class discussion on all the questions.

Do

- Read out the questions one by one in front of all the participants.
- Participants have to answer all the one by one questions.
- Give the class 10-15 minutes to note down their answers.
- At the end of 15 minutes, open the discussion for all the questions.
- Moderate the discussion by focusing on the relevant points.

- Keep a check on time and don't let the discussion get sabotaged or lose track of time. Ensure all the questions are covered and discussed.
- Give the participants 15 minutes to discuss and write.
- Keep a check on time. Tell the group to wind up quickly if they go beyond the given time limit.

Summarize



- Ask the participants what they have learned from this exercise/activity.
- Ask if they have any questions related to what they have talked about so far.





Annexure 1

Training Delivery Plan

Training Delivery Plan			
Program Name:	Certificate Course in CCTV Installation Technician		
Qualification Pack Name & Ref. ID	CCTV Installation Technician (ELE/Q4605)		
Version No.	V1.0	Version Update Date	07-12-2015
Pre-requisites to Training	ITI Diploma, Minimum 6 months as helper		
Training Outcomes	By the end of this program, the participants will be able to: 1. Interact with the customer in order to identify and understand their requirements. 2. Ensure customer satisfaction 3. Install and Repair dysfunctional system. 4. Identify dysfunctional components through visual inspection and by use of multi meter 5. To understand CCTV camera installation requirement in terms of equipment, system, tools, applications appropriate for a particular site. 6. Select Suitable cameras & DVR to provide the better solution to the customers. 7. Read and Comprehend signs, labels and warning 8. Communicate effectively 9. Follow behaviour etiquettes while interacting with others 10. Establishing good working relationships with colleagues within and outside the department by coordinating		

Sl. No	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Ads	Duration HH:MM
1	Security Surveillance	Surveillance system	- Understand the surveillance system - Knowledge of pros & cons of surveillance - Explain the facts of video surveillance - Explain and construct various nodes of CCTV surveillance system	ELE/N 4611	Facilitator-led – Discussion		Theory: 05:00 Practical: 05:00
2	Functions of video surveillance	Video surveillance system	- Constructing of a video surveillance system - Explain function of blocks and equipment required to implement a video surveillance system - Understanding the facts about CCTV and its interfacing devices	ELE/N 4611	Facilitator-led – Discussion Demonstration	a. Camera b. DVR c. Cables d. Adapter e. Display device.	Theory: 05:00 Practical: 05:00
3	Types of Camera & their functions	Camera and their functions	- Understanding the various types of camera and their functionality. - Reassembling the camera & exam the parts of camera to understand their mechanism. - Selecting suitable camera after understanding	ELE/N 4611	Facilitator-led – Discussion Demonstration	a. Camera (diff. types) b. DVR c. Cable d. Screw driver set e. Display	Theory: 05:00 Practical: 10:00
4	Lens & sensors	Camera lens	- Different types of lens and their utility - Differentiate & select the best camera from the same group depending on the image quality being measured by TVL chart - Selecting a camera for higher security application	ELE/N 4611	Facilitator-led – Discussion Demonstration	a. Lenses (diff. types) b. screw driver set c. Camera d. DVR	Theory: 05:00 Practical: 05:00
5	DVR	DVR in detail	- DVR as interface to view and record the image transmitted by a camera - Explain the function of various blocks of DVR - Understand the recording format of a DVR - Enabling and disabling the features of a DVR depending on the level of	ELE/N 4611	Facilitator-led – Discussion Demonstration	a. DVR (Diff. Types) b. Camera c. Adapter d. Cable e. Screw driver f. Display.	Theory: 05:00 Practical: 05:00

			surveillance and customer requirement.				
6	Principles of remote accessing	CCTV and DDR	- Explain the nodes for remote access of a CCTV camera / DVR - Configuring the DVR	ELE/N 4610	Demonstration	a. DVR b. Camera c. Cable d. LAN connection/Modem. e. Laptop f. Display	Theory: 30:00 Practical: 50:00
7	Install the CCTV camera	CCTV Camera	- To understand the warranty associated with the hardware product - To know related documents for the hardware equipment - To know company's policy on product's warranty and other terms and conditions - To know company's customer support and service policy - To know camera specifications such as focus, lens type, zoom - To check the hardware equipment before taking to the installation site - To replace the hardware if there is any issue or malfunction is found while testing - To Know different types of electronic surveillance products and functionalities - To read the standard operating procedures for different equipment - To Know elements of CCTV systems such as camera, DVR, monitor - To check for critical equipment such as camera, recorder w.r.t quality and output - To ensure all the tools, equipment, utilities are available in good to enable installing in single visit	ELE/N 8105	Facilitator-led – Discussion Demonstration		Theory: 05:00 Practical: 10:00

			• To know specification and the procedures to be followed for setting up the system • To know functions of electrical and mechanical parts or modules • To know power requirement of different CCTV related equipment • To use BNC connectors for joining cables and crimp them • To connect all the cables from multiple cameras to the CCTV system area • To know installation procedures given in the manuals • To use power cable of specified thickness to connect CCTV system with power supply • To know basic electronics involved in the hardware • To know voltage and power requirement for different hardware devices • To know voltage requirement and other specification on CCTV hardware • To mount the CCTV camera so as to cover maximum area • To decide whether the camera requires any enclosure to protect from dust, vandalism and climatic conditions • To know camera specifications such as focus, lens type, zoom • To know controls of different options in camera such as rotation, speed of movement in pan / tilt camera • To use stable mounting structure and ensure that is				
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			not disturbed by wind or rain which would affect the video quality • To decide on the height of camera installation according to the end purpose (for example: if the visitor entering the premise is to be monitored, camera should not be placed too high and their face would not be captured) • To set up the type of camera such as pan, tilt, zoom unit as per customer requirement • To set camera control • To connect the power and video output cable to the camera • To use tools such as diagonal cutters, screwdrivers, crimp tools, knife for cabling and camera mounting • To use recommended tools for specific equipment to avoid damage • To know functions of electrical and mechanical parts or modules • To know how to operate the system and other hardware • To follow standard operating procedure of tools and equipment and avoid any hazard • To follow the installation manual for specific hardware product • To follow standard safety procedures while installing • To know installation procedures given in the manuals				
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			• To operate hardware equipment in CCTV system • To Know safety rules, policies and procedures • To Know quality standards to be followed • To use other specific devices for installation of camera • To improve work processes • To ensure that only quality hardware products are procured complying to industry and quality standards • To ensure product installation and user manual is available which should be given to the user or customer • To ensure that there are no cable joins, sharp bends during cabling • To ensure weather proof (UV proof) cable are used in outdoors • To ensure that cabling is sturdy, protected and does not disturb the ambience of building • To ensure that cameras are protected from light while installing in outdoor • To ensure the intended area is covered during movement in case of tilt or pan type of camera • To assess power requirement of camera and use required power supply and cable • To educate customer on use of cameras for desired monitoring and warranty period and				
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			annual maintenance requirement • To ensure zero material damage while handling the equipment during installation process • To install target number of CCTVs as per company's policy • To know company's sales and after sales support policy • To know company's policy on product's warranty and other terms and conditions • To know company's customer support and service policy • To know importance of the individual's role in the workflow • To know company's policies on incentives, delivery standards, and personnel management • To share work load as required • To achieve the targets given on installations • To reduce repetition of errors				
8	Setup the CCTV surveillance system	CCTV Setup	• To procure and place the Digital Video Recorder (DVR) in an appropriate place as per customer's requirement • To connect all the cameras installed to the DVR • To ensure that all cameras are connected to the DVR and the wiring is appropriate • To connect the monitor (TV / PC) with the video output connection in the DVR • To connect speakers, if required, for audio output to DVR • To connect the camera optional controls (tilt / pan / zoom) to DVR	ELE/N 4611	Facilitator-led – Discussion Demonstration	Practical Lab • Computer • LCD display • White board • Marker • Tool Kit for installing camera • Installation manual • Safety precaution manual • Hardware equipment	Theory: 15:00 Practical: 20:00

			- To use DVR link option to connect with another DVR in the network - To connect the DVR to router, if required, to enable remote monitoring - To connect the power supply of DVR, monitor, speakers to set up the system - To install the appropriate software for IP network or remote monitoring - To enter the appropriate IP address to receive the video signals through IP network / internet - To connect all equipment and switch on to start the video capture				
9	Cables	Setting up surveillance system.	- Interfacing the camera with the DVR with suitable medium depending on the wishing network / system if any. - Explain and collecting tools required to set up a surveillance system. - Discuss with the other team members and about the required specification of a system. - Help the team member as a good support worker to create and surveillance system and remain quiet and patience at the time of installation/ fault finding.	ELE/N 4610, ELE/N 9909	Facilitator-led – Discussion Demonstration	a. Coaxial b. Fibre optic c. Cat 5 d. Crimper e. Cutter f. Connect ors	Theory: 10:00 Practical: 20:00
10	Survey, planning & maintenance	Monitoring and maintenance	- Making a good site survey and identifying the location of the camera to be fixed. - Selecting the suitable camera depending on the coverage area required by the customer	ELE/N 4609 ELE/N 4610 ELE/N 9909	Demonstration	a. DVR (Diff. Types). b. Camera (Diff. Types). Adapter c. Cable (Diff. Types).	Theory: 10:00 Practical: 15:00

			• Help & co-operate with the team members while taking measurement of the site. • Interfacing & connecting the camera and synchronizing it with control room. • To make understand the recording & retrieving process of previously recorded footage to the controller of the system. • Convince the customer about the best available camera for better surveillance.			d. Screw driver e. Display	
11	Interaction with the customers & colleagues, concept of team work	Customer service	• Understand the basic requirements of the customer. • Help them to choose the best solution. • Continuous interaction with the customer for any installation or post installation maintenance	ELE/N 4609 ELE/N 9909	Demonstration and Facilitator-led - discussion	a. Laptop b. Projector	Theory: 10:00 Practical: 15:00

Annexure II

Assessment Criteria

CRITERIA FOR ASSESSMENT OF TRAINEES

Assessment Criteria for “CCTV Installation Technician”	
Job Role	Compression Moulding Operator
Qualification Pack	ELE/ Q 4605
Sector Skill Council	Electronics Sector Skills Council of India
Sr. No.	Guidelines for Assessment
1	Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2	Each NOS will have assessed both for theoretical knowledge and practical
3	The assessment will be based on knowledge bank of questions created by the SSC.
4	Individual assessment agencies will create unique question papers for theory and skill practical part for each candidate at each examination/training center
5	To pass the Qualification Pack, every trainee should score a minimum of 70% in every NOS
6	In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.

S.No.	NOS No.	NOS Name	Total Marks	Marks Allocation: Skills	Marks Allocation: Knowledge	Marks Allocation: Behaviour
1.	ELE/N4609	Visit site and understand customer's requirement	100	60	40	
2.	ELE/N4610	Install CCTV camera	100	60	40	
3.	ELE/N4611	Setup CCTV surveillance system	100	60	40	
4.	ELE/N9909	Coordinate with colleagues and co-workers	100	60	40	
	Total:		400	240	160	
	Percentage Weightage:			60%	40%	
	Minimum Pass% to qualify:			70%	70%	

Do



- Explain each Guideline for Assessment in detail
- Explain the score that each trainee needs to obtain
- Recapitulate each NOS one-by-one and take participants through the allocation of marks for Theory and Skills Practical.
- Explain the Allocation of Marks. Explain that they will be assessed on Theory and Skills Practical.



Notes



A large rectangular area with a thin orange border, containing 25 horizontal lines for writing notes.



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