Facilitator Guide

Sector
Electronics

Sub-Sector
Consumer Electronics

Occupation
Manufacturing

Reference ID: ELE/Q3501, Version 1.0
NSQF Level: 4
Skilling is building a better India. If we have to move India towards development then Skill Development should be our mission.

Shri Narendra Modi
Prime Minister of India
Acknowledgements

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 Assembly Operator-RAC.

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

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CEO

Electronics Sector Skills Council of India
About this Guide

This Facilitator Guide is designed to enable training for the “RAC Assembly Operator” 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.
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1. Basics of Electricity and Electronics

Unit 1.1 – Introduction of the Module
Unit 1.2 – Icebreaker
Unit 1.3 – Basics of Electric Circuits
Unit 1.4 – Components of an Electric Circuit
At the end of this module, you will be able to:

- Describe electric circuits
- Describe voltage, current and resistance
- Define Ohm’s law
- Explain the difference between alternating current (AC) and direct current (DC)
- Measure power and energy
- Describe the active components
- Describe the passive components
- List electromagnetic components
- Identify colour coding in different electrical components
- Explain polarity, tolerance and orientation
UNIT 1.1: Introduction of the Module

Unit Objectives

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

• Explain the fundamentals of electricity and electronics
• Describe the concept of open and close circuit including series and parallel connection of circuits
• Describe electronic circuits and their components like diodes, resistors, transformers and so on

Ask

• Ask the participants to share their expectations from this module.
• Enquire if the participants know about different electronic components. If the answer is yes, then ask them to name the components and their respective uses.
• Ask the participants if they can define voltage and current and also if they can tell the voltage ratings of different electromagnetic components.
• Ask if anyone has heard about Ohm’s law.

Notes for Facilitation

• Make the session interactive by involving the participants in a discussion and introduce the topics to them.
• Then, inform them briefly about the major topics that will be covered in this module.
• Invite the participants to share their expectations on the whiteboard/blackboard.
• Give the participants a brief overview of what all will be covered in the module.
UNIT 1.2: Icebreaker

Unit Objectives

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

- List the roles and responsibilities of an assembly operator
- Interact with each other

Do

- Make two teams, and in the first team you may have all the participants whose names’ first alphabet falls between A to M and the other team will have the remaining participants. This strategy may change if you feel one team has more members than the other.
- Ask the teams to stand in a circle. Both teams together will make one circle, standing neither too close nor too far.

Notes for Facilitation

- Ask the participants to call out their names along with the name of any computer related device.
- The thumb rule of the game should be the name of the device that they will speak has to start with the same alphabet as that of their name. For example, if a participant’s name starts from R, then he can speak R for Rahul and R for Resistor or D for Divakar and D for Diodes. You can give more examples to them but do not give too many so that they can come up with names of the electronic components on their own.
- It is an active icebreaker which quickly familiarizes the participants with each other’s names and brings a feeling of a team, while also being fun to recall the names of the tools that they are soon going to use in the course.
UNIT 1.3: Basics of Electric Circuits

Unit Objectives

At the end of this unit, the participants will be able to:
- Describe electric circuits
- Define voltage, current and resistance
- Define Ohm’s law
- Explain the difference between alternating current (AC) and direct current (DC)
- Measure power and energy

Do

- Make a circuit using supply source, conductor, load and switch.

Ask

- Ask the participants if anyone knows about electrical/electronic circuit.

Explain

- Explain to the participants about electrical/electronic circuit.

Notes for Facilitation

- Tell the participants that a circuit is a closed path/loop which begins and ends at the same point.
- Tell them about two special cases of circuit that are short circuit and open circuit.
- Further explain to them the difference between these circuits with the help of the following table:

<table>
<thead>
<tr>
<th>Open Circuit</th>
<th>Close Circuit</th>
</tr>
</thead>
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<tr>
<td>An open circuit is when two points are not connected by anything.</td>
<td>A closed circuit is when components are connected with a series of wires so that current travels from one end of the circle to the other.</td>
</tr>
<tr>
<td>No current flows and nothing happens.</td>
<td>A large amount of current flows.</td>
</tr>
</tbody>
</table>

Fig 1.3.1: Difference between open circuit and close circuit

- Tell the participants that an insulator is a material through which electricity cannot flow freely/cannot flow.
- Tell that insulators have higher resistivity than conductors.
- Tell that a perfect insulator does not exist.
- Explain to the participants that electron is a negatively charged particle. The flow of electrons in a circuit is called current. The unit of current is ampere and is denoted by the letter I.
- Tell that the difference of charge between any two points in a circuit is called voltage. The unit of voltage is volts and is denoted by the letter V.
- Tell them the formulae of calculating resistance in series connection and parallel connection with the help of the following table:

<table>
<thead>
<tr>
<th>Type of connection</th>
<th>Formulae</th>
<th>Circuit Diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series Connection</td>
<td>$R = R_1 + R_2 + R_3$</td>
<td>![Series Connection Diagram]</td>
</tr>
<tr>
<td>Parallel Connection</td>
<td>$\frac{1}{R} = \frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3}$</td>
<td>![Parallel Connection Diagram]</td>
</tr>
</tbody>
</table>

- Further, tell them that a binary scheme is used by digital circuits for digital signalling. Two different voltages (high or low) are represented by different logic levels. High voltage, generally 5V, represents one value and the other value represents low voltage that is generally 0V.
- Explain the two types of current sources, AC and DC.
  - Explain about AC:
    - In AC, electrons keep switching directions.
    - It is the current of magnitude varying with time.
    - Types of AC are Sinusoidal, Trapezoidal, Triangular and Square.
  - Explain DC:
    - In DC, the electrons flow steadily in a single direction.
    - It is the current of constant magnitude.
    - Types of DC are pure and pulsating.
Tell the difference between AC and DC with the help of the following table:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Alternating Current</th>
<th>Direct Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount of energy that can be carried</td>
<td>Safe to transfer over long city distances and can provide more power</td>
<td>Voltage of DC cannot travel very far as it begins to lose energy</td>
</tr>
<tr>
<td>Cause of the direction of flow of electrons</td>
<td>Rotating magnetism along the wire</td>
<td>Steady magnetism along the wire</td>
</tr>
<tr>
<td>Frequency</td>
<td>The frequency of alternating current is 50Hz or 60Hz depending upon the country</td>
<td>The frequency of direct current is zero</td>
</tr>
<tr>
<td>Direction</td>
<td>It reverses its direction while flowing in a circuit</td>
<td>It flows in one direction in the circuit</td>
</tr>
<tr>
<td>Current</td>
<td>It is the current of magnitude varying with time</td>
<td>It is the current of constant magnitude</td>
</tr>
<tr>
<td>Flow of electrons</td>
<td>Electrons keep switching directions-forward and backward</td>
<td>Electrons move steadily in one direction or ‘forward’</td>
</tr>
<tr>
<td>Obtained from</td>
<td>A.C generator and mains</td>
<td>Cell or battery</td>
</tr>
<tr>
<td>Passive parameters</td>
<td>Impedance</td>
<td>Resistance only</td>
</tr>
<tr>
<td>Types</td>
<td>Sinusoidal, Trapezoidal, Triangular, Square</td>
<td>Pure and pulsating</td>
</tr>
</tbody>
</table>

*Fig 1.3.3: Difference between AC and DC circuit*

- Tell about unit: A quantity used as a standard of measurement.
- Tell that units help to show another person the exact amount one has.
- Explain about the conversion of units as shown in the following figure:

*Fig 1.3.4: Conversion of units*
• Tell the participants that the ability to oppose flow of electric charge in a conductor is called resistance.
• Explain that the element which has the property of resistance is called a resistor.
• Tell that resistance is measured in Ohms (Ω)
• Inform them that the symbol of resistance is:

\[
\begin{align*}
R
\end{align*}
\]

Fig 1.3.5: Symbol of resistance

• Explain that the fundamental relationship between voltage (V), current (I) and resistance (R) is called Ohm’s Law.

\[
\frac{V}{I} = \text{Constant or } V = I \times R
\]

• Explain to the participants that power is the amount of energy consumed per unit time and it is measured in watts.

**Electric Power = Voltage \times Current**

• Tell that electricity consumption is measured in kilo watt hour (kwh)
• Tell that power is calculated by using the formulae as shown in the following image:

![Fig 1.3.6: Calculation of power](image)

• Activity: Calculation of resistance in a given circuit using Ohm’s law.
The participants will be able to follow the following steps:
  o Take a multimeter and the range selector knob should be first placed on the ‘V’ symbol.
  o Now touch both its leads across the resistor whose resistance is to be measured.
  o Note down the voltage which is present across the circuit.
  o Similarly, by changing the mode to Ammeter or Ampere mode, measure the current flowing across the resistor.
  o Put down the value of voltage and current in the Ohm’s law formula and calculate the resistance value.
  o To verify the results, set the multimeter at resistance mode and measure the resistance of the same resistor.
UNIT 1.4: Components of an Electric Circuit

Unit Objectives
At the end of this unit, the participants will be able to:
• Describe the active and passive components
• List electromagnetic components
• Identify colour coding of different electronic components
• Explain the concept of polarity
• Explain the concept of tolerance
• Explain the concept of orientation

Do
• Carry electronic components such as resistors, solenoid, diodes, capacitor and inductor.

Say
• Start the session by telling the participants that electronics is a branch of science which deals with electrical circuits involving active and passive electronic components.
• Tell that electronic circuit is subdivided into analog and digital circuit.
• Say that in analog circuit, there is continuous variation of voltage or current with time.
• Say that in digital circuit, high voltage (generally 5v) represents 1 value and low voltage represents 0 value.

Notes for Facilitation
• Tell the participants that electronic components are the fundamental building blocks of the electronic or electrical circuit.
• Show the electronic components such as diodes, resistors, solenoids and so on.
• Tell them that active components depend on a source of energy to perform their functions.
• Tell them that passive components don’t require external source of energy to perform their functions.
• Inform them that analog circuits are comprised of basic components such as resistors, capacitors, inductors and diodes.
• In addition, tell them that the fundamental building block of analog circuits are series and parallel connections.
Tell the participants that:
- A load is any device, such as a light bulb that draws power from the circuit. It represents the actual work done by the circuit. In complex circuits, the load is a combination of components such as resistors, transistors, capacitors and so on.
- Supply source such as a battery provides energy for the current to flow through the circuit.
- Conductors such as wires provide the route to conduct electricity through the circuit.

Further, explain that load, supply source and conductors are the general categories of components. The basic electronic components of a circuit are as shown in the following table:

<table>
<thead>
<tr>
<th>Components</th>
<th>Name Identifier</th>
<th>Image</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resistors</td>
<td>R</td>
<td><img src="image1" alt="Resistors Image" /></td>
<td>Resists the flow of current</td>
</tr>
<tr>
<td>Transistors</td>
<td>Q</td>
<td><img src="image2" alt="Transistors Image" /></td>
<td>Amplifies or switches electrical power</td>
</tr>
<tr>
<td>Capacitors</td>
<td>C</td>
<td><img src="image3" alt="Capacitors Image" /></td>
<td>Stores electric charge</td>
</tr>
<tr>
<td>Light Emitting Diode (LED)</td>
<td>D</td>
<td><img src="image4" alt="LED Image" /></td>
<td>Emits light when activated</td>
</tr>
<tr>
<td>Integrated Circuit (IC)</td>
<td>U</td>
<td><img src="image5" alt="IC Image" /></td>
<td>Contains the entire electronic circuit</td>
</tr>
</tbody>
</table>

*Fig 1.4.1: Basic electronic components of circuit*

Tell the participants that colour coding is used to specify the values of the electronic components, mostly for resistors, but can be used also for capacitors, inductors, diodes and ICs.
• Further, tell them that colour coding was developed by Radio Manufacturers Association (RMA) which is now a part of Electronic Industries Alliance (EIA). Therefore, colour code is known as EIA colour code.
• In addition, tell them about other concepts of electrical components which are as shown in the following figure:
  
  **Tolerance**
  - Tolerance is defined as limit of deviation or variation in the resistance of resistors from its stated value.
  - For example: If the value of a resistor is 40 ohm and its tolerance is 5%, then its value can be 5% less or more than the stated value.

  **Polarity**
  - Polarity concept is used in electrical, magnetic and electronics.
  - It is used to identify negative and positive side of electronic components.
  - The pole with higher number of electrons is with negative polarity (-) and the other one is with positive polarity (+).

  **Orientation**
  - Orientation is related to position of symbols on the body of electronic components.
  - Some of the symbols or marks are notch, stripe, dimple or numbers.
  - These marks are used to identify which pin is to be connected at which port on the motherboard.

*Fig 1.4.2: Other concepts of electrical components*

• Tell the participants that the tolerance value of a resistor is indicated by the last colour stripe of the resistor. The list of tolerance depending upon the colour of the stripe is as shown in the following table:

<table>
<thead>
<tr>
<th>Colour</th>
<th>Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brown</td>
<td>1%</td>
</tr>
<tr>
<td>Red</td>
<td>2%</td>
</tr>
<tr>
<td>Orange</td>
<td>3%</td>
</tr>
<tr>
<td>Yellow</td>
<td>4%</td>
</tr>
<tr>
<td>Gold</td>
<td>5%</td>
</tr>
<tr>
<td>Silver</td>
<td>10%</td>
</tr>
<tr>
<td>Black</td>
<td>20%</td>
</tr>
</tbody>
</table>

*Fig 1.4.3: List of tolerance*
• Activity handling strategy: Identification Game
  o 1. Circuit Breaker
  o 2. Transistor
  o 3. Inductor
  o 4. Starter
  o 5. Transformer
• Activity handling strategy:
  o The following table shows the solution for the activity:

<table>
<thead>
<tr>
<th>Active Components</th>
<th>Passive Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diode</td>
<td>Resistor</td>
</tr>
<tr>
<td>LED</td>
<td>Transistor</td>
</tr>
<tr>
<td>IC</td>
<td>Capacitor</td>
</tr>
<tr>
<td></td>
<td>Transformer</td>
</tr>
<tr>
<td></td>
<td>Inductor</td>
</tr>
<tr>
<td></td>
<td>Thermistor</td>
</tr>
</tbody>
</table>
Perform a task to create series and parallel circuit connections.

The participants should be able to follow the given steps:

- Take the following components:
  - Battery as power source
  - Bulbs as load
  - Switch
  - Connecting wires

- Connect the bulb in parallel as shown in the above figure and then with the help of connecting wires, connect one end of the battery to the switch and the other end to the bulbs, as shown.

- Similarly, for series connection connect both the bulbs. With the help of the connecting wires, connect one end to the bulbs and the other end to the switch.
2. Refrigeration and Air Conditioning (RAC)

Unit 2.1 – Introduction of the Module
Unit 2.2 – Basics of RAC
Unit 2.3 – Components in RAC
Unit 2.4 – Refrigerants
Key Learning Outcomes

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

- Define the principle of RAC
- Explain the uses and terms in RAC
- Explain the methods used in RAC
- Explain the sealing system and its advantages
- Define basic components in RAC
- Identify the types of compressors
- Explain the working of the basic components
- Define refrigerant
- List the properties of refrigerant
- Identify the types of refrigerants
- Explain the safe working conditions with refrigerants
UNIT 2.1: Introduction of the Module

Unit Objectives

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

• Explain the basics of refrigeration and air conditioning
• Describe the principle of RAC
• Describe the uses and terms used in RAC
• Explain principles used in RAC and the sealing system and its advantages in RAC systems.

Ask

• Ask the participants to share their expectations from this module.
• Enquire if the participants know about the principle used in RAC. If the answer is yes, then ask them to explain the principle and its uses.
• Ask the participants if they can define refrigeration and air conditioning and if they can tell the uses of a refrigerator and an air conditioner.
• Ask if anyone has heard about the second law of thermodynamics.

Notes for Facilitation

• Make the session interactive by involving the participants in a discussion and introduce the topics to them.
• Then, inform them briefly about the major topics that will be covered in this module.
• Invite the participants to share their expectations on the whiteboard/blackboard.
• Give the participants a brief overview of what all will be covered in the module.
UNIT 2.2: Basics of RAC

Unit Objectives

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

• Define the principle of RAC
• Explain the uses and terms in RAC
• Explain the methods used in RAC
• Explain the sealing system and its advantages

Do

• Make a diagram on the whiteboard/blackboard to show the working principle diagram of RAC.
• Make diagrams of various refrigeration systems to explain their working.

Ask

• Ask the participants if anyone knows about the uses of RAC in different areas.
• Ask about the various terms used in RAC.
• Ask about the principle used in RAC working

Explain

• Explain the basic working of RAC and the second law of thermodynamics.
• Explain about the different methods of refrigeration, which are vapour compression refrigeration system (VCRS) and vapour absorption refrigeration system (VARS).
• Explain that the components used in refrigeration are evaporator, condenser, compressor, capillary, thermostat, control box and power supply unit.
• Explain that the components used in ACs are filter, blower, condenser, compressor and evaporator coil.

Notes for Facilitation

• Tell the participants that refrigeration is a process in which heat from a low temperature region is transferred to a high temperature region.
• Tell the participants that air conditioning is a process in which properties of air are controlled and maintained, such as humidity, purity and direction of air flow in a closed area.
• Tell the participants that RAC works on the second law of thermodynamics which states that heat does not flow from a low temperature body to a high temperature body without the help of external work.
• Explain the use of RAC in food industry, chemical and process industry, pharma industry and air conditioning.
• Explain the basic terms used in RAC such as refrigerant, capacity of refrigerator, coefficient of performance, refrigeration effect, psychometry, dry air, moist air, humidity and relative humidity.
• Explain about the working principle of VCRS and the basic components used in it, such as compressor, condenser, expansion valve and evaporator.
• Explain that the refrigeration cycle consists of the following processes:
  o Evaporation: The refrigerant in liquid form absorbs heat and converts into vapour.
  o Compression: The refrigerant in vapour form is compressed to get superheated.
  o Condensation: The superheated refrigerant flows through the heat exchanger and converts into liquid from a condenser.
  o Expansion: The liquid refrigerant expands when it flows through the capillary tube.
• Tell the participants that the vapour compression refrigeration systems are used mostly as the working principle in domestic refrigerators.
• Explain the basic difference between VARS and VCRS.
• Tell that in VARS the compression cycle is eliminated and in place of that the following processes are introduced:
  o Ammonia in vapour form is absorbed into water
  o This is pumped into a high pressure cycle
  o Ammonia vapour is produced by heating this mixture
• VARS is basically used for the vehicles which run on fuel.
• Activity Handling Strategy: Identification Game
  o Make a group of 5 and ask the participants to identify the uses of RAC as shown in the given images.
  o Set a time limit of 5 minutes for each participant.
  o At the end, provide the solutions as follows:
• Activity Handling Strategy: Identification game
  - Make a group of 5 and ask the participants to name the components in the image on the basis of the RAC principle.
  - Set a time limit of 5 minutes for each participant.
  - At the end, provide the solution as follows:
UNIT 2.3: Components in RAC

Unit Objectives

At the end of this unit, the participants will be able to:
• Define basic components in RAC
• Identify the types of compressors
• Explain the working of the basic components

Do

• Make two groups and provide images of different RAC components to make each group identify the components.
• Make circuit and wiring diagrams of a refrigerator and an AC on the whiteboard/blackboard to explain the placement and connections of the components.

Ask

• Ask the participants if anyone knows about the basic components of an RAC system.
• Ask if they know about the working of the RAC components.
• Ask about the various types of compressors.
• Ask if they know the basic component placement of a refrigerator or an AC.

Explain

• Explain to the participants about the basic components of an RAC unit such as compressor, evaporator, expansion valve and condenser.
• Explain about the working of condenser, evaporator, compressor and expansion valve and use of these components in an RAC system.
• Explain the working principle of a compressor that it pulls in the low pressure refrigerant from the evaporator through a suction line and compresses it into a high pressure vapour and also tell the uses of different types of compressors.
• Tell that a thermal expansion valve is a type of metering device.
• Explain the basic circuit diagram of a refrigerator and an AC.
• Explain the wiring diagram of a refrigerator and an AC.

Notes for Facilitation

• Tell the participants that an RAC system consist of an evaporator, a compressor, a condenser and an expansion valve.
• The evaporator turns the cold, low pressure refrigerant into vapour; the compressor compresses the refrigerant into a high pressure vapour; the condenser removes heat.
from the refrigerant and changes it to a liquid form and the expansion valve lowers the
temperature and the pressure of the refrigerant.
• Explain the types of compressors such as reciprocating compressor, scroll compressor,
screw compressor, rotary compressor and centrifugal compressor.
• Tell that the domestic refrigerator consists of a reciprocating compressor.
• Explain the basic circuit diagram of refrigeration explaining the placement of the
components.
• Explain the basic wiring diagram in refrigeration and the importance of earthing
connection.
• Tell the participants that a refrigerator consist of a freezer part in which ice can be made.
• The refrigerator control panel consist of temperature control panel and defrost circuit
system which cuts the circuit to melt the ice.
• Explain the circuit diagram for air conditioning explaining the placement of different air
conditioning components.
• Explain the wiring connection between different components in a window AC
• Explain that in an AC there is a double shaft fan motor in the refrigerator unit. Two fans,
one on evaporator side and one on condenser side are mounted on both sides of the
motor.
• Tell them that the evaporator side, which cools the space, faces the room and the
condenser side is outside.
• Tell them that the indoor side has a front panel containing user interface control system
that enables the user to control the functions of the AC using a remote and a touch panel
with a digital display.
• Next, tell them that the front panel has adjustable horizontal and vertical fins which
control and adjust the direction of air flow to suit the user preference.
• Explain that the front panel also has a provision for providing fresh intake of air or
ventilation.
• Activity Handling Strategy, Fill in the blanks:
  o Make the participant write the names of the basic components of an RAC unit
  o Set time limit of 5 minutes.
  o At the end, provide the solution as follows:
• Activity Handling Strategy:
  o Make the participants identify and write the names of the components of an RAC unit in the space provided below the given images.
  o Set a time limit of 5 minutes.
  o At the end, provide the solution as follows:

Capillary tube
Evaporator
Compressor
Condenser
UNIT 2.4: Refrigerants

Unit Objectives

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

• Define refrigerant
• List the properties of refrigerants
• Identify the types of refrigerants
• Explain the safe working conditions with refrigerants

Do

• Make a chart to explain the types of refrigerant and their properties.
• Make a table to explain different types of refrigerant used in RAC and their identification and properties.
• Make two groups of participants and ask them about the protective measures and personal protective equipment (PPE) used while working with refrigerants.

Ask

• Ask the participants if anyone knows about refrigerants.
• Ask them if they know about the types of refrigerants.
• Ask them if they can tell the properties of refrigerants.
• Ask them if they know about the sealing system.
• Ask if they know about the protection measures to be followed while working with the refrigerants.

Explain

• Explain the term refrigerant and its use in RAC.
• Explain to the participants that a refrigerant is a chemical used in cooling systems such as refrigerators and ACs. It acts as a heat carrier and changes from gas to liquid and back to gas in the refrigeration cycle.
• Explain about the types of refrigerant with their properties.
• Explain the properties of a refrigerant in detail.
• Explain the sealing system and its importance in RAC assembling.
• Explain the importance of PPE and the precautions to be followed while working with refrigerants.
• Explain the working of a refrigerant with the help of the following figure:

**Fig 2.4.1: Working of refrigerant**

- The refrigerant absorbs heat from indoor air
- It transforms from a low-pressure gas into a high-pressure liquid
- The air conditioning pump sends the refrigerant to the condenser
- A fan blows air over the condenser coils and exhausts hot air to the exterior
- The refrigerant cools down and turns back into a low-pressure gas

**Notes for Facilitation**

- Tell the participants that a refrigerant is a chemical compound that is used in the refrigeration cycle to transfer heat from one area to another.
- Explain that the synthetic refrigerants such as CFCs and HCFCs were invented as substitutes for the highly toxic and flammable refrigerants.
- Explain that based on their impact on the ozone layer, the synthetic refrigerants are of two types:
  - Refrigerants with ozone depleting potential: CFCs, HCFCs and HFCs
  - Refrigerants without ozone depleting potential: Perfluorocarbons (PFCs), unsaturated HFCs and hydrofluoroethers
- Explain that:
  - CFCs consist of chlorine, fluorine, and carbon. The most common refrigerants in this group are R11, R12 and R115 (within the blend R502).
  - HCFCs consist of hydrogen, chlorine, fluorine, and carbon. The most common refrigerants in this group are R22, R123 and R124 (within various blends).
  - HFCs consist of hydrogen, fluorine, and carbon. The most common refrigerants in this group are R134a, R32, R125 and R143a (mostly within blends, such as R404A, R407C and R410A).
- Further, explain that:
  - PFCs represent another group of fluorocarbons which contains five different fluids. One of these (R218) is used in refrigerant blends. PFCs are very stable, but have very high global warming potential (GWP).
o Unsaturated HFCs are also known as olefins. Some of them such as R1234yf and R1234ze are sufficiently stable to be used as refrigerants; and have low toxicity, low flammability and low GWP.
o Hydrofluoroethers are a group of fluorinated chemicals which are fairly stable and are lower pressure fluids.
  • In addition, explain that various hydrocarbons, ammonia (NH3) and carbon dioxide (CO2) belong to a group named natural refrigerants. All natural refrigerants exist in nature. They have zero ozone depleting potential (ODP) and zero or negligible GWP.
  • Explain the physical and chemical properties of an ideal refrigerant.
  • Tell the selection procedure of refrigerant for an RAC system.
  • Tell the types of refrigerant such as synthetic and natural refrigerant.
  • Give examples of synthetic and natural refrigerants and their uses and application.
  • Explain the refrigerants used commercially with their properties and identification as per their packing.
  • Explain the sealing system as any system whose working is concealed and is closed to the atmosphere.
  • List the advantages of a sealing system such as no possibility of air ingress, reliability in operation, possibility of attaining lower temperatures and the capability of the unit to run in vacuum.
  • Tell the safety measures to be considered while working with refrigerants.
  • Explain the types of PPE and their uses by showing the following images:

![Fig 2.4.2: Types of PPE](image)

• Explain the safety precautions that need to be considered while working with the refrigerant.
• Activity Handling Strategy: Identify the images
  o Make the participants identify the refrigerants from the images.
  o Set a time limit of 5 minutes.
  o At the end, provide the solution as follows:
Practical

Perform a check of wiring of a refrigerator as per the wiring diagram of the refrigerator.
1. Match the wiring diagram specification with the refrigerator model specification given.
2. Wear PPE before checking the wiring connections of the system.
3. Start from the main power supply cord connections.
4. Check the wire connections by inspecting.
5. Make sure that the wiring connections are as per the wiring diagram.
6. Ensure that the wiring connections are not loose.
7. Check the power supply in the wires using an electrical tester.
8. Do not touch live wires.

Perform a circuit diagram check of the components of a window AC.
1. Match the wiring diagram specification with the given refrigerator model specification.
2. Wear PPE before checking the components of the AC unit.
3. Open the AC unit by using tools.
4. Check the connections between the different components of the AC as per the manual.
5. Check that the connections are leak proof and sealed properly.
3. RAC: Tools and Safety while Handling Tools

Unit 3.1 – Introduction of the Module
Unit 3.2 – Tools and their Maintenance
Unit 3.3 – Safety while Handling Tools
At the end of this module, you will be able to:

- Identify the types of tools used for assembling
- Identify the equipment used in assembling of RAC components
- Identify safety measures to be taken while handling tools
UNIT 3.1: Introduction of the Module

Unit Objectives

At the end of this module, the participants will be able to:
- Identify types of tools used in the assembling of RAC units
- List safety and guidelines to be kept in mind while handling tools and equipment
- Describe the importance of basic first aid

Ask

- Ask the participants if they know about the basic tools used in assembling of RAC units.
- Ask them if they know about the safety guidelines to be kept in mind while handling tools.
- Ask the participants to share their expectations from this module.

Notes for Facilitation

- Make the session interactive by involving the participants in a discussion and introduce the topics to them.
- Then, inform them briefly about the major topics that will be covered in this module.
- Invite the participants to share their expectations from this module on the whiteboard/blackboard.
- Give the participants a brief overview of what all will be covered in the module.
UNIT 3.2: Tools and their Maintenance

Unit Objectives
At the end of this module, the participants will be able to:
• Identify the types of tools used for assembling
• Identify the equipment used in assembling of RAC components

Ask
• Ask the participants if they know the use of simple tools which they have been seeing since early age.
• Ask the participants about the different tools used in assembling of RAC units.
• Ask them about some of the most important tools that an assembling operator should use for basic assembling operation of RAC units.

Say
• Tell the participants that tools are devices which aid in doing work with less effort and more accuracy, such as a lever, a pulley, a hammer and so on; which are basic everyday things.
• The use of tools makes the work easy, quick and efficient.
• As assembling operators, to perform a task, they should have all the tools and equipment which will enable them to be efficient and quick. Also, they should know how to use the tools to do work effectively.

Do
• Make small groups of participants and distribute the tools used in assembling of RAC units. Then, ask the participants to demonstrate the right method of using the tools.
• Make the participants perform the task of maintaining the tools used in the assembling of RAC units.

Resource
• Ensure that various tools are available, to show to the participants how they look like and what their use is.
Notes for Facilitation

- Tell the participants that correct tools and equipment reduce effort and time. For example, lifting a heavy and bulky box with bare hands may be very difficult; but if the same box is lifted using a lever then, the effort is reduced and chances of getting hurt is also minimized.

- Give few examples of commonly used tools for the assembling of RAC units, such as screw driver, hammer, measuring tape and wrenches.

- Tell the participants that with the help of screw drivers and wrenches, they will be able to tighten screws, nuts and bolts.

- Emphasize on the fact that proper care must be taken of the tools, such as cleaning them after use and keeping them dry and in proper working condition.

- Tell the participants that certain tools should be kept in a jacket or a glove so that the sharp edges do not break. Also, some tools, such as a saw, may require regular sharpening.

- Tell that it is important to wipe away oil from all metallic tools to keep them dry.

- Tell that there is need of regular oiling of the tools, such as pliers, spanners, and so on.

- Activity Handling Strategy:
  - Make groups of 2 and ask the participants to identify any 6 tools from the following figure:

- Ask the participants to write down the tools’ names and their usage in their notebooks.

- At the end, provide solutions as follows:

<table>
<thead>
<tr>
<th>Name of the tool</th>
<th>Function/Usage of the tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Heavy duty hammer</td>
<td>Hammering and braking</td>
</tr>
<tr>
<td>2. Screw driver</td>
<td>Rotating of screws</td>
</tr>
<tr>
<td>3. Wrenches</td>
<td>Tightening/loosening nuts and bolts</td>
</tr>
<tr>
<td>4. Pliers compression tool</td>
<td>Pulling</td>
</tr>
<tr>
<td>5. Knife/cutter</td>
<td>Cutting</td>
</tr>
<tr>
<td>6. Measuring tape</td>
<td>Measuring lengths</td>
</tr>
</tbody>
</table>
UNIT 3.3: Safety while Handling Tools

Unit Objectives

At the end of this module, the participants will be able to:
• Identify safety measures to be taken while handling tools

Ask

• Ask the participants if they know about the following maintenance steps used for some of the tools:
  o Keep the tools clean
  o Use the tools within working limits
  o Use the tools with safety precautions
  o Do proper routine maintenance of the tools
• Ask about safety points to be considered while working with tools at a height.
• Ask about the safety and first aid measures to be taken at a site while working.

Do

• Ask a participant to name a tool used in the assembling of RAC units in front of the class and the rest of the class will mention the use of the tool in the assembling process.
• Ask the participants to demonstrate the right safety measures for different working conditions such as overloading, overreaching and carrying tools while assembling.
• Ask them to mention the steps performed in giving basic first aid to a person.

Explain

• Tell the participants that various tools have numerous uses.
• Explain to them that a screw driver is a very common tool and is quite useful while tightening and untightening a screw.
• Show the participants the following figure, which lists the different types of screw driver heads:

![Diagram of screw driver heads]

*Fig 3.3.1: Different type of screw drivers*

• Tell them about the correct way of wearing the safety equipment:
  o All the safety belts are tightly and securely locked.
  o Shoes laces are tightened properly.
  o The tools are securely placed in the tool belt.
  o The ladder is placed safely and securely over a stable surface to hold the user’s weight.
  o The importance of making three points of stable contact is understood.

• Tell about the steps followed in maintenance of tools and equipment to keep them in good condition.

• Tell about the correct way of using the items in a first aid box in case of any accident.

---

**Resource**

• Keep one sample (equal to number of subgroups, may be four) from each tool to show.
• Keep a sample first aid box and a PPE set for demonstration.
Notes for Facilitation

- Tell the participants about the tools used in the assembling of an RAC unit along with their uses. Then, ask them about these tools and observe how many correct answers they were able to give.
- Tell them that all the tools are used in a variety of ways which makes the work easy.
- Tell them that organizing the tools in a kit properly will help them locate them easily and they will not get lost among the bigger tools. Show them the following figure to set an example for organizing their tools:

![Fig 3.3.2: Organizing the tools](image)

- Tell the participants that when they perform assembling, they should have the right toolkit, which should include the following:
  - Screw drivers
  - Wrench set
  - Wire stripper
  - Wire cutting tool
  - Hammer
  - Drill machine
  - Brazing tools
  - Hand saw
  - Pliers
  - Multimeter
  - Electrical tester
- Tell the participants about the importance of wearing safety equipment while working.
- Tell them about performing routine maintenance of tools and equipment.
- Inform them about safety precautions to be taken while working on an elevated surface.
- Enlist first aid steps to be given to a person suffering from an accident while working at a site.
- Activity Handling Strategy:
  - Make groups of 2 and ask the participants to discuss the different ways of keeping the tools in good working condition.
  - Ask them to write down their views in a notebook.
In the end, check the points and discuss solutions as given below:

- A regular routine check of the tools should be done to examine the condition of the tools.
- Get the damaged and worn out tools fixed, else get the tool replaced.
- Before and after completion of work, clean the tools properly.
- The edges of the sharp-edged tools should be maintained sharp.
- The tools should be kept in the store department in an ordered way, in proper toolboxes.

Active Handling Strategy: Perform cleaning, maintenance and placement of the given hand tools:

- Make groups of 5 participants each and assign them the tools as per the activity.
- Give them items such as dry cloths, cleaning agent, sand paper, and tool box.
- Ask them to clean these tools and also provide different ways for proper maintenance of the tools.
- In the end, analyse the performance of the participants and provide feedback.
4. Assembling Process of Refrigerator and AC

Unit 4.1 – Introduction of the Module
Unit 4.2 – Assembling of Refrigerator
Unit 4.3 – Assembling of AC
Unit 4.4 – Safety Policies, Precautions and Procedures
Key Learning Outcomes

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

• Describe the assembling flow of a refrigerator
• Explain the assembling steps
• Explain the methods used in copper tube soldering
• Describe the assembling flow of an AC
• Explain the assembling steps
• Explain safety precautions while doing electrical wiring
• Identify the PPE in assembling process
• Explain 5s and Kaizen methods as work standards
UNIT 4.1: Introduction of the Module

Unit Objectives

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

• Describe the assembling of refrigerator and windows AC
• List safety and guidelines to be kept in mind while handling tools and equipment
• List the safety policies, precautions and procedures to be followed.

Ask

• Ask the participants if anyone knows about the basic steps which are followed in assembling a refrigerator or an AC.
• Ask them if they know about the safety guidelines to be kept in mind while handling tools.
• Ask the participants to share their expectations from this module.

Notes for Facilitation

• Make the session interactive by involving the participants in a discussion and introduce the topics to them.
• Then, inform them briefly about the major topics that will be covered in this module.
• Invite the participants to share their expectations on the whiteboard/blackboard.
• Give the participants a brief overview of what all will be covered in the module.
UNIT 4.2: Assembling of Refrigerator

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

- Describe the assembling flow of a refrigerator
- Explain the assembling steps
- Explain the methods used in copper tube soldering

Ask
- Ask the participants if they know the basic steps that need to be followed while assembling a refrigerator unit.
- Ask the participants about the various components that need to be assembled for a complete refrigerator system.
- Ask them about the soldering and copper tubing used in refrigeration assembling.

Say
- Tell the participants that various components should be received from the storage and checked before assembling them.
- Tell them that they should unpack the material safely and dispose the packaging waste as per the working instructions.
- Tell that as assembling operators, to perform a task they should have all the tools and equipment which will enable them to be efficient and quick. Also, they should know how to use the tools to do work effectively.

Do
- Make small groups of participants and make them identify the various components to be assembled in a refrigerator system.
- Make the participants perform the task of assembling components, such as compressor and expansion valve.

Resource
- Ensure that various tools are available to show to the participants how they look like and what their use is.
Notes for Facilitation

- Tell the participants to prepare and follow a basic workflow for the installation of the refrigerator components.
- Tell the participants to ensure that all the components are in good condition without any damage.
- Tell them to check the specifications of the components to match them with the refrigerator unit which is to be assembled.
- Tell them to use appropriate tools for assembling of the components.
- Tell the participants to follow working manuals for the assembling of the refrigerator components.
- Tell them to connect the electrical wiring assemblies safely and securely.
- Tell them to perform sealing of the system using brazing method.
- Tell the participants to use PPE while assembling the refrigerator components.
- Tell the participants that DC refrigerators are single door refrigerators with a freezer on top and a refrigerator chamber at the bottom.
- Explain the various compartments in the DC refrigerator.
- Explain the wiring diagram of the DC refrigerator.
- Explain that the following points should be taken care of when installing a DC refrigerator:
  - **Ventilation:**
    - Ensure that there is adequate flow of fresh air.
    - Ensure that the combustion system of the refrigerator is isolated from the living space.
    - Ensure that the inlet is below the level of outlet.
    - Ensure that there is a distance of minimum one inch between the rearmost part of the refrigerator and the wall.
    - Ensure that the floor is flat and level.
    - Ensure that there are no heat sources nearby.
  - **Electrical:**
    - Ensure that all the relevant regulations and codes of practice are followed.
    - Ensure that the unit is properly earthed.
    - Ensure that the electrical leads are properly routed and secured.
- Explain that once the installation is complete, the operator should test the operation of the refrigerator.
- Explain that a tube cutter is a tool used to cut tubes and pipes. It is an important tool required for installation and servicing.
- Tell them that a tube cutter produces a clean cut and is faster and more convenient than a hacksaw.
- Inform them that there are two types of tube cutters:
  - Plastic tube cutter: to cut thin pipes and tubes
  - Tube cutter with sharp teeth and adjustable grip: for thicker pipes
• Explain that a tube can be bent in many different angles and directions. The most common bends are elbows and U-bends. The elbow bends range from angle of 2 degree to 90 degree and the U-bend is a 180 degree bend.

• Explain the dos and don’ts of the tube cutting and bending process with the help of the following figure:

  ![Dos and don’ts of the tube cutting and bending process](image)

  - Ensure that the tube is clean and dry before starting
  - Ensure that the ends are kept sealed until the tube is used
  - Ensure that the surface of the cut part is not rough or slanted
  - Ensure that the tube is not twisted while cutting
  - Ensure that the tube remains round where it is bent
  - Ensure that the cutting tools are properly sharpened

Fig 4.2.1: Dos and don’ts of the tube cutting and bending process

• Activity Handling Strategy: Match the following
  o Make the participants match the components of a refrigerator system with the given names.
  o Set a time limit of 5 minutes.
  o At the end, provide the solution as follows:

<table>
<thead>
<tr>
<th>Parts</th>
<th>Parts name</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Compressor" /></td>
<td>Compressor</td>
</tr>
<tr>
<td><img src="image" alt="Evaporator" /></td>
<td>Evaporator</td>
</tr>
<tr>
<td><img src="image" alt="Condenser" /></td>
<td>Condenser</td>
</tr>
<tr>
<td><img src="image" alt="Expansion valve/capillary tube" /></td>
<td>Expansion valve/capillary tube</td>
</tr>
</tbody>
</table>
UNIT 4.3: Assembling of AC

Unit Objectives

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

• Describe the assembling flow of an AC
• Explain the assembling steps

Ask

• Ask the participants if they know the basic steps that need to be followed while assembling a window AC unit.
• Ask the participants about the various components that need to be assembled for a complete AC system.
• Ask them if they know about the gas leak check and cleaning of the evaporator.

Say

• Tell the participants that various components should be received from the storage and checked before assembling them.
• Tell them that they should unpack the material safely and dispose the packaging waste as per the working instructions.
• As assembling operators, to perform a task they should have all the tools and equipment which will enable them to be efficient and quick. Also, they should know how to use the tools to do work effectively.

Do

• Make small groups of participants and make them identify the various components to be assembled in a window AC system.
• Make the participants perform the task of assembling components, such as motor and blower.

Resource

• Ensure that various tools are available to show to the participants how they look like and what their use is.
Notes for Facilitation

- Tell the participants to prepare and follow a basic workflow for the installation of the window AC components.
- Tell them to ensure all the components are in good condition without any damage.
- Tell them to check the specifications of the components to match them with the AC unit which is to be assembled.
- Tell them to use appropriate tools for assembling of the components.
- Tell the participants to follow working manuals for the assembling of the AC components.
- Tell them to connect the electrical wiring assemblies safely and securely.
- Tell them to perform sealing of the system using brazing method.
- Tell them to use PPEs while assembling the AC components.
- Explain that the electrical wiring diagrams help the operator in understanding the above two concerns.
- Explain that the wiring diagram is provided by the manufacturer of the equipment.
- Inform them that there are five components of any wiring diagram, as shown in the following figure:

![Diagram of five components of wiring diagram]

**Fig 4.3.1: Five components of wiring diagram**

- Ensure access to a working window AC.
- Ensure that you carry a multimeter with you.
- Tell the participants to check that the multimeter is working properly.
- Explain that it is important to test the resistance of electronic components of a window AC such as coil sensor, grill sensor, swing motor and compressor terminal.
- Explain that testing enables the operator to check and ensure that the electronic components are functioning properly.
- Explain that they should ensure that the multimeter is set on ohms before they start the testing.
- Explain the importance of noting down the test results and any observation they make. This ensures that a record is kept of the tests undertaken.
- **Activity Handling Strategy: Identify the images**
  - Make the participants identify the components of a window AC from the given images and the components have to be matched with the alphabets in the given image of an air conditioning cycle as per their position.
  - Set a time limit of 5 minutes.
  - At the end, provide the solution as shown below:

<table>
<thead>
<tr>
<th>Parts</th>
<th>Position in the diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condenser</td>
<td>A(Evaporator)</td>
</tr>
<tr>
<td>Evaporator</td>
<td>B(Compressor)</td>
</tr>
<tr>
<td>Compressor</td>
<td>C(Condenser)</td>
</tr>
<tr>
<td>Capillary Tube</td>
<td>D(Capillary Tube)</td>
</tr>
<tr>
<td>Capillary Tube</td>
<td></td>
</tr>
</tbody>
</table>
UNIT 4.4: Safety Policies, Precautions and Procedures

Unit Objectives

At the end of this module, you will be able to:
• Explain safety precautions in electrical wiring
• Identify the PPE in the assembling process
• Explain 5S and Kaizen methods as work standards

Ask

• Ask the participants if they know the basic safety policies and precautions to be followed while assembling RAC units.
• Ask the participants about the 5S and Kaizen standards.
• Ask them about the preventive measures and safety standards.

Say

• Tell the participants that safety measures should be followed while wiring the RAC modules.
• Tell that PPE should be used while handling tools and equipment for the assembling of the RAC components.
• Tell that as an assembling operator, they should perform all the assembling operations safely following all the working standards.

Do

• Make small groups of participants and make them identify the various PPE and their uses while performing the assembling.
• Make the participants perform the task of assembling RAC components using the PPE and following safety regulations.
• Explain the five elements of 5S as
  o Sorting(Seiri)
  o Systematic Arrangement(Seiton)
  o Shining(Seiso)
  o Standardizing(Seiketsu)
  o Sustaining(Shitsuke)
Resource
- Ensure that various tools are available to show to the participants how they look like and what their use is.

Explain
- Explain to the participants that the following standard operating procedures for work will enable them to:
  - Understand their job role and associated responsibilities in a better way
  - Consistently deliver quality work
  - Achieve better productivity
  - Demonstrate their achievements
  - Correct and coach their colleagues
- Explain that there are two standards that enable improvement of work process. These are:
  - 5S
  - Kaizen

Notes for Facilitation
- Tell the participants that simple maintenance and cleaning procedures can help increase the life and efficiency of a refrigerator.
- Explain that the operator should inform the consumer about the safety precautions to be followed while operating a refrigerator.
- Tell that, to avoid any risk of personal injury, the following safety precautions should be practiced:
  - Ensure that the power plug is away from the rear of the refrigerator.
  - Never spray water directly on the refrigerator.
  - Do not bend the power cord excessively.
  - Do not insert power plug with wet hands.
  - Do not put a container filled with water on top of the refrigerator.
  - Do not store flammable substances in the refrigerator.
  - Do not place the refrigerator near a heat source or in direct sunlight.
  - Ensure that the unit is placed on a flat, level surface.
- Tell the participants that to ensure safe installation of the unit, an operator should:
  - Read the instruction manual carefully
  - Follow each instruction exactly as shown
  - Observe all electrical codes
• Explain that the operator should take the following special precautions:
  o While wiring:
    Do not supply power to the unit until all wiring and tubing are completed and checked.
    Refer to the wiring diagram and the instructions when wiring.
    Ground the unit following local electrical codes.
    Connect all wiring tightly.

  *Fig 4.4.1: Precautions while wiring*

  o While transporting:
    Get a partner to help.
    Bend the knees when lifting to reduce strain on the back.
    Protect the fingers from sharp edges or thin aluminum fins on the AC.

  *Fig 4.4.2: Precautions while transporting*

  o When connecting refrigerant tubing:
    Use the flare method for connecting tubing.
    Apply refrigerant lubricant to the surfaces of the flare and union tubes before connecting them.
    Check carefully for leaks before starting the test run.

  *Fig 4.4.3: Precautions while connecting refrigerant tubing*

• Tell the participants that the Japanese word ‘Kaizen’ is made up of two words – ‘kai’ which means change and ‘zen’ which means good.
• It is a way of thinking and not a project to complete. It focuses on involving everyone in making continuous small improvements in their job role.
• Tell them about the Kaizen cycle – Plan → Do → Check → Act (PDCA).
• Tell them that Kaizen can also be used in their personal life.
• Activity Handling Strategy: Identify the images:
  o Make the participants identify PPE from the images. Also, ask them to identify the ones which provide protection from electrical shocks.
  o Set a time limit of 5 minutes.
  o At the end, provide the solution as follows:
Practical

Perform assembling of refrigerator door and door seal:
1. Wear the PPE such as safety gloves, safety shoes and safety glasses before carrying out the assembling of the gasket and the door on the refrigerator.
2. Read the specification of the gasket and the refrigerator to match them.
3. Inspect the gasket for any crack or damage.
4. Apply hot air by using a blower to make the new gasket fit easily on the door.
5. Install the gasket over the door panel.
6. Use gasket cement to fix the gasket on the door panel.
7. Secure the gasket with screws.
8. Make sure that the screws are fastened securely.
9. Mount the door on the fridge cabinet over the hinges provided for the door assembly.
10. Secure the hinges with screws.
11. Fasten all the screws using the screw driver.
12. Check the door and the gasket sealing by opening and closing the door many times.

Perform installation of thermostat in a refrigerator assembly:
1. Wear the PPE such as safety gloves, safety shoes and safety glasses before carrying out the assembling of the gasket and the door on the refrigerator.
2. Make sure that the power supply is turned off.
3. Check that the specification of the thermostat matches that of the refrigerator.
4. Check the thermostat for any crack or damage.
5. Locate the thermostat assembling housing of the refrigerator cabinet.
6. Connect the wires to the thermostat and secure it with electrical tape.
7. Mount the thermostat housing back in the refrigerator cabinet.
8. Power on the refrigerator and check that the thermostat is working properly.
Install a unit run capacitor in an AC unit:
1. Wear the PPE such as safety gloves, safety shoes and safety glasses before carrying out the assembling of unit run capacitor on window AC.
2. Match the specification of the capacitor with that of the AC unit.
3. Check that the capacitor is not swollen and is crack proof.
4. Locate the AC power supply unit.
5. Mount the capacitor in the power unit of the AC.
6. Attach the female wire terminal tabs on the wires coloured green (black), red and yellow.
7. Connect the three terminals on the capacitor labelled as HERM, FAN, and C.
8. Secure the connection by a plastic covering.
9. Install the AC panel which secures the power unit.
10. Check the working of the AC to check the functioning of the capacitor.

Install the copper tubing in condenser assembly of an AC:
1. Wear the PPE such as safety gloves, safety shoes and safety glasses before carrying out the assembling of the unit run capacitor on the window AC.
2. Make sure that the copper tubes are as per the specifications of the condenser.
3. Check the condenser and the copper tubings for any damage or crack.
4. Insert the copper tubes one by one in the slots of the condenser.
5. Make sure that the tubes are in continuous flow through the condenser as per the assembly manual.
6. Assemble the copper tubing bends.
7. Solder all the joints carefully.
8. Check the copper tubing for any leak.
9. Clean the condenser after the leak test.

Perform safe and secure connection of two electrical wires:
1. Wear the PPE such as safety gloves, safety shoes and safety glasses before carrying out the electrical wiring.
2. Switch off the main power supply before carrying out the electrical wiring connections.
3. Locate the wire for connections.
4. Ensure there is no water near the workplace.
5. Check that the wire connection unit is discharged (if connected to a capacitor unit).
6. Strip the end of each wire using the wire stripper.
7. Connect the correct wires together.
8. Secure the connection using the electrical tape.
9. Turn on the power supply.
10. Check that the connection is safe and no burning smell or spark is generated.
5. Soft Skills

Unit 5.1 – Introduction of the Module
Unit 5.2 – Reading and Writing Skills
Unit 5.3 – Interacting with Superior
Unit 5.4 – Interacting with Colleagues
Unit 5.5 – Understanding Organizational Policy and Standards
Unit 5.6 – Achieving Productivity and Quality
Unit 5.7 – Decision Making
Key Learning Outcomes

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

- Identify customer requirements
- Suggest resolution to the problems of customers
- Interact with supervisor and colleagues
- Work in a team and perform multitasking
- Explain company’s policies
- Identify company’s product/quality standards
- Describe company’s safety policies and standards
- Write reports and forms as needed for the role
- Maintain records of customer’s complaints and resolutions
- Describe the importance of productivity and quality
- Explain the importance of decision making
- Explain how to read user manuals and assembler guide
UNIT 5.1: Introduction of the Module

Unit Objectives

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

• Describe the importance of reading and writing skills
• Identify correct way to communicate with clients and colleagues
• Explain the importance of documentation and correct way to complete them
• Explain different company’s policies including importance of achieving quality and productivity at work

Say

• Tell the participants that it is important to follow workplace ethics at workplace to maintain harmony and peace among colleagues.
• Tell them the proper way of completing documents and their importance.
• Tell them the process of decision making and importance of reporting process.

Notes for Facilitation

• Make the session interactive by involving the participants in a discussion and introduce the topics to them.
• Ask the participants about their expectations from this module. Then, inform them briefly about the major topics that will be covered in the module.
• Invite the participants to share their expectations on the whiteboard/blackboard.
• Give the participants a brief overview of what all will be covered in the module.
UNIT 5.2: Reading and Writing Skills

Unit Objectives
At the end of this unit, the participants will be able to:
- Write down problems on job sheet and details of work done
- Make reports and fill forms
- Explain the installation procedures given in the manuals
- Read product labels and instructions
- Explain the importance of maintenance records

Demonstrate
- Show the participants:
  - A sample of a job sheet to be filled by an assembly operator
  - A sample of an invoice to be checked by an assembly operator
  - A sample of a checklist to be filled for a specific job/task.

Say
- Tell the participants about 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:

  Employee's details
  - Name of the employee
  - Employee ID
  - Assigned job date
  - Department
  - Job assigned by

  RAC module details
  - Model name of module
  - Model number of module
  - Model specifications
  - Handling instructions of module

  Final assembled product
  - Model name of final product
  - Model number of final product
  - Specifications of final product

Fig 5.2.1: Content of job sheet
- Tell the participants that sometimes it is possible that the assembly operator has to fill some field in the final assembled product details.
- In addition, tell them an assembly operator may also need to adhere to and fill a checklist for a specific job/task.
- Tell the participants why an understanding of the work requirements is necessary.
• Tell the participants about the responsibilities of an assembly operator, which is important to fulfill the job role.
• Explain to the participants in detail about the steps to read a document.
• Explain to the participants, the questions they should ask themselves:
  o Why was the document written?
  o Who is the issue?
  o What type of a document is it?
  o Why should the document be read?
• Explain to the participants the best way of reading a document.
• Tell the participants that to fill the checklist, the operator should be able to read it correctly and then fill correct responses based on the task completed.
• Explain to them the importance of doing regular preventive maintenance of the equipment.
• Inform them that preventive maintenance refers to the regular, repetitive activities done at scheduled intervals, such as daily, weekly and monthly, to extend the life of the equipment and to prevent failure.
• Tell them about the importance of record keeping.
• Tell them that record keeping is very beneficial, especially in case of conflicts and contradictions in the work committed and the work done. Record keeping provides several benefits.
• Explain that a regular maintenance plan ensures certain advantages as shown in the following figure:

  - Smooth and efficient running of the equipment
  - Prolonged life of the system
  - Detection of issues early, before they become a major problem
  - Reduction of downtime
  - Avoidance of larger and costly fixes later on, after the equipment breaks down

*Fig 5.2.2: Regular maintenance plan*

• Tell the participants that product labels have some warning instructions written on their back and it is important to read these before operating them.
In addition, tell them that the different warning signs are as shown in the following image:

![Different warning signs](image-url)

*Fig 5.2.3: Different warning signs*
UNIT 5.3: Interacting with Superior

Unit Objectives
At the end of this unit, the participants will be able to:
- Identify work requirements and targets
- Explain how to interact with superior
- Identify and use appropriate drawings and manuals for carrying out work
- Report about inadequate and defective components
- Explain the importance of customer feedback

Ask
- Start the session by telling the participants the importance of a feedback form.
- Ask the participants if they know the importance of using manuals for carrying out work.
- Ask the participants if they know the importance of adherence to time and quality.

Say
- Tell the participants that for an assembly operator in any organization, one of the major roles and responsibilities is to understand the work requirements.
- Then, tell them that while working in any organisation, it is important to understand the work requirements.
- In addition, tell them about work ethics, by saying that work ethics means differentiating between the right and the wrong way of doing a job and adopting the right conduct.
- Tell them that an assembly operator 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.
- Discuss with the participants that as an assembly operator, one needs to keep visiting the portals to identify changes that may be done to improve the feel of it.
- Explain to the participants about the points which help them in understanding the plan to achieve 100% quality and timely completion of work. Tell them about:
  - Establishing a compliance plan on the basis of which the steps towards achieving a goal will be taken.
  - Build a communication strategy so that every aspect related to the plan of action is communicated to the designated people involved in the workability of the project.
  - Develop an effective work schedule, where working on various parameters of the project is feasible.
  - Create a review plan to re-check the work that has been carried out to accomplish the set target.
  - Test the product to see if revisions are required.
- Talk to the participants about why a plan needs to be flexible.
• Tell the participants that after completion of work, get the work feedback form filled by your supervisor.
• Tell the participants about the importance of manual and drawings to carry out during assembling.
• In addition, tell them that work drawings are the layouts which act as a guide to perform assembly operations.
• Explain to them about the features of assembling standards with the help of the following figure:

<table>
<thead>
<tr>
<th>Timeliness</th>
</tr>
</thead>
<tbody>
<tr>
<td>With the fastening-up of machines in assembly lines, the expectation level of the organisation and assembling plants has also risen.</td>
</tr>
<tr>
<td>The manufacturing units want that the assembling operation should take minimum amount of time possible.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy in all the services extremely improve the overall standard of the work completed.</td>
</tr>
<tr>
<td>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 product.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Appropriateness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appropriateness refers to how well the final products expectations are met.</td>
</tr>
<tr>
<td>The assembly operator needs to ensure that the best possible solution is selected to resolve an issue.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Measurability</th>
</tr>
</thead>
<tbody>
<tr>
<td>To be effective, the standards need to be measurable.</td>
</tr>
<tr>
<td>In addition to setting standards, guidelines should be created for monitoring them and the results should be analysed.</td>
</tr>
<tr>
<td>The assembly operator should use these guidelines to pinpoint problem areas and consistently maintain the assembling standards.</td>
</tr>
</tbody>
</table>

**Fig 5.3.1: Features of assembling standards**

- Work ethics involve certain principles as shown in the following figure:

| Following timelines | Working as per standards and guidelines | Following the organizational rules and policies |

**Fig 5.3.2: Work ethics**

- Next, tell them about the importance of feedback with the help of the following points:
  - Tell the participants that feedback helps to understand problems and outlines the scope for further improvement.
  - It helps to identify the areas of competency in the work which they have done. It also makes the customer feel happy that they can give feedback regarding the product.
UNIT 5.4: Interacting with Colleagues

Unit Objectives
At the end of this unit, the participants will be able to:
- Receive spares from the tool room or stores and deposit faulty modules and tools in stores
- Assist colleagues and communicate with them for resolving field problems
- Resolve conflicts and achieve smooth workflow

Explain
Explain to the participants that:
- The assembly operator should be able to work in harmony with the other colleagues or members in the team. In case of any conflict, the objective should be to resolve it by communicating with each other. Sometimes an intervention by a senior may be required to resolve the conflict. At such times, the matter should be reported to the supervisor.
- While performing work or any other interaction related to work, the interest of the organization should be kept at the forefront.
- All the members may work together or may work on different projects to fulfil the organizational goals.
- It is important to understand the role and the responsibility of each one of the team members and the task being performed by that person.

Notes for Facilitation
- Tell the participants that every worker works towards a common goal in an organization, still all of them are divided by certain roles and activities and the way they accomplish that objective.
- Draw the following figure on the black/white board which represents the key points to consider while interacting with colleagues:

![Fig 5.4.1: Key points while interacting with colleagues](image-url)
• Tell them that getting the job done in a process depends on information communication. Furthermore, accuracy of the end result entirely depends on effective inter-personnel communication.

• 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.

• Lastly, explain to them about team work with the help of the following points:
  o Teamwork is defined as coming together of people to achieve a common goal.
  o The goal here are the organizational goals.
  o 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.
  o 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 progress of work may depend on the completion of the tasks.

• Therefore, for smooth progress of work, the tasks should be completed on time.
UNIT 5.5: Understanding Organisational Policies and Standards

Unit Objectives

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

• Identify and understand different policies of the company
• Identify the company’s policies for the employees
• Identify the company’s code of conduct policies
• Describe the procedure of emergency evacuation at workplace

Say

• Introduce the unit to the participants by explaining the company’s policy in detail.
• Tell the participants about the emergency evacuation procedure.
• Tell them that it is the responsibility of an assembly operator to take care of assembling operations.

Ask

• Enquire from the participants if anybody knows about the type of work an assembling operator has to perform.
• Ask the participants to tell some procedures related to emergency evacuation.
• Ask if anyone knows about medical policies.
• Ask the participants to share their expectations from this course.

Notes for Facilitation

• Start the session by telling the participants that an assembling operator performs the assembling of basic components to make a final working unit.
• Tell the participants that emergency evacuation procedure includes the steps required to escape from an emergency situation.
• Briefly explain the steps of a fire drill:
  o Fire evacuation strategy: Make a clear and concise evacuation plan that meets the need of the building and its occupants.
  o Action on hearing the fire alarm: Everyone should respond to the sound of the fire alarm and exit in an orderly manner.
  o Calling the fire brigade: Call the fire department and give them the location.
  o Identification of key escape routes: Plan at least two emergency exits so that if one is blocked, the other can be used.
  o Appropriate use of the fire extinguisher: Demonstrate the correct way to use a fire extinguisher.
- Correct use of the emergency evacuation plan: Appoint someone to monitor the drill and measure the duration of a complete evacuation.

- In an organization, there are several policies followed by the employees. As a part of the organization, an assembly operator must follow the safety policies. The following figure lists some of them:

- Tell the participants that an assembly operator has to perform tasks as shown in the following figure:

  - Evaluation and testing of the assembled final product
  - Labelling the specification of the product
  - Receiving the components and checking them
  - Scheduling the assembling process
  - Packing of final assembled product
  - Formulating the productivity of work

- Further, tell them that after tests performed by an assembly operator ensures that the final product assembled is of good quality and match the standards of the company or organization.

- In addition, tell them that productivity measure ensures that the assembling process is carried out and completed in time.

- Inform them that assembling services can be provided in two ways, onsite assembling and offsite assembling.
Tell the participants about organizational culture and how to behave within that culture.

Tell them to remember that all the members of a team, whether a senior or a junior, may work together or may work on different projects to fulfil the organizational goals. Therefore, it is important to understand that the role of each team member is significant for the organization.

Sometimes, just to check the health of the organization’s network and systems, as well as to maintain the computers, an assembly operator needs to monitor the systems remotely.

Show the following diagram and explain the concept of an organization’s virtual private network:

![Virtual private network diagram]

Fig 5.5.3: Virtual private network

Explain to the participants about the importance of following workplace etiquette. 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:

- Arrive on time for work and show positive enthusiasm at work
- Behave in a respectful manner with others
- Maintain oneself and keep the tools in clean and organized condition
- Never indulge in negative or irrelevant talk
- Always be eager to learn new things

Fig 5.5.4: Workplace etiquette norms

Explain to the participants that an assembly operator 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.
UNIT 5.6: Achieving Productivity and Quality

Unit Objectives

At the end of this unit, the participants will be able to:
• Describe how to achieve targets
• Identify safety standards to be followed at workplace
• Achieve zero defect as per electrostatic discharge (ESD) and company’s standards

Say

• Tell the participants about the importance of meeting targets and its effect on company’s productivity.
• Tell the participants that safety is of utmost important to be followed at workplace for proper work management.
• Tell them about ESD and how to achieve zero defect in work as per company’s standards.

Notes for Facilitation

• Inform the participants that just like any other job profile in an organization, meeting the targets set down by the management is very important. An assembly operator needs to be clear about the goals and visions of the organization to achieve all the designated targets.
• Then, explain to them about the key points which will help them to meet the targets.
• Inform them that an excellent service leads to a happy and loyal customer.
• Tell the participants about the importance of turnaround time and the ways to reduce stress.
• In addition, tell them about google calendar and if possible, demonstrate it.
• Tell the participants that safety is mandatory while working or repairing faulty modules at a customer’s site.
• Tell them the importance of being healthy such as:
  o Helps to prevent absence from work
  o Improves work performance
  o Demonstrates work responsibility
  o Reduces accidents and work-related ill health
• A workplace requires quality and safety procedures for the following reasons:
  o To show complete commitment towards the health and safety of employees
  o To prove to the employees that safety performance and work performance are in harmony with each other
  o To give a clear statement of the company’s objectives, principles, plans, ideas and procedures
  o To increase buy-in through all divisions of the company
To provide a definite outline of the accountability of the organization for the health and safety of the workers and also give a clear idea of the responsibility of the employer and the employees.

- Tell the participants that ESD is the sudden build-up of static electricity when two differently charged objects are brought together.
- In addition, tell them in detail about ESD protection tools as listed below:
  - Gloves
  - Wire Strap
  - Safety Clothes
  - ESD Mat
  - ESD Wrist Band
- Lastly, tell them that zero defect in any work can be achieved by working as per the company’s standards and ESD standards.
UNIT 5.7: Decision Making

Unit Objectives

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

- Use critical thinking to improve work processes
- Reduce repetition of errors
- Report on any customer concerns to superiors without delay
- Make on-spot decisions on field
- Decide whether to call customer care
- Identify customer requirements and provide solutions

Ask

- Ask the participants if they can tell what decision making is.
- Ask them if they think that decision making is difficult and the reason for it.
- Ask them to tell what they know about reflective thinking. Also, ask the participants what they understand by the term “critical thinking”
- Ask them if they know about customer’s requirements and how to fulfil them.

Notes for Facilitation

- Tell the participants that 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, such as:
  - 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 be updated with new developments.
  - Critical and reflective thinking will help to spot the process disruptions and the reasons for it.
  - It will help them 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 5.7.1: Critical thinking

- Tell the participants why an understanding of a customer’s requirement is necessary.
- Tell the participants about the responsibilities of an assembly operator, which is important to fulfil a customer’s requirement.
- 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.
6. Maintain Safe Work Area

Unit 6.1 – Introduction of the Module
Unit 6.2 – Safety Procedures and Communicating Hazards
Unit 6.3 – Maintaining Good Posture
Key Learning Outcomes

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

• Identify standard safety procedures
• Participate in fire drills and other safety programmes organized by the company
• Maintain correct posture while working
• Demonstrate handling of heavy and hazardous materials
• Maintain good health
• Define a health session
UNIT 6.1: Introduction of the Module

Unit Objectives

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

• Explain the importance of maintaining good posture
• Identify the correct way of standing, sitting and lifting heavy and hazardous tools
• Explain the importance of participating in yoga and other health programmes organized by the organization

Say

• Tell the participants that standard safety procedures are important to follow at workplace to maintain proper health and avoid accidents.
• Tell them the proper way of sitting and lifting heavy materials and tools.
• Tell them the importance of participating in health sessions organised by the company for the employees.

Notes for Facilitation

• Make the session interactive by involving the participants in a discussion and introduce the topics to them.
• Ask the participants about the expectations from this module. Then, inform them briefly about the major topics that will be covered in the module.
• Invite the participants to share their expectations on the whiteboard/blackboard.
• Give the participants a brief overview of what all will be covered in the module.
UNIT 6.2: Safety Procedures and Communicating Hazards

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

- Identify and follow standard safety procedures
- Explain the importance of participating in fire drills
- Report about accidents at workplace to superior

Ask
- Ask the participants to tell some safety guidelines that they should follow at workplace.
- Ask the participants if they know what the term ‘ESD’ stands for.
- Ask them if they know the meaning and potential causes of ESD.
- Ask them if they can tell how to reduce the risk of ESD.

Explain
- Explain that it is very important for them to use safety equipment while working as they provide protection to various parts of their body.
- Inform the participants that always remove rings, chains or bracelets or other metal objects before working on the panel. Also, tell them that they should use the prescribed protective safety equipment such as rubber shoes, helmet, gloves, and so on.
- Explain that the employee workshop training would include:
  - Roles and responsibilities of an assembly operator
  - Threats, hazards, and protective actions to be taken
  - Notification, warning, and communication procedures in case of an emergency
  - Evacuation, shelter and accountability procedures in case of an emergency
  - Emergency shutdown procedures

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 join in.
- Introduce the topic by discussing safety guidelines.
- Write the safety guidelines mentioned by the participants on the whiteboard.
- Add any point not covered by them.
- Go over each point one by one and explain it in a few sentences.
- Explain the full form of the term ‘ESD’ and its meaning.
- Go over the causes of ESD one by one and explain each point briefly.
- Write the ESD safety guidelines mentioned by the participants on the whiteboard.
- Add any point not covered by them.
• After going over the safety guidelines, introduce the topic of safety materials and equipment.
• Next, tell them that the most important safety equipment is the fire extinguisher.
• Explain its importance as a first level of protection against any fire hazard.
• Explain the purpose of conducting a fire drill.
• Tell them that after completion of every drill they should evaluate the effectiveness of the drill.
• Tell them that to be effective, the fire drill should be carried out periodically and should use different escape routes every time.
• Next, tell them that the fire drill is a part of employee workshop training.
• Explain that every organization has an emergency plan to manage any emergency or accident that might occur.
• Tell them that they should be aware of the procedures to be followed in case of any emergency.
• Tell them that they should follow certain procedures:
  o In case of an accident:
    • Determine the extent of injury.
    • Provide first-aid for minor injuries.
    • Inform medical personnel and paramedics.
    • Avoid moving or shifting the injured.
  o In case of an emergency such as an earthquake:
    • Take shelter under tables, desks and so on.
    • Stay away from the windows.
    • Leave the building as soon as it is safe.
  o In case of a violent or a threatening person:
    • Try to remain calm.
    • Do not confront the person.
    • Do not try to subdue the person.
    • Inform the security as soon as it is possible.
• Lastly, tell them that tell superiors about any potential hazards to maintain dignity of the workplace and avoid any accidents at workplace.
UNIT 6.3: Maintaining Good Posture

Unit Objectives

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

• Explain how to maintain proper posture while working
• Explain the importance of participating in health sessions
• Identify methods to handle heavy and hazardous materials

Ask

• Ask the participants how long do they generally sit or stand in one position at work.
• Ask the participants if they know the meaning of the term ‘Posture’.
• Ask the participants if they can tell the reasons that make manual handling of heavy and hazardous materials difficult.

Explain

• Introduce to the participants the topic of maintaining appropriate posture.
• Explain that posture means the way we hold our body when we sit, stand, lift, bend and so on.
• Explain the importance of maintaining a good posture while working and the consequences of bad posture habits.

Demonstrate

• Show the correct and incorrect postures while standing, sitting and lifting a load.

Notes for Facilitation

• Tell the participants that while standing you should:
  o Stand with your feet apart and balance equally on both.
  o Pull the shoulders back.
  o Keep your knees straight.
  o Tuck your stomach in.
  o Lift your chin.
• Explain that while sitting you should:
  o Sit with your back straight.
  o Place your buttocks at the back of the seat
  o Place your feet flat on the floor with your knees bent at a 90-degree angle.
  o Pull the shoulders back.
  o Lift your chin.
• Explain that while lifting a load you should:
- Place the load in front of you.
- Bend the knees to a squat position.
- Bring the load towards your chest.
- Tighten the lumbar muscles to "lock" the back.
- Lift from the legs to a standing position.

Do not:
- Overreach or stand on tiptoes.
- Lift from a twisted or a sideways position.
- Lift from a forward stooped or an imbalanced position.

- Explain that incorrect standing or sitting in an incorrect posture for long periods results in:
  - Back pain
  - Neck pain
  - Degeneration of spine
  - Wear and tear of muscles

Introduce the topic of manual handling of heavy and hazardous materials.

- Explain that the risks associated with handling of heavy and hazardous materials can be reduced by:
  - Identifying the hazard
  - Assessing the risk
  - Selecting appropriate measures to control or reduce the risk

- Explain that some injuries caused due to improper handling of heavy loads and hazardous materials are:
  - Back ache, neck strain, wrist sprain, back sprain, shoulder pain and so on.
  - Skin dermatitis, respiratory problems, lung diseases and so on.

- Explain that to prevent these injuries, they should:
  - Use proper lifting aids such as jacks and trolleys.
  - Use appropriate personal safety equipment such as safety boots, gloves, helmets and goggles.
  - Work with a team when handling heavy loads.

- Explain that health refers to the general well-being of an individual.

- Explain the importance of maintaining good health. Tell them that good health leads to:
  - A safe and healthy work environment
  - Increase in self-esteem and job satisfaction
  - Improved ability to handle stress

- Explain the importance of participating in health sessions such as yoga, physiotherapy and games conducted by the company.
7. Employability & Entrepreneurship Skills

Unit 7.1 – Personal Strengths & Value Systems
Unit 7.2 – Digital Literacy: A Recap
Unit 7.3 – Money Matters
Unit 7.4 – Preparing for Employment & Self-Employment
Unit 7.5 – Understanding Entrepreneurship
Unit 7.6 – Preparing to be an Entrepreneur
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 favourite 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 can we 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 equipments
- 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 equipments at work place.
- Use this format for the first part of the activity.

<table>
<thead>
<tr>
<th>PART 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard</td>
</tr>
<tr>
<td>--------</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are the three sentences that describe you the best?</td>
</tr>
<tr>
<td>What do you need to live happily?</td>
</tr>
<tr>
<td>What are your strengths and weaknesses?</td>
</tr>
</tbody>
</table>

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 a 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:
  o What went wrong?
  o Who was at fault?
  o Whom did it impact - the customer or the businessman?
  o How would it impact the business immediately? What would be the long term impact?
  o What could be done?
  o 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 Shailander. But she did not receive the dress for a month. When she asked for a cancellation, Shailander 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.

Solar seeder
This is a story of an 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.

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.

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:  
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.

<table>
<thead>
<tr>
<th>To – Do List Format</th>
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</tbody>
</table>
NOT URGENT/IMPORTANT

- Planning
- Working towards goals
- Building relationship
- Personal commitments

URGENT/IMPORTANT

- Meetings
- Last minute demands
- Project deadlines
- Crisis

URGENT/NOT IMPORTANT

- Interruptions
- Phone calls/ E-mails
- Other people's minor demands

NOT URGENT/NOT IMPORTANT

- Internet surfing
- Social media
- Watching TV

URGENT-IMPORTANT GRID
URGENT/ IMPORTANT GRID format

URGENT/ IMPORTANT

URGENT/ NOT IMPORTANT

NOT URGENT/ IMPORTANT

NOT URGENT/ NOT IMPORTANT

1

2

3

4
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
  o Try to keep as few tasks as possible here, with the aim to eliminate.
  o 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
  o Plan these tasks carefully and efficiently as they are most crucial ones for success.
  o If necessary, also plan where you will do these tasks, so that you’re free from interruptions.
  o Include strategic thinking, deciding on goals or general direction and planning in your planning process.

• Category 3: Urgent/Not Important
  o Ask yourself whether you can reschedule or delegate them.
  o 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
  o You also want to minimize the tasks that you have in this category.
  o These activities are just a distraction – avoid them if possible.
  o You can simply ignore or cancel many of them.
  o Politely say "no" to work assigned by others, if you can, and explain why you cannot do it.
  o 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!" "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**

<table>
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<tr>
<th>List of triggers that make you angry:</th>
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<td>Someone says you did something wrong.</td>
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<tr>
<td>You want something you can’t have now.</td>
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<tr>
<td>You get caught doing something you shouldn’t have been doing.</td>
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<tr>
<td>You are accused of doing something you didn’t do.</td>
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<tr>
<td>You are told that you can’t do something.</td>
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</tbody>
</table>
### Assembly Operator – RAC

#### 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:**

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**Write the techniques that you use to manage your anger:**

**Anger Management Techniques**

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### 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 have they 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:
  o What was/were the cause(s) of stress?
  o Was the stress avoidable or manageable under the given circumstances?
  o If yes, how do you think that the stress could be avoided (managed)?
  o 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 any questions related to what they have talked about so far.
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:
  o Developing the website
  o Hosting the website
  o 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, Freecharge, 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 month. 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 at least 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?
• 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.
  o A person wanting to open an account in the bank.
  o What is the procedure that he will go through?
  o Discuss the key points of different types of bank accounts.
  o How to select the type of account
  o 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]

**SAVING BANK ACCOUNT OPENING FORM**

<table>
<thead>
<tr>
<th>Account No.:</th>
<th>Date:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Name of the Branch</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Village / Town</td>
<td></td>
</tr>
<tr>
<td>Sub District / Block</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td></td>
</tr>
<tr>
<td>SSA Code / Ward No.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Village Code / Town</th>
<th>Name of Village / Town</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Applicant Details:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Full Name</th>
<th>Mr./Mrs.</th>
<th>First</th>
<th>Middle</th>
<th>Last Name</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Name of Spouse / Father</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Address</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pin Code</td>
<td></td>
</tr>
<tr>
<td>Tel No. Mobile</td>
<td>Date of Birth</td>
</tr>
<tr>
<td>Aadhaar No.</td>
<td>Pan No.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MNREGA Job Card No.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupation / Profession</td>
<td></td>
</tr>
<tr>
<td>Annual Income</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. of Dependents</th>
</tr>
</thead>
</table>

XXX Bank
<table>
<thead>
<tr>
<th>Detail of Assets</th>
<th>Owning House : Y/N</th>
<th>Owning Farm : Y/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Animals</td>
<td>Any other</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Existing Bank A/c. of family members / household</th>
<th>Y / N</th>
<th>If yes, No. of A/c(s. ________</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Kisan Credit Card</th>
<th>Whether Eligible</th>
<th>Y / N</th>
</tr>
</thead>
</table>

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

<table>
<thead>
<tr>
<th>Nomination:</th>
</tr>
</thead>
<tbody>
<tr>
<td>I want to nominate as under</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name of Nominee</th>
<th>Relationship</th>
<th>Age</th>
<th>Date of Birth in case of minor</th>
<th>Person authorised in case to receive the amount of deposit on behalf of the nominee in the event of my /minor(s) death.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Place:
Date:
Signature / LTI of Applicant

Witness(es)*
1. ______________________
2. ______________________

*Witness is requires only for thumb impression and not for signature
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.

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 questions.

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.
o Choose a secure username and password.
o Set-up your contact information.
o Once your information is verified, you are good to go.
o 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.
Facilitator Guide

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:
  o Any work experience that you might have
  o A brief summary of your educational qualifications
  o Your strengths and achievements
  o Any special projects that you might have been part of
• The following topics should be avoided during an introduction:
  o Detailed description of your family (unless you are specifically asked to do so)
  o Too much information about your weaknesses
  o 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?
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 nxxxxxxxxxxla@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 workforce. 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: nxxxxxxxxxla@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:
  o What is your name?
  o Tell me something about yourself?
  o 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?
**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?

**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**

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

**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 into 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.

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 breakdowns.
• 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.
  o Teamwork helps in reducing stress for the employees.
  o 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

<table>
<thead>
<tr>
<th>Step 1: Form a circle.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 2: Start a whisper chain. Any one participant will whisper a message into his/her neighbour’s ear. No one else must hear the message. The message can be serious or downright</td>
</tr>
<tr>
<td>Step 3: The next person who first heard the message should whisper the message very quickly to the person sitting next to them.</td>
</tr>
<tr>
<td>Step 4: The game goes on until the last person says whatever they heard out loud and the first person reveals the real message.</td>
</tr>
<tr>
<td>Compare them and have a great laugh!</td>
</tr>
</tbody>
</table>

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?
  o “You’re not listening to me!”
  o “Why don’t you let me finish what I’m saying?”
  o “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:

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is there any law against a man marrying his widow’s sister?</td>
<td>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.</td>
</tr>
<tr>
<td>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?</td>
<td>You’d get one hour’s sleep since alarm clocks do not know the difference between morning and night.</td>
</tr>
<tr>
<td>Do they have a 26th of January in England?</td>
<td>Oh, yes. They have a 26th of January in England. They also have a 27th, a 28th, and so on.</td>
</tr>
<tr>
<td>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?</td>
<td>First of all, you would light the match.</td>
</tr>
<tr>
<td>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?</td>
<td>Who said the Delhi Daredevils and the Chennai Super Kings were playing against each other in those games?</td>
</tr>
<tr>
<td>There was an airplane crash. Every single person died, but two people survived. How is this possible?</td>
<td>Every SINGLE person died, but those two were married.</td>
</tr>
<tr>
<td>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?</td>
<td>You can’t bury survivors under any law especially if they still have enough strength to object.</td>
</tr>
<tr>
<td>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?</td>
<td>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.</td>
</tr>
</tbody>
</table>

Answers:

Ask

De-brief question:

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

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 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?

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 inveigling 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.
Facilitator Guide

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 at least 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 into 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 it’s 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**

<table>
<thead>
<tr>
<th>Strength</th>
<th>Weakness</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are your strengths?</td>
<td>What are your weaknesses?</td>
</tr>
<tr>
<td>What unique capabilities do you possess?</td>
<td>What do your competitors do better than you?</td>
</tr>
<tr>
<td>What do you do better than others?</td>
<td></td>
</tr>
<tr>
<td>What do others perceive as your strengths?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunity</th>
<th>Threat</th>
</tr>
</thead>
<tbody>
<tr>
<td>What trends may positively impact you?</td>
<td>Do you have solid financial support?</td>
</tr>
<tr>
<td>What opportunities are available to you?</td>
<td>What trends may negatively impact you?</td>
</tr>
</tbody>
</table>

**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.

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 an 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 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 or 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 your 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. 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:
  o Treating your customers with respect.
  o Be available as per their need/schedule.
  o Handling complaints effectively.
  o Building long lasting relationships.
  o 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.
Facilitator Guide

- 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.
Facilitator Guide

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.

<table>
<thead>
<tr>
<th>MY BUSINESS PLAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Summary: What is your Mission Statement?</td>
</tr>
<tr>
<td>Business Description: What is the nature of your business?</td>
</tr>
<tr>
<td>Market Analysis: What is your target market?</td>
</tr>
<tr>
<td>Organization and Management: What is your company's organizational structure?</td>
</tr>
<tr>
<td>Service or Product Line: What is the lifecycle of your product/service?</td>
</tr>
<tr>
<td>Marketing and Sales: How will you advertise and sell your products?</td>
</tr>
<tr>
<td>Funding Request: How much fund is required and from where?</td>
</tr>
</tbody>
</table>
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.

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 know 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.

<table>
<thead>
<tr>
<th>CHECKLIST OF DOCUMENTS TO BE SUBMITTED ALONG WITH LOAN APPLICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Common for all banks)</td>
</tr>
<tr>
<td>1. Audited financial statements of the business concern for the last three years</td>
</tr>
<tr>
<td>2. Provisional financial statements for the half – year ended on ____________</td>
</tr>
<tr>
<td>3. Audited financial statements of associate concern/s for the last three years</td>
</tr>
<tr>
<td>4. Copy of QIS II for the previous quarter ended on ________</td>
</tr>
<tr>
<td>5. Operational details in Annexure I</td>
</tr>
<tr>
<td>6. CMA data for the last three years, estimates for current year and projection for the next year</td>
</tr>
<tr>
<td>7. Term loan/DPG requirements in Annexure II</td>
</tr>
<tr>
<td>8. List of machinery in respect of machinery offered as security in Annexure III</td>
</tr>
<tr>
<td>9. Additional details for export advances furnished in Annexure IV</td>
</tr>
<tr>
<td>10. Property statements of all directors/partners/proprietor/guarantors</td>
</tr>
<tr>
<td>11. Copies of ITAQ of the company for the last three years</td>
</tr>
<tr>
<td>12. Copies of ITAOs/WTAOs of the directors/partners/proprietor and guarantors</td>
</tr>
<tr>
<td>13. Copies of certificate from banks and financial institutions certifying the latest liability with</td>
</tr>
<tr>
<td>14. Copy of board resolution authorizing the company to apply to your bank for the credit facilities mentioned in application</td>
</tr>
<tr>
<td>15. Copy of memorandum and article of association (in case of limited company)/partnership deed (in case of partnership firm)</td>
</tr>
<tr>
<td>16. Cash budget for the current year and next year in case of contractors and seasonal industries.</td>
</tr>
</tbody>
</table>
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.
8. Annexures

Unit 8.1 – Personal Strengths & Value Systems

Unit 8.2 – Digital Literacy: A Recap
Annexure 1

Training Delivery Plan

<table>
<thead>
<tr>
<th>Training Delivery Plan</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Name:</td>
<td>Assembly Operator-RAC</td>
</tr>
<tr>
<td>Qualification Pack Name &amp; Ref. ID</td>
<td>Assembly Operator-RAC, ELE/Q3501</td>
</tr>
<tr>
<td>Version No.</td>
<td>V1.0</td>
</tr>
<tr>
<td>Pre-requisites to Training</td>
<td>10th Standard passed</td>
</tr>
<tr>
<td>Training Outcomes</td>
<td>By the end of this program, the participants will be able to:</td>
</tr>
<tr>
<td></td>
<td>• Understand requirement from the supervisor</td>
</tr>
<tr>
<td></td>
<td>• Assemble the refrigerator</td>
</tr>
<tr>
<td></td>
<td>• Report problems to supervisor</td>
</tr>
<tr>
<td></td>
<td>• Achieve productivity, quality and safety standards as per company’s norms</td>
</tr>
<tr>
<td>Sl. No</td>
<td>Module Name</td>
</tr>
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<td>--------</td>
<td>-------------</td>
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</tbody>
</table>
| 1      | Types of refrigerators & main functional parts | Functions of refrigerator parts | • Types of refrigerators  
• Familiarity with main refrigeration parts & components of direct cool & frost free refrigerators.  
• Explain the function of main functional parts & components of direct & frost free refrigerators.  
• Dismantling & re-assembling of all Parts & components.  
• Brazing process. | ELE/N3506 | Facilitator-led – Discussion Demonstration Power-point presentation on Audio-visuals-images | • Refrigerators Direct cool & Frost Free.  
• All functional parts like Compressor, Condenser, capillary and Evaporator/ Cooling coil.  
• Relay, OLP, Defrost Timer, Bi-metal Thermostat, Thermal fuse, Fan motor etc. | 7 hrs |
| 2      | Assemble Refrigerator (Direct Cool) | Steps of assembling refrigerator (Direct cool) | • Fixing of base plate on cabinet.  
• Placing compressor & circlips.  
• Fixing main cord.  
• Fitting Relay & connecting terminals & relay cover.  
• Fixing Freezer/ Evaporator.  
• Fixing Condenser.  
• Fixing Drier.  
• Brazing joints.  
• Fixing Coupler on process lines.  
• Leak testing of all the joints by using N2.  
• Release N2 pressure.  
• Connecting to vacuum pump for evacuation.  
• Fixing light bulb/ door switch. | ELE/N3506 | Facilitator-led – Discussion Demonstration Power-point presentation | • All components & parts of Direct Cool refrigerator.  
• Screw Drivers  
• Spanners  
• Tube Cutter  
• Drill Machine  
• Multi-meter  
• Pliers  
• Use of pneumatic tools  
• Brazing set | 7 hrs |
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Assemble Refrigerator (Frost Free)</td>
<td>Steps of assembling refrigerator (Frost Free)</td>
<td>ELE/N3506 Facilitator-led Discussion Demonstration</td>
</tr>
<tr>
<td>3</td>
<td></td>
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<td>6 hrs</td>
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<tr>
<td></td>
<td>Fixing of base plate on cabinet.</td>
<td>All components &amp; parts of Direct Cool refrigerator.</td>
</tr>
<tr>
<td></td>
<td>Placing compressor &amp; circlips.</td>
<td>Screw Drivers</td>
</tr>
<tr>
<td></td>
<td>Fixing of Drain box/evaporation pan.</td>
<td>Spanners</td>
</tr>
<tr>
<td></td>
<td>Fixing main cord.</td>
<td>Tube Cutter</td>
</tr>
<tr>
<td></td>
<td>Fitting Relay &amp; connecting terminals &amp; relay cover.</td>
<td>Drill Machine</td>
</tr>
<tr>
<td></td>
<td>Fixing Defrost Timer connecting terminals</td>
<td>Multi-meter</td>
</tr>
<tr>
<td></td>
<td>Fixing Cooling coil.</td>
<td>Pliers</td>
</tr>
<tr>
<td></td>
<td>Fixing Bimetal Thermostat/Thermal Fuse &amp; connections.</td>
<td>Use of pneumatic tools</td>
</tr>
<tr>
<td></td>
<td>Fitting Fan Motor &amp; Fan blades.</td>
<td>Brazing set</td>
</tr>
<tr>
<td></td>
<td>Fixing cover &amp; Air damper.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fixing Condenser. (in case of External Condenser)</td>
<td></td>
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<tr>
<td></td>
<td>Fixing Drier.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Brazing joints.</td>
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<tr>
<td></td>
<td>Fixing Coupler on process lines.</td>
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</tr>
<tr>
<td><strong>4</strong> Types of Air-conditioners &amp; main functional parts</td>
<td><strong>Introduction to Air conditioner s</strong></td>
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<td></td>
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</tr>
<tr>
<td>4</td>
<td>Types of Air-conditioners</td>
<td>ELE/N3507 Facilitator-led – Discussion Demonstrati on Power-point presentati on Audio-Visuals-Images</td>
</tr>
<tr>
<td>4</td>
<td>Familiarity with main refrigeration parts &amp; components of Window &amp; Split Air-conditioners.</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Explain the function of main functional parts &amp; components of Window &amp; Split Air-conditioners.</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Dismantling &amp; re-assembling of all Parts &amp; components.</td>
<td></td>
</tr>
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<td></td>
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</tr>
<tr>
<td><strong>5</strong> Assemble air conditioner (window type)</td>
<td>Steps of assembling AC (window type)</td>
<td></td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td>5</td>
<td>Placing front thermocol tray into the base panel.</td>
<td>ELE/N3117 Facilitator-led – Discussion Demonstration</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>All components &amp; parts of window air conditioner</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6 hrs</td>
</tr>
</tbody>
</table>
- Place & fix ventuaty/ to the base panel.
- Place & fix Fan motor.
- Fix blower.
- Fix condenser fan blades.
- Place & fix condenser
- Place & fix Cooling coil.
- Placing compressor on base plate & fixing washers & nuts.
- Connect copper tubing compressor to condenser
- Fixing of Drier, Capillary & join the same with cooling coil.
- Fix process tube at both high & low side.
- Brazing of all copper tube joints.
- Fixing of quick couplers at both process tubes.
- Leak testing of all the joints by using N2.
- Release N2 pressure.
- Connecting to vacuum pump for evacuation.
- Fixing wiring to compressor, placing terminal cover.
- Fixing of control box & connecting main PCB to compressor, Fan motor, Swing motor & Display PCB.
- Fixing Main cord & connect to main PCB.

- Screw Drivers
- Spanners
- Tube Cutter
- Drill Machine
- Multi-meter
- Pliers
- Use of pneumatic tool
- Brazing set
<table>
<thead>
<tr>
<th></th>
<th>Assemble air conditioner (split-out door unit)</th>
<th>Steps of assembling AC (split out door unit)</th>
<th>ELE/N3507</th>
<th>Demonstration</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Fixing Coil sensor &amp; Air sensor.</td>
<td>Placing base panel.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gas/refrigerant Charging.</td>
<td>Place &amp; fix Condenser</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Performance Check.</td>
<td>Placing compressor on base plate &amp; fixing washers &amp; nuts.</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Packing the unit.</td>
<td>Connect copper tubing compressor to condense.</td>
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<tr>
<td></td>
<td></td>
<td>Fixing the side panel for mounting Service valves.</td>
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<tr>
<td></td>
<td></td>
<td>Place &amp; fix Suction &amp; Discharge service valves.</td>
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<tr>
<td></td>
<td></td>
<td>Fixing of Drier, Capillary &amp; join the same with service valves.</td>
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<tr>
<td></td>
<td></td>
<td>Brazing of all copper tube joints.</td>
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<tr>
<td></td>
<td></td>
<td>Place &amp; fix Fan motor mounting.</td>
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<tr>
<td></td>
<td></td>
<td>Place &amp; fix Fan motor.</td>
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<td></td>
<td></td>
<td>Fix condenser fan blades.</td>
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<td></td>
<td></td>
<td>Leak testing of all the joints by using N2.</td>
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<td></td>
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<td>Release N2 pressure.</td>
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<td>Connecting to vacuum pump for evacuation.</td>
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<td></td>
<td></td>
<td>Fixing wiring of compressor, Fan motor by terminal connector</td>
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<tr>
<td></td>
<td></td>
<td>Fixing of front panel.</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Fixing of grill</td>
<td></td>
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</tr>
</tbody>
</table>

- All components & parts of split air conditioner out door unit refrigerator.
- Screw Drivers
- Spanners
- Tube Cutter
- Drill Machine
- Multi-meter
- Pliers
- Use of pneumatic tools
- Brazing set

6 hrs
<p>| | | | | | | | |</p>
<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>7</td>
<td>Assemble air conditioner (split-in door unit)</td>
<td>Steps of assembling AC (split in door unit)</td>
<td>ELE/N3507</td>
<td>Demonstration</td>
<td>6 hrs</td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>• Main body back frame.</td>
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<tr>
<td></td>
<td></td>
<td>• Place &amp; fix Cooling coil (N2 filled &amp; leak tested).</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• Adjust copper Tubes &amp; fixing of clamp.</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• Fixing of Mounting plate at back of unit.</td>
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<tr>
<td></td>
<td></td>
<td>• Fixing of blower motor.</td>
<td></td>
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<td></td>
<td></td>
<td>• Fixing of Swing motor</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• Fixing the Main PCB &amp; connect Blower &amp; Swing motor,</td>
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<tr>
<td></td>
<td></td>
<td>• Fixing the coil &amp; room sensor.</td>
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<tr>
<td></td>
<td></td>
<td>Place &amp; fix drain tray</td>
<td></td>
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<td></td>
<td></td>
<td>Connect drain tube.</td>
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<tr>
<td></td>
<td></td>
<td>Fitting the Blower.</td>
<td></td>
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<td></td>
<td></td>
<td>Fixing Vertical louvers.</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Connect main cord.</td>
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<td></td>
<td></td>
<td>Insert Air filter.</td>
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<td></td>
<td>Place &amp; fix horizontal Louvers.</td>
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<td>Place &amp; fix front panel &amp; stickers as required.</td>
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<td>Place Accessories etc,</td>
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<td></td>
<td>Packing the Indoor unit.</td>
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<tr>
<td>8</td>
<td>Coordinate with colleagues</td>
<td>Interacting with supervisor</td>
<td>ELE/N9902</td>
<td>Facilitator-led – Discussion</td>
<td>5 hrs</td>
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<tr>
<td></td>
<td></td>
<td>• Communicate with colleagues and seniors in order to</td>
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</tbody>
</table>
| 1.   | Interact with superior.  
| 2.   | Coordinate with colleagues.  
| 3.   | Understand work requirements.  
|      | Communicate to colleagues errors identified in any step of the assembly process.  
| 5.   | Assist colleagues in any problems identified in their work process.  
| 6.   | Resolve conflicts and achieve smooth workflow.  
| 7.   | Following safety measures and standards.  
| 8.   | Safety procedures to make work environment safe.  
| 9.   | Follow standard safety procedures while handling an equipment, hazardous material or tool.  
|      | Use of safety materials such as goggles, gloves, ear plugs, caps, ESD pins, covers, shoes, etc.  

**Demonstration**

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
</table>
| 1.   | Power-point presentation.  
| 2.   | Audio-Visuals-Iimages.  
| 3.   | Fire Extinguishers.  
| 4.   | First Aid Box.  
| 5.   | WHITE/Black Board.  
| 6.   | Marker.  
| 7.   | Duster.  

**Maintain safe environment**

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
</table>
| 1.   | Furniture (working tables, stools etc.)  
| 2.   | Fire Extinguishers.  
| 3.   | First Aid Box.  
| 4.   | WHITE/Black Board.  
| 5.   | Marker.  
| 6.   | Duster.  
| 8.   | Projector.  

**ELE/N9903**

**6hrs**
• Maintaining good health and posture
• Maintain appropriate posture, especially in long hours of sitting or standing position and in handling heavy materials.
• Handle heavy and hazardous materials with care and using appropriate tools and handling equipment such as trolleys, jacks and ladders.

Unique Equipment Required:
• Aircon Window and Split (1.5 Ton used preferred)
• Appliances Refrigerator (One Direct Cool & other Frost Free type)
• Work Table (5x3x2.5)
• Bins for Tools
• First Aid Box with all material
• Service Manual/ User Manuals (each)
• Personal Protection Equipment
• Brazing Kit (1 Swirl Type)
• Gas Charging Stations with Hoses
• Recovery & Recycling Unit
• Male - Female Couplers
• Refrigerants M12
- Empty Cylinder
- Refrigerants M-22
- Compressor Old
- Compressor/All Models
- Compressor Oil (Sample)
- Filter (Sample)
- Drier (Sample)
- Capillary 400
- Capillary 500
- Capillary 600
- Brazing Rod+Flux Sets
- Screw Bits/Nut Driver(41 piece set)Set
- Testing Board (Ref/AC) Set
- Tube Bender (Mechanical/Tube) Set
- Swaging Punch Set
- Copper Tube 1/2,3/16,1/4,3/8,5/8 (Roll Set Each)
- Teflon Sheet (White/Black) Mtr(Tape)
- T-Allen Key (Each Type)
- L-Allen Key (Each Type)
- "Nose/Combination Pliers"
- (Insulated 150 mm), Tong Pliers (Each)"
- Tube Cutter
- Wire Brush
- Paint Brush (50 mm)
- Hammer
- Monkey/Adjustable Plier
- Fixed Spanner (10-11, 14-15, 16-17 Each)
- Neon Phase Tester
<table>
<thead>
<tr>
<th>Facilitator Guide</th>
</tr>
</thead>
</table>

- Round File (Smooth 150 mm)
- Flat File (Smooth 200 mm)
- Hacksaw with Blade (150-200 mm)
- Long Screw Driver (250 mm)
- "Tommy (mini 0 screw driver-flat head (550 mm tip))"
- "Fire Extinguisher (ABC Powder type 2 Kg)"
- Fuse
- Compressor Relay
- Freezer Thermostat
- Defrost Timer
- DB Meter
- Megger
- Watt Meter
- Digital Clamp Meter
- Digital Thermometer
- Measuring Tape (5 Metres)
- Pressure Gauge
- Compound Gauge
- Capillary Gauge

- (insulated 150 mm)

- Long Screw Driver (250 mm)
- "Tommy (mini 0 screw driver-flat head (550 mm tip))"
- "Fire Extinguisher (ABC Powder type 2 Kg)"
- Fuse
- Compressor Relay
- Freezer Thermostat
- Defrost Timer
- DB Meter
- Megger
- Watt Meter
- Digital Clamp Meter
- Digital Thermometer
- Measuring Tape (5 Metres)
- Pressure Gauge
- Compound Gauge
- Capillary Gauge
# Assessment Criteria

### CRITERIA FOR ASSESSMENT OF TRAINEES

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Guidelines for Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>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.</td>
</tr>
<tr>
<td>2</td>
<td>Each NOS will have assessed both for theoretical knowledge and practical</td>
</tr>
<tr>
<td>3</td>
<td>The assessment will be based on knowledge bank of questions created by the SSC.</td>
</tr>
<tr>
<td>4</td>
<td>Individual assessment agencies will create unique question papers for theory and skill practical part for each candidate at each examination/training center</td>
</tr>
<tr>
<td>5</td>
<td>To pass the Qualification Pack, every trainee should score a minimum of 70% in every NOS</td>
</tr>
<tr>
<td>6</td>
<td>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.</td>
</tr>
</tbody>
</table>

### Assessment Strategy

<table>
<thead>
<tr>
<th>NOS</th>
<th>Performance criteria</th>
<th>Marks Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ELE/N3506 Assemble refrigerator</td>
<td>Performance criteria</td>
<td>Total</td>
</tr>
<tr>
<td>PC1. interact with the supervisor to identify production schedule</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>PC2. plan the day’s production activities based on the supervisor’s instructions</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>PC3. use appropriate drawings, job instructions or work manuals</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>PC4. check availability of materials required for assembly</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>PCS. receive the formed and foamed cabinet</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>PC6. place the evaporator inside the freezer section of the cabinet and connect</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>PC7. cover the evaporator with the enclosure</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>PC8. place the electrical control panel in the designated location within the cabinet and connect it to the micro-processor</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Task</td>
<td>Description</td>
<td>PC</td>
</tr>
<tr>
<td>------</td>
<td>-----------------------------------------------------------------------------</td>
<td>----</td>
</tr>
<tr>
<td>PC9</td>
<td>place the fridge side evaporator in the fridge section of the cabinet and connect</td>
<td>4</td>
</tr>
<tr>
<td>PC10</td>
<td>attach the door of the refrigerator to the cabinet</td>
<td>4</td>
</tr>
<tr>
<td>PC11</td>
<td>connect the compressors and the radiator to the assembly</td>
<td>5</td>
</tr>
<tr>
<td>PC12</td>
<td>attach the expansion valves</td>
<td>4</td>
</tr>
<tr>
<td>PC13</td>
<td>solder copper tubes to the compressor to be filled in with the refrigerant later</td>
<td>5</td>
</tr>
<tr>
<td>PC14</td>
<td>inject refrigerant gas into the tubes through a charging gun</td>
<td>6</td>
</tr>
<tr>
<td>PC15</td>
<td>weld the ends of the tube shut</td>
<td>6</td>
</tr>
<tr>
<td>PC16</td>
<td>attach handles to the refrigerator door and place the necessary trays, shelves in their respective positions inside the cabinet</td>
<td>4</td>
</tr>
<tr>
<td>PC17</td>
<td>use the drawings accurately to meet the specifications</td>
<td>6</td>
</tr>
<tr>
<td>PC18</td>
<td>ensure that approved components or modules are available in good condition</td>
<td>6</td>
</tr>
<tr>
<td>PC19</td>
<td>highlight any errors in previous step of the assembly process identified</td>
<td>4</td>
</tr>
<tr>
<td>PC20</td>
<td>report defective or inadequate number of components in time</td>
<td>4</td>
</tr>
<tr>
<td>PC21</td>
<td>report about inadequate quantity of consumables such as screws, nuts, etc.</td>
<td>4</td>
</tr>
<tr>
<td>PC22</td>
<td>achieve 100% work schedule as planned for the day</td>
<td>2</td>
</tr>
<tr>
<td>PC23</td>
<td>meet 100% daily or monthly target</td>
<td>2</td>
</tr>
<tr>
<td>PC24</td>
<td>achieve zero errors in assembling as per company policy</td>
<td>2</td>
</tr>
<tr>
<td>PC25</td>
<td>achieve zero component damage because of electrostatic discharge</td>
<td>2</td>
</tr>
<tr>
<td>PC26</td>
<td>check any repetitive defects during the assembly process</td>
<td>1</td>
</tr>
<tr>
<td>PC27</td>
<td>keep work area clean and organised</td>
<td>1</td>
</tr>
<tr>
<td>PC28</td>
<td>identify problems on the assembly line and alert in time</td>
<td>1</td>
</tr>
<tr>
<td>PC29</td>
<td>achieve 100% compliance with health and safety guidelines and rules</td>
<td>1</td>
</tr>
</tbody>
</table>

| Total | 100 | 40  | 60   |

**2. ELE/N3507 Assemble Air Conditioner**

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
<th>PC</th>
<th>Time to Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC1</td>
<td>interact with the supervisor in order to understand the production schedule</td>
<td>4</td>
<td>2 2</td>
</tr>
<tr>
<td>PC2</td>
<td>plan the day’s production activities based on instructions from supervisor</td>
<td>4</td>
<td>2 2</td>
</tr>
<tr>
<td>PC3</td>
<td>use appropriate drawings, job instructions or work manuals</td>
<td>4</td>
<td>2 2</td>
</tr>
<tr>
<td>PC4</td>
<td>check availability of materials required for assembly</td>
<td>4</td>
<td>2 2</td>
</tr>
<tr>
<td>PC1</td>
<td>understand work requirements, targets and incentives</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>PC2</td>
<td>receive work order/job instruction from the supervisor on time</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>PC3</td>
<td>understand new operating procedures</td>
<td>5</td>
<td>2</td>
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<td>PC4</td>
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<td>PC5</td>
<td>resolve personnel issues</td>
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<td>PC6</td>
<td>receive feedback on work standards and customer satisfaction</td>
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<td>PC7</td>
<td>communicate any potential hazards at a particular location</td>
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<td>PC8</td>
<td>meet given targets and deliver work of expected quality despite constraints</td>
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<tr>
<td>PC9</td>
<td>highlight any errors in previous step of the assembly process</td>
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<td>Task Description</td>
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<tr>
<td>Assembly process</td>
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<td>PC13. deposit faulty modules and tools to stores</td>
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<td>PC14. communicate to colleagues errors identified in any step of the assembly process</td>
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<td>PC15. assist colleagues in any problems identified in their work process</td>
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<tr>
<td>PC16. resolve conflicts and achieve smooth workflow</td>
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4. ELE/N9903 Maintain safe work environment

<table>
<thead>
<tr>
<th>Task Description</th>
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<tbody>
<tr>
<td>PC1. comply with general safety procedures followed in the company</td>
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<td>PC2. follow standard safety procedures while handling an equipment, hazardous material or tool</td>
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<td>PC4. escalate about any hazardous materials or things found in the premises</td>
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<td>PC5. report about any breach of safety procedure in the company</td>
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<td>PC7. avoid damage of components due to negligence in ESD procedures</td>
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<th>Task Description</th>
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<tbody>
<tr>
<td>PC1. achieve 100% work schedule as planned for the day</td>
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<tr>
<td>PC2. meet 100% daily or monthly target</td>
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<tr>
<td>PC3. achieve zero errors in assembling as per company policy</td>
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</table>

232
<p>| Achieving productivity, quality and safety standards |  PC4. achieve zero component damage because of electrostatic discharge | 2 | 0 | 2 |
| PC5. check any repetitive defects during the assembly process | 1 | 0 | 1 |
| PC6. keep work area clean and organized | 1 | 0 | 1 |
| PC7. identify problems on the assembly line and alert in time | 1 | 0 | 1 |
| PC8. achieve 100% compliance with health and safety guidelines and rules | 1 | 0 | 1 |
| Interacting with customer prior to visit | 100 | 40 | 60 |
| PC1. interact with the supervisor in order to understand the production schedule | 4 | 2 | 2 |
| PC2. plan the day’s production activities based on instructions from supervisor | 4 | 2 | 2 |
| PC3. use appropriate drawings, job instructions or work manuals | 4 | 2 | 2 |
| PC4. check availability of materials required for assembly | 4 | 2 | 2 |
| Wiring the control panel | 8 | 2 | 6 |
| PC5. attach the blower at the designated position on the base frame of the air conditioner and connect | 8 | 2 | 6 |
| PC6. place the condenser coil unit on the frame | 9 | 3 | 6 |
| PC7. place the evaporator coil on the already assembled sub system | 8 | 3 | 5 |
| PC8. connect the electronic assembly (PCB) to the sub system assembled | 8 | 3 | 5 |
| PC9. place the control panel at appropriate position and make necessary connections | 8 | 3 | 5 |
| PC10. place the supply unit assembly and the front panel of the system in place | 8 | 3 | 5 |
| PC11. meets the required specifications of the completed assembly | 8 | 3 | 5 |
| Reporting to superior | 5 | 2 | 3 |
| PC12. highlight any errors in previous step of the assembly process identified | 5 | 2 | 3 |
| PC13. report defective or inadequate number of components and consumables such as screws and nuts | 5 | 2 | 3 |
| Achieving productivity, quality and safety standards | 2 | 1 | 1 |
| PC14. accurately interpret drawings, wiring and job specifications/instructions | 2 | 1 | 1 |
| PC15. achieve 100% work as per the scheduled work plan | 2 | 1 | 1 |
| PC16. meet 100% target for number of products to be manufactured per day | 2 | 1 | 1 |
| PC17. achieve zero error as per the company’s standards | 3 | 1 | 2 |
| PC18. achieve zero defect to components because of electrostatic discharge | 2 | 1 | 1 |
| PC19. keep work area clean and organized | 2 | 1 | 1 |
| PC20. identify problems on the assembly line and alert in time | 2 | 1 | 1 |</p>
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<thead>
<tr>
<th>Interacting with superior</th>
<th>PC21. check any repetitive defects during the assembly process</th>
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<tr>
<td></td>
<td>PC1. understand work requirements, targets and incentives</td>
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<td>PC2. receive work order/job instruction from the supervisor on time</td>
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<td>PC3. understand new operating procedures</td>
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<td>Maintaining Good Health And Posture</td>
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<td>Percentage Weightage:</td>
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<td>Minimum Pass% to qualify (aggregate):</td>
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- **Total**: 100%
- **Grand Total**: 400%
- **Percentage Weightage**: 50% each
- **Minimum Pass% to qualify (aggregate)**: 60%
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.