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GOVERNMENT OF INDIA  
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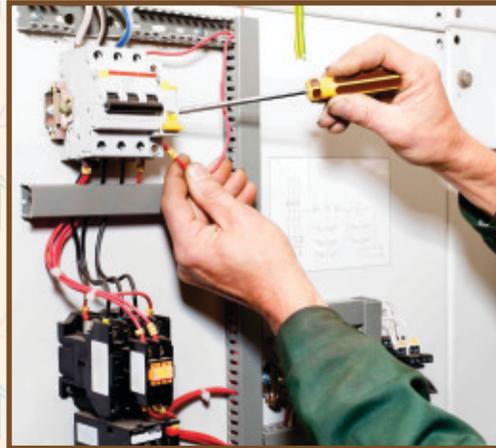


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# Facilitator Guide



Sector  
Construction

Sub-Sector  
Real Estate and Infrastructure  
Construction

Occupation  
Construction Electrical Works

Reference ID: CON/Q0602, Version 1.0  
NSQF Level 3

## Assistant Electrician

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**Shri Narendra Modi**  
Prime Minister of India

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



## Acknowledgements

This Facilitator Guide for Assistant Electrician is the outcome of team work by Standards & Research of Construction Skill Development Council, and Experts from Construction Industry. We are thankful to NSDC for entrusting us with this task of development of Assistant Electrician Guide.

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## About this Guide

Facilitator Guide is a book designed for the Trainers to enable training of participants for a particular job role and to enhance the quality of executing the training program.

This Facilitator guide is designed for enabling the training program for a job role of “Assistant Electrician” in Construction Sector.

This course is aligned to Qualification Pack Reference ID: CON/Q0602. This Qualification pack is developed by **Construction Skill Development Council of India (CSDCI)**. This course encompasses all 7 National Occupational Standards (NOS) of Assistant Electrician Qualification Pack issued by “SSC: Construction Skill Development Council of India.”

Each unit starts with learning objectives followed by relevant activities and corresponding training methodology. Trainer can write notes/tips after each unit, space is provided at the end of each unit

Upon successful completion of this course the participant will be able to:

- Select and use hand, power tools and electrical devices relevant to construction electrical works.
- Install temporary lighting arrangement at construction sites.
- Install LV electrical wiring at permanent structures.
- Assemble, install and maintain temporary LV electrical panels (distribution boards) at construction site.
- Work effectively in a team to deliver desired results at the workplace.
- Plan and organize work to meet expectations.

## Symbols Used



Steps



Time



Tips



Notes



Objectives



Do



Ask



Explain



Elaborate



Field Visit



Practical



Lab



Demonstrate



Exercise



Team Activity



Facilitation Notes



Learning Outcomes



Say



Resources



Activity



Summary



Role Play



Example

## Guidelines for the Trainer

As a Trainer, follow the below guidelines

- **Understand your Job thoroughly**

- Reach the venue 15 minutes before the training session.
- Please make sure you have all the required training tools and materials for conducting the training session (learning cards, sketch pens, raw materials etc.).
- Check the condition of your training equipment such as laptop, projector and camera, relevant tools (depending on the training site).
- Before starting any training program, trainer should concentrate on the below key pointers,
  - Use best practices and methods of training.
  - Create awareness on quality of work done.
  - Explain how to minimize waste.
  - Ensure that the participants practice safety measures and use proper PPE.
  - Make sure the participant adopt the basic ergonomic principles.
  - Create awareness on housekeeping at regular intervals.
  - Explain the influence of productivity as a whole.
  - Make the class as interactive as possible by adopting activity based or scenario based training methodology.

- **Understand your participants**

As a trainer you will be conducting the training program for a certain period of time. To improve the effectiveness of the program you should understand the mindset of the participants and create a good rapport with them. It is always important to maintain a good working relationship with the participants to achieve better results from the training program.

- **Adopt the basic etiquettes during training**

- Greet the participant and introduce yourself.
- Use soft pace of voice/tone while speaking with participant.
- Explain the need and use of the training program.
- Ask the participants to introduce themselves to the group and help them with difficulties in communication.
- Clarify their doubts patiently, do not get irritated if a participant is asking the same doubt repeatedly.
- Understand the level of participants and train them accordingly.
- Watch the participants at work, note some pointers of performance.
- Give some hints and easy thumb rules which can be easily understood and remembered.
- Always use the three golden words, "Please", "Thank You" and "Sorry".
- Be positive and professional while giving feedback of the participants, do not criticize or make fun of their performance.
- Identify the faulty practices of the participants and rectify them as soon as possible.
- Always be a good mentor and observer.
- Do not forget to introduce topic to be covered in the next class.
- Do not forget to recapitulate the topic covered in the last class.

**Note:**

There are so many challenges in training the participant such as to build the right skillset, right attitude, safer workplace and good behavior.

To develop the learner holistically, a blend of both technical as well as soft skills are must and this will help the learner on a longer run to develop themselves better in the construction industry.

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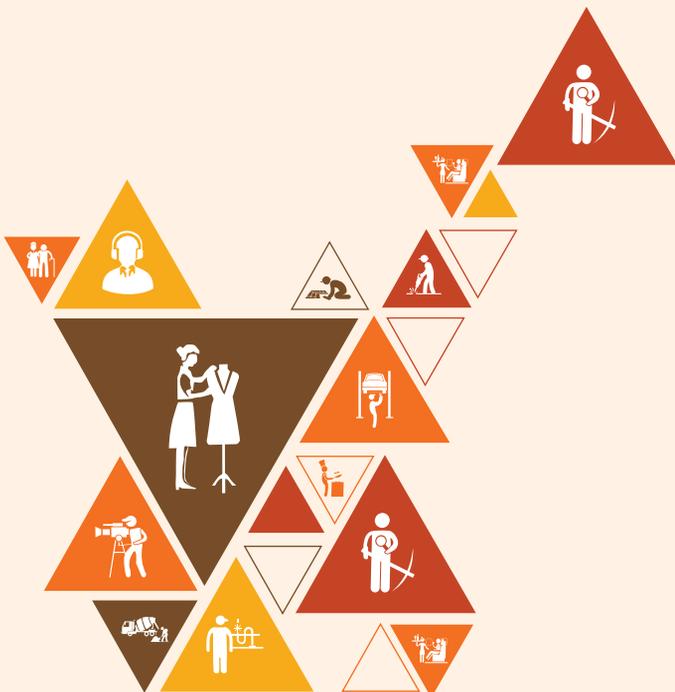
# 1. Introduction

Unit 1.1 - Introduction to the training program

Unit 1.2 - An overview to construction sector

Unit 1.3 - Description of roles of Assistant Electrician

Unit 1.4 - Basic concepts of electricity



## Key Learning Outcomes

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

1. Explain the purpose of training.
2. Describe about the construction sector in India.
3. Describe about National Occupational Standards, Qualification Pack, NSQF and levels
4. State the roles and responsibilities of an assistant electrician.
5. Describe the personal attributes of an assistant electrician in the construction sector.
6. Outline the career progression path of an Assistant Electrician.
7. Describe the principle of electrical current.
8. Explain what is resistance?
9. Describe the relation of temperature with resistance.
10. Describe the effect of temperature on various materials.
11. State the Ohm's law.
12. Explain series, parallel and combination of resistances.
13. Explain what is an electromagnetic field and its effects.
14. State the Ampere's law.
15. Describe the basic concept of AC and DC generation.
16. Explain the basic concept of LV of single phase connection and their uses as per electrical voltage load.
17. Describe the basic concept of LV (low voltage) of three phase connection and their uses as per electrical voltage load.

## UNIT 1.1: Introduction to Training Program

### Unit Objectives

At the end of this unit, trainer will ensure that the participant will be able to:

1. Explain the purpose of training.
2. Describe about National Occupation Standards and Qualification Pack in terms of job roles and responsibilities of the trade.

### Say

- Welcome and greet the participants.

#### Topic Introduction-

- Give the participants a brief overview of what will be covered in this unit
- Applications of Assistant Electrician in various project sites such as industrial/ commercial/ infrastructural projects
- Applications in Building works

### Resources to be Used

#### Theory

- Black/ white board, marker, notebook, pen, laptop along with projector, PPT, Assistant Electrician Participant handbook.

## Ice Breaker Activity

### Do

- Ask each individual to take a paper and pen.
- Tell them to write down their expectation from this programme
- Tell them to write down what do they aspire to become
- Write a brief about your background/ career/ education
- Write a brief about their career prospects in various projects in construction industry
- Encourage each participant to explain their activity sheet.
- Encourage the participant to ask questions and also encourage them to speak and share their details.

## Explain

- The purpose of the activity.
- What the programme is about and ensure every participant understands the same.

## Notes for Facilitation

- Resources such as paper, pen and Participant hand book of Assistant electrician.
- Use PPT.

## Purpose, Benefits of the Training Programme and Introduction to QP and NOS

### Do

- Show how a skill card looks
- Show how a certificate looks
- Describe the major features of a QP and NOS
- Show a sample of QP and NOS

## Explain

- Explain about skill card and certificate
- Explain QP and NOS
- Explain the QP and NOS for Assistant Electrician job role
- Explain NSQF and NSQF level.

## Notes for Facilitation

- Refer participant handbook page no. 3-4 for QP and NOS used for Assistant Electrician job role
- Use Note on NSQF and levels (attached under unit 1.3)
- Use PPTs

## UNIT 1.2: An Overview of Construction Sector, Subsectors and Occupations

### Unit Objectives

At the end of this unit, trainer will ensure that the participant will be able to:

1. Explain briefly about construction industry in India.
2. Explain construction sector and its sub sectors.
3. Understand common occupations and job roles under construction sector
4. Understand construction electrical works occupations, Assistant Electrician job role

### Introduction and Modernization of Construction Sector in India

#### Do

- Explain briefly about construction industry
- Show some examples of construction works and activities
- Give some construction works examples relevant to the sub sector
- Show various examples of different construction occupations
- Explain briefly about construction electrical works with Assistant Electrician job role

#### Elaborate

- Describe construction sector and its sub sector
- Explain what is occupation and what are the occupations that are common in construction sector

#### Notes for Facilitation

- Refer participant handbook Page No.5 - 7

## UNIT 1.3: Description of Roles for an Assistant Electrician

### Unit Objectives

At the end of this unit, trainer will ensure that the participant will be able to:

1. Understand roles and responsibilities of an Assistant Electrician
2. Describe the personal attributes of an Assistant Electrician in the construction sector
3. Explain the career progression path for an Assistant Electrician

### Introduction to Electrical Works in the Construction Sector

#### Do

- Explain the different electrical works happen at a construction site i.e. installing of lighting arrangement, provide electrical connection to machine and equipment's etc.
- Show some examples with illustrations of construction electrical works such as cable laying at construction site, conduit laying through concrete structure, installing of LV electrical panels, fixing of electrical fixtures and accessories, etc.
- List out the some electrical activities that happen often at construction site.

### Notes for Facilitation

- Refer participant handbook Page No.8, for more details for electrical works

### Roles, Responsibilities and Personal Attributes of an Assistant Electrician

#### Do

- Explain the necessity of defining roles, tasks/functions, and outcomes.
- List the roles and responsibilities of an Assistant Electrician in detail.
- List the personal attributes of an Assistant Electrician in detail.
- Explain the necessity of personal attributes.

### Notes for Facilitation

- Refer participant handbook Page No.8-9 for various personal attributes of Assistant Electrician.

## Description on Training Programme, Mode of Learning and Duration of the Training

Do 

- Explain the main topics of training programme.
- List down the modes of learning and practice.
- Explain the duration of theoretical and practical sessions.

## Notes for Facilitation

- Refer participant handbook Page No. 9 about course content for Assistant Electrician.
- Explain the mode, model of training, and learning strategies.

## Career Progression Path

Do 

- Show and explain the various stages of career progression path.
- List down the important mile stones in the progression path.
- Discuss the advantages of career progression path.

## Notes for Facilitation

- Refer participant handbook Page No.9 about career progression path for an Assistant Electrician and further.
- Describe about NSQF as given below

National skill qualification frame work – NSQF

Through the national policy on skill development 2009 India recognized the need for development of a national qualification framework. The national skill qualification framework NSQF came into being as per the Gazette Notification no 8/06/2013 dated 27th Dec 2013. NSQF is a quality assurance framework

It is an outcome based approach and each level in the NSQF is defined and described in terms of competency levels that would need to be achieved. The National Skill Qualification Framework is composed of 10 levels, each represents a different level of competency level 1 represent the lowest competency and level 10 highest competency. Competence means the proven ability to use acquire knowledge, skills and personal and social abilities in discharge of responsibility of a job role.

It is important to note that the NSQF levels are not directly related to years of study.

NSQF organizes qualifications according to a series of levels of knowledge, skills and aptitude. These levels are defined in terms of learning outcomes which the learner must possess regardless of whether they were acquired through formal, non-formal or informal learning.

Each level of NSQF described by a statement of learning outcomes in five domains known as level descriptors. These five domains are:

1. Process
2. Professional knowledge
3. Professional skill
4. Core skill
5. Responsibility.

The level mentioned below in the career progression chart corresponds to NSQF level 4. The scaffolder system is assigned level 4 based on the above five criteria.

## UNIT 1.4: Basic Concepts of Electricity

### Unit Objectives

At the end of this unit, trainer will ensure that the participant will be able to:

1. Describe the principle of electric current.
2. Explain what is resistance?
3. Describe the relation of temperature with resistance.
4. Describe the relation of temperature on various materials.
5. State Ohm's law.
6. Explain series, parallel and combination circuits.
7. State Ampere's law.
8. Explain what is an electric field and its effects.
9. Describe the basic concept of AC and DC current generation.
10. Explain the basic concept of LV of single phase connection and their uses as per electrical voltage load.
11. Describe the basic concept of LV (low voltage) of three phase connection and their uses as per electrical voltage load.

### Supply Voltage, Electric Current, Resistance and Effect of Temperature on Resistance

#### Do

- Define electric current in simple terms.
- Show and explain the relation of "I", "Q" and "t".
- Show and explain the flow of current with a simple circuit diagram.
- Define resistance in simple terms.
- Show the relation of R, I and V.
- Show the picture of resistance in a simple circuit.
- Explain the unit of measurement.
- Explain the device used for measurement.
- Define conductor, insulator and semi-conductor in simple terms
- Take a simple example to explain the above.
- List out the effects of temperature over resistance.
- Explain the properties of all the above.
- Conduct test on the above topics to understand the knowledge gained.

## Notes for Facilitation

- Refer participant handbook Page No.11-13.
- Use illustrations to show what is a conductor, insulator and semi-conductor are.
- USE PPT/e modules.

## Ohm's Law, Series, Parallel and Combination Circuits

### Do

- Explain Ohm's law with the relation and the circuit,  $V/I = R$ .
- Solve problems based on Ohm's law.
- Explain series connections with the help of a circuit.
- Explain parallel connections with the help of a circuit.
- Explain combined connections.
- Show how to calculate the equivalent resistance.
- Solve an example for determining the equivalent resistance with numeric values and units.

## Notes for Facilitation

- Refer participant handbook Page No.14-16.
- Conduct a classroom activity for series, parallel and combined connections by making some participants to enact as resistances connected in series, parallel and combination of the same.

## Ampere Law, Electromagnetic Field and its Effect

### Do

- Explain magnetic field.
- Explain electromagnetism.
- Explain magnetic effect of electric current.
- Explain current carrying conductors in magnetic field.
- Explain Ampere's law with the relation and the circuit,  $V/I = R$ .

## Notes for Facilitation

- Refer participant Page No.16 – 18.

## Basic Concept of AC and DC Current Generation

Do 

- Explain basic concept of AC and DC current generation.
- Explain phase sequence.
- Explain voltage time graph for DC supply.
- Explain how a battery works.

Notes for Facilitation 

- Refer participant handbook Page No.18-20.

## LV of Single and Three Phase Connections

Do 

- Explain LV single phase connections.
- Explain LV of three phase connections.
- Explain the differences between single and three phase connections.

Notes for Facilitation 

- Refer participant handbook Page No.20 – 22.





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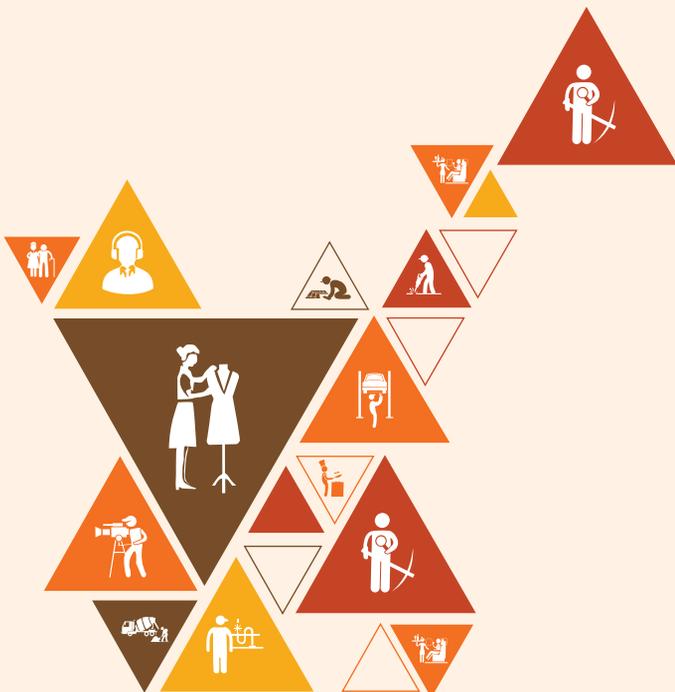
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## 2. Generic skills

Unit 2.1 – Work effectively in a team

Unit 2.2 – Plan and organize work to meet expected outcome



CON/N8001  
CON/N8002

## Key Learning Outcomes

At the end of this module, trainer will ensure that the participant will be able to:

1. Explain the process of communication.
2. Develop oral and written communication skills.
3. Effectively communicate with others.
4. Describe the reporting procedure to a concerned authority.
5. Plan activities and schedules.
6. Prioritize tasks to achieve desired results.
7. Organize man, material and resources effectively.

## UNIT 2.1: Work Effectively in a Team

### Unit Objectives

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

1. Explain the process of communication.
2. Develop oral and written communication skills.
3. Effectively communicate with others.
4. Describe the reporting procedure to a concerned authority.

### Communication

#### Say

- Welcome and greet the participants.

#### Topic Introduction-

- Give the participants a brief overview of what will be covered in this unit.
- Applications in various job environment.

### Resources to be Used

#### Theory

- Black/white board, marker, notebook, pen, laptop along with projector, PPT, Assistant Electrician Participant handbook.

#### Practical

- Resources such as hand tools, power tools, consumables, measuring device, measuring instruments, and PPEs mentioned in the activity table given below

#### Do

- List out the important soft skills required for an assistant electrician.
- List out the tips for effective communication.
- List out the important oral and written skills required for an assistant electrician.
- Describe oral and written skills.
- List out the major situation where an assistant electrician should definitely report.
- Describe how to report to a concerned authority.
- Role play based on activity about effective communication of a hazard due to open electrical connection at the construction site.

## Explain

- What is communication?
- Modes of communication.

## Notes for Facilitation

- Refer participant handbook, page no 28 for important soft skills required for an assistant electrician.
- Show and explain the basic thumb rule of effective communication.

## Activity-1

### Effective communication

Conduct a role play activity on effective communication of a hazard due to open electrical connection at the construction site.

- Ask the participants to assemble together.
- Plan any activity relevant to Assistant Electrician job role to show importance of effective communication.
- Explain the purpose and duration of the activity.
- Set guidelines pertaining to discipline and expected tasks.
- Ask two persons who are very much interactive to participate in the role play.
- Explain the roles to each of them.
- Rotate the roles after completing one cycle.

Sub Activity	Time	Resources
Read and understand the reporting procedure	3 hours	Pen, Paper, Sample reporting procedure
Communicate with the co-worker	3 hours	
Report the situation to the superior	3 hours	
Prepare a report accordingly	3 hours	

Table 2.1.1 Effective Communication

### Specific Instructions

- Select three persons from the group.
- Explain the role play that will be enacted.
- Consider Person “A” to be an Assistant Mason and Person “B” as Co-worker and Person C as the Superior.
- Guide the persons in enacting the role play, indulge wherever required.
- Finish the activity within the time allotted.
- Ask the group to explain what they have learnt from the role play, clarify any doubts.

## UNIT 2.2: Plan and Organize Work to Meet Expected Outcome

### Unit Objectives

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

1. Plan activities and schedules.
2. Prioritize tasks to achieve desired results.
3. Organize man, material resources effectively.

### Prioritize Work and Organizing Resources

#### Say

- List out the important planning and organizing skills required for an assistant electrician based on Electrical Occupation.
- How to prioritize work for electrical wiring work at construction site.
- Steps involved in prioritizing work for Assistant Electrician.
- List out the important organizing and optimizing skills required for an assistant electrician.

#### Explain

- How to prioritize work for electrical wiring work at construction site.
- Steps involved in prioritizing work for Assistant Electrician.
- Benefits of organizing resources.
- Benefits of optimizing resources.

### Notes for Facilitation

- Refer participant handbook, page no 33 for planning and organizing skills required for an assistant electrician.
- Use the tips given in participant handbook at page no 33.

### Activity-2

#### **Prioritizing work and organizing resources**

Conduct a role play activity on prioritizing work and organizing resources for electrical wiring work at construction site.

- Ask the participants to assemble together.
- Distribute the practical activity format which includes task, duration allowed, specific instructions, method statements etc.

- Explain the purpose and duration of each particular activity.
- Set guidelines pertaining to discipline and expected tasks.
- Ask two persons who are very much interactive to participate in the role play.
- Explain the roles to each of them.
- Rotate the roles after completing one cycle.

Sub Activity	Time	Resources
<p>Breaking the main task into sub tasks and prioritizing work such as:  <b>Conduit laying, wiring and fixing of fixtures through brick structures</b></p> <ul style="list-style-type: none"> <li>• Laying of conduit through chased wall</li> <li>• Pulling and pushing of wire through conduit</li> <li>• Joining of wires</li> <li>• Fixing of fixtures and accessories</li> <li>• Termination of electrical wires</li> </ul>	4 hours	<p><b>Consumables</b></p> <ul style="list-style-type: none"> <li>• Single phase electrical cables of standard wire gauges</li> <li>• Conduits/ casings/ raceways</li> <li>• Electrical diagram (consisting only basic wiring symbols)</li> <li>• PVC insulation tape</li> </ul> <p><b>Hand tools</b></p> <ul style="list-style-type: none"> <li>• Pliers</li> <li>• Screw Drivers (set)</li> <li>• Crimping tools</li> <li>• Wire strippers</li> <li>• Neon tester</li> <li>• Hacksaw</li> </ul> <p><b>Power Tools</b></p> <ul style="list-style-type: none"> <li>• Cutting machine</li> <li>• Drill machine</li> </ul> <p><b>Measuring Instrument</b></p> <ul style="list-style-type: none"> <li>• Measuring tapes</li> <li>• Markers</li> </ul> <p><b>PPEs &amp; safety equipment</b></p> <ul style="list-style-type: none"> <li>• Helmet</li> <li>• Safety shoes</li> <li>• Safety belt</li> <li>• Insulated rubber gloves</li> <li>• Ear plugs</li> <li>• Reflective jackets</li> <li>• Safety message boards</li> <li>• Fire extinguishers</li> <li>• Sand buckets</li> </ul>
Organize resources accordingly	4 hours	

Table 2.2.1 Prioritizing and organism work

**Specific Instructions**

- Explain the process of prioritizing work and organizing resources accordingly to the group before commencement of the role play.
- Select one person from the group.
- Explain the role play that will be enacted.
- Ask the person to consider that today at site electrical wiring work should be done.
- Now ask the person how will he prioritize the various sub-tasks for carrying out the main task.
- Help the person in prioritizing the work wherever needed.
- Ask the person to plan for organizing the resources accordingly after prioritizing, check whether the person is following standard resource allocation.
- Complete the activity in the scheduled time.
- Explain the importance of resource allocation.
- Clarify any doubts.





## Key Learning Outcomes

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

1. Understand organizational safety norms.
2. List the type of hazards involved in construction sites.
3. Describe the safety norms applicable in construction sites and electrical works.
4. Describe the safety control measures and actions to be taken under emergency situation.
5. Explain what is first aid?
6. Describe the uses of fire extinguishers.
7. Explain how to classify fire and fire extinguishers.
8. Explain how safety drills are conducted.
9. Explain the use of PPE's used by an assistant electrician and its importance.
10. List the type of electrical hazards associated with domestic wiring work.
11. Describe the effects of faulty/improper wiring works.
12. Describe the standard safety control measures.
13. Explain the importance of safe disposal of waste.
14. Discuss about electrical waste management at a construction site.

## UNIT 3.1: General Safety for Assistant Electrician

### Unit Objectives

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

1. List the types of hazards involved in construction sites.
2. Describe the safety control measures and actions to be taken under emergency situation.
3. Explain about first aid.
4. Describe the use of fire extinguishers.
5. Explain how to classify fire and fire extinguishers.
6. Explain how safety drills are conducted.

### General Safety at Construction Site

#### Say

- Welcome and greet the participants.

#### Topic Introduction-

- Give the participants a brief overview of what will be covered in this unit

### Resources to be Used

#### Theory

- Black/white board, marker, notebook, pen, laptop along with projector, PPT, Assistant Electrician Participant handbook.

#### Practical

- Resources such as Hand tools, power tools, consumables, measuring device, measuring instruments, and PPEs mentioned in the activity table given below.

### Do

- Classify the types of hazards that are possible at a construction site.
- Show the types of hazards with illustrations.
- Important hazards at construction sites and the preventive measures taken for the same with illustrations.
- List out the pre-steps involved in availing first aid service.
- First aid and what is to be followed in case of electric shock.

- Classify the types of fires.
- Classify the types of fire extinguishers.
- Correlate the types of fires and the corresponding extinguishers used.
- Show the importance of the above.

## Explain

- Types of hazards with illustrations.
- Important hazards at construction sites and the preventive measures taken for the same with illustrations.
- First aid and what is to be followed in case of electric shock.
- Types of fires and the corresponding extinguishers used.
- Procedure to use the fire extinguishers.
- What tool box talks and safety drills in detail.
- Procedure to use the fire alarm.

## Notes for Facilitation

- Refer participant handbook, page no. 39-49.
- Use photographs/ videos/ PPT to explain the basic preventive measures taken for hazards at construction site.

## Activity-1

### **General safety at a construction site**

Conduct a role play activity on following emergency procedure in case of accidental fire at work place.

- Ask the participants to assemble together.
- Distribute the practical activity format which includes task, duration allowed, specific instructions, method statements etc.
- Explain the purpose and duration of the activity.
- Set guidelines pertaining to discipline and expected tasks.
- Ask two persons who are very much interactive to participate in the role play.
- Explain the roles to each of them.
- Rotate the roles after completing one cycle.

Sub Activity	Time	Resources
Start the fire alarm	1 hour	Stationary items, Fire extinguisher, wood and paper pieces, match box
Use fire extinguisher	6 hours	
Call for medical help and carryout primary first aid for the injured person	4 hours	
Instruct co-workers to gather at the collection point	4 hours	

Table 3.1.1 General safety at construction site

### Specific Instructions

- Select four persons from the group.
- Name the persons selected as Person A, B, C and D.
- Explain and demonstrate how to perform/enact the sub activities.
- Consider Person A to be an Assistant Electrician and the rest are co-workers.
- Start the role play and check whether it is happening as per the plan.
- Guide closely wherever needed.
- Complete the activity as per scheduled time.
- Ask the watching group to explain the steps that are performed.
- Clarify any doubts.

## UNIT 3.2: Personal Health and Safety

### Unit Objectives

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

1. Describe the safety norms applicable in construction sites and electrical works.
2. Explain the use of PPE's used by an assistant electrician.
3. List the type of electrical hazards associated with domestic wiring work.
4. Describe the effects of faulty/improper wiring works.
5. Describe the standard safety control measures.

### Personal Safety at Construction Sites

#### Do

- List out the various safety signs and regulations used at a construction site.
- Explain the color codes used at construction sites.
- List out the safety norms to be used while handling hand and power tools.
- List out the safety norms to be used while using ladder and scaffolds.
- List out the importance of PPE used at construction site.
- Show the PPE matrix for various activities carried out by an assistant electrician.
- List out the important occasion and places when and where these electrical hazards occur.
- Show the causes of electrical accidents, precautionary measures taken to avoid, and symptoms/ protection from electric shock

### Notes for Facilitation

- Refer participant handbook, page no 55-59 for the various safety signs, regulations, PPE and precautionary measure at a construction site.
- Show PPT/video and explain the color codes used at construction sites.
- Show the dos and don'ts for using a ladder and scaffold.

### Activity-2

#### Personal safety at construction site

Conduct a skill practice activity on how to safely use a ladder for reaching heights with proper PPE.

- Ask the participants to assemble together.

- Distribute the practical activity format which includes task, duration allowed, specific instructions, method statements etc.
- List and explain the safety guidelines followed at heights.
- Explain the purpose and duration of the activity.
- Set guidelines pertaining to discipline and expected tasks.
- Maximum duration mentioned in the below table is for extensive practice and corresponding guidance until the skill is acquired by the participants.

Sub Activity	Time	Resources
Practice wearing PPE	3 hours	Ladder, PPE
Erect the ladder	2 hours	
Climb the ladder safely	1 hour	

*Table 3.2.1 Personal safety at construction site*

#### **Specific Instructions**

- Show the PPE matrix that has to be followed at a construction site.
- Demonstrate the standard procedure for wearing the PPE.
- Demonstrate the important checks that are to be performed while erecting the ladder.
- Ask the participants to practice wearing PPE, check and ensure that there is no deviation of standard procedure.
- Ask the participant to practice using ladder.
- Guide and correct the participants wherever necessary.
- List the advantages of using PPE
- Clarify any doubts.

## UNIT 3.3: Waste Disposal

### Unit Objectives

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

1. Explain the importance of safe disposal of waste.
2. Discuss about electrical waste management at a construction site

### Safe Disposal of Waste

#### Do

- List out the important methods of safe disposal of electrical waste.
- Explain the types of wastes that are generated at construction sites.
- Use examples for various types of wastes.
- Explain the importance of classifying and segregating the types of wastes.
- Describe what types of bins, containers used for collection and disposal of electrical wastes.
- Encourage the participants to participate in the classroom interaction

### Notes for Facilitation

- Refer participant handbook, page no 65 for methods of safe disposal of electrical wastes.
- Show and explain the types of wastes that are generated at construction sites using PPT/video.
- Notes relevant to the importance of classifying and segregating the types of wastes.
- Show types of bins, containers used for collection and disposal of electrical wastes

### Activity-3

#### Conduct a role play activity.

- Ask the participants to assemble together.
- Distribute the practical activity format which includes task, duration allowed, specific instructions, method statements etc.
- Explain the purpose and duration of the activity.
- Set guidelines pertaining to discipline and expected tasks.
- Ask two persons who are very much interactive to participate in the role play.
- Explain the roles to each of them.
- Rotate the roles after completing one cycle.

Sub Activity	Time	Resources
Segregation of wastes and safe disposal	4 hours	Waste containers, masonry pan, sample construction waste

Table 3.3.1 Segregation and Waste disposal

#### Specific Instructions

- Ensure the participants are wearing the PPE properly.
- Select two persons from the group who are effective in communication
- Consider one as helper and the other as assistant, now ask the helper to deposit the waste in one location and place the containers at another location.
- Ask the assistant to instruct the helper to segregate or differentiate the type of wastes
- Then ask the assistant to tell the helper to transfer the segregated waste with the help of masonry pan.
- Ensure that both the persons communicate properly by giving hints in between.
- Tell them to complete the activity on the speculated time and ensure that the wastes are properly placed in the containers and it is secured properly.





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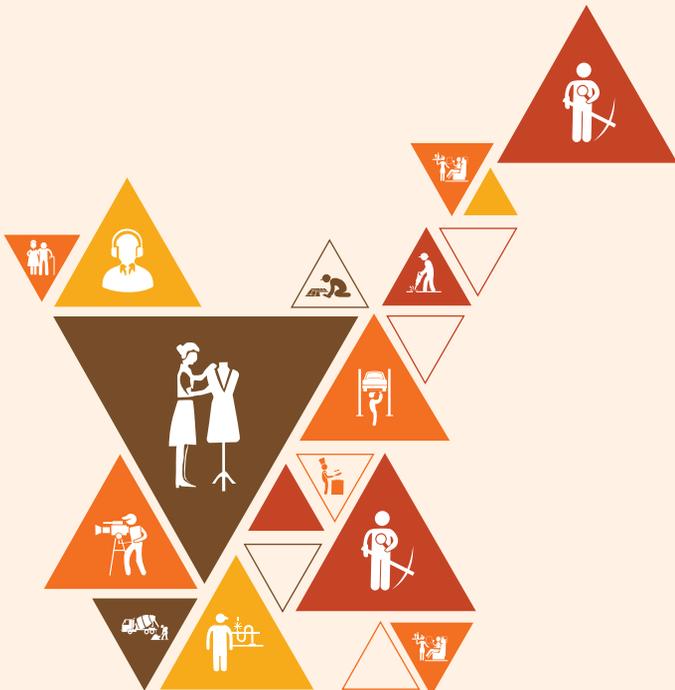
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## 4. Electrical Drawings

Unit 4.1 – Wiring symbols, Single line diagram and  
Electrical specifications



## Key Learning Outcomes

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

1. Enlist the wiring symbols commonly used in electrical work.
2. Read and interpret wiring symbols for electrical work.
3. Read and interpret single line diagrams relevant to electrical works.
4. Read and interpret electrical specifications and manufacturer's guidelines

## UNIT 4.1: Wiring Symbols, Single Line Diagram and Electrical Specifications

### Unit Objectives

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

1. Enlist the wiring symbols.
2. Read and interpret wiring symbols.
3. Read and interpret single line diagrams.
4. Read and interpret electrical specifications and manufacturer's guidelines.

### Wiring Symbols, Single Line Diagram and Electrical Specifications

#### Say

- Welcome and greet the participants.

#### Topic Introduction-

- Give the participants a brief overview of what will be covered

#### Resources to be Used

##### Theory

- Black/ white board, marker, notebook, pen, laptop along with projector, PPT, Assistant Electrician Participant handbook.

##### Practical

- Resources such as hand tools, power tools, consumables, measuring device, measuring instruments, and PPEs mentioned in the activity table given below.

#### Do

- List out the important electrical symbols used in electrical drawings.
- Show the various symbols used for identifying the electrical fixtures and connections.

#### Elaborate

- Wiring diagram in simple terms with an example.
- What the electrical specifications with example are.
- Manufacturer's guidelines relevant to electrical materials, fixtures and tools.

## Notes for Facilitation



- Refer participant handbook, page no. 71-85.
- Show various symbols to identify the electrical fixtures and connections.

## Activity-1



Identify and interpret the wiring symbols and single line diagrams which is commonly applicable for Assistant Electrician with respect to construction site activity. Also practice the activity related to understanding the manufacture guideline and electrical specification.

### General Instructions

Conduct a group activity on identification of different electrical symbols.

- Ask the participants to assemble together.
- Distribute the practical activity format which includes task, duration allowed, specific instructions, method statements etc.
- Explain the purpose and duration of the activity.
- Set guidelines pertaining to discipline and expected tasks.

Sub Activity	Time	Resources
Identify electrical symbols	1 hour	Electrical symbols chart, Specification chart, Manufacture guidelines.
Identify electrical circuit/wiring diagram	1 hour	
Interpret electrical specifications	1 hour	
Interpret manufacturer's guidelines	1 hour	

Table 4.1.1 Electrical symbols and specifications

### Specific Instructions

- Show the chart/ specifications/ guidelines and ask the participants to identify and read them one by one.
- Assist them by giving hints to remember the common symbols, for example a bulb is shown as a circle and a cross in the middle.
- Similarly explain the symbols in simple words and give relevant hints to identify and remember the same.
- Assess the level of understanding and change the instruction flow.
- Complete this activity in scheduled time, keep the discussion within the topic.
- Entertain doubts related to the topic only.
- Ask them to draw some 5 symbols and name them correctly at the end of the session.







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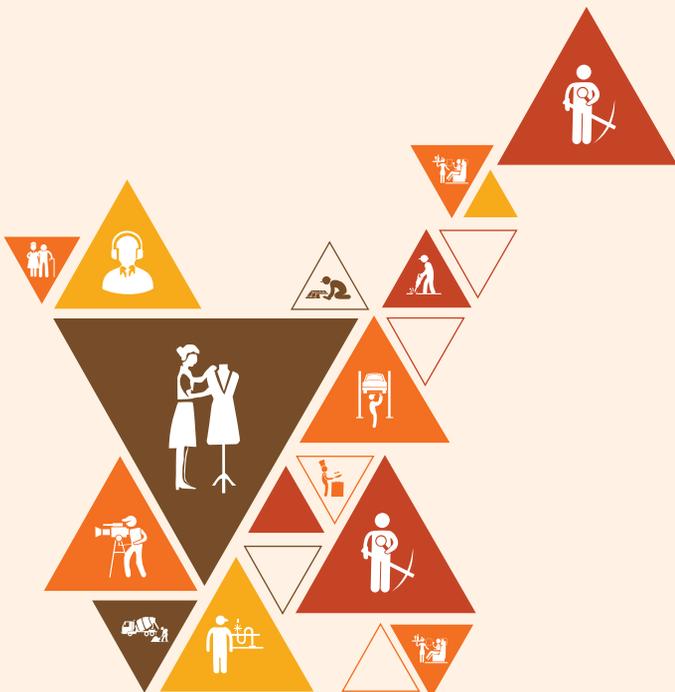
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# 5. Select and Use Electrical Tools, Devices and Materials Relevant to Construction Electrical Works

Unit 5.1 - Introduction to electrical tools,  
equipment, materials, devices, conduits  
and fixtures



CON/N0602

## Key Learning Outcomes

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

1. List the various types of electrical hand and power tools commonly used for temporary and permanent electrical works at construction site.
2. Describe how to maintain/store electrical tools and devices.
3. List the different types of electrical measuring tools and devices.
4. Explain the operation of these devices.
5. List the various types of electrical devices used in circuits.
6. Describe about the various types of cables.
7. Recall the types of conduits and fixtures.
8. Describe how to select the right conduits and fixtures based on power rating and respective uses in electrical works.
9. List out the different types of lights as per their units, their wattage and respective use in construction sites.
10. Describe the specifications and details of earthing materials.
11. Describe tools and equipment used for electrical earthing works.
12. List the types of electrical materials and fixtures used for domestic wiring.
13. List the types of electrical materials and fixtures used for temporary wiring at construction site.

## UNIT 5.1: Introduction to Electrical Tools, Equipment, Materials, Devices, Conduits and Fixtures

### Unit Objectives

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

1. List the various types of electrical hand and power tools used for construction electrical works.
2. Describe to maintain/store electrical tools and devices at construction site.

### Electrical Tools, Equipment, Materials, Devices, Conduits and Fixtures

### Say

- Welcome and greet the participants.

#### Topic Introduction-

- Give the participants a brief overview of what will be covered in this unit.

### Resources to be Used

#### Theory

- Black/white board, marker, notebook, pen, laptop along with projector, PPT, Assistant Electrician Participant handbook.

#### Practical

- Resources such as Hand tools, power tools, consumables, measuring device, measuring instruments, and PPEs mentioned in the activity table given below.

### Do

- List out and explain the common hand/power tools used by an Assistant Electrician.
- List out and explain the important measuring tools used by an Assistant Electrician.
- Discuss in detail about the electrical devices and their use in circuits.
- Classify the types of cables as per material, cored numbers, and voltage.
- Explain the different types of cables.
- Explain diameter and current ratings of cables.
- Explain the categories of wiring based upon illumination and others for small power.
- Classify the types of conduits and how they are differentiated.

- Explain the occupancy volume of conduit.
- Explain types of fixtures used in installation of conduits.
- Explain the importance of sealing all the joints of the conduits with couplers, junction boxes, fan-boxes, bends etc.
- Classify the types of safety equipment and how they are differentiated.
- List out the equipment required for earthing.
- List out the equipment required for earthing.

### Elaborate



- Electrical hand, power tools.
- Electrical safety equipment and electrical devices.
- Electrical materials, conduits and fixtures.
- Use of electrical tools, equipment, materials, conduits and fixtures.

### Notes for Facilitation



- Refer participant handbook, page no.91-116 for important tools used by an electrician.

### Example



#### Best Practice for Stripping of a wire:

Steps	Picture	How to use
Step 1		<ul style="list-style-type: none"> <li>• Squeeze the handles about a quarter inch from the wire end or the needed length (Use the correct notch).</li> <li>• Twist the tool slightly. This will cut the insulation.</li> </ul>
Step 2		<ul style="list-style-type: none"> <li>• Pull the wire strippers towards the end of the wire. The insulation slides off the wire.</li> </ul>

Table 5.1.1 Stripping of wire

**Best Practice for using a Voltmeter:**

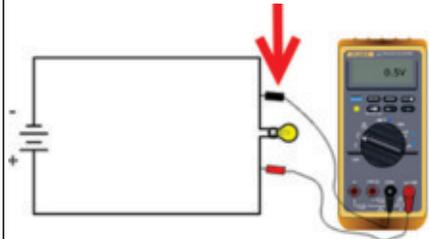
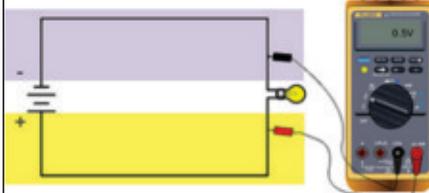
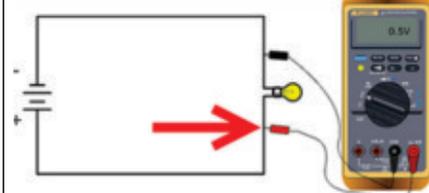
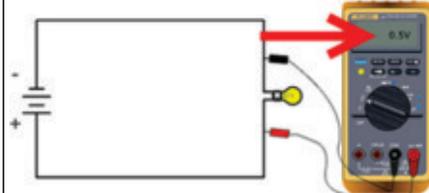
Steps	Picture	How to use
Step 1		Connect the voltmeter parallel to the circuit i.e., across the load (in this case a light bulb).
Step 2		Connect the red colour wires to the positive terminal and the black wires to the negative terminals of the voltmeter
Step 1		Connect the positive wire close to the positive of the battery and negative wire to the negative of the battery.
Step 2		Make note of the readings in the display.

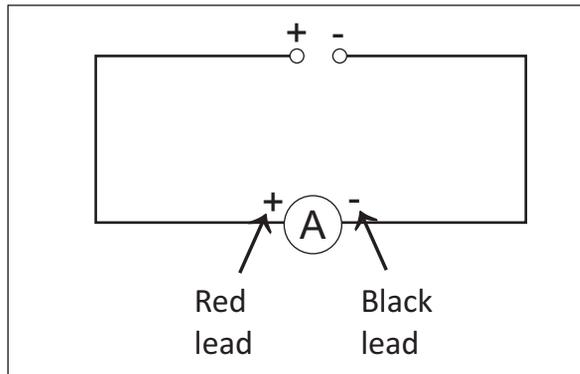
Table 5.1.2 Voltmeter

**Best practice for using an Ammeter:**

**Step 1:** Circuit should be broken down in the desired location. This means physically disconnect a wire or component to make a place for the ammeter in the circuit.

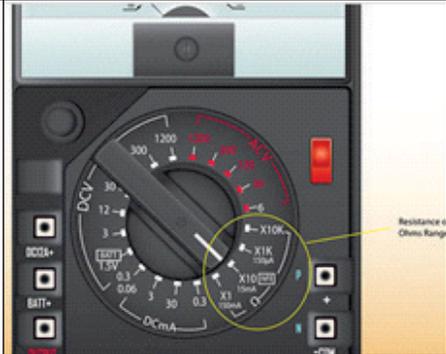
**Step 2:** Connect the red and black leads to the ammeter. Black lead → negative/ ground terminal and red lead → positive terminal

**Step 3:** Connect the ammeter to your circuit. The black lead connected closest to the negative terminal of the power source. The red lead connected closest to the positive terminal of the power source. If you fail to do this correctly, the ammeter may be damaged



**Best Practice for using a Multi-meter:**

Steps	Picture	How to use									
Step 1		<p>Locate the dial of the multi-meter. It has options to change between measuring resistance, voltage and current.</p> <p>Using the selector switch or knob, the function of the multi-meter can be changed. Also the scale of measurement can be changed (x1, x10, etc.).</p>									
Step 2		<p>Connect the probes or test leads.</p> <p>The test lead openings are:</p> <table border="1" data-bbox="860 1380 1419 1582"> <tr> <td data-bbox="860 1380 996 1447">COM or -</td> <td data-bbox="996 1380 1191 1447">Common</td> <td data-bbox="1191 1380 1419 1447">Black wire</td> </tr> <tr> <td data-bbox="860 1447 996 1515">V(+)</td> <td data-bbox="996 1447 1191 1515">Positive voltage</td> <td data-bbox="1191 1447 1419 1515">Red wire</td> </tr> <tr> <td data-bbox="860 1515 996 1582"><math>\Omega</math></td> <td data-bbox="996 1515 1191 1582">Ohms</td> <td data-bbox="1191 1515 1419 1582">Red wire to measure resistance</td> </tr> </table>	COM or -	Common	Black wire	V(+)	Positive voltage	Red wire	$\Omega$	Ohms	Red wire to measure resistance
COM or -	Common	Black wire									
V(+)	Positive voltage	Red wire									
$\Omega$	Ohms	Red wire to measure resistance									
Step 3		<p>Find the zero adjustment knob. This is used in terms of resistance range.</p>									

Step 4		To measure resistance, turn the meter to resistance or Ohm range
Step 5		Observe the meter indication. When the probes are not touching anything, the display should represent an infinite resistance because it indicates an open circuit.
Step 6		Set the range to x100
Step 7		When the two probes of the meter are held together, the resistance value should be zero, indicating short circuit and zero resistance.

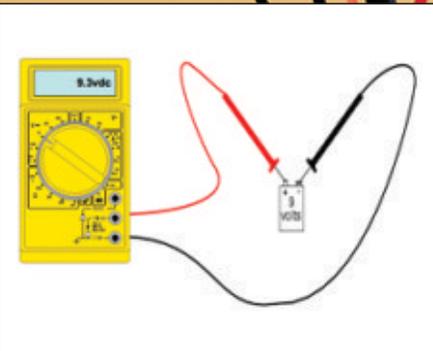
Step 8		Measure the resistance of a light bulb or any component that is in working condition.
Step 9		Try different ranges.
Step 10		Measure voltage and current in a circuit

Table 5.1.3 Multimeter

## Activity-1

### Identification and use of electrical tools, devices, materials and equipment

#### Conduct a skill practice activity.

- Ask the participants to assemble together.
- Distribute the practical activity format which includes task, duration allowed, specific instructions, method statements etc.
- Explain the purpose and duration of the activity.
- Set guidelines pertaining to discipline and expected tasks.
- Maximum duration mentioned in the below table is for extensive practice and corresponding guidance until the skill is acquired by the participants.

Sub Activity	Time	Resources
Identify and use hand, power and measuring tools	4 hours	<b>Hand tools</b> <ul style="list-style-type: none"> <li>• Pliers</li> <li>• Screw Drivers (set)</li> <li>• Crimping tools</li> <li>• Wire strippers</li> <li>• Neon tester</li> <li>• Hacksaw</li> </ul> <b>Power Tools</b> <ul style="list-style-type: none"> <li>• Cutting machine</li> <li>• Drill machine</li> </ul> <b>Measuring devices</b> <ul style="list-style-type: none"> <li>• Digital Multimeter</li> <li>• Tong tester</li> <li>• Megger</li> </ul> <b>Measuring Instrument</b> <ul style="list-style-type: none"> <li>• Measuring tapes</li> <li>• Markers</li> </ul>
Identify the electrical devices and their use in circuits.	4 hours	Safety equipment used in domestic and temporary wiring – fuse, MCB, MCCB, ELCB, GFCI
Identify the different types of conduits and cables.	4 hours	Cables, conduits and fixtures
Identify the types of lights used in construction sites.	4 hours	Incandescent lamp (bulb), halogen bulb, fluorescent bulb, CFL, HPS, LED lights
Identify earthing equipment.	3 hours	Earthing equipment
Organize the storage area with electrical units, materials, fixtures, tools and devices	3 hours	Electrical units, materials, fixtures, tools and devices

Table 5.1.4 Electrical tools, devices, materials and equipment

### Specific Instructions

- Demonstrate and show how to use each tool, device and equipment as mentioned above.
- Ask the participant to practice the same.
- Basic IE rules should be brought out to explain all the points.
- Check whether the participants are following the standard and safe procedure of usage of tools and equipment.
- Intervene wherever needed and correct the mistakes done by participants.

- Ensure that each of the participants are well versed in identifying and using the electrical tools and equipment.
- Make sure that the participants are well versed in checking the condition and run any immediate maintenance of electrical tools and equipment.
- Ensure that the participants are well versed in requesting and returning the new material and unused material respectively to the store.
- Complete the activity in scheduled time, at the end of activity to assess the skill acquired, call a person randomly from the group and ask him to demonstrate any tool.

Notes



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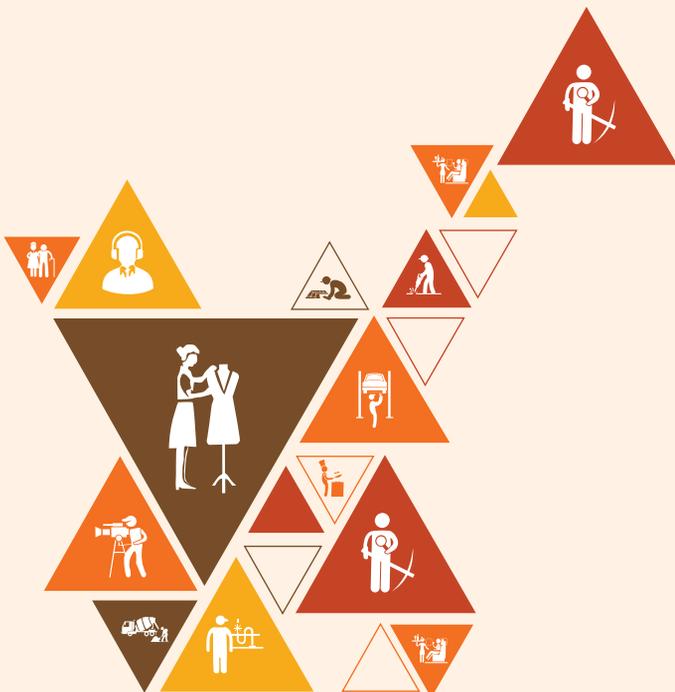


## 6. Temporary Electrical Works at Construction Site

Unit 6.1 - Cable laying through poles

Unit 6.2 - Direct cable laying

Unit 6.3 - Cable laying by draw-in method



CON/N0603

## Key Learning Outcomes

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

1. Explain the standard practices of cable laying at construction sites.
2. Describe the method of joining cables.
3. Explain and demonstrate the methods of conduit laying and wiring.
4. Describe the method of fixing lights and their respective accessories.
5. Explain how electrical termination is performed.
6. Explain about cable glanding and how it is performed.
7. State the different types of faults associated with lighting arrangements.
8. Describe how to trace short circuits, power interruptions/continuity

## UNIT 6.1: Cable Laying through Poles

### Unit Objectives

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

1. Explain and demonstrate the standard practice of cable laying through poles at construction sites.
2. Explain and demonstrate the method of joining cables.
3. Explain and demonstrate the method of conduit laying and wiring.
4. Explain and demonstrate how to install lighting arrangement.
5. Explain and demonstrate how termination is performed.
6. Explain and demonstrate how to check faults in lighting arrangement.
7. Explain and demonstrate how to trace short circuits, power interruptions/continuity.

## Cable Laying through Poles at Construction Sites

### Say

- Welcome and greet the participants.

#### Topic Introduction-

- Give the participants a brief overview of what will be covered in this unit.

### Resources to be Used

#### Theory

- Black/white board, marker, notebook, pen, laptop along with projector, PPT, Assistant Electrician Participant handbook.

#### Practical

- Resources such as Hand tools, power tools, consumables, measuring device, measuring instruments, and PPEs mentioned in the activity table given below.
- Practical Activity sheet to be provided to trainees prior to respective practical. This should include a detailed guideline to carry out the activity.

### Do

- Start a discussion relevant to the unit's objective.
- Encourage/motivate the participants to participate in the classroom interaction.

- List the steps involved in cable laying through poles.
- Explain the method of joining cables.
- Explain the method of conduit laying and wiring.
- Explain how to install lighting arrangement.
- Explain how termination is performed.
- Explain how cable glanding is performed.
- Explain how to check faults in lighting arrangement.
- Explain how to trace short circuits, power interruptions/continuity.

## Elaborate



- List of tools, materials, and equipment required for cable laying through poles.
- Explain the steps involved in laying cables cable laying through poles.
- List out the safety rules and regulations for the activity.

## Notes for Facilitation



- Show and explain how to extract electrical relevant information from the MEP drawings.
- Refer Assistant Electrician PHB page number 121 -125 to explain cable laying through poles.
- Show the pictures of the tools, materials and equipment required for cable laying through poles and ask the participants to identify the name and usage.
- Refer National Electrical Code SP30:2011 page no 60-97.

## Activity-1



### Cable laying through poles

#### Conduct a skill practice activity.

- Ask the participants to assemble together.
- Distribute the practical activity format which includes task, duration allowed, specific instructions, method statements etc.
- Explain the purpose and duration of the activity.
- Set guidelines pertaining to discipline and expected tasks.
- Maximum duration mentioned in the below table is for extensive practice and corresponding guidance until the skill is acquired by the participants

Sub Activity	Skill Practice	Time	Resources
1	Cable laying through poles at construction sites	8 hours	<b>Consumables</b> <ul style="list-style-type: none"> <li>• Single phase electrical cables of standard wire gauges</li> <li>• Conduits/ casings/ raceways</li> <li>• Electrical diagram (consisting only basic wiring symbols)</li> <li>• PVC insulation tape</li> </ul> <b>Measuring devices</b> <ul style="list-style-type: none"> <li>• Digital Multimeter</li> <li>• Tong tester</li> <li>• Megger</li> </ul> <b>Hand tools</b> <ul style="list-style-type: none"> <li>• Pliers</li> <li>• Screw Drivers (set)</li> <li>• Crimping tools</li> <li>• Wire strippers</li> <li>• Neon tester</li> <li>• Hacksaw</li> </ul> <b>Power Tools</b> <ul style="list-style-type: none"> <li>• Cutting machine</li> <li>• Drill machine</li> </ul> <b>Measuring Instrument</b> <ul style="list-style-type: none"> <li>• Measuring tapes</li> <li>• Markers</li> </ul> <b>PPEs &amp; safety equipment</b> <ul style="list-style-type: none"> <li>• Helmet</li> <li>• Safety shoes</li> <li>• Safety belt</li> <li>• Insulated rubber gloves</li> <li>• Ear plugs</li> <li>• Reflective jackets</li> <li>• Safety message boards</li> <li>• Fire extinguishers</li> <li>• Sand buckets</li> </ul>
2	Straight through joining of cables	8 hours	
3	Cable termination	8 hours	
4	Fixing of temporary lights and their respective accessories	8 hours	
5	Electrical termination and cable glanding (method statement attached)	4 hours	
6	Faults associated with lighting arrangements	4 hours	
7	Tracing short circuits, power interruptions continuity	4 hours	

Table 6.1.1 Cable laying through poles

#### Specific Instructions

- For this activity prior setup with two poles erected with 10 m height, 20 m apart is required.
- Ensure that there is one supply feed conductor.

- Make sure all the participants are wearing proper PPEs.
- Explain the overall procedure and key points of the laying and fixing of cable through poles before commencing the exercise.
- Check & observe that all the steps followed by the participants.
- Seal all the joints of the conduits with couplers, junction boxes, fan-boxes, bends etc.
- Ensure to leave a pull wire in the empty conduit.
- Ensure occupancy volume for conduit is 60% of the volume.
- Follow the colour code while wiring is to be brought out.
- Ensure proper dressing is carried out at DB, Switch board end points after drawing the wires.
- Carryout corresponding quality checks such as load details of lay out and DB load list.
- Complete the activity in scheduled time, at the end of activity, to assess the skill and knowledge acquired, call a person randomly from the group and ask him to explain the steps involved in laying the cable through poles.
- Follow the method statement of Cable Glanding as given below:

**Method statement of Cable Glanding:**

Steps	Description/Instruction
1	Read and understand the procedure, standards, permitted tolerances and allotted time thoroughly
2	Collect the necessary materials, tool and measuring instruments for end termination
3	Identify the equipment, appropriate cable by referring cable tag and cable schedule before taking up the end termination job.( Applicable to project site).
4	Cut and remove the outer sheath, armour and inner sheath with the help of knife and junior hacksaw, to test the continuity
5	Identify the ends of the cable by shorting the cores at one end and checking the continuity at other end.
6	Check the insulation resistance of the cable using insulation tester to confirm healthiness.
7	Discharge the electric charge in the cable by connecting each core to the earth conductor, after using the insulation tester.
8	Choose the correct size of gland for the given cable as follows. <ol style="list-style-type: none"> <li>1. Check the size of cable which is printed on it and choose the appropriate gland by gland selection chart.</li> <li>2. Find out overall diameter from circumference of cable and refer the cable gland selection guide for suitable gland, if size of the cable is not mentioned.</li> </ol>

8	<p>3. Choose the gland in such a way that the internal diameter of gland's outer seal nut shall be 2mm bigger than overall diameter of cable, if gland selection guide is not available.</p> <p>Follow the above step - (iii) , if size of the gland is not mentioned on the gland</p>
9	Show the selected gland to your assessor and get the approval before starting glanding.
10	Refer gland selection guide for diameter of nipple entry. (or)
11	Measure the diameter of nipple's entry using measurement tape, if gland selection guide is not available.
12	Mark a hole with the same measurement on gland plate in such a way that the diameter of hole is 2 mm bigger than outer diameter of gland's nipple. (Applicable to project site).
13	Make a hole using knockout punch
14	Ensure minimum 50mm gap between the gland holes, so that check nuts of gland do not fowl with each other. ( Applicable to project site)
15	Measure the distance between ground and gland plate and also from gland plate to switchgear terminals to ensure enough cable length is available for termination.
16	1.Mark the exact measurement on cable, which is measured between gland plates and switch gear terminals.
17	Cut the armour in two stages, if length of the armour is above one meter from the end.
18	Remove the outer sheath and armour with the help of junior hacksaw frame and knife.
19	Cut the armour leaving 75 – 100 mm of length from the marking made on the cable.
20	Remove the outer sheath present between marking of the gland on cable and the point where the armour was cut.
21	Pass the compression nut, metal washer, outer seal rubber washer, metal washer.
22	Pass the compression nut, metal washer, outer seal rubber washer, metal washer.
23	Outer seal rubber washer shall be bind by binding wire.
24	Fold one or two armour at an angle of 90 above the metal washer and cut the armour at the level of metal washer, remaining armours are cut by the same procedure.
25	Pass the metal washer, gland body and tighten them.
26	Bend the cable as per the marking which was made earlier.

27	Insert the cable into the gland plate hole in such a way that gland nipple is above the gland plate.
28	Insert the check nut into cable and tighten it with gland nipple entry with the help of water pump plier (Monkey plier).
29	Support and dress the cable neatly, after tightening the gland check nut on gland plate. (Applicable to project site).
30	Check once again the IR value of cable to confirm healthiness after completion of glanding.
31	Mark on the inner sheath from where the core has to be bent.
32	Remove the inner sheath carefully by knife without cutting the core insulation.
33	Bend all the cores according to the position of switch gear terminals.
34	Get the approval from the assessor by showing the length at which the core is to be cut to remove the extra length.
35	Choose suitable size of lug as per the size of cable.
36	Mark the length of the lug's barrel on the core and cut the core.
37	Change the triangular form of the core to a circular form using two mallets.
38	Mark the length of lug's barrel on the core and remove the core insulation to that length.
39	File the edges of the core conductor.
40	Apply anticorrosion compound over the inner surface of the lug and outer surface of the core conductor before fixing the lugs.
41	Insert the lug on the core.
42	Connect the lug inserted core with switch gear terminals in proper phase sequence.
43	Mark on the core insulation and lug's barrel to ensure correct position.
44	Crimp all the lugs by crimping tool with suitable dies after fixing the lug.
45	Start from top to bottom sequence while crimping lugs.
46	File the lugs for smoothness and wrap insulation tape over crimped lugs after crimping lugs.
46	Connect the crimped core with switchgear terminals with proper phase sequence.
46	Provide flat washer and spring washer for power cable connection and tightness to be done carefully with required torque as recommended by the switchgear's manufacturer.
49	Show and get the approval of your assessor after completing the end termination work.
50	Keep the tools, materials and instruments in their respective places.
51	Clean the work area.

## UNIT 6.2: Direct Cable Laying

### Unit Objectives

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

1. Explain and demonstrate the standard practice of cable laying by direct method at construction sites.
2. Explain and demonstrate the method of joining cables.
3. Explain and demonstrate the method of conduit laying and wiring.
4. Explain and demonstrate how to install lighting arrangement.
5. Explain and demonstrate how termination is performed.
6. Explain and demonstrate how to check faults in lighting arrangement.
7. Explain and demonstrate how to trace short circuits, power interruptions/continuity.

### Cable Laying by Direct Method at Construction Sites

#### Do

- Explain the method of direct cable laying.
- List the steps involved in direct cable laying.
- Explain the method of joining cables.
- Explain the method of conduit laying and wiring.
- Explain how to install lighting arrangement.
- Explain how termination is performed.
- Explain how to check faults in lighting arrangement.
- Explain how to trace short circuits, power interruptions/continuity.
- Start a discussion relevant to the Unit's objective.
- Encourage/motivate the participants to participate in the classroom interaction.

#### Elaborate

- List of tools, materials, and equipment required for direct cable laying.
- Steps in laying cables under direct cable laying.
- Safety rules and regulations for the activity

## Notes for Facilitation

- MEP drawings to extract electrical relevant information.
- Refer Assistant Electrician PHB page numbers 121 -125 to explain direct cable laying process.
- Show the pictures of the tools, materials and equipment required for direct cable laying.
- Refer National Electrical Code SP30:2011 page no 60-97.

## Activity-2

### Direct Cable Laying Method

#### Conduct a skill practice activity.

- Ask the participants to assemble together.
- Distribute the practical activity format which includes task, duration allowed, specific instructions, method statements etc.
- Explain the purpose and duration of the activity.
- Set guidelines pertaining to discipline and expected tasks.
- Maximum duration mentioned in the below table is for extensive practice and corresponding guidance until the skill is acquired by the participants.

Sub Activity	Skill Practice	Time	Resources
1	Lay and fix concealed cable for a length of 10 meter, Trench size - 0.45m wide and 1.5m deep by direct laying method while following the specific instructions given below.	8 hours	<b>Consumables</b> <ul style="list-style-type: none"> <li>• Single phase electrical cables of standard wire gauges</li> <li>• Conduits/ casings/ raceways</li> <li>• Electrical diagram (consisting only basic wiring symbols)</li> <li>• PVC insulation tape</li> </ul> <b>Measuring devices</b> <ul style="list-style-type: none"> <li>• Digital Multimeter</li> <li>• Tong tester</li> <li>• Megger</li> </ul> <b>Hand tools</b> <ul style="list-style-type: none"> <li>• Pliers</li> <li>• Screw Drivers (set)</li> <li>• Crimping tools</li> <li>• Wire strippers</li> <li>• Neon tester</li> <li>• Hacksaw</li> </ul> <b>Power Tools</b> <ul style="list-style-type: none"> <li>• Cutting machine</li> <li>• Drill machine</li> </ul>
2	Straight through joining of cables	8 hours	
3	Cable termination	8 hours	
4	Fixing of lights and their respective accessories	8 hours	

5	Electrical termination and cable glanding	4 hours	<b>Measuring Instrument</b> <ul style="list-style-type: none"> <li>• Measuring tapes</li> <li>• Markers</li> </ul> <b>PPEs &amp; safety equipment</b> <ul style="list-style-type: none"> <li>• Helmet</li> <li>• Safety shoes</li> <li>• Safety belt</li> <li>• Insulated rubber gloves</li> <li>• Ear plugs</li> <li>• Reflective jackets</li> <li>• Safety message boards</li> <li>• Fire extinguishers</li> <li>• Sand buckets</li> </ul>
6	Faults associated with lighting arrangements	4 hours	
7	Tracing short circuits, power interruptions continuity	4 hours	

Table 6.2.1 Direct cable laying

#### Specific Instructions

- Make sure all the participants are wearing proper PPEs.
- Ask the participants to check whether the dimensions of the trench are as per proposed dimensions.
- Ask the participants to form groups consisting of at least five members.
- Explain the overall procedure and key points of the direct cable laying method before commencing the exercise.
- Check & observe that all steps are followed by the participants, make sure all the participants are involved in the activity.
- Assist them where ever it is necessary during the practice.
- Seal all the joints of the conduits with couplers, junction boxes, fan-boxes, bends etc.
- Ensure leave a pull wire in the empty conduit.
- Ensure occupancy volume for conduit is 60% of the volume.
- Follow the colour code while wiring is to be brought out.
- Ensure proper dressing is carried out at DB, Switch board end points after drawing the wires.
- Carryout corresponding quality checks such as load details of lay out and DB load list.
- Complete the activity in scheduled time, at the end of activity, to assess the skill and knowledge acquired, call a person randomly from the group and ask him to explain the steps involved in laying the cable, clarify any doubts.

## UNIT 6.3: Cable Laying by Draw-in Method

### Unit Objectives

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

1. Explain and demonstrate the standard practice of cable laying by draw in method at construction sites.
2. Explain and demonstrate the method of joining cables.
3. Explain and demonstrate the method of conduit laying and wiring.
4. Explain and demonstrate how to install lighting arrangement.
5. Explain and demonstrate how termination is performed.
6. Explain and demonstrate how to check faults in lighting arrangement.
7. Explain and demonstrate how to trace short circuits, power interruptions/continuity.

### Cable Laying by Draw-in Method

#### Do

- List the steps involved in draw-in method.
- Explain the method of joining cables.
- Explain the method of conduit laying and wiring.
- Explain how to install lighting arrangement.
- Explain how termination is performed.
- Explain how to check faults in lighting arrangement.
- Explain how to trace short circuits, power interruptions/continuity.
- Start a discussion relevant to the Unit's objective.
- Encourage/motivate the participants to participate in the classroom interaction.

#### Elaborate

- List of tools, materials, and equipment required for cable laying using draw-in method.
- Steps in laying cables using draw-in method.
- Safety rules and regulations for the activity.

## Notes for Facilitation

- MEP drawings to extract electrical relevant information.
- Refer Assistant Electrician PHB page numbers 121 -125 to explain draw in method.
- Show the pictures of the tools, materials and equipment required for cables laying by draw-in method.
- Refer National Electrical Code SP30:2011 page no 60-97.

## Activity-3

### Cable laying by Draw-in Method

#### Conduct a skill practice activity.

- Ask the participants to assemble together.
- Distribute the practical activity format which includes task, duration allowed, specific instructions, method statements etc.
- Explain the purpose and duration of the activity.
- Set guidelines pertaining to discipline and expected tasks.
- Maximum duration mentioned in the below table is for extensive practice and corresponding guidance until the skill is acquired by the participants.

Sub Activity	Skill Practice	Time	Resources
1	Laying and fixing of concealed cables by draw-in method	8 hours	<b>Consumables</b> <ul style="list-style-type: none"> <li>• Single phase electrical cables of standard wire gauges</li> <li>• Conduits/ casings/ raceways</li> <li>• Electrical diagram (consisting only basic wiring symbols)</li> <li>• PVC insulation tape</li> </ul> <b>Measuring devices</b> <ul style="list-style-type: none"> <li>• Digital Multimeter</li> <li>• Tong tester</li> <li>• Megger</li> </ul> <b>Hand tools</b> <ul style="list-style-type: none"> <li>• Pliers</li> <li>• Screw Drivers (set)</li> <li>• Crimping tools</li> <li>• Wire strippers</li> <li>• Neon tester</li> <li>• Hacksaw</li> </ul> <b>Power Tools</b> <ul style="list-style-type: none"> <li>• Cutting machine</li> <li>• Drill machine</li> </ul>
2	Straight through joining of cables	8 hours	
3	Cable termination	8 hours	
4	Fixing of lights and their respective accessories	8 hours	

5	Electrical termination and cable glanding	4 hours	<b>Measuring Instrument</b> <ul style="list-style-type: none"> <li>• Measuring tapes</li> <li>• Markers</li> </ul> <b>PPEs &amp; safety equipment</b> <ul style="list-style-type: none"> <li>• Helmet</li> <li>• Safety shoes</li> <li>• Safety belt</li> <li>• Insulated rubber gloves</li> <li>• Ear plugs</li> <li>• Reflective jackets</li> <li>• Safety message boards</li> <li>• Fire extinguishers</li> <li>• Sand buckets</li> </ul>
6	Faults associated with lighting arrangements	4 hours	
7	Tracing short circuits, power interruptions continuity	4 hours	

Table 6.3.1 Draw-in cable laying

### Specific Instructions

- For this activity arrange a setup prior with two manholes interconnected, one is near the change in direction or create a path way with two manholes for span of 10 m either one of them should be slightly inclined.
- Make sure all the participants are wearing proper PPEs.
- Explain the overall procedure and key points of the draw-in method before commencing the exercise.
- Check & observe that all the steps followed by the participants.
- Seal all the joints of the conduits with couplers, junction boxes, fan-boxes, bends etc.
- Ensure to leave a pull wire in the empty conduit.
- Ensure occupancy volume for conduit is 60% of the volume.
- Follow the color code while wiring is to be brought out.
- Ensure proper dressing is carried out at DB, Switch board end points after drawing the wires.
- Carryout corresponding quality checks such as load details of lay out and DB load list.
- Complete the activity in scheduled time, at the end of activity, to assess the skill and knowledge acquired, call a person randomly from the group and ask him to explain the steps involved in laying the cable, clarify any doubts.
- Explain the necessity of longer radius when there is a change in direction of conduit line.

Notes



A large rectangular area with a thin orange border, containing 25 horizontal lines for writing notes.





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N S · D · C  
National  
Skill Development  
Corporation

Transforming the skill landscape

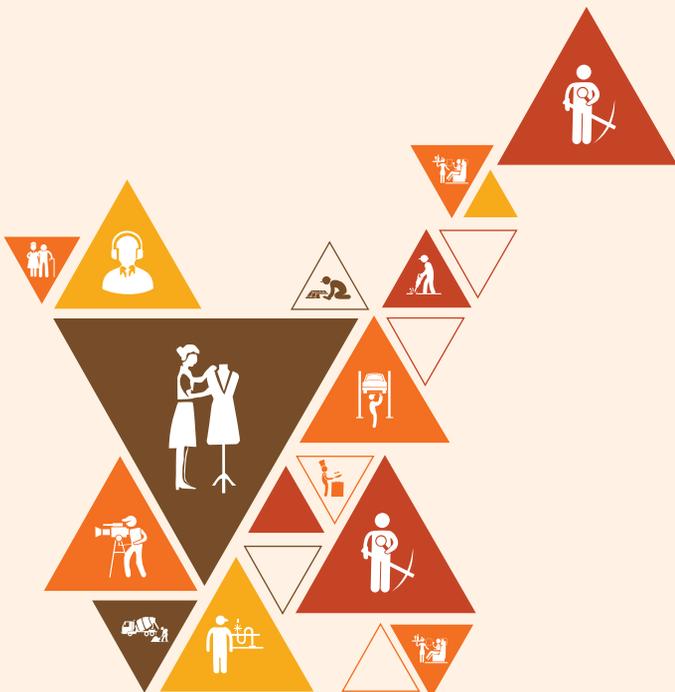


## 7. Electrical Wiring at Permanent Structure and Earthing

Unit 7.1 - Conduit laying, wiring and fixing the fixtures through brick structures

Unit 7.2 - Earthing and its types

Unit 7.3 - Conduit laying through concrete structures



CON/N0604

## Key Learning Outcomes

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

1. Describe the standard procedure for conduit laying and fixing through brick and concrete structures.
2. Explain about cable/wire laying through conduits.
3. Describe electrical earthing in domestic wiring and at construction site.
4. State the importance of electrical earthing in electrical works.
5. Describe electrical earthing in temporary panels.

## UNIT 7.1: Conduit Laying, Wiring and Fixing the Fixtures through Brick Structures

### Unit Objectives

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

1. Explain and demonstrate the standard practice of conduit laying in brick structures.
2. Explain and demonstrate wiring procedure.
3. Explain and demonstrate the method of joining cables and cable glanding.
4. Explain and demonstrate the method of conduit laying and wiring.
5. Explain and demonstrate how to install lighting arrangement.
6. Explain and demonstrate how termination is performed.
7. Explain and demonstrate how to check faults in lighting arrangement.
8. Explain and demonstrate how to trace short circuits, power interruptions/continuity.

### Conduit Laying, Wiring and Fixing the Fixtures through Brick Structures

#### Do

- List the steps involved in cable laying through brick structure.
- Explain the method of joining cables.
- Explain the method of conduit laying and wiring.
- Explain how to install lighting arrangement.
- Explain how termination is performed.
- Explain how to check faults in lighting arrangement.
- Explain how to trace short circuits, power interruptions/continuity.
- Start a discussion relevant to the Unit's objective.
- Encourage/motivate the participants to participate in the classroom interaction.

#### Elaborate

- List of tools, materials, and equipment required for Conduit laying, wiring and fixing the fixtures through brick structures.
- Safety rules and regulations for the activity.

## Notes for Facilitation



- Refer Assistant Electrician PHB page numbers 121 -125 to explain draw in method.
- Use pictures of the tools, materials and equipment required for cables laying by draw-in method.
- Refer National Electrical Code SP30:2011 page no 60-97.

## Activity-1

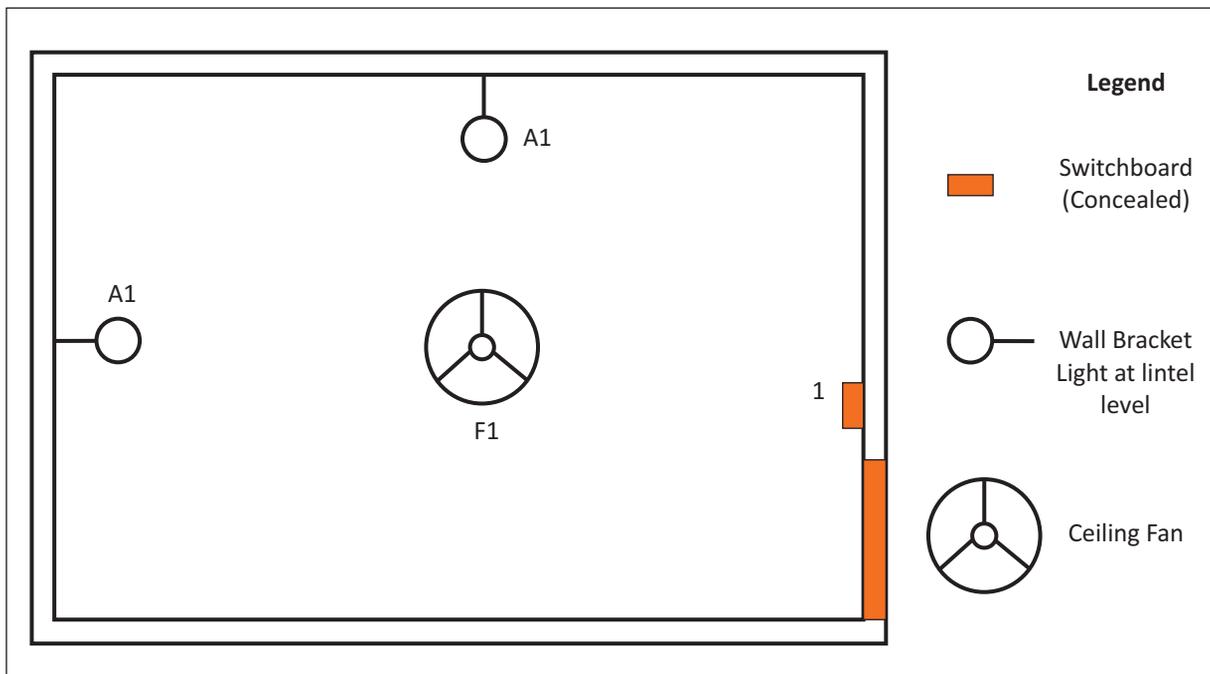


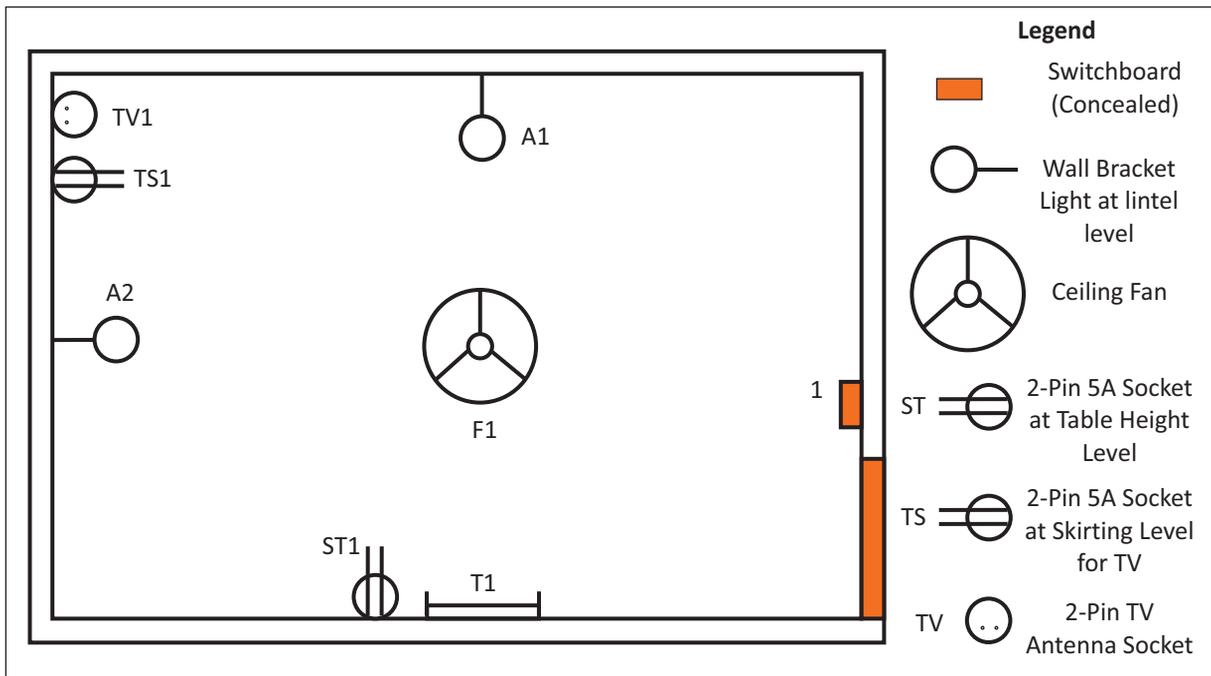
### Conduit laying, wiring and fixing the fixtures through brick structures

Conduct a skill practice activity.

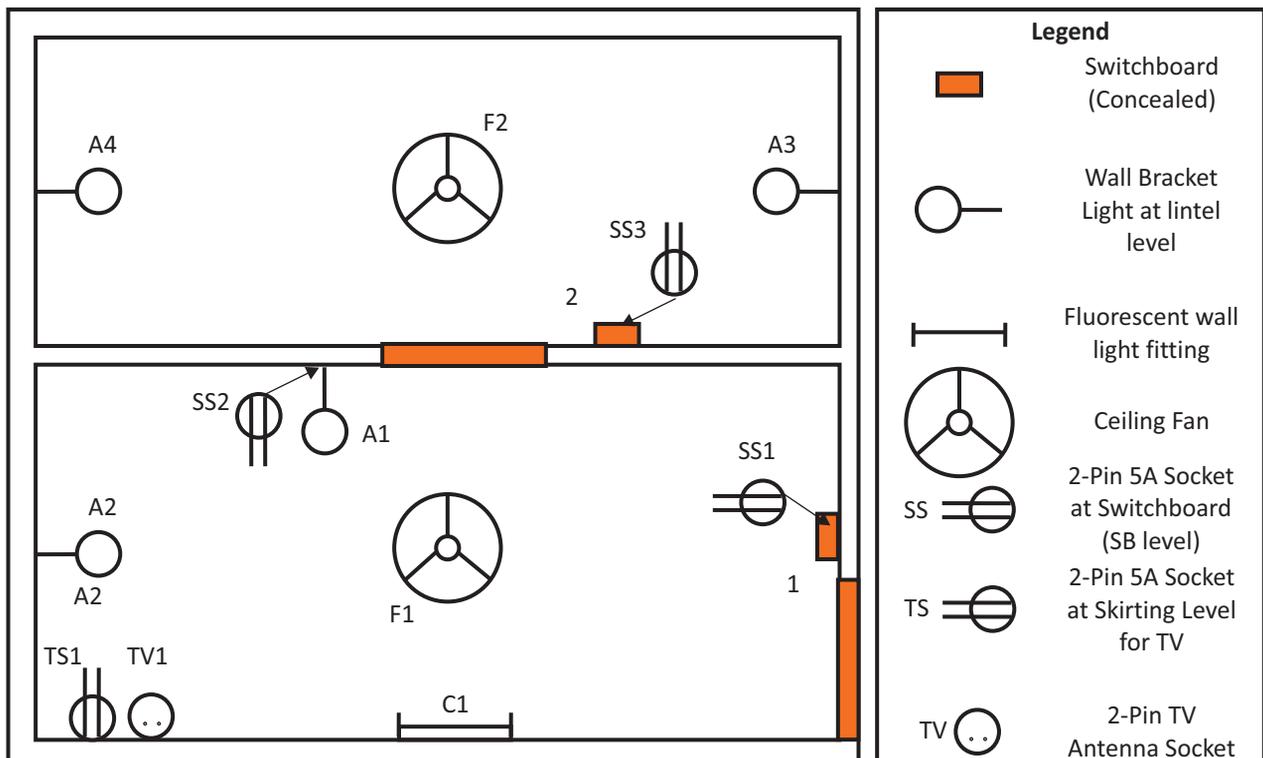
- Lay conduits and provide wiring for fixtures for the layout as given below, ceiling height of 10 feet.
- Assume the data whichever is needed for the activity.
- Ask the participants to assemble together.
- Distribute the practical activity format which includes task, duration allowed, specific instructions, method statements etc.
- Explain the purpose and duration of the activity.
- Set guidelines pertaining to discipline and expected tasks.
- Maximum duration mentioned in the below table is for extensive practice and corresponding guidance until the skill is acquired by the participants.

**Electrical conduit/wiring layout drawings:**

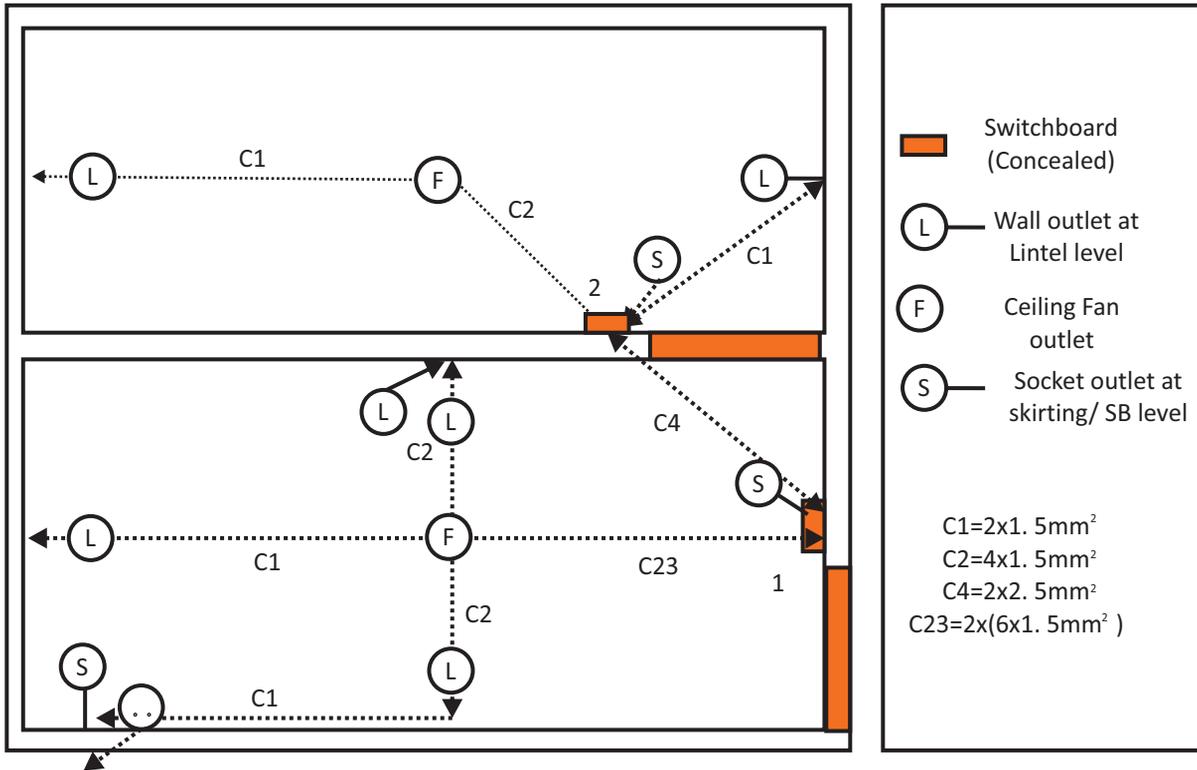




**Fittings and Fixture Layout**



Conduit Layout



Sub Activity	Skill Practice	Time	Resources
1	Laying of conduits through wall chases for a light, fan, and television along with pull wires	8 hours	<b>Consumables</b> <ul style="list-style-type: none"> <li>Single phase electrical cables of standard wire gauges</li> <li>Conduits/ casings/ raceways</li> <li>Electrical diagram (consisting only basic wiring symbols)</li> <li>PVC insulation tape</li> </ul> <b>Measuring devices</b> <ul style="list-style-type: none"> <li>Digital Multimeter</li> <li>Tong tester</li> <li>Megger</li> </ul> <b>Hand tools</b> <ul style="list-style-type: none"> <li>Pliers</li> <li>Screw Drivers (set)</li> <li>Crimping tools</li> <li>Wire strippers</li> <li>Neon tester</li> <li>Hacksaw</li> </ul>
2	Pulling and pushing the wires	6 hours	
3	Joining of wires	4 hours	
4	Fixing of light, fan and television fixtures	4 hours	

5	Fixing of light, fan and outlet for television	4 hours	<b>Power Tools</b> <ul style="list-style-type: none"> <li>• Cutting machine</li> <li>• Drill machine</li> </ul> <b>Measuring Instrument</b> <ul style="list-style-type: none"> <li>• Measuring tapes</li> <li>• Markers</li> </ul> <b>PPEs &amp; safety equipment</b> <ul style="list-style-type: none"> <li>• Helmet</li> <li>• Safety shoes</li> <li>• Safety belt</li> <li>• Insulated rubber gloves</li> <li>• Ear plugs</li> <li>• Reflective jackets</li> <li>• Safety message boards</li> <li>• Fire extinguishers</li> <li>• Sand buckets</li> </ul>
6	Electrical termination and dressing of wires at all the points	4 hours	
7	Faults associated with lighting arrangements	4 hours	
8	Tracing short circuits, power interruptions continuity	4 hours	

Table 7.1.1 Conduit laying through brick structure

### Specific Instructions

- Make sure all the participants are wearing proper PPEs.
- Explain the overall procedure and key points of the laying and fixing of cable through poles before commencing the exercise.
- Check & observe that all the steps followed by the participants.
- Seal all the joints of the conduits with couplers, junction boxes, fan-boxes, bends etc.
- Ensure to leave a pull wire in the empty conduit.
- Ensure occupancy volume for conduit is 60% of the volume.
- Follow the colour code while wiring is to be brought out.
- Ensure proper dressing is carried out at DB, Switch board end points after drawing the wires.
- Carryout corresponding quality checks such as load details of lay out and DB load list.
- Complete the activity in scheduled time, at the end of activity, to assess the skill and knowledge acquired, call a person randomly from the group and ask him to explain the steps involved in laying the cable through poles.

## UNIT 7.2: Earthing and its Types

### Unit Objectives

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

- Explain the need for earthing.
- State the types of earthing.
- Describe the importance of earthing.
- List the steps involved in pipe earthing.
- List the steps involved in plate earthing.
- Identify electrical appliances need earthing at construction site.
- Describe the concept of electrical earthing procedure in domestic wiring.
- Describe the concept of electrical earthing procedure in temporary panels

### Earthing Importance and Types

#### Say

- Welcome and greet the participants.

#### Topic Introduction-

- Give the participants a brief overview of what will be covered in this unit.
- Applications in various job environment.

### Resources to be Used

#### Theory

- Black/white board, marker, notebook, pen, laptop along with projector, PPT, Assistant Electrician Participant handbook.

#### Practical

- Resources such as Hand tools, power tools, consumables, measuring device, measuring instruments, and PPEs mentioned in the activity table given below

### Do

- Explain what is earthing?
- Mention the elements of earthing.
- Explain what are the benefits of earthing.

- Explain the importance of earthing in detail.
- Mention the types of earthing.
- Explain plate and pipe earthing in detail.
- Mention the major difference between plate and pipe earthing.
- Explain the procedure for checking ground resistance.
- Explain how earthing done for temporary panels.
- Explain how earthing is done for electrical wiring and appliances.

## Notes for Facilitation

- Refer participant handbook, page no.136 to explain earthing and its needs.

## Plate Earthing

### Activity-1

#### Conduct a skill practice activity.

- Ask the participants to assemble together.
- Distribute the practical activity format which includes task, duration allowed, specific instructions, method statements etc.
- Explain the purpose and duration of the activity.
- Set guidelines pertaining to discipline and expected tasks.
- Maximum duration mentioned in the below table is for extensive practice and corresponding guidance until the skill is acquired by the participants.

Skill Practice	Time	Resources
Carryout plate earthing	8 hours	<b>Consumables</b> <ul style="list-style-type: none"> <li>• Single phase electrical cables of standard wire gauges</li> <li>• Conduits/casings/raceways</li> <li>• Electrical diagram (consisting only basic wiring symbols)</li> <li>• PVC insulation tape</li> </ul> <b>Measuring devices</b> <ul style="list-style-type: none"> <li>• Digital Multimeter</li> <li>• Tong tester</li> </ul>
Measure ground resistance	4 hours	

Carryout earthing in temporary panels	4 hours	<ul style="list-style-type: none"> <li>• Megger</li> </ul> <b>Hand tools</b> <ul style="list-style-type: none"> <li>• Pliers</li> <li>• Screw Drivers (set)</li> <li>• Crimping tools</li> <li>• Wire strippers</li> <li>• Neon tester</li> <li>• Hacksaw</li> </ul> <b>Power Tools</b> <ul style="list-style-type: none"> <li>• Cutting machine</li> <li>• Drill machine</li> </ul> <b>Measuring Instrument</b> <ul style="list-style-type: none"> <li>• Measuring tapes</li> <li>• Markers</li> </ul> <b>PPEs &amp; safety equipment</b> <ul style="list-style-type: none"> <li>• Helmet</li> <li>• Safety shoes</li> <li>• Safety belt</li> <li>• Insulated rubber gloves</li> <li>• Ear plugs</li> <li>• Reflective jackets</li> <li>• Safety message boards</li> <li>• Fire extinguishers</li> <li>• Sand buckets</li> </ul>
Carry out earthing in domestic wiring	4 hours	
Carry out earthing in electrical appliances	4 hours	

Table 7.2.1 Plate Earthing

**Specific Instructions**

- Make sure all the participants are wearing proper PPEs.
- Explain the overall procedure and key points of the plate earthing before commencing the exercise.
- Check & observe that all the steps followed by the participants.
- Complete the activity in scheduled time, at the end of activity, to assess the skill and knowledge acquired, call a person randomly from the group and ask him to explain the steps involved in plate earthing.

## Plate Earthing

### Activity-2

#### Conduct a skill practice activity.

- Ask the participants to assemble together.
- Distribute the practical activity format which includes task, duration allowed, specific instructions, method statements etc.
- Explain the purpose and duration of the activity.
- Set guidelines pertaining to discipline and expected tasks.

Skill Practice	Time	Resources
Carryout plate earthing	8 hours	<b>Consumables</b> <ul style="list-style-type: none"> <li>• Single phase electrical cables of standard wire gauges</li> <li>• Conduits/casings/raceways</li> <li>• Electrical diagram (consisting only basic wiring symbols)</li> <li>• PVC insulation tape</li> </ul>
Measure ground resistance	4 hours	<b>Measuring devices</b> <ul style="list-style-type: none"> <li>• Digital Multimeter</li> <li>• Tong tester</li> <li>• Megger</li> </ul>
Carryout earthing in temporary panels	4 hours	<b>Hand tools</b> <ul style="list-style-type: none"> <li>• Pliers</li> <li>• Screw Drivers (set)</li> <li>• Crimping tools</li> <li>• Wire strippers</li> <li>• Neon tester</li> <li>• Hacksaw</li> </ul> <b>Power Tools</b> <ul style="list-style-type: none"> <li>• Cutting machine</li> <li>• Drill machine</li> </ul>
Carry out earthing in domestic wiring	4 hours	<b>Measuring Instrument</b> <ul style="list-style-type: none"> <li>• Measuring tapes</li> <li>• Markers</li> </ul> <b>PPEs &amp; safety equipment</b> <ul style="list-style-type: none"> <li>• Helmet</li> <li>• Safety shoes</li> </ul>

Carry out earthing in electrical appliances	4 hours	<ul style="list-style-type: none"> <li>• Safety belt</li> <li>• Insulated rubber gloves</li> <li>• Ear plugs</li> <li>• Reflective jackets</li> <li>• Safety message boards</li> <li>• Fire extinguishers</li> <li>• Sand buckets</li> </ul>
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*Table 7.2.2 Pipe Earthing*

### **Specific Instructions**

- Make sure all the participants are wearing proper PPEs.
- Explain the overall procedure and key points of the pipe earthing before commencing the exercise.
- Check & observe that all the steps followed by the participants.
- Complete the activity in scheduled time, at the end of activity, to assess the skill and knowledge acquired, call a person randomly from the group and ask him to explain the steps involved in pipe earthing.

## UNIT 7.3: Conduit Laying through Concrete Structures (Slab)

### Unit Objectives

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

- Read and understand the conduit layout drawing.
- Install ceiling fan box and accessories as per the requirement.
- Explain the procedure of conduit laying through concrete structures (slab).
- Explain the importance of dummy wires inside conduits.
- Place dummy wires inside conduits.
- Carry out the procedure of conduit laying through concrete structures (slab) as per drawing.

### Conduit Laying through Slab

#### Say

- Welcome and greet the participants.

#### Topic Introduction-

- Give the participants a brief overview of what will be covered in this unit.
- Applications in various job environment.

### Resources to be Used

#### Theory

- Black/white board, marker, notebook, pen, laptop along with projector, PPT, Assistant Electrician Participant handbook.

#### Practical

- Resources such as Hand tools, power tools, consumables, measuring device, measuring instruments, and PPEs mentioned in the activity table given below.

### Do

- Explain how to read and understand the conduit layout drawing.
- Explain how to identify ceiling fan box and other electrical accessory points.
- Explain the procedure of conduit laying through concrete structure (slab).
- Explain the importance of dummy wires inside conduits.
- List out the checks that are to be carried out after installation

## Notes for Facilitation

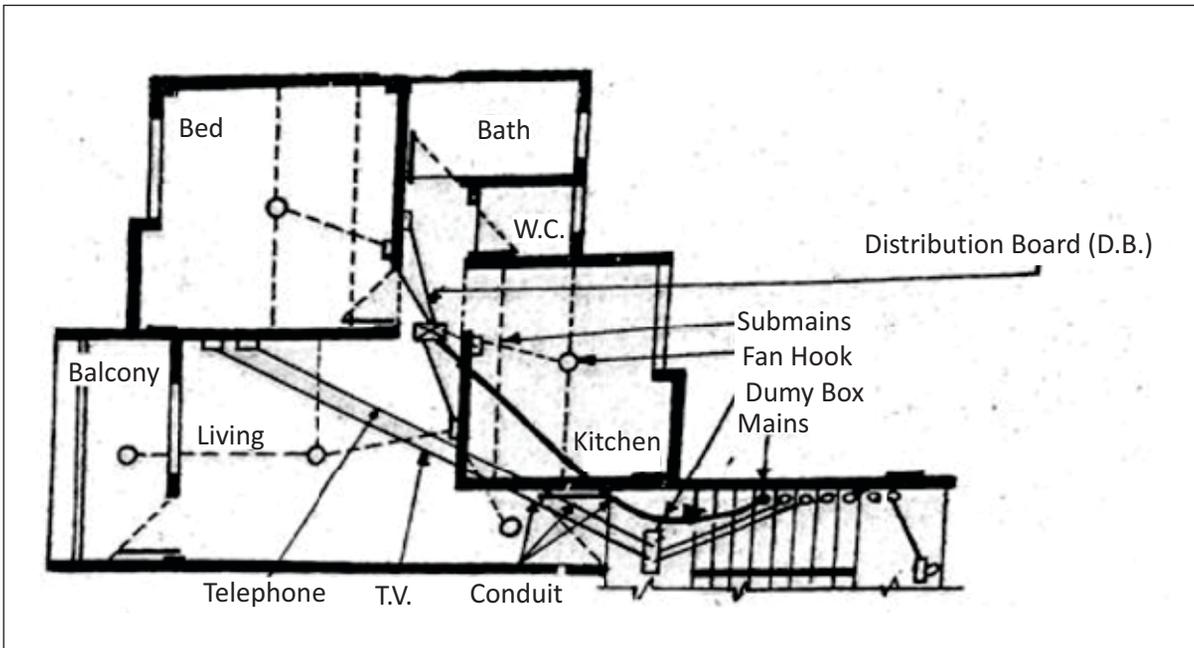


- Refer participant handbook, page no:131 for laying and fixing concealed conduit in slab.

## Activity-3



### Conduit laying in slab



#### Conduct a skill practice activity:

- Carry out conduit laying for the bedroom in the above plan 10\*15 feet.
- Ask the participants to assemble together.
- Distribute the practical activity format which includes task, duration allowed, specific instructions, method statements etc.
- Explain the purpose and duration of the activity.
- Set guidelines pertaining to discipline and expected tasks.
- Maximum duration mentioned in the below table is for extensive practice and corresponding guidance until the skill is acquired by the participants.

Sub Activity	Skill Practice	Time	Resources
1	Study the electrical drawings for position of various points	30 min	<b>Consumables</b> <ul style="list-style-type: none"> <li>• Single phase electrical cables of standard wire gauges</li> <li>• Conduits/ casings/ raceways</li> </ul>

2	Fix the location of distribution board	30 min	<p><b>Consumables</b></p> <ul style="list-style-type: none"> <li>• Single phase electrical cables of standard wire gauges</li> <li>• Conduits/ casings/ raceways</li> <li>• Electrical diagram (consisting only basic wiring symbols)</li> <li>• PVC insulation tape</li> </ul> <p><b>Measuring devices</b></p> <ul style="list-style-type: none"> <li>• Digital Multimeter</li> <li>• Tong tester</li> <li>• Megger</li> </ul> <p><b>Hand tools</b></p> <ul style="list-style-type: none"> <li>• Pliers</li> <li>• Screw Drivers (set)</li> <li>• Crimping tools</li> <li>• Wire strippers</li> <li>• Neon tester</li> <li>• Hacksaw</li> </ul> <p><b>Power Tools</b></p> <ul style="list-style-type: none"> <li>• Cutting machine</li> <li>• Drill machine</li> </ul> <p><b>Measuring Instrument</b></p> <ul style="list-style-type: none"> <li>• Measuring tapes</li> <li>• Markers</li> </ul> <p><b>PPEs &amp; safety equipment</b></p> <ul style="list-style-type: none"> <li>• Helmet</li> <li>• Safety shoes</li> <li>• Safety belt</li> <li>• Insulated rubber gloves</li> <li>• Ear plugs</li> <li>• Reflective jackets</li> <li>• Safety message boards</li> <li>• Fire extinguishers</li> <li>• Sand buckets</li> </ul>
3	Provide the conduits with dummy pull wire for mains, light circuits, TV and telephone as per drawings	30 min	
4	Ensure that center of fan hook box is diagonal as per center alignment considering the loft position in the room	30 min	
5	Check the location of all points	30 min	
6	Apply the bonding solution to all the pipes and electrical accessories to avoid loose fixing of pipes with accessories	1 hour	
7	Tie the conduits using binding wire to each other and to the slab steel	1 hour	
8	Provide suitable inspection boxes	1 hour	
9	Ensure that conduits do not get damaged during movement of laborers on the slab	30 min	
10	Ensure that fan box entries/ holes are intact to prevent the cement slurry from entering	30 min	

Table 7.3.1 Cable laying through slab

### Specific Instructions

- Make sure all the participants are wearing proper PPEs.
- Explain the overall procedure and key points of conduit laying in slab before commencing the exercise.
- Check & observe that all the steps followed by the participants.
- Seal all the joints of the conduits with couplers, junction boxes, fan-boxes, bends etc.
- Ensure to leave a pull wire in the empty conduit.
- Ensure proper dressing is carried out at DB, Switch board end points after drawing the wires.
- Complete the activity in scheduled time, at the end of activity, to assess the skill and knowledge acquired, call a person randomly from the group and ask him to explain the steps involved in laying the conduits inside the slab, clarify any doubts.

Notes



A large rectangular area with a thin orange border, containing 25 horizontal lines for writing notes.





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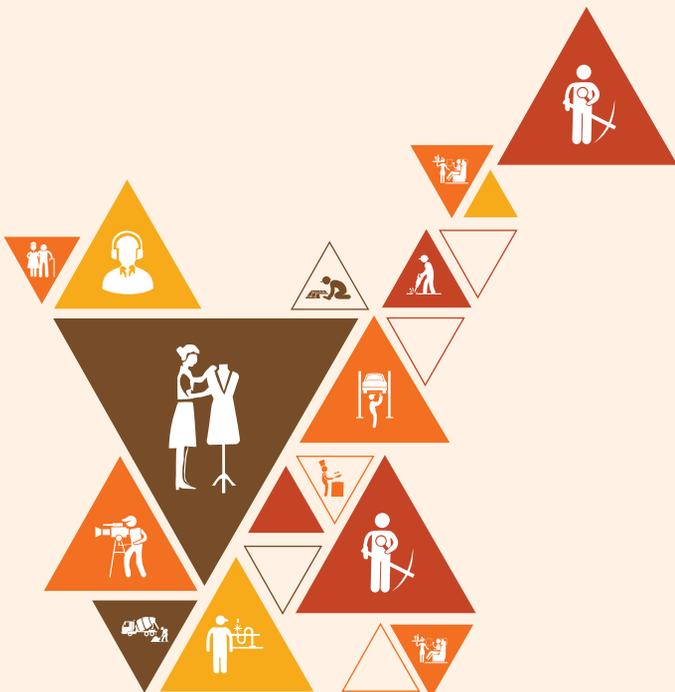
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# 8. Installation and Maintenance of Temporary LV Electrical Panels

Unit 8.1 – Installation, Fault Checking and Maintenance of Temporary LV Electric Panels



CON/N0605

## Key Learning Outcomes

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

1. Describe the method of connecting temporary panel/DBs with main power outlet.
2. Describe the method of electrical termination at power outlets using appropriate fixtures.
3. Explain the standard procedure of shifting and installing DBs among different work location.
4. List the types of faults associated with temporary electrical panels/DBs and its accessories.

## UNIT 8.1: Installation, Fault Checking and Maintenance of Temporary LV Electric Panels

### Unit Objectives

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

1. Describe the method of connecting temporary panel/DBs with main power outlet.
2. Describe the method of electrical termination at power outlets using appropriate fixtures.
3. Explain the standard procedure of shifting and installing DBs among different work location

### Installation of Temporary Panel/Distribution Board

#### Say

- Welcome and greet the participants.

#### Topic Introduction-

- Give the participants a brief overview of what will be covered in this unit.
- Applications in various job environment

### Resources to be Used

#### Theory

- Black/ white board, marker, notebook, pen, laptop along with projector, PPT, Assistant Electrician Participant handbook.

#### Practical

- Resources such as Hand tools, power tools, consumables, measuring device, measuring instruments, and PPEs mentioned in the activity table given below

### Do

- Explain where temporary panels are used in detail.
- Explain the step by step procedure for connecting temporary panel/DBs with main power outlet.
- Explain electrical termination at power outlets.
- Explain the step by step procedure for electrical termination at power outlets.
- Explain the major faults associated with temporary electrical panels.

## Elaborate

- List of tools, materials, and equipment required for connecting temporary panel/DBs with main power outlet.

## Notes for Facilitation

- Refer participant handbook, page no. 147 to explain process of connecting temporary panel/DBs with main power outlet.
- Show the pictures of the tools, materials and equipment required for connecting temporary panel/DBs with main power outlet.

## Installation of Temporary Panel/DBs

### Activity-2

#### Conduct a skill demonstration activity.

- Ask the participants to assemble together.
- Distribute the practical activity format which includes task, duration allowed, specific instructions, method statements etc.
- Explain the purpose and duration of the activity.
- Set guidelines pertaining to discipline and expected tasks.
- Maximum duration mentioned in the below table is for extensive practice and corresponding guidance until the skill is acquired by the participants.

Skill Practice	Time	Resources
Install electrical panel/ distribution board	8 hours	<b>Consumables</b> <ul style="list-style-type: none"> <li>• Single phase electrical cables of standard wire gauges</li> <li>• Conduits/casings/raceways</li> <li>• Electrical diagram (consisting only basic wiring symbols)</li> <li>• PVC insulation tape</li> </ul>
Carryout electrical termination and cable glanding	4 hours	<b>Measuring devices</b> <ul style="list-style-type: none"> <li>• Digital Multimeter</li> <li>• Tong tester</li> <li>• Megger</li> </ul> <b>Hand tools</b> <ul style="list-style-type: none"> <li>• Pliers</li> <li>• Screw Drivers (set)</li> </ul>

Check for faults associated with distribution boards	4 hours	<ul style="list-style-type: none"> <li>• Crimping tools</li> <li>• Wire strippers</li> <li>• Neon tester</li> <li>• Hacksaw</li> </ul> <p><b>Power Tools</b></p> <ul style="list-style-type: none"> <li>• Cutting machine</li> <li>• Drill machine</li> </ul> <p><b>Measuring Instrument</b></p> <ul style="list-style-type: none"> <li>• Measuring tapes</li> <li>• Markers</li> </ul>
Carryout quality checks for electrical panels/DB	4 hours	<p><b>PPEs &amp; safety equipment</b></p> <ul style="list-style-type: none"> <li>• Helmet</li> <li>• Safety shoes</li> <li>• Safety belt</li> <li>• Insulated rubber gloves</li> <li>• Ear plugs</li> <li>• Reflective jackets</li> <li>• Safety message boards</li> <li>• Fire extinguishers</li> <li>• Sand buckets</li> </ul>

Table 8.1.1 Temporary panel installation

#### Specific Instructions

- Make sure all the participants are wearing proper PPEs
- Explain the overall procedure and key points of the installation distribution boards and check for faults before commencing the exercise





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## 9. Employability & Entrepreneurship Skills

Unit 9.1 – Personal Strengths & Value Systems

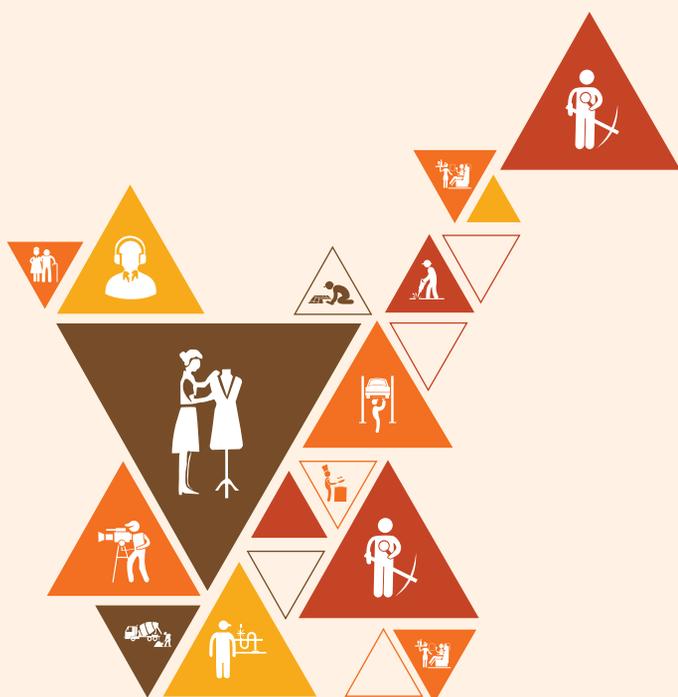
Unit 9.2 – Digital Literacy: A Recap

Unit 9.3 – Money Matters

Unit 9.4 – Preparing for Employment & Self Employment

Unit 9.5 – Understanding Entrepreneurship

Unit 9.6 – 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 favourite 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?"
- Have one of the participants write their contributions on a flip chart sheet.
- Write down your own list of covered material in the training on another flip chart sheet.
- Compare the two sheets, commenting on what will and what will not be covered during the training.
- Set some ground rules for the training sessions. Ask the participants to put these rules on a flipchart and display it in the class.
- You may get back to those sheets once again at the end of the last session of the training.
- 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.
- 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
- Explain the contents that are going to get covered one by one and connect it with the expectation mapping done earlier.
- 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

- Defining the objectives in the beginning of the units sets the mood for the unit.
- To begin with the end in mind sets the expectations of the participants as what could be the important takeaways from the session.
- It is also a way of making participants take responsibility of their own learning process.
- 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 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 behaviour. 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 behaviour 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 9.1: 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 Swacch 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 9.1.1: Health, Habits, Hygiene: What is Health?

### Unit Objectives

At the end of this unit, 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 9.1.2: 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.

PART 1		
Hazard	What could happen?	How could it be corrected?

### 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 9.1.3: Self Analysis- Attitude, Achievement Motivation: What is Self Analysis?

### Unit Objectives

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

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

### Resources to be Used

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

### Activity

- This is a paper pencil activity.

What are the three sentences that describe you the best?

What do you need to live happily?

What are your strengths and weaknesses?

### Do

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

### Say

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

### Team Activity

#### Tower building

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

**Do** 

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

**Ask** 

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

**Say** 

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

**Ask** 

- Is your attitude positive or negative?

**Say** 

- Let me tell you a story :

**It's Little Things that Make a Big Difference.**

There was a man taking a morning walk at the beach. He saw that along with the morning tide came hundreds of starfish and when the tide receded, they were left behind and with the morning sun rays, they would die. The tide was fresh and the starfish were alive. The man took a few steps, picked one and threw it into the water. He did that repeatedly. Right behind him there was another person who couldn't understand what this man was doing. He caught up with him and asked, "What are you doing? There are hundreds of starfish. How many can you help? What difference does it make?" This man did not reply, took two more steps, picked up another one, threw it into the water, and said, "It makes a difference to this one." What difference are we making? Big or small, it does not matter. If everyone made a small difference, we'd end up with a big difference, wouldn't we?

**Ask** 

- What did you learn from this story?

**Activity** **What Motivates You?**

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

**Do** 

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

## Say

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

## Summarize

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

## UNIT 9.1.4: 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

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

### Do

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

## Team Activity

### Case Study Analysis

#### Scenario 1

Aakash has a small mobile retail sales and repair shop in Allahabad. He has one of the most popular outlets and has great rapport with his customers.

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

#### Scenario 2

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

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

#### Scenario 3

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

#### Scenario 4

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

## Say

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

**Do** 

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

**Summarize** 

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

## UNIT 9.1.5: 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.

Spring's idea is to have a centralised purification system at the point of distribution like water tank while Subash's idea is to have such purifiers attached to public taps.

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

#### **Solar seeder**

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

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

**Looms for physically challenged**

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

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

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

**Ask** 

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

**Say** 

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

**Team Activity** 

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

**Activity De-brief**

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

**Do** 

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

## Summarize

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

## Notes for Facilitation

- Source for stories on innovations:

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

## UNIT 9.1.6: Time Management

### Unit Objectives

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

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

### Resources to be Used

- Participant Handbook

### Ask

**Does this sound like you?**

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

### Example

- Let's look at these two examples:

#### Example 1:

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

#### Example 2:

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

### Ask

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

## Activity

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

## Say

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

## Ask

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

## Say

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

## Activity

### Effective Time Management

- This activity has two parts:

#### PART 1 TO-DO LIST

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

#### PART 2 URGENT-IMPORTANT GRID

- You have to make a grid as shown on the board here. .
- This grid has four boxes. As you can see, each box has a different heading.
- At the heart of the urgent-important grid, are these two questions:
  - ♦ Is this task important?
  - ♦ Is this task urgent?
- Now, you have to think about each activity that you have written in your to-do list and put it into one of the four categories.
- **What do these categories depict?**
- **Category 1: Urgent/Important**
  - ♦ This category is for the highest priority tasks. They need to get done now.

- **Category 2: Not Urgent/Important**

- This is where you want to spend most of your time.
- This category allows you to work on something important and have the time to do it properly.
- This will help you produce high quality work in an efficient manner.
- The tasks in this category are probably the most neglected ones, but also the most crucial ones for success.
- The tasks in this category can include strategic thinking, deciding on goals or general direction and planning – all vital parts of running a successful business.

- **Category 3: Urgent/Not Important**

- ♦ This is where you are busy but not productive. These tasks are often mistaken to be important, when they're most often busywork.
- ♦ Urgent but not important tasks are things that prevent you from achieving your goals.
- ♦ However, some may be activities that other people want you to do.

- **Category 4: Not Important and Not Urgent**

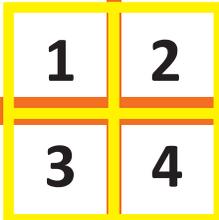
- ♦ This category doesn't really include tasks, but rather habits that provide comfort, and a refuge from being disciplined and rigorous with your time management.
- ♦ Some may be activities that other people want you to do.
- ♦ These might include unplanned leisure activities as well.

**TO- DO list format**

1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	

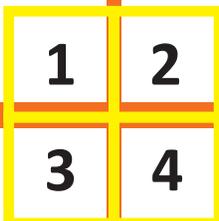
**URGENT-IMPORTANT GRID**

<p><b>URGENT/ IMPORTANT</b></p> <ul style="list-style-type: none"> <li>• Meetings</li> <li>• Last minute demands</li> <li>• Project deadlines</li> <li>• Crisis</li> </ul>	<p><b>NOT URGENT/ IMPORTANT</b></p> <ul style="list-style-type: none"> <li>• Planning</li> <li>• Working towards goals</li> <li>• Building relationship</li> <li>• Personal commitments</li> </ul>
<ul style="list-style-type: none"> <li>• Interruptions</li> <li>• Phone calls/ E-mails</li> <li>• Other people's minor demands</li> </ul> <p><b>URGENT/ NOT IMPORTANT</b></p>	<ul style="list-style-type: none"> <li>• Internet surfing</li> <li>• Social media</li> <li>• Watching TV</li> </ul> <p><b>NOT URGENT/ NOT IMPORTANT</b></p>



**URGENT/ IMPORTANT GRID format**

<p><b>URGENT/ IMPORTANT</b></p>	<p><b>NOT URGENT/ IMPORTANT</b></p>
<p><b>URGENT/ NOT IMPORTANT</b></p>	<p><b>NOT URGENT/ NOT IMPORTANT</b></p>



## Do

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

## Say

### Activity De-brief:

#### How can we balance tasks between the four categories?

#### How to manage time through this grid?

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

## Summarize

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

## Notes for Facilitation



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

So, tonight, or in the morning tomorrow, when you are reflecting on this short story, ask yourself this question: What are the 'big rocks' in my life? Then, put those in your jar first

## UNIT 9.1.7: Anger Management

### Unit Objectives

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

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

### Resources to be Used

- Participant Handbook

### Ask

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

### Say

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

### Do

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

### Activity

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

### Ask

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

**Say** 

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

**Do** 

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

**Activity** 

Trigger points and Anger Management Techniques Activity

**Anger Triggers**

List of triggers that make you angry:
Someone says you did something wrong.
You want something you can't have now.
You get caught doing something you shouldn't have been doing.
You are accused of doing something you didn't do.
You are told that you can't do something.
Someone doesn't agree with you.
Someone doesn't do what you tell him to do.
Someone unexpected happens that messes up your schedule.

**Result of your anger:**

Write the techniques that you use to manage your anger:

### Anger Management Techniques

## Say

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

## Do

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

## Ask

### De-brief questions:

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

## Summarize

- Close the discussion by summarizing the strategies and tips of anger management for entrepreneurs.
- Ask the participants what 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 9.1.8: Stress Management: What is stress?

### Unit Objectives

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

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

### Resources to be Used

- Participant Handbook

### Ask

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

### Say

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

### Ask

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

### Say

- When we feel overloaded or unsure of our ability to deal with certain challenges, we feel stressed.
- Discuss about stress, causes of stress, and symptoms of stress as discussed in the Participant Handbook.
- Let's understand the causes of stress and how to deal with them with the help of some case scenarios.
- You will be given some cases.
- You have to analyse the case scenario and then find an appropriate solution to the problem.
- This will be a group activity.

### Do

- Divide the class into four groups of 5- 6 participants (depending on the batch size).
- Assign one case scenario to each group.
- Instruct them to read the case carefully.
- The group is expected to analyse and discuss the case amongst them and find a solution to the given problem.
- Explain their discussion should result in getting answers for the following questions:

- What was/were the cause(s) of stress?
- Was the stress avoidable or manageable under the given circumstances?
- If yes, how do you think that the stress could be avoided (managed)?
- If no, then why not?
- Give the class 10-12 minutes to discuss the case and note down their solutions.
- At the end of 12 minutes, the team should present their case solution to the larger group.
- Ask the group to select a group leader for their group.
- The group leader to discuss and assign roles to the group members for the presentation.

## Team Activity

### Case Study Analysis

#### Scenario 1

Akash's alarm doesn't go off and he gets late getting out of the house. He hits traffic and ends up 15 minutes late to work, which his boss notices. He gets to his desk and finds he has to complete 2 reports in next one hour. Just when he is about to begin work, a message pops up "Telecon with the client begins in 10 minutes. Please be in the conference room in 5 minutes."

He is not prepared for the call. He is stressed. He does not want to speak to his boss about this. He is stressed, feeling uncomfortable and sick. Not in a position to attend the call or finish the reports on time.

#### Scenario 2

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

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

#### Scenario 3

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

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

She has to leave to office so she decides to call from office and check. When she connects this time she is angry and argues with the executive on the call. All her co-workers around are looking at her as her volume has suddenly increased. She bangs the phone and ends the call.

Her co-worker Neelam enquires what has happened to her. She ignores her and just walks off. She has become irritable and her behaviour and tone with other co-workers is not acceptable.

**Scenario 4**

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

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

**Ask****De-brief questions:**

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

**Say**

- Now, let's discuss the problem and solution with the larger group.
- The group will first briefly describe the case to the class.
- Then discuss the issue identified and the proposed solution.
- Post presentation, the other groups may ask questions to the group that has presented.

**Do**

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

**Say**

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

**De-brief:****Scenario 1**

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

**Scenario 2**

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

**Scenario 3**

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

**Scenario 4**

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

Now let us see this scenario, can I have a volunteer to read out this case to the class.

**Do** 

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

**Scenario 5**

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

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

**Say** **De-brief:**

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

## Summarize

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

## Notes for Facilitation

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



## UNIT 9.2: 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 9.2.1: 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 9.2.2: MS Office and Email: About MS Office

### Unit Objectives

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 MS Office

### 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 9.2.3: E-Commerce

### Unit Objectives

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 System with internet connection
- Participant Handbook

### Ask

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

### Say

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

### Ask

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

### Say

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

### Team Activity

#### E-commerce examples

- Instruct the participants to list some of the payment gateways that they have used for e-commerce activities.
- Give them 5 minutes to make this list.
- Discuss payment gateways and transaction through payment gateways.
- Conclude the discussion by mentioning how important e-commerce has become in our day to day transactions.

Say 

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

Do 

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

Say 

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

Explain 

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

Say 

- Now let us discuss how to sell a product using E-commerce.
- Every product has to be sold on a platform on the internet. Think of it as a shop that you have to sell your product. Now this shop can be your own or shared or rented. If the shop is your own or rented there will be only your products in that shop. If the shop is shared, there will be products of multiple sellers in that shop. A common example is a departmental store which has products from multiple brands in the shop.
- Similarly, in E-commerce the shop is the website where your products are displayed. If it is your own website it will exclusively showcase your products. In this case the cost that you will incur will be:
  - ♦ Developing the website
  - ♦ Hosting the website
  - ♦ Maintenance of the website
- If you rent a website it will also showcase your own products but the development, hosting and maintenance parts goes to the owner. This saves time and the cost to manage these activities.
- Smaller companies usually go for renting a website and the bigger ones develop their own website.
- The concept of shared platforms has become very popular in recent times. In this platform the sellers have to register and then they can sell their goods on a common platform. Among the most popular of these are Amazon, Myntra, Flipkart, etc.

Role Play 

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

## Ask



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

## Say



- Demonetization has made carrying cash in the wallet very difficult. People either shop through cards or some other form of digital money.
- So what do you think is digital money?
- In this form the money is both paid and received digitally. There is no hard cash involved. It is an instant and convenient way to make payments.
- There are various types of digital payments. Let us discuss some of them in brief here.
- The first one is the most commonly used system i.e. the cards. Debit card, credit card, prepaid card, all fall under this category.
- Then is the e-wallet or the mobile wallet. This has become the most used form of digital money after demonetization. Examples are Paytm, state bank buddy, 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 9.3: 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 9.3.1: Personal Finance – Why to Save?

### Unit Objectives

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 atleast 40,000.

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

#### Example 2:

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

### Ask

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

### Say

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

### Ask

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

## Say

- Discuss “Benefits of Saving” with the participants as given in the Participant Handbook.
- Now let us continue with Suhani's story. Suhani has told her family not to worry and that she has about 50,000, which she has saved over the months. The family is happy about Suhani's decision of saving money, which will be of great help for them now.

Suhani is going to the hospital today to pay the first instalment for the treatment. Suddenly finds only 35,000 in her cash box when she counts and does not remember using it. She has not kept any record and now she is upset.

## Ask

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

## Say

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

## Team Activity

### Personal Finance- Why to save

- This activity has two parts:

#### PART 1

#### WAYS TO SAVE MONEY

- You are earning 30,000/- per month. You have recently changed your job and have to move to a metropolitan city. You are now living as a paying guest paying 10,000/- 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 9.3.2: Types of Bank Accounts, Opening a Bank Account

### Unit Objectives

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

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

### Resources to be Used

- Account opening sample forms
- Participant Handbook

### Ask

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

### Example

- Let's look at the given example:

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

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

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

### Ask

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

### Say

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

### Ask

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

**Say** 

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

**Team Activity** 

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

**Activity De-brief**

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

**Say** 

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

**Ask** 

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

**Say** 

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

**Team Activity** 

**Opening a Bank Account**

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

**PART 1**

**FILLING A BANK ACCOUNT OPENING FORM**

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

**Activity De-brief**

**How did you design the form?**

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

Do



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

Summarize

**Note:**

- You can summarize the unit through a role play.
  - ♦ A person wanting to open an account in the bank.
  - ♦ What is the procedure that he will go through?
  - ♦ Discuss the key points of different types of bank accounts.
  - ♦ How to select the type of account
  - ♦ How to fill the account opening form.
- A sample account opening form is given in the following page for reference. Use it for the activity in the class.

**Sample Bank Account Opening form.**

	XXX Bank			
<b>Photograph</b>				
<u>SAVING BANK ACCOUNT OPENING FORM</u>				
Account No.: _____	Date: _____			
Name of the Branch				
Village/Town				
Sub District / Block Name				
District				
State				
SSA Code / Ward No.				
Village Code / Town Code	Name of Village / Town			
<b>Applicant Details:</b>				
Full Name	Mr./Mrs./Ms.	First	Middle	Last Name
Marital Status				
Name of Spouse/Father				
Name of Mother				
Address				
Pin Code				
Tel No. Mobile				Date of Birth
Aadhaar No.				Pan No.
MNREGA Job Card No.				
Occupation/Profession				
Annual Income				
No. of Dependents				

<b>Detail of Assets</b>	Owning House : Y/N	Owning Farm :
	Y/N	
	No. of Animals :	Any other :
<b>Existing Bank A/c. of family members / household</b>	Y / N	If yes, No. of A/cs. _____
<b>Kisan Credit Card</b>	Whether Eligible	Y / N
I request you to issue me a <b>Rupay Card</b> .		
I also understand that I am eligible for an Overdraft after satisfactory operation of my account after 6 months of opening my account for meeting my emergency/ family needs subject to the condition that only one member from the household will be eligible for overdraft facility. I shall abide by the terms and conditions stipulated by the Bank in this regard.		

**Declaration:**

I hereby apply for opening of a Bank Account. I declare that the information provided by me in this application form is true and correct. The terms and conditions applicable have been read over and explained to me and have understood the same. I shall abide by all the terms and conditions as may be in force from time to time. I declare that I have not availed any Overdraft or Credit facility from any other bank.

**Place:****Date:****Signature / LTI of Applicant****Nomination:**

I want to nominate as under				
Name of Nominee	Relationship	Age	Date of Birth in case of minor	Person authorised in case to receive the amount of deposit on behalf of the nominee in the event of my /minor(s) death.

**Place:****Date:****Signature / LTI of Applicant****Witness(es)\***

1. \_\_\_\_\_

2. \_\_\_\_\_

\*Witness is required only for thumb impression and not for signature

## UNIT 9.3.3: Costs: Fixed vs. Variables: What are Fixed and Variable Costs?

### Unit Objectives

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

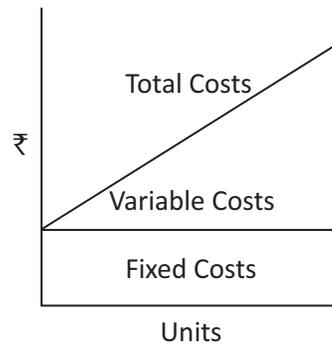
1. Rent
2. Telephone bill
3. Electricity bill
4. Machinery
5. Insurance
6. Office supplies/ Raw materials
7. Employee salaries
8. Commission percentage given to sales person for every unit sold
9. Credit card fees
10. Vendor bills

### 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.



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

## Team Activity

### Fixed vs. Variable Costs

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

### Activity De-brief

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

## Do

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

## Summarize

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

## Notes for Facilitation

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

## UNIT 9.3.4: Investments, Insurance and Taxes

### Unit Objectives

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

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

### Resources to be Used

- Participant Handbook

### Ask

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

### Example

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

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

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

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

### Say

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

### Ask

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

### Say

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

### Say

- We will have a quiz today.

## Team Activity

- The activity is a quiz.

## Do

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

## Summarize

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

## Notes for Facilitation

### Questions for the quiz

1. What are bonds?

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

2. Who issues the bonds?

*Private and public companies issue the bonds.*

3. Why are bonds issued?

*To raise large amount of money as it cannot be borrowed from the bank.*

4. Who is the buyer of stocks and equities?

*The general public is the buyer.*

5. What types of scheme is the Sukanya Samridhi Scheme?

*Small Saving Scheme*

6. 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.*

7. Why is a loan taken from the bank to purchase real estate?

*To lease or sell to make profit on appreciated property price.*

8. Name the two types of insurances?

*Life Insurance and Non-life or general insurance*

9. Which insurance product offers financial protection for 15-20 years?

*Term Insurance*

10. What is the benefit of taking an endowment policy?

*It offers the dual benefit of investment and insurance.*

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

*Money Back Life 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 9.3.5: Online Banking, NEFT, RTGS, etc.

### Unit Objectives

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

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

### Resources to be Used

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

### Ask

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

### Say

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

### Do

- Show them how they can use the internet banking.
- Use the computer system and show the demo videos on how to use internet banking provided on most banking sites. the computer system.
- Tell the class the various features of online banking:
  - ♦ Through their website set-up your online account.
  - ♦ Choose a secure username and password.
  - ♦ Set-up your contact information.
  - ♦ Once your information is verified, you are good to go.
  - ♦ Once you enter the portal explore all the features and learn your way through the portal.
- Discuss about maintaining the security of the online account.

## 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 9.4: 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 9.4.1: Interview Preparation: How to Prepare for an Interview?

### Unit Objectives

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

- Discuss the steps to follow to prepare for an interview

### Resources to be Used

- Participant Handbook

### Ask

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

### Say

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

### Activity 1

- Introducing Yourself

### Do

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

### Ask

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

## Say

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

## Do

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

## Activity 2

- Planning the right attire

## Do

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

## Summarize

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

## UNIT 9.4.2: Preparing an Effective Resume: How to Create an Effective Resume?

### Unit Objectives

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 resumes 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 resumes.
- Now let's prepare a resume for the candidate details given in the activity.

## Activity

### Case Study Analysis

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

### Candidate Details

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

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

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

### Job Posting

\* Do you see yourself as a HOUSEKEEPING SUPERVISOR?

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

THE LOCATION:

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

*Salary:* Negotiable

*Industry:* Travel / Hotels / Restaurants / Airlines / Railways

*Functional Area:* Hotels, Restaurants

*Role Category:* Housekeeping

*Role:* Housekeeping Executive/Assistant.

Desired Candidate Profile

Friendly, pleasant personality, Service - oriented.

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

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

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

Education-

UG: Any Graduate/ Diploma holder

PG: Post Graduation Not Required

### Say

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

### Do

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

### Summarize

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

### Notes for Facilitation

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

Nipesh Singla

#1XX7, Sector XX-D

Chandigarh-160018

Mobile No: 91-988XXXXX01

E-mail: nxxxxxxxxla@gmail.com

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

**Professional strengths:**

- Proficient in housekeeping
- Experienced in and capable of working with a diverse work force
- Team player and friendly in nature
- Successful working in a multi-cultural environment

- Detail oriented, flexible, and adaptable
- Knowledge of Microsoft Word, Excel, Access and PowerPoint

**Educational background:**

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

**Professional internships:**

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

**Volunteer Work:**

- Student volunteer at children's hospital in Chandigarh.

Nipesh Singla

## UNIT 9.4.3: Interview FAQs

### Unit Objectives

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

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

### Resources to be Used

- Participant Handbook

### Say

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

### Do

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

### Role Play

Conduct a role play for the situation given.

#### Situation 1

- The interviewer will start by asking the interviewee a few generic questions such as:
  - ♦ What is your name?
  - ♦ Tell me something about yourself?
  - ♦ Can you tell me something about your family?
- Then, the interviewer will bluntly ask the following questions:
  - ♦ How do you explain this huge time gap in your resume?
  - ♦ What is the reason for this?
  - ♦ Weren't you looking for a job or is it that no one selected you?

Say **De-brief:**

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

Role Play 

Conduct a role play for the situation given.

**Role Play – Situation 2**

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

Say **De-brief:**

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

Role Play 

Conduct a role play for the situation given.

**Role Play – Situation 3**

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

Say **De-brief:**

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

## Role Play

Conduct a role play for the situation given.

### Role Play – Situation 4

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

## Say

### De-brief:

- Don't provide unreal and idealistic answers.
- Your answers should be honest yet diplomatic. In a situation like this, the interviewer does not expect you to provide a specific timeline.
- You can say something like, "I would like to stay with the company as long as I can contribute constructively and develop as an employee, within the organization, professionally and financially."

## Role Play

Conduct a role play for the situation given.

### Role Play – Situation 5

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

## Say

### De-brief:

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

## Role Play

Conduct a role play for the situation given.

### Role Play – Situation 6

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

## Say

### De-brief:

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

## Role Play

Conduct a role play for the situation given.

### Role Play – Situation 7

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

## Say

### De-brief:

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

## Explain

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

## Do

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

## Activity

### Mock Interview Questions

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

## Summarize

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

## UNIT 9.4.4: Work Readiness – Terms and Terminology

### Unit Objectives

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 9.5: 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 9.5.1: Concept Introduction (Characteristic of an Entrepreneur, types of firms/ types of enterprises)

### Unit Objectives

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

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

### Resources to be Used

- Participant Handbook

### Say

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

### Team Activity

#### Quiz Questions

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

### Do

- Tell them that you will ask them few questions about a few entrepreneurs.
- Divide the class in to two groups.
- In turns ask the quiz questions to the groups.
- If the answer is incorrect pass the question to the other group.
- Share the answer if the groups are not able to answer.
- Congratulate the participants who answered correctly.

**Ask**

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

**Say**

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

**Summarize**

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

**Notes for Facilitation**

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

## UNIT 9.5.2: Leadership and Teamwork

### Unit Objectives

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

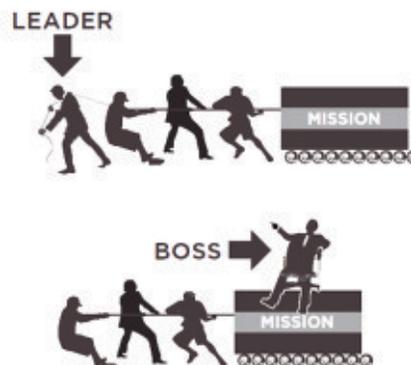
- List the qualities of an effective leader
- Discuss the benefits of effective leadership
- List the traits of an effective team

### 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 employees 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 employees whereas a leader coaches them.
- A boss takes credit whereas a leader gives credit.

### Say

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

### Ask

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

## Say

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

## Ask

- Do you consider yourself a team player?

## Team Activity

### Long Chain

- This is a group activity.

## Do

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

## Say

### De-brief:

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

## Say

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

## Summarize

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

## UNIT 9.5.3: Communication Skills: Listening & Speaking: The Importance of Listening Effectively

### Unit Objectives

At the end of this unit, 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 1

#### Activity – Chinese Whisper

Step 1: Form a circle.

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 silly.

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

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

Compare them and have a great laugh!

### Ask

#### De-brief questions:

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

### Say

- No, the original message was not same at the end of game.
- The barriers to communication like language, disturbance and noise, poor listening skills, boredom, poor speaking skills, etc. are the potential reasons this happens.
- There are various aspects to communication. Speaking skills and listening skills are two major components to any communication. There is always some room for improvement in the way we communicate.
- It is important to accept the reality of miscommunication and work to minimise its negative impacts.

## Say

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

## Ask

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

## Say

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

## Do

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

## Activity 2

### Riddles:

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

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

Do they have a 26th of January in England?

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

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

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

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

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

**Answers:**

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

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

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

First of all, you would light the match.

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

Every SINGLE person died, but those two were married.

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

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

**Ask****De-brief question:**

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

**Say**

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

**Activity 3****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 be better prepared, you're sure that he would have stayed long enough to schedule a meeting with you too.

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

**Do**

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

## Notes for Facilitation



- Tell the participants to follow these steps to create a great pitch, but bear in mind that you'll need to vary your approach depending on what your pitch is about.
  1. **Identify Your Goal:** Start by thinking about the objective of your pitch. For instance, do you want to tell the potential clients about your organization? Do you have a great new product idea that you want to pitch to an executive or do you want a simple and engaging speech to explain what you do for a living?
  2. **Explain What You Do:** Start your pitch by describing what your organization does. Focus on the problems that you solve and how you help people. Ask yourself this question as you start writing: what do you want your audience to remember most about you? Keep in mind that your pitch should excite you first. After all, if you don't get excited about what you're saying neither will your audience. People may not remember everything that you say, but they will likely remember your enthusiasm.
  3. **Communicate Your USP:** Your elevator pitch also needs to communicate your unique selling proposition or USP. Identify what makes you, your organization or your idea unique. You'll want to communicate your USP after you've talked about what you do.
  4. **Engage with a Question:** After you communicate your USP, you need to engage your audience. To do this, prepare open-ended questions (questions that can't be answered with a "yes" or "no" answer) to involve them in the conversation. Make sure that you're able to answer any questions that he or she may have.
  5. **Put it all Together:** When you've completed each section of your pitch, put it all together. Then, read it aloud and use a stopwatch to time how long it takes. It should be no longer than 20-30 seconds. Remember, the shorter it is, the better!

### Example:

Here's how your pitch could come together:

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

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

## Summarize



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

## UNIT 9.5.4: Problem Solving & Negotiation Skills

### Unit Objectives

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

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

### Resources to be Used

- Participant Handbook

### Ask

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

### Say

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

### Ask

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

### Say

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

### Team Activity

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

**Do** 

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

**Say** **De-brief questions:**

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

**Ask** 

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

**Say** 

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

**Ask** 

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

**Say** 

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

**Summarize** 

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

**Activity** 

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

**Do** 

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

### Ask



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

### Say



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

### Ask



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

### Say



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

### Say



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

### Role Play



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

### Do



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

#### **Problem solving Scenario 1**

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

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

**Problem solving Scenario 2**

You are running a successful small scale business, Shreeji Aggarbattis,. Your staff members do door to door selling and organise marketing campaigns in local markets. Your brand has established 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. to 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 9.5.5: Business Opportunity Identification: Entrepreneurs and Opportunities

### Unit Objectives

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

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

### Resources to be Used

- Participant Handbook
- Blank sheets of paper
- Pens

### Ask

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

### Say

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

### Do

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

### Activity

#### Do your SWOT analysis

#### Strength

What are your strengths?  
 What unique capabilities do you possess?  
 What do you do better than others?  
 What do others perceive as your strengths?

#### Weakness

What are your weaknesses?  
 What do your competitors do better than you?

#### Opportunity

What trends may positively impact you?  
 What opportunities are available to you?

#### Threat

Do you have solid financial support?  
 What trends may negatively impact you?

**Do** 

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

**Ask** **De-brief questions:**

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

**Summarize** 

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

## UNIT 9.5.6: 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

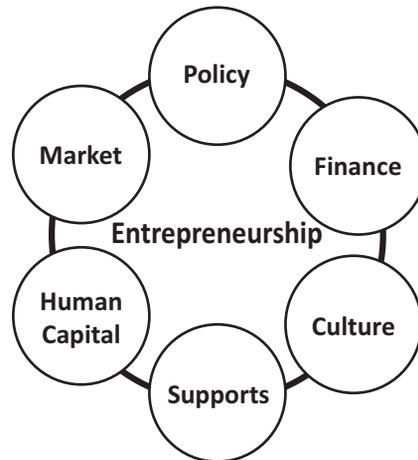
- Making a poster showing the entrepreneurship support eco-system.

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 9.5.7: 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 not 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 9.5.8: Success and Failures

### Unit Objectives

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

- Discuss how to deal with failure

### Resources to be Used

- Participant Handbook

### Ask

- Have you heard the quote 'nothing is impossible'?
- What do you think it means?
- Do you think that all successful entrepreneurs became famous overnight or did they have to struggle or face failure before succeeding?

### Example

- Let's have a look at this example.

Shah Rukh Khan, also known as, SRK or King Khan is a force to reckon with. Did he achieve stardom overnight? Shah Rukh Khan, who has seen many struggles in his life – he has slept on streets, struggled to support himself and his sister at a very young age, and lost his parents very early in life, which led to his sister seeking mental health support. Amidst all the chaos and challenges, he kept pushing himself, and today he stands tall as the 'Badshah of Bollywood'. Certainly those years were not easy for him.

When he was young, he stood at Marine Drive and said, “I will rule this city one day”. Failure was not just his companion during or before his stardom, it is still a substantial part of his life. Success does not come easy. What made him a star was his acceptance of failure and the urge to improve.

### Say

- How do you define success and failure?
- What is fear?
- Discuss “success and failure” with the participants as given in the Participant Handbook.

### Ask

- Have you felt or experienced fear?
- What led you to feel that emotion?
- How did you handle it?

### Say

- Let's learn the about success and failure with the help of an activity.

## Team Activity

- Divide the class into groups of four.
- Instruct them to think of one scenario where they have to interview a successful entrepreneur.
- Explain the purpose and duration of the activity.
- Set guidelines pertaining to discipline and expected tasks.
- They have to choose one person from the group as the interviewee and one as the interviewer.
- Go around and make sure they have understood what is to be done and are discussing the roles properly.
- Check that everyone understands their role. Give clarifications if needed. Give the participants about 5 minutes to discuss and decide their roles.
- Ask the groups to stop the discussion as soon as the time is over.
- Invite each group one by one to come and present their interview as a role play.

## Notes for Facilitation

### Facilitating Role Plays

#### Preparing for the activity

1. Carefully review the details of the scenario and the character descriptions.
2. Become familiar with the key issues being addressed in the scenario.
3. Study the provided material so that you are ready to address issues related to the situations depicted in the role plays.
4. Anticipate potential questions that might be raised by the participants and be ready to address them.

#### Conducting the activity

1. Introduce the activity. Emphasize that role playing provides participants with an opportunity to apply their new knowledge, skills, and tools in situations that simulate actual interactions with customers.
2. Ask participants to form pairs. Direct the members of each group to choose who will play the roles. Remind the groups that each participant should be given the opportunity to play/practice the different roles.
3. Conduct a demonstration so that participants become familiar with the expectations related to the roles and support materials.
4. To maintain spontaneity of the interactions during the role play, ask the participants not to discuss the details of their roles prior to the role play.
5. Give the pairs 15-20 minutes to conduct the role play.
6. Circulate among the groups to answer any questions that may arise and provide guidance as needed.
7. After all the pairs have finished with the role play, conduct a de-briefing session on each role play.
8. Ask the groups to take five minutes to talk about what happened during the role play. The groups should discuss the questions given in the de-briefing for each role play. Encourage participants to provide constructive criticism during their discussions.
9. Conclude the activity by asking participants to think about whether and how they might use scripted role plays in their real life.

## Summarize

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



## UNIT 9.6: 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 9.6.1: Market Study/ The 4Ps of Marketing/ Importance of an IDEA: Understanding Market Research

### Unit Objectives

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

- Discuss how market research is carried out
- Describe the 4 Ps of marketing
- Discuss the importance of idea generation

### Resources to be Used

- Participant Handbook
- Chart papers
- Markers pens
- Blank sheets of paper

### Ask

- Suppose, you want to open a restaurant, what are the factors you will consider?
- How will you promote your restaurant?

### Example

- Let's have a look at this example.

Arjun was an MBA working in a company. But he wanted to start a low cost budget hostel for foreign tourists coming to India. He did a lot of market research before starting the project. Based on the information he gathered, he made his business plan. His hostel is now flourishing and he is thinking of expanding to other tourist destinations.

### Say

- Discuss "Market Study" with the participants. Refer to the Participant Handbook.
- Let's learn about market study and research with the help of an activity.

### Team Activity

#### Market Study

- This is a group activity.
- You want to start your own tuition centre.
- What type of research will you do?

#### Activity De-brief

- Ask each group to come forward and give a brief presentation.
- Encourage other groups to be interactive and ask questions.
- What factors did you keep in mind while doing your research?
- Based on our research would you go ahead and open a tuition centre?

**Do** 

- Instruct the participants that this is group work.
- Divide the class into small groups of 4 or 6.
- Give each group a chart paper.
- Tell the participants that they have to start their own tuition centre.
- Give the participants 10 minutes to discuss and write the research work they need to do.
- Keep a check on time. Tell the group to wind up quickly if they go beyond the given time limit.

**Say** 

- By opening a tuition centre you are offering a service.

**Ask** 

- What factors will you keep in mind before opening it?

**Say** 

- Discuss “The 4Ps of Marketing” with the participants as given in the Participant Handbook.

**Say** 

- Let's learn about the 4Ps of Marketing with the help of an activity.

**Team Activity** 

**4 Ps of Marketing**

- This is a group activity.
- You have to sell a pen to four different segments:
  1. Rural villagers
  2. Rural middle class
  3. Urban middle class
  4. Upper end rich people (Niche market)

Keeping the 4Ps of Marketing in mind, what marketing strategy will you design to sell the pen?

**Activity De-brief**

- Ask each group to present their strategy.
- Encourage other groups to be interactive and ask questions.

**Do** 

- Instruct the participants that this is group work.
- Divide the class into four groups.
- Give each group a chart paper.
- Assign each group a target audience for selling the pens:
  1. Rural villagers
  2. Rural middle class
  3. Urban middle class

#### 4. Upper end rich people

- Tell the participants that they have to design a marketing strategy keeping the 4Ps of Marketing in mind.
- Give the participants 20 minutes to discuss and come up with their strategy.
- Keep a check on time. Tell the group to wind up quickly if they go beyond the given time limit

#### Activity De-brief

- Ask each group to come forward and give a brief presentation.
- Ask each group what they kept in mind while designing their marketing strategy.
- Encourage other groups to be interactive and ask questions.

### Say

- Each entrepreneur has an idea of wants he wants to sell. It may be a service or a product.
- Discuss “Importance of an IDEA” as given in the Participant Handbook.

### Summarize

- Summarize the key points of the unit.
- Ask the participants what they learnt from the activities.
- Encourage them to ask if they have any doubts.

## UNIT 9.6.2: 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 9.6.3: CRM & Networking

### Unit Objectives

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

- Discuss the need for CRM
- Discuss the benefits of CRM
- Discuss the need for networking
- Discuss the benefits of networking

### Resources to be Used

- Participant Handbook

### Ask

- Can your business run without customers/buyers?
- Who is the most important entity in any business?

### Say

- The key to every success business lies on understanding the customer's expectations and providing excellent customer service.
- Discuss about CRM and its benefits. Refer to the Participant Handbook.
- Providing excellent customer service entails:
  - ♦ Treating your customers with respect.
  - ♦ Be available as per their need/ schedule.
  - ♦ Handling complaints effectively.
  - ♦ Building long lasting relationships.
  - ♦ Collecting regular feedback.
- Handle customer complaints proactively. Ask “what happened”, “why it happened”, “how can it be avoided next time”, etc.
- Collecting feedback from the customers regularly will enable you to improve your good/service.
- “Let's understand it better with the help of some case scenarios. You will be given some cases within your groups. You have to analyse the case scenario that has been given to you and then find an appropriate solution to the problem.”

### Do

- Divide the class into four groups of maximum six participants depending on the batch size.
- Give one case study to each group.
- Instruct them to read the case carefully.
- The group is expected to analyse and discuss the case amongst them and find a solution to the given problem.
- Put down the discussion points (de-brief questions) on the board. Give the class 5-10 minutes to discuss the case and note down their solutions.
- At the end of 10 minutes, the team should present their case solution to the class.

## Team Activity

### Case Study Analysis

Raju runs a business of wooden furniture. He has a huge list of customers on Facebook and WhatsApp who give him orders regularly. Ankita is one of his old and regular customers. She placed an order for a new chester and TV cabinet via WhatsApp and requested Raju to send them as soon as possible. When the parcel reached Ankita through courier she found that chester was broken and the TV unit was chipped from the bottom. Ankita was heartbroken. It was a complete waste of money. She sent a message to Raju on WhatsApp, expressing her anger and disappointment. Raju might lose an old customer forever if he doesn't satisfy the customer. What should Raju do to retain his customer?

### Scenario 2

Rajni runs a boutique shop. She sells suits and sarees. She is one of the most successful designer in her city. Rajni swears that all the clothes in her boutique have unique designs. Smita has to attend her cousin's wedding; she goes to Rajni's boutique to buy a saree. Smita wanted a unique designer saree. Rajni customized a saree for her and sent it over the courier. When Smita had a look at the saree she realised her two friends had the same design sarees. She sent a message to Rajni on WhatsApp, expressing her anger and disappointment. Did Rajni make a false promise? Were her designs copied? What could happen to Rajni's image after this incident? What would you do if you were in Rajni's place?

### Scenario 3

Shama is a beautician who offers parlour services to ladies by making home visits. Recently, Shama got her name registered on an e-commerce website. Two days earlier, she got a message from Mrs Sushma. The appointment was fixed for next day, 11:00 am and the remuneration for the services was decided beforehand. When Shama reached there at 10:50 am, Mrs Sushma was not at home. When Shama called her, she asked her to wait for a while. Mrs Sushma reached home at 11:45 am. Meanwhile, Shama had to reschedule her next appointment. After availing Shama's services, Mrs Sushma refused to pay the requisite amount and started finding faults in the services provided by her. Who was at fault in this scenario? What should you do in case the customer behaves unreasonably? What would you do if you were in Shama's place?

### Scenario 4

Shailender is the manager of a car showroom. He proactively takes part in all the transactions that happen in his showroom. Vinita wants to buy a new car. She has chosen a car from Shailender's showroom. The salesperson has given her a very good discount and has also promised free service for one year. Vinita goes to the showroom and asks to complete all the formalities to purchase the car. When she sees the final bill she realize that she has not received the promised discount neither was there any mention of the free services. She immediately demands to see the Shailender. When Shailender's head asks how much discount Vinita was promised, he realised the discount will make the sale in loss. The car showroom owner might lose a customer and deal due to false commitments made by his manager. Besides, the customer might tell this to other people, creating a bad name and image for the showroom. If you owned that showroom, how would you have convinced your customer?

## Say

- Now, let's discuss the problem and solution with the class.
- The group will first briefly describe the case to the class.
- Then discuss the issue identified and the proposed solution.
- Present the solution as a role play.
- Post presentation, the other groups may ask questions from the group that has presented.

Do 

- Congratulate each group for the presentation/ role play.
- Ask the audience to applaud for them.
- Keep a check on time. Tell the group to wind up the discussion quickly if they go beyond the given time limit.

Say 

- If your customers are happy with you they will give referrals which will help to grow your business.
- One more way of growing business is 'Networking'.
- Discuss Networking and its benefits. Refer to the Participant Handbook.

Activity 

**Group Discussion**

- Conduct a group discussion in the class on how they can do networking for their business.

Summarize 

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

## UNIT 9.6.4: Business Plan: Why Set Goals?

### Unit Objectives

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

- Discuss the importance of setting goals
- Differentiate between short-term, medium-term and long-term goals
- Discuss how to write a business plan
- Explain the financial planning process
- Discuss ways to manage your risk

### Resources to be Used

- Participant Handbook
- Chart papers
- Blank papers
- Marker pens
- Ruler

### Ask

- Remember we had written SMART Goals in a previous session? Let's try and recall why it is important to set goals?
- While framing SMART goals, we talked about 'T' in SMART, which was 'Time Bound'? What do we mean by time bound goals?
- What time limit did you set for your goal- 3 weeks, 3 years, 10 years?

### Say

- Talk about short term, long term and medium term goals, as discussed in the Participant Handbook.

### Ask

- As you are planning to become an entrepreneur, you must have thought of an idea for a start-up. What is your business idea?

### Do

- Ask few participants to share their business ideas.

### Ask

- Have you created a business plan for your business idea?
- Do you think it is important to have a business plan in place? Why/ why not?

### Say

- Talk about 'Why Create a Business Plan' as discussed in the Participant Handbook.
- Let's understand it better with the help of an activity.

## Team Activity

### Writing a business Plan

- This is a group activity.
- Give the groups the required resources such as chart paper and markers.
- This activity is divided into two parts:
  1. Create a business idea
  2. Develop a business plan
- The group will discuss and come up with a new business idea and present their idea to the class.
- In the second part of the activity the group will develop a business plan for the business idea.
- The business plan prepared will be presented by the groups to the class.

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

## Say

- Teams will need to brainstorm for this part of the activity.
- Use the blank papers for the second part of this activity
- Make your business plan on a chart paper based on the following parameters:
  1. Executive Summary
  2. Business Description
  3. Market Analysis
  4. Organization and Management
  5. Service or Product Line
  6. Marketing and Sales
- Explain each parameter in detail as done in the Participant Handbook.
- Discuss each parameter with the business idea examples of the groups.
- Groups will discuss and develop the business plan for their business idea.

**Say** 

- Now, let's share our plan with the class.
- Each group will briefly describe the plan to the class.
- Post presentation, the other groups may ask questions to the group who have presented their plan.

**Do** 

- Congratulate each group for sharing their points.
- Ask the audience to applaud for them.
- Keep a check on time. Tell group to wind up the discussion quickly if they go beyond the given time limit.

**Say** 

- Along with a business plan, you need to create a financial plan and evaluate the risk involved with your start up.
- Discuss 'Financial Planning' and 'Risk Management' in detail as given in the Participant Handbook.

**Summarize** 

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

**Notes for Facilitation** 

- Keep the business plan format ready in a flipchart to display it during the activity.

## UNIT 9.6.5: Procedures and Formalities for Bank Finance

### Unit Objectives

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

- Describe the procedure and formalities for applying for bank finance

### 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.

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

## UNIT 9.6.6: 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 to make a matrix they need to fill.
- They have to write the main topics and key words that will help 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 9.6.7: 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.

### 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.







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कौशल भारत - कुशल भारत



सत्यमेव जयते  
GOVERNMENT OF INDIA  
MINISTRY OF SKILL DEVELOPMENT  
& ENTREPRENEURSHIP



N S · D · C  
National  
Skill Development  
Corporation

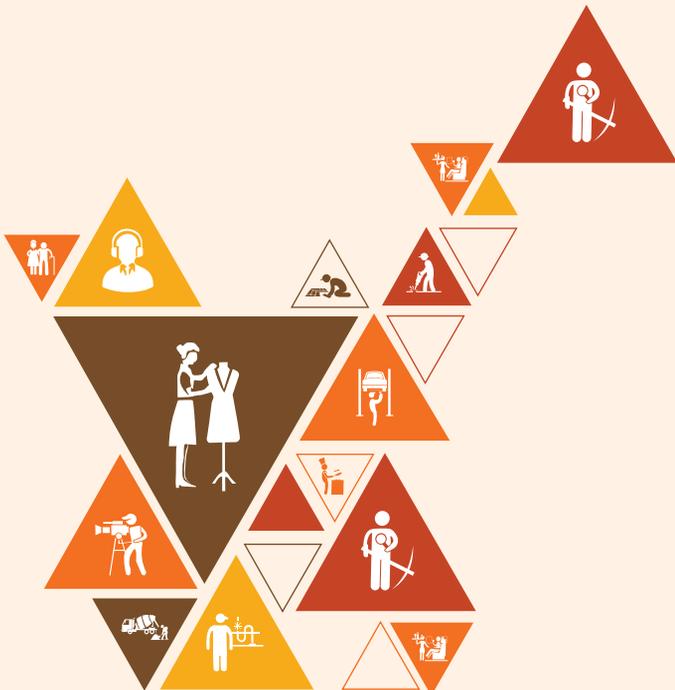
Transforming the skill landscape



## 10. Annexures

Annexure I - Training Delivery Plan

Annexure II - Assessment Criteria



## Annexure I

<b>Program Name:</b>	Certificate Course for Assistant Electrician		
<b>Qualification Pack Name &amp; Ref. ID</b>	Assistant Electrician, CON/Q0602		
<b>Version No.</b>	1.0	<b>Version Update Date</b>	22-09-2017
<b>Pre-requisites to Training (if any)</b>	Preferably 10th Class, Desirable: 1. Non trained worker : 5 years site experience in same occupation 2. Trained worker : 3 years site experience as a certified Helper Electrician level-2		
<b>Training Outcomes</b>	<b>By the end of this program, the participants will be able to:</b> 1. Select and use hand, power tools and electrical devices relevant to construction electrical works 2. Install temporary lighting arrangement at construction sites 3. Install LV electrical wiring at permanent structures 4. Assemble, install and maintain temporary LV electrical panels (distribution boards) at construction site 5. Work effectively in a team to deliver desired results at the workplace 6. Plan and organize work to meet expected outcomes 7. Work according to personal health, safety and environment protocol at construction site 8. Evaluate personal strengths and understand value systems 9. Understand digital literacy, employment and unemployment 10. Acquire entrepreneurship skills		

Sl. No	Module	Unit	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Aids	Duration (hours)
1	Introduction	<b>UNIT 1.1:</b> Introduction to training program	Purpose, Benefits of the Training Programme and Introduction to QP and NOS	Participant will be able to, <ul style="list-style-type: none"> <li>• Explain the purpose of training.</li> <li>• Describe about National Occupation Standards and Qualification Pack.</li> </ul>	NA	Interactive Lecture	PPT	2

		<b>UNIT 1.2:</b> An overview of construction sector	Introduction and modernization of construction sector	Participant will be able to, <ul style="list-style-type: none"> <li>• Explain about construction sector in India.</li> <li>• Explain modernization construction sector in India.</li> </ul>	NA	Interactive Lecture	PPT	2
		<b>UNIT 1.3:</b> Roles and responsibilities of an Assistant Electrician	Introduction to electrical works in the construction sector	Participant will be able to, <ul style="list-style-type: none"> <li>• List the electrical works carried out in construction sector.</li> </ul>	NA	Interactive Lecture	PPT	1
			Roles, Responsibilities and Personal attributes of an Assistant Electrician	Participant will be able to, <ul style="list-style-type: none"> <li>• State the roles and responsibilities of an Assistant Electrician</li> </ul>	NA	Interactive Lecture	PPT	1
			Description of course content, mode of learning and duration of the course	Participant will be able to, <ul style="list-style-type: none"> <li>• Explain course content, mode of learning and duration of the course</li> </ul>	NA	Interactive Lecture	PPT	1
			Career progression path	Participant will be able to, <ul style="list-style-type: none"> <li>• Explain the career progression path for an assistant electrician</li> </ul>	NA	Interactive Lecture	PPT	1
		<b>UNIT 1.4:</b> Basic concepts of electricity	Electric current, Resistance and Effect of temperature on resistance	Participant will be able to, <ul style="list-style-type: none"> <li>• Describe the principle of electric current</li> <li>• Explain what resistance is</li> <li>• Describe the relation of temperature with resistance</li> <li>• Describe the relation of temperature on various materials</li> </ul>	CON/NO 602 KB7 CON/NO 603 KB15	Interactive Lecture	PPT	2

			Ohm's law, Series, parallel and combination circuits	Participant will be able to, <ul style="list-style-type: none"> <li>State ohm's law</li> <li>Explain what is an electric field and its effects</li> </ul>	CON/NO 603 KB10 KB13	Interactive Lecture	PPT	2
			Ampere law, Electromagnetic field and its effect	Participant will be able to, <ul style="list-style-type: none"> <li>Explain what is an electric field and its effects</li> <li>State Ampere's law</li> </ul>	CON/NO 603 KB10	Interactive Lecture	PPT	2
			Basic concept of AC and DC current generation	Participant will be able to, <ul style="list-style-type: none"> <li>Describe the basic concept of AC and DC generation</li> </ul>	CON/NO 603 KB12	Interactive Lecture	PPT	1
			LV of single and three phase connections	Participant will be able to, <ul style="list-style-type: none"> <li>Describe the basic concept LV of single phase connections</li> <li>Describe the basic concept LV of three phase connections</li> </ul>	CON/NO 603 KB11	Interactive Lecture	PPT	1
2	Generic skills	<b>UNIT 2.1:</b> Work effectively in a team	Communication	Participant will be able to, <ul style="list-style-type: none"> <li>Explain the process of communication</li> <li>What are oral and written communication skills</li> <li>Describe the reporting procedure to a concerned authority</li> </ul>	CON/N8 001 KA1,KA2, KA3 KA4,KA5 KB1,KB2, KB3, KB4 SA1, SA2,SA3, SA4, SA5, SA6 SB1,SB2, SB3, SB4,SB5, SB6, SB7	Interactive Lecture	PPT	8
			Read and understand the reporting procedure	Participant will be able to, <ul style="list-style-type: none"> <li>Identify the importance of reporting procedure</li> </ul>	CON/N8 001 PC1, PC2, PC3, PC4, PC5, PC6, PC7, PC8	Role Play		4

			Communicate with the co-worker	Participant will be able to, <ul style="list-style-type: none"> <li>Effectively communicate with others</li> </ul>		Role Play		4
			Report the situation to the superior	Participant will be able to, <ul style="list-style-type: none"> <li>Carry out effective reporting procedure</li> </ul>		Role Play		4
			Prepare a report accordingly	Participant will be able to, <ul style="list-style-type: none"> <li>Prepare a report accordingly</li> </ul>		Role Play		4
		<b>UNIT 2.2:</b> Plan and organize work to meet expected outcome	Prioritize work and organizing resources	Participant will be able to, <ul style="list-style-type: none"> <li>Plan activities and schedules</li> <li>Prioritize tasks to achieve desired results</li> </ul>	CON/N8 002 KA1, KA2, KA3 KB1, KB2	Interactive Lecture	PPT	4
			Breaking the main task into sub tasks and prioritizing work	Participant will be able to, <ul style="list-style-type: none"> <li>Prioritize the work</li> </ul>	CON/N8 002 PC1, PC2, PC3, PC4	Role play		4
			Organize resources accordingly	Participant will be able to, <ul style="list-style-type: none"> <li>Organize man, material resources effectively</li> </ul>	CON/N8 002 PC5, PC6, PC7, PC8, PC9, PC10, PC11, PC12	Role play		4
3	Health and safety while performing electrical works	<b>UNIT 3.1:</b> General safety	General safety at construction site	Participant will be able to, <ul style="list-style-type: none"> <li>List the types of hazards involved in construction sites</li> <li>Describe the safety control measures and actions to be taken under emergency situation</li> <li>Explain how to classify fire and fire extinguishers</li> <li>Explain how safety drills are conducted</li> </ul>	CON/N9 001 KA2, KB1 KB4,	Interactive Lecture	PPT	8

			Start the fire alarm	Participant will be able to, <ul style="list-style-type: none"> <li>Start the fire alarm</li> </ul>	CON/N9 001 PC1, PC2, PC3, PC4, Pc7	Demonstration and practice		3
			Use fire extinguisher	Participant will be able to, <ul style="list-style-type: none"> <li>Use fire extinguisher</li> </ul>		Demonstration and practice		6
			Call for medical help and carryout primary first aid for the injured person	Participant will be able to, <ul style="list-style-type: none"> <li>Call for medical help and carryout primary first aid for the injured person</li> </ul>		Demonstration and practice		4
			Instruct co-workers to gather at the collection point	Participant will be able to, <ul style="list-style-type: none"> <li>Instruct co-workers to gather at the collection point</li> </ul>		Demonstration and practice		4
		<b>UNIT 3.2:</b> Personal health and safety	Personal safety at construction sites	Participant will be able to, <ul style="list-style-type: none"> <li>Describe the safety norms applicable in construction sites and electrical works</li> <li>Explain the use of PPE's used by an assistant electrician</li> <li>List the type of electrical hazards associated with domestic wiring work</li> <li>Describe the effects of faulty/improper wiring works</li> <li>Identify electrical hazards associated with domestic wiring</li> </ul>	CON/N9 001 KA1, KA2, KB1, KB4	Interactive Lecture	PPT	2
			Practice wearing PPE	Participant will be able to, <ul style="list-style-type: none"> <li>Carryout procedure for using PPE</li> </ul>	CON/N9 001 PC5, PC6 PC9, PC10	Demonstration and practice	PPE, Ladder	3

			Erect the ladder	Participant will be able to, <ul style="list-style-type: none"> <li>Install the ladder as per safety norms</li> </ul>		Demonstration and practice		2
			Climb the ladder safely	Participant will be able to, <ul style="list-style-type: none"> <li>Use the ladder as per safety norms</li> </ul>		Demonstration and practice		1
		<b>UNIT 3.3:</b> Waste disposal	Safe disposal of waste	Participant will be able to, <ul style="list-style-type: none"> <li>Describe the standard safety control measures</li> <li>Explain the importance of safe disposal of waste</li> <li>Discuss about electrical waste management at a construction site</li> </ul>	CON/N9 001 KB4, KB5, KB6, KB7, KB8, KB9	Interactive Lecture	PPT	1
			Segregation of wastes and safe disposal	Participant will be able to, <ul style="list-style-type: none"> <li>Segregate the wastes and dispose them safely</li> </ul>	CON/N9 001 PC8, PC11, PC12	Role play		4
4	Electrical drawings	<b>UNIT 4.1:</b> Wiring symbols, Single line diagram and Electrical specifications	Wiring symbols, Single line diagram and Electrical specifications	Participant will be able to, <ul style="list-style-type: none"> <li>Explain the importance of electrical drawings</li> <li>List the wiring symbols</li> <li>Explain the importance of interpretation of electrical specifications</li> </ul>	CON/N0 603 KB1, KB2	Interactive Lecture	PPT	2
			Identify electrical symbols	Participant will be able to, <ul style="list-style-type: none"> <li>Identify electrical symbols</li> </ul>	CON/N0 603 KB1	Group activity	Electrical symbols chart	1
			Identify electrical circuit/wiring diagram	Participant will be able to, <ul style="list-style-type: none"> <li>Identify electrical circuit/wiring diagram</li> </ul>	CON/N0 603 KB2	Group activity	Electrical circuit/wiring diagram chart	1

			Interpret electrical specifications	Participant will be able to, <ul style="list-style-type: none"> <li>• Read and interpret electrical specifications</li> </ul>	CON/N0 602 KB3, SA3, SB11	Group activity	Sample electrical specifications	1
			Interpret manufacturer's guidelines	Participant will be able to, <ul style="list-style-type: none"> <li>• Read and interpret manufacturer's guidelines</li> </ul>	CON/N0 602 PC13	Group activity	Sample manufacturer's guidelines	1
5	Select and use electrical tools, devices and materials in electrical occupation	<b>UNIT 5.1:</b> Introduction to electrical tools, equipment, materials, devices, conduits and fixtures	Electrical tools, equipment, materials, devices, conduits and fixtures	Participant will be able to, <ul style="list-style-type: none"> <li>• List the various types of electrical hand and power tools</li> <li>• Describe to maintain/store electrical tools and devices</li> <li>• List the various types of electrical measuring tools</li> <li>• Describe to maintain/store electrical measuring tools and devices</li> <li>• List the various types of electrical devices used in circuits</li> </ul>	CON/N0 602 KA1, KB3, KB10, KB5, KB13, KB17	Interactive Lecture	PPT	4
				Participant will be able to, <ul style="list-style-type: none"> <li>• Describe about the various types of cables</li> <li>• Recall the types of conduits and fixtures</li> <li>• Describe how to select the right conduits and fixtures based on power rating and respective used in electrical works</li> <li>• List the types of electrical materials and fixtures used for</li> </ul>		Interactive Lecture	PPT	4

			<p>domestic wiring</p> <ul style="list-style-type: none"> <li>Explain the standard conditions for storing and stacking electrical units, materials, fixtures, tools and devices</li> </ul>				
		Identify and use hand, power and measuring tools	<p>Participant will be able to,</p> <ul style="list-style-type: none"> <li>Identify and use hand, power and measuring tools</li> </ul>	CON/N0 602 PC1, PC2 PC3, PC4 PC5, PC6 PC7, PC8 PC9, PC10 PC11, PC12 PC13	Demonstration and practice	Hand, power and measuring tools	4
		Identify the electrical devices and their use in circuits.	<p>Participant will be able to,</p> <ul style="list-style-type: none"> <li>Identify the electrical devices and their use in circuits.</li> </ul>		Demonstration and practice	Electrical devices	4
		Identify the different types of conduits and cables.	<p>Participant will be able to,</p> <ul style="list-style-type: none"> <li>Identify the different types of conduits and cables</li> </ul>		Demonstration and practice	Conduits and cables	4
		Identify the types of lights used in construction sites.	<p>Participant will be able to,</p> <ul style="list-style-type: none"> <li>Identify the types of lights used in construction sites.</li> </ul>		Demonstration and practice	Types of lights	4
		Identify earthing equipment.	<p>Participant will be able to,</p> <ul style="list-style-type: none"> <li>Identify earthing equipment.</li> </ul>		Demonstration and practice	Earthing equipment	3
		Organize the storage area with electrical units, materials, fixtures, tools and devices	<p>Participant will be able to,</p> <ul style="list-style-type: none"> <li>Organize the storage area with electrical units, materials, fixtures, tools and devices</li> </ul>		Demonstration and practice	Electrical units, materials, fixtures, tools and devices	3

6	Temporary electrical works at construction site	<b>UNIT 6.1:</b> Cable laying through poles	Cable laying through poles at construction sites	Participant will be able to, <ul style="list-style-type: none"> <li>Explain the standard practice of cable laying through poles at construction sites</li> <li>Describe the method of joining cables</li> <li>Explain how electrical termination is performed</li> <li>Describe how to trace short circuits, power interruptions/continuity</li> </ul>	CON/N0603 KB9 KB16, KB17 KB18, KB19  CON/N0604 KA1, KA2, KA3, KA4, KA5 KB1, KB2, KB3, KB4, KB6, KB7, KB8, KB10, KB15, KB16, KB21, KB22	Interactive Lecture	PPT	4
				Participant will be able to, <ul style="list-style-type: none"> <li>Describe the method of fixing lights and their respective accessories</li> <li>State the different types of faults associated with lighting arrangements</li> <li>Explain the standard practices of cable/wire laying through conduits</li> <li>Describe steps involved in fitting a fixture in wall</li> </ul>	SA4, SA5, SA7, SA8, SB1, SB2, SB3,SB4, SB5 SA4, SA5, SA7, SA8, SB1, SB2, SB3,SB4, SB5 SB6,SB7, SB8, SB9,SB10 , SB11,SB12, SB13,SB14, SB15,SB16, SB17,SB18			8
			Cable laying through poles at construction sites	Participant will be able to, <ul style="list-style-type: none"> <li>Carryout cable laying through poles at construction sites</li> </ul>	CON/N0603 PC1, PC2, PC3, PC4, PC5,PC6, PC7, PC8, PC9,	Demonstration and practice	<b>Consumables</b> Single phase electrical cables of standard wire gauges Conduits/	8

			Straight through joining of cables	Participant will be able to, <ul style="list-style-type: none"> <li>Carryout straight through joining of cables</li> </ul>	Pc10 PC13, Pc14  CON/N0 604	Demonstration and practice	casings/ raceways Electrical diagram (consisting only basic wiring symbols) PVC insulation tape	8
			Cable termination	Participant will be able to, <ul style="list-style-type: none"> <li>Carryout conduit laying and fixing wires through brick and concrete structures</li> </ul>	Pc1, PC2, PC3, PC4, PC5, PC6, PC7, PC8, Pc9, PC10 Pc13	Demonstration and practice	Megger <b>Measuring devices</b> Digital Multimeter Tong tester	8
			Fixing of lights and their respective accessories	Participant will be able to, <ul style="list-style-type: none"> <li>Carryout fixing of lights and their respective accessories</li> </ul>		Demonstration and practice	Megger <b>Hand tools</b> Pliers Screw Drivers (set) Crimping tools Wire strippers	8
			Electrical termination	Participant will be able to, <ul style="list-style-type: none"> <li>Carryout electrical termination</li> </ul>		Demonstration and practice	Neon tester Hacksaw <b>Power Tools</b> Cutting machine Drill machine	4
			Faults associated with lighting arrangements	Participant will be able to, <ul style="list-style-type: none"> <li>Carryout faults associated with lighting arrangements</li> </ul>		Demonstration and practice	<b>Measuring Instrument</b> Measuring tapes Markers <b>PPEs &amp; safety equipment</b> Helmet	4
			Tracing short circuits, power interruptions continuity	Participant will be able to, <ul style="list-style-type: none"> <li>Carryout tracing short circuits, power interruptions continuity</li> </ul>		Demonstration and practice	Safety shoes Safety belt Insulated rubber gloves Ear plugs Reflective jackets Safety message boards Fire extinguishers Sand buckets	4
		<b>UNIT 6.2:</b> Direct cable laying	Cable laying by direct method at construction sites	Participant will be able to, <ul style="list-style-type: none"> <li>Explain the standard practice of cable laying through poles at construction sites</li> </ul>	CON/N0 603 PC1, PC2, PC3, PC4, PC5, PC6, PC7, PC8, PC9, PC10 PC13,	Interactive Lecture	PPT	3

			Cable laying through Direct cable laying at construction sites	Participant will be able to, <ul style="list-style-type: none"> <li>Carryout cable laying through direct cable laying at construction sites</li> </ul>	PC14 CON/N0 604 Pc1, PC2, PC3, PC4, PC5,PC6, PC7, PC8, PC9, PC10 PC13	Demonstration and practice	<b>Consumables</b> Single phase electrical cables of standard wire gauges Conduits/casings/raceways Electrical diagram (consisting only basic wiring symbols) PVC insulation tape <b>Measuring devices</b> Digital Multimeter Tong tester Megger <b>Hand tools</b> Pliers Screw Drivers (set) Crimping tools Wire strippers Neon tester Hacksaw <b>Power Tools</b> Cutting machine Drill machine <b>Measuring Instrument</b> Measuring tapes Markers <b>PPEs &amp; safety equipment</b> Helmet Safety shoes Safety belt Insulated rubber gloves Ear plugs Reflective jackets Safety message boards Fire extinguishers Sand buckets	8
			Straight through joining of cables	Participant will be able to, <ul style="list-style-type: none"> <li>Carryout straight through joining of cables</li> </ul>		Demonstration and practice		8
			Cable termination	Participant will be able to, <ul style="list-style-type: none"> <li>Carryout conduit laying and fixing wires through brick and concrete structures</li> </ul>		Demonstration and practice		8
			Fixing of lights and their respective accessories	Participant will be able to, <ul style="list-style-type: none"> <li>Carryout fixing of lights and their respective accessories</li> </ul>		Demonstration and practice		8
			Electrical termination	Participant will be able to, <ul style="list-style-type: none"> <li>Carryout electrical termination</li> </ul>		Demonstration and practice		4
			Faults associated with lighting arrangements	Participant will be able to, <ul style="list-style-type: none"> <li>Carryout faults associated with lighting arrangements</li> </ul>		Demonstration and practice		4
			Tracing short circuits, power interruptions continuity	Participant will be able to, <ul style="list-style-type: none"> <li>Carryout tracing short circuits, power interruptions continuity</li> </ul>		Demonstration and practice		4

UNIT 6.3: Cable laying by draw-in method	Cable laying by Draw-in Method	Participant will be able to, <ul style="list-style-type: none"> <li>Explain the standard practice of cable laying through poles at construction sites</li> </ul>	CON/N0 603 PC1, PC2, PC3, PC4, PC5, PC6, PC7, PC8, PC9, PC10 PC13,	Interactive Lecture	PPT	3
	Cable laying through Direct cable laying at construction sites	Participant will be able to, Carryout cable laying through direct cable laying at construction sites	PC14  CON/N0 604 PC1, PC2, PC3, PC4, PC5, PC6, PC7, PC8, PC9, PC10 PC13	Demonstration and practice		8
	Straight through joining of cables	Participant will be able to, Carryout straight through joining of cables		Demonstration and practice		8
	Cable termination	Participant will be able to, Carryout conduit laying and fixing wires through brick and concrete structures		Demonstration and practice		8
	Fixing of lights and their respective accessories	Participant will be able to, Carryout fixing of lights and their respective accessories		Demonstration and practice		8
	Electrical termination	Participant will be able to, <ul style="list-style-type: none"> <li>Carryout electrical termination</li> </ul>		Demonstration and practice		4
	Faults associated with lighting arrangements	Participant will be able to, <ul style="list-style-type: none"> <li>Carryout faults associated with lighting arrangements</li> </ul>		Demonstration and practice		4
	Tracing short circuits, power interruptions continuity	Participant will be able to, <ul style="list-style-type: none"> <li>Carryout tracing short circuits, power interruptions continuity</li> </ul>		Demonstration and practice		4

							Ear plugs Reflective jackets Safety message boards Fire extinguishers Sand buckets	
7	Electrical drawings	<b>UNIT 7.1:</b> Conduit laying, wiring and fixing the fixtures through brick structures	Conduit laying, wiring and fixing the fixtures through brick structures	Participant will be able to, <ul style="list-style-type: none"> <li>• Explain steps involved in conduit laying, wiring and fixing the fixtures through brick structures</li> </ul>	CON/N0 604 KA1,KA2 KA3,KA4 KA5	Interactive Lecture	PPT	3
				Participant will be able to, <ul style="list-style-type: none"> <li>• Carryout steps involved in conduit laying, wiring and fixing the fixtures through brick structures</li> </ul>	CON/N0 604 PC4,PC5	Demonstration and practice	<b>Consumables</b> Single phase electrical cables of standard wire gauges Conduits/casings/raceways Electrical diagram (consisting only basic wiring symbols) PVC insulation tape <b>Measuring devices</b> Digital Multimeter Tong tester Megger <b>Hand tools</b> Pliers Screw Drivers (set) Crimping tools Wire strippers Neon tester Hacksaw <b>Power Tools</b> Cutting machine Drill machine	8
								8

						<b>Measuring Instrument</b> Measuring tapes Markers <b>PPEs &amp; safety equipment</b> Helmet Safety shoes Safety belt Insulated rubber gloves Ear plugs Reflective jackets Safety message boards Fire extinguishers Sand buckets	8	
							6	
		<b>UNIT 7.2:</b> Earthing and its types	Earthing importance and types	Participant will be able to, <ul style="list-style-type: none"> <li>• Explain the need for earthing</li> <li>• State the types of earthing</li> <li>• Describe the importance of earthing</li> <li>• List the steps involved in pipe earthing</li> <li>• List the steps involved in plate earthing</li> <li>• Identify electrical appliances need earthing at construction site</li> <li>• Describe the concept of electrical earthing procedure in domestic wiring</li> <li>• Describe the concept of electrical earthing procedure in temporary panels</li> </ul>	CON/N0 604 KB1,KB2, KB3, KB4,KB5, KB8 KB10, KB14, KB17, KB18,KB 20 KB5,KB1 7, KB18,KB 20, SB1, SB2, SB3,SB4, SB5 SB6,SB7, SB8, SB9,SB10 , SB11,SB1 2, SB13,SB1 4, SB15,SB1 6, SB17,SB1 8	Interactive Lecture	PPT	3

			Carryout plate earthing	Participant will be able to, <ul style="list-style-type: none"> <li>Carryout plate earthing</li> </ul>	CON/NO 604 PC10, PC11	Demonstration and practice	<b>Consumables</b> Single phase electrical cables of standard wire gauges Conduits/casings/raceways Electrical diagram (consisting only basic wiring symbols) PVC insulation tape <b>Measuring devices</b> Digital Multimeter Tong tester Megger <b>Hand tools</b> Pliers Screw Drivers (set) Crimping tools	8
			Measure ground resistance	Participant will be able to, <ul style="list-style-type: none"> <li>Measure ground resistance</li> </ul>	PC12, PC13	Demonstration and practice		4
			Carryout earthing in temporary panels	Participant will be able to, <ul style="list-style-type: none"> <li>Carryout earthing in temporary panels</li> </ul>		Demonstration and practice		4
			Carry out earthing in domestic wiring	Participant will be able to, <ul style="list-style-type: none"> <li>Carry out earthing in domestic wiring</li> </ul>		Demonstration and practice		4
			Carry out earthing in electrical appliances	Participant will be able to, <ul style="list-style-type: none"> <li>Carry out earthing in electrical appliances</li> </ul>		Demonstration and practice		4
			Carryout pipe earthing	Participant will be able to, <ul style="list-style-type: none"> <li>Carryout pipe earthing</li> </ul>		CON/NO 604 PC10, PC11 PC12, PC13	Demonstration and practice	Wire strippers Neon tester Hacksaw <b>Power Tools</b> Cutting machine Drill machine <b>Measuring Instrument</b> Measuring tapes Markers <b>PPEs &amp; safety equipment</b> Helmet Safety shoes Safety belt Insulated rubber gloves Ear plugs Reflective jackets Safety message boards Fire extinguishers Sand buckets
			Measure ground resistance	Participant will be able to, <ul style="list-style-type: none"> <li>Measure ground resistance</li> </ul>	Demonstration and practice	4		
			Carryout earthing in temporary panels	Participant will be able to, <ul style="list-style-type: none"> <li>Carryout earthing in temporary panels</li> </ul>	Demonstration and practice	4		
			Carry out earthing in domestic wiring	Participant will be able to, <ul style="list-style-type: none"> <li>Carry out earthing in domestic wiring</li> </ul>	Demonstration and practice	4		
			Carry out earthing in electrical appliances	Participant will be able to, <ul style="list-style-type: none"> <li>Carry out earthing in electrical appliances</li> </ul>	Demonstration and practice	4		

		<b>UNIT 7.3: Conduit laying through concrete structures (slab)</b>	Conduit laying through slab	Participant will be able to <ul style="list-style-type: none"> <li>• Explain how to read and understand the conduit layout drawing.</li> <li>• Explain how to identify ceiling fan box and other electrical accessory points.</li> <li>• Explain the procedure of conduit laying through concrete structure (slab).</li> <li>• Explain the importance of dummy wires inside conduits.</li> <li>• List out the checks that are to be carried out after installation</li> </ul>	CON/N0 604 KA1,KA2 KA3,KA4 KA5	Interactive Lecture	PPT	1
			Conduit laying through slab- Practical	Participant will be able to <ul style="list-style-type: none"> <li>• Install ceiling fan box and accessories as per the requirement.</li> <li>• Place dummy wires inside conduits.</li> <li>• Carry out the procedure of conduit laying through concrete structures (slab) as per drawing</li> </ul>	CON/N0 604 PC4,PC5	Demonstration and practice	<b>Consumables</b> Single phase electrical cables of standard wire gauges Conduits/ casings/ raceways Electrical diagram (consisting only basic wiring symbols) PVC insulation tape <b>Measuring devices</b> Digital Multimeter Tong tester Megger <b>Hand tools</b> Pliers Screw Drivers (set) Crimping tools Wire strippers Neon tester Hacksaw	8

							<b>Power Tools</b> Cutting machine Drill machine <b>Measuring Instrument</b> Measuring tapes Markers <b>PPEs &amp; safety equipment</b> Helmet Safety shoes Safety belt Insulated rubber gloves Ear plugs Reflective jackets Safety message boards Fire extinguishers Sand buckets	
8	Installation and maintenance of temporary LV electrical panels	<b>UNIT 8.1:</b> Installation, fault checking and maintenance of temporary LV electric panels	Installation of temporary panel/distribution board	Participant will be able to, <ul style="list-style-type: none"> <li>Describe the method of connecting temporary panel/DBs with main power outlet.</li> <li>Describe the method of electrical termination at power outlets using appropriate fixtures.</li> <li>Explain the standard procedure of shifting and installing DBs among different work location</li> </ul>	CON/N0 605 KA1, KA2, KA3, KA4, KA5 KB1, KB2, KB3, KB4, KB5, KB6, KB7, KB8, KB8, KB9, KB10, KB11, KB12, KB13, KB14, KB15, KB16, KB17, KB18, KB19, KB20, KB21, KB23	Interactive Lecture	PPT	3

			<p>Install temporary panel/distribution board</p>	<p>Participant will be able to</p> <ul style="list-style-type: none"> <li>Install temporary panel/distribution board</li> </ul>	<p>CON/NO 605 PC1,PC2, PC3, PC4,PC5, PC6, PC7, PC8, PC9 PC10, PC11,</p>	Demonstration and practice	<p><b>Consumables</b> Single phase electrical cables of standard wire gauges Conduits/casings/raceways Electrical diagram (consisting only basic wiring symbols) PVC insulation tape <b>Measuring devices</b> Digital Multimeter Tong tester Megger <b>Hand tools</b> Pliers Screw Drivers (set) Crimping tools Wire strippers Neon tester Hacksaw <b>Power Tools</b> Cutting machine Drill machine <b>Measuring Instrument</b> Measuring tapes Markers <b>PPEs &amp; safety equipment</b> Helmet Safety shoes Safety belt Insulated rubber gloves Ear plugs Reflective jackets Safety message boards Fire extinguishers Sand buckets</p>	8
			<p>Electrical termination</p>	<p>Participant will be able to</p> <ul style="list-style-type: none"> <li>Carryout electrical termination</li> </ul>		Demonstration and practice		4
			<p>Check for faults associated with distribution boards</p>	<p>Participant will be able to</p> <ul style="list-style-type: none"> <li>Check for faults associated with distribution boards</li> </ul>		Demonstration and practice		4
			<p>Quality checks for temporary panels</p>	<p>Participant will be able to</p> <ul style="list-style-type: none"> <li>Carryout quality checks for temporary panels</li> </ul>		Demonstration and practice		4

9	Employability and Entrepreneurship Skills	<b>UNIT 9.1:</b> Personal strengths and value systems	Personal strengths and value systems	Participant will be able to, <ul style="list-style-type: none"> <li>• Explain Personal strengths and value systems</li> </ul>	NA	Interactive Lecture	PPT	40
		<b>UNIT 9.2:</b> Digital literacy : A Recap	Digital literacy : A Recap	Participant will be able to, <ul style="list-style-type: none"> <li>• Explain Digital literacy : A Recap</li> </ul>	NA	Interactive Lecture	PPT	
		<b>UNIT 9.3:</b> Money matters	Money matters	Participant will be able to, <ul style="list-style-type: none"> <li>• Describe how Money matters</li> </ul>	NA	Interactive Lecture	PPT	
		<b>UNIT 9.4:</b> Preparing for Employment and self-employment	Preparing for Employment and self-employment	Participant will be able to, <ul style="list-style-type: none"> <li>• Describe Employment and self-employment</li> </ul>	NA	Interactive Lecture	PPT	
		<b>UNIT 9.5:</b> Understanding entrepreneurship	Understanding entrepreneurship	Participant will be able to, <ul style="list-style-type: none"> <li>• Understand entrepreneurship</li> </ul>	NA	Interactive Lecture	PPT	
		<b>UNIT 9.6:</b> Preparing to be an entrepreneur	Preparing to be an entrepreneur	Participant will be able to, <ul style="list-style-type: none"> <li>• Explain how to prepare our self as an entrepreneur</li> </ul>	NA	Interactive Lecture	PPT	

## Annexure II

### Assessment Criteria

#### CRITERIA FOR ASSESSMENT OF TRAINEES

Assessment Criteria for Assistant Electrician	
Job Role	Assistant Electrician
Qualification Pack	CON/Q0602
Sector Skill Council	Construction Skill Development Council of India

Sr. No.	Guidelines for Assessment
1	Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2	The assessment for the knowledge part will be based on knowledge bank of questions created by Assessment
3	Individual assessment agencies will create unique question papers for knowledge/theory part for assessment of candidates as per assessment criteria given below
4	Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on assessment criteria.
5	The passing percentage for each QP will be 50%. To pass the Qualification Pack, every trainee should score a minimum of 50% individually in each NOS.
6	The Assessor shall check the final outcome of the practices while evaluating the steps performed to achieve the final outcome
7	The trainee shall be provided with a chance to repeat the test to correct his procedures in case of improper performance, with a deduction of marks for each iteration.
8	After the certain number of iteration as decided by SSC the trainee is marked as fail, scoring zero marks for the procedure for the practical activity.
9	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 within the specified
10	Minimum duration of Assessment of each QP shall be of 4hrs/trainee.

				MARKS ALLOCATION	
ASSESSMENT OUTCOME (NOS CODE AND DESCRIPTION)	ASSESSMENT CRITERIA (PC)	Total Marks	Out Of	Theory	Skills Practical
<b>1. CON/N0602: Select and use hand, power tools and electrical devices relevant to construction electrical works</b>	PC1. Select and handle appropriate hand and power tools for establishing/ terminating electrical connections as per requirement	<b>100</b>	7	2	5
	PC2. Select appropriate electrical measuring devices to examine electrical units for power interruptions/ continuity		3	1	2
	PC3. Select appropriate tools and measuring devices to trace out short circuits/ faults and leakages in electrical		10	3	7
	PC4. Select electrical devices such as starters, circuit breakers, relays as per equipment/ wiring installation rating, current rating		3	1	2
	PC5. Follow operating procedure and standards set by manufacturer while handling and using power tools and measuring devices		7	2	5
	PC6. Perform basic checks on power tools prior to use		10	3	7
	PC7. Use measuring instruments to measure size and dimension of wires, conduits as per electrical installation or maintenance work requirement		13	4	9
	PC8. Use hand and power tools to cut, and bend wire and conduit as per electrical installation or maintenance work requirement		10	3	7
	PC9. Use right tools to splice wires by stripping insulation from terminal leads and twisting wires together		7	2	5
	PC10. Use appropriate hand and power tools to thread conduit ends, connect couplings, and fabricate and secure conduit support brackets		7	2	5
	PC11. Use appropriate hand, power tools and diagnostic devices like digital ammeter, multimeter, tong tester, earth tester or similar devices to install, repair power		10	3	7

	PC12. Maintain and upkeep of relevant tools and devices after use		7	2	5
	PC13. Work safely as per standard practices, manufacturer's specifications and guidelines, electrical / organization safety norms while carrying out any electrical work		7	2	5
		<b>NOS Total</b>	<b>100</b>	<b>30</b>	<b>70</b>
<b>2. CON/N0603: Install temporary lighting arrangement at construction sites</b>	PC1. Check and select cable, conduits , lights, sockets, temporary power distribution panels at power source and other required fixtures and accessories as per manufacturer's guidelines and specification	<b>100</b>	7	2	5
	PC2. Assist in /carry out laying of cables through ducts or conduits, underground or through poles (overhead) as per plans and instructions		7	2	5
	PC3. Select the type and wattage of lights considering illumination requirement at worksite and install them at secured positions		7	2	5
	PC4. Fix lights and its accessories, brackets, bulkheads with screws and bolts or by other standard means, pull wires through conduit leading to connection boxes, temporary panels/ distribution boards or other temporary electrical terminals		7	2	5
	PC5. Extend/ join LV electrical cable using straight through joints, splicing them together and secure joints by applying PVC insulation tapes, caps or by other safe method as and when necessary		7	2	5
	PC6. Carry out termination of LV cables selecting the right method as per standard practice		7	2	5
	PC7. Work safely as per electrical safety guidelines provided by manufacturer, standard safety practice or organizational safety norms while establishing or disconnecting live electrical connections		3	1	2
	PC8. Upkeep of all relevant key electrical tools and fixtures		3	1	2
	PC9. Tag embedded, exposed electrical lines and other key equipment appropriately		3	1	2

	PC10. Repair and replace light arrangements as per instruction or requirement		7	2	5
	PC11. Replace burned out bulbs, light units and ballast in light fixtures as needed		7	2	5
	PC12. Carry out relevant tests to trace out power interruptions/ continuity at lighting arrangements		10	3	7
	PC13. Replace damaged cable, other relevant parts as and when necessary		7	2	5
	PC14. Shift light at various locations during construction activity as per requirement		7	2	5
	PC15. Replace faulty circuit breakers, fuses, switches, electrical and electronic components and wire as per requirement		10	3	7
	PC16. Perform preventive maintenance on diesel generators at site provided for temporary lighting (if any) at scheduled intervals as per direction of concerned authority		3	1	2
		<b>NOS Total</b>	<b>100</b>	<b>30</b>	<b>70</b>
<b>3. CON/N0604: Install LV electrical wiring at permanent structures</b>	PC1. Identify and select house wiring components (such as wires, flexible and rigid conduits, PVC raceways, wooden battens, clamps etc.) according to their specification / size	<b>100</b>	7	2	5
	PC2. Read and interpret single phase LV wiring diagram		10	3	7
	PC3. Carry out necessary linear measurement to cut, bend, join conduits and cables and use them as per requirement or instruction		7	2	5
	PC4. Lay conduit through RCC structures (slabs, beams, walls) or through chased wall (brick wall) surface as per instruction		7	2	5
	PC5. Lock conduit pipe in its location by means of clamp or other standard means as per instruction		7	2	5
	PC6. Pull, push wires through conduits in order to expose them at desired locations as per requirement		7	2	5
	PC7. Perform drilling, cutting work as and when necessary using appropriate hand and power tools		10	3	7

	PC8. Handle and shift electrical fixtures, fittings as per instructions within workplace		7	2	5
	PC9. Assist in fixing of electrical fixtures and fittings as per instruction		7	2	5
	PC10. Carry out termination of cables safely as per instruction		7	2	5
	PC11. Carry out necessary tests to electrical circuit during and post wiring activity using appropriate tools as per direction of electrician		10	3	7
	PC12. Assist in carrying out electrical earthing work by installing earthing components as per instruction		10	3	7
	PC13. Work safely according to manufacturer guidelines, specification, standard electrical safety practices or organizational safety and as per direction of superior		7	2	5
		<b>NOS Total</b>	<b>100</b>	<b>30</b>	<b>70</b>
<b>4. CON/N0605: Assemble, install and maintain temporary LV electrical panels (distribution boards) at construction site</b>	PC1. Read relevant SLDs, instructions, safety guidelines, manufacturer's specifications prior to assemble temporary panel/ distribution boards		10	3	7
	PC2. Select and install required fixtures like power sockets, switches, wires, MCBs of appropriate specification as per circuit load requirement		10	3	7
	PC3. Ensure tightness and safe working condition of wires, fixtures prior to connect the assembly with power source		3	1	2
	PC4. Connect DB to main power cable and undertake standard tests to ensure its safe and desired working		7	2	5
	PC5. Place and secure the distribution board against water, fire and other external damaging agents		7	2	5
	PC6. Carry out proper termination of cables as per standard practice while connecting to the sockets of the panel		7	2	5
	PC7. Carry out earthing of the panels as per standard procedure		10	3	7
	PC8. Work safely as per manufacturer's guidelines, specifications, standard electrical practices or organizational safety norms whichever applicable		3	1	2

	PC9. Check and ensure necessary tagging, barricading near to the live/ active electrical distribution boards		3	1	2
	PC10. Carry out visual inspection of the live/ active board regularly to ensure safe working condition of all		3	1	2
	PC11. Ensure that the live connections get discontinued after completion of daily construction works in order to minimize energy wastage and enhance working efficiency of electrical units		3	1	2
	PC12. Respond promptly on failure/ damage or malfunctioning of panel or any of its component		7	2	5
	PC13. Carry out necessary tests in order to determine root cause of failure		10	3	7
	PC14. Report, notify concerned authorities prior to shut down, deactivate or repair the electrical unit		3	1	2
	PC15. Replace, repair faulty components as per SLD, instruction, safety guideline, manufacturer's specification		7	2	5
	PC16. Carry out necessary documentation, keep records relevant to maintenance/ repairing of panels as per organizational norms		3	1	2
	PC17. Isolate the panel safely and shift to another location as and when necessary		3	1	2
		<b>NOS Total</b>	<b>100</b>	<b>30</b>	<b>70</b>
<b>5. CON/N0605: Assemble, install and maintain temporary LV electrical panels (distribution boards) at construction site</b>	PC1. Pass on work related information/ requirement clearly to the team members		7	2	5
	PC2. Inform co-workers and superiors about any kind of deviations from work		7	2	5
	PC3. Address the problems effectively and report if required to immediate supervisor appropriately		10	3	7
	PC4. Receive instructions clearly from superiors and respond effectively on same		7	2	5
	PC5. Communicate to team members/ subordinates for appropriate work technique and method		10	3	7
	PC6. Seek clarification and advice as per requirement and applicability		7	2	5

	PC7. Hand over the required material, tools tackles, equipment and work fronts timely to interfacing teams		27	8	19
	PC8. Work together with co-workers in a synchronized manner		27	8	19
		<b>NOS Total</b>	<b>100</b>	<b>30</b>	<b>70</b>
<b>6. CON/N8002: Plan and organize work to meet expected outcomes</b>	PC1. Understand clearly the targets and timelines set by superiors	<b>100</b>	7	2	5
	PC2. Plan activities as per schedule and sequence		7	2	5
	PC3. Provide guidance to the subordinates to obtain		10	3	7
	PC4. Plan housekeeping activities prior to and post completion of work		7	2	5
	PC5. List and arrange required resources prior to commencement of work		10	3	7
	PC6. Select and employ correct tools, tackles and equipment for completion of desired work		10	3	7
	PC7. Complete the work with allocated resources		10	3	7
	PC8. Engage allocated manpower in an appropriate manner		10	3	7
	PC9. Use resources in an optimum manner to avoid any unnecessary wastage				
	PC10. Employ tools, tackles and equipment with care to avoid damage to the same		7	2	5
	PC11. Organize work output, materials used, tools and tackles deployed,		7	2	5
	PC10. Processes adopted to be in line with the specified standards and instructions		7	2	5
			<b>NOS Total</b>	<b>100</b>	<b>30</b>
<b>7. CON/N9001: Work according to personal health, safety and environment protocol at construction site</b>	PC1. Identify and report any hazards, risks or breaches in site safety to the appropriate authorities		7	2	5
	PC2. Follow emergency and evacuation procedures in case of accidents, fires, natural calamities		7	2	5
	PC3. Follow recommended safe practices in handling material whenever applicable		10	3	7

PC4. Participate in safety awareness programs like Tool Box Talks, safety demonstrations, mock drills, conducted at site	<b>100</b>	7	2	5	
PC5. Identify near miss, unsafe condition and unsafe act		7	2	5	
PC6. Use appropriate Personal Protective Equipment (PPE) as per work requirements including: <ul style="list-style-type: none"> <li>• Head Protection (Helmets)</li> <li>• Ear protection</li> <li>• Fall Protection</li> <li>• Foot Protection</li> <li>• Face and Eye Protection</li> <li>• Hand and Body Protection</li> <li>• Respiratory Protection (if required)</li> </ul>		10	3	7	
PC7. Handle all required tools, tackles, materials & equipment safely		7	2	5	
PC8. Follow safe disposal of waste, harmful and hazardous materials as per EHS guidelines		7	2	5	
PC9. Install and apply properly all safety equipment as instructed		13	4	9	
PC10. Follow safety protocol and practices as laid down by site EHS department		13	4	9	
PC11. Collect and deposit construction waste into identified containers before disposal, separate containers that may be needed for disposal of toxic or hazardous wastes		7	2	5	
PC12. Apply ergonomic principles wherever required		7	2	5	
		<b>NOS Total</b>	<b>100</b>	<b>30</b>	<b>70</b>

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.
- Explain that for the first NOS, 30 marks are allotted for Theory and & 70 for Skills Practical.







**Skill India**

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