Sector: Rubber
Sub-Sector: 1. Tyre 2. Non-tyre
Occupation: Storage & Warehousing
Reference ID: RSC/Q0108, Version 2.0
NSQF level: 4
"Skilling is building a better India. If we have to move India towards development then Skill Development should be our mission."

Shri Narendra Modi
Prime Minister of India
Acknowledgement

Rubber Skill Development Council (RSDC) acknowledges the contribution of all the individuals and organizations who have contributed in the preparation of this manual.

We would like to acknowledge the efforts of our Governing Council members and RSDC Content Committee members as well as our Industry Partners who guided preparation of the manual.

Sincere appreciation is extended to all experts who had provided subject matter inputs and reviewed the individual modules. The efforts of Team Talento is specially appreciated for supporting the development of the manual.

The preparation of this manual would not have been possible without the strong support of Rubber industry, there extremely valuable feedback and inputs.

We are grateful to organizations like; Bhargave Rubber Private Ltd, Madurai Acme Enterprises (P) Ltd and Ramsons Cycles Pvt Ltd for their efforts in reviewing and endorsing this Participant Manual.
About this Guide

This Participant Handbook is designed to enable training for the specific Qualification Pack (QP). Each National Occupational (NOS) is covered across Unit/s. Key Learning Objectives for the specific NOS mark the beginning of the Unit/s for that NOS.

- Perform loading/unloading activity
- Carry out rubber product assembling and packaging
- Undertake storage of material
- Undertake Dispatch Activities
- To carry out housekeeping
- To carry out reporting and documentation
- To carry out quality checks
- To carry out problem identification and escalation

Symbols Used

- Key Learning Outcomes
- Steps
- Tips
- Notes
- Unit Objectives
- Exercise
# Table of Content

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Modules and Units</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td><strong>Global &amp; National Status of Rubber Industry</strong></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Unit 1.1 - Global and National Status of Rubber Industry</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Unit 1.2 - Job of a Material Handling and Storage Operator</td>
<td>10</td>
</tr>
<tr>
<td>2.</td>
<td><strong>Perform Loading and Unloading Activity (RSC/ N 3301)</strong></td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Unit 2.1 – Introduction to Material Handling Equipments</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Unit 2.2 – Transport Equipments</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Unit 2.3 – Positioning Equipments</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>Unit 2.4 – Unit Load Formation Equipments</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Unit 2.6 – Principles of Designing and Selecting Material Handling System</td>
<td>37</td>
</tr>
<tr>
<td>3.</td>
<td><strong>Rubber Product Packaging and Assembling (RSC/ N 3302)</strong></td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>Unit 3.1 - Packaging and Assembling</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>Unit 3.2 - Standard Operating Procedures</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>Unit 3.3 - Weighing of Ingredients</td>
<td>57</td>
</tr>
<tr>
<td>4.</td>
<td><strong>Undertake Storage of Material (RSC/ N 3303)</strong></td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>Unit 4.1 – Storage Equipments</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>Unit 4.2 – Storage of Material</td>
<td>67</td>
</tr>
<tr>
<td>5.</td>
<td><strong>Undertake Dispatch Activities (RSC/ N 3304)</strong></td>
<td>73</td>
</tr>
<tr>
<td></td>
<td>Unit 5.1 – Undertake Dispatch Activities</td>
<td>75</td>
</tr>
<tr>
<td>6.</td>
<td><strong>Health and Safety</strong></td>
<td>89</td>
</tr>
<tr>
<td></td>
<td>Unit 7.1 – First Aid and CPR</td>
<td>91</td>
</tr>
<tr>
<td>7.</td>
<td><strong>Housekeeping (RSC/ N 5001)</strong></td>
<td>93</td>
</tr>
<tr>
<td></td>
<td>Unit 8.1 – Introduction to Housekeeping</td>
<td>95</td>
</tr>
<tr>
<td></td>
<td>Unit 7.2 – Pre-housekeeping Activities</td>
<td>98</td>
</tr>
<tr>
<td></td>
<td>Unit 7.3 – Housekeeping Activities</td>
<td>105</td>
</tr>
<tr>
<td></td>
<td>Unit 7.4 – Post-housekeeping Activities</td>
<td>109</td>
</tr>
<tr>
<td>8.</td>
<td><strong>Reporting and Documentation (RSC/ N 5002)</strong></td>
<td>113</td>
</tr>
<tr>
<td></td>
<td>Unit 9.1 – Reporting and Documentation</td>
<td>115</td>
</tr>
<tr>
<td>9.</td>
<td><strong>Quality (RSC/ N 5003)</strong></td>
<td>119</td>
</tr>
<tr>
<td></td>
<td>Unit 10.1 – To Carry out Quality Check</td>
<td>121</td>
</tr>
<tr>
<td>10.</td>
<td><strong>Problem Identification and Escalation (RSC/ N 5004)</strong></td>
<td>125</td>
</tr>
<tr>
<td></td>
<td>Unit 11.1 – Problem Identification, Necessary Action and Escalation</td>
<td>127</td>
</tr>
</tbody>
</table>
# Table of Content

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Modules and Units</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.</td>
<td><strong>Soft Skills And Communication Skills</strong></td>
<td>131</td>
</tr>
<tr>
<td></td>
<td>Unit 12.1 - Introduction to the Soft Skills</td>
<td>133</td>
</tr>
<tr>
<td></td>
<td>Unit 12.2 - Effective Communication</td>
<td>137</td>
</tr>
<tr>
<td></td>
<td>Unit 12.3 - Grooming and Hygiene</td>
<td>143</td>
</tr>
<tr>
<td></td>
<td>Unit 12.4 - Interpersonal Skill Development</td>
<td>152</td>
</tr>
<tr>
<td></td>
<td>Unit 12.5 - Social Interaction</td>
<td>164</td>
</tr>
<tr>
<td></td>
<td>Unit 12.6 - Group Interaction</td>
<td>169</td>
</tr>
<tr>
<td></td>
<td>Unit 12.7 - Time Management</td>
<td>173</td>
</tr>
<tr>
<td></td>
<td>Unit 12.8 - Resume Preparation</td>
<td>177</td>
</tr>
<tr>
<td></td>
<td>Unit 12.9 - Interview Preparation</td>
<td>182</td>
</tr>
<tr>
<td>12.</td>
<td><strong>IT Skills</strong></td>
<td>187</td>
</tr>
<tr>
<td></td>
<td>Unit 12.1 - Introduction to Computer</td>
<td>189</td>
</tr>
<tr>
<td></td>
<td>Unit 12.2 - Basic Computer Knowledge</td>
<td>191</td>
</tr>
<tr>
<td></td>
<td>Unit 12.3 - Components of Computer</td>
<td>193</td>
</tr>
<tr>
<td></td>
<td>Unit 12.4 - Concept of Operating System</td>
<td>195</td>
</tr>
<tr>
<td></td>
<td>Unit 12.5 - MS Word</td>
<td>198</td>
</tr>
<tr>
<td></td>
<td>Unit 12.6 - MS PowerPoint</td>
<td>200</td>
</tr>
<tr>
<td></td>
<td>Unit 12.7 - MS Excel</td>
<td>202</td>
</tr>
<tr>
<td></td>
<td>Unit 12.8 - Internet Concepts</td>
<td>204</td>
</tr>
<tr>
<td>13.</td>
<td><strong>Employability &amp; Entrepreneurship Skills</strong></td>
<td>207</td>
</tr>
<tr>
<td></td>
<td>Unit 13.1 – Personal Strengths &amp; Value Systems</td>
<td>211</td>
</tr>
<tr>
<td></td>
<td>Unit 13.2 – Digital Literacy: A Recap</td>
<td>229</td>
</tr>
<tr>
<td></td>
<td>Unit 13.3 – Money Matters</td>
<td>234</td>
</tr>
<tr>
<td></td>
<td>Unit 13.4 – Preparing for Employment &amp; Self Employment</td>
<td>243</td>
</tr>
<tr>
<td></td>
<td>Unit 13.5 – Understanding Entrepreneurship</td>
<td>253</td>
</tr>
<tr>
<td></td>
<td>Unit 13.6 – Preparing to be an Entrepreneur</td>
<td>271</td>
</tr>
<tr>
<td>14.</td>
<td><strong>Annexure</strong></td>
<td>287</td>
</tr>
<tr>
<td></td>
<td>Annexure I: Training Delivery Plan</td>
<td>288</td>
</tr>
<tr>
<td></td>
<td>Annexure II: Assessment Criteria</td>
<td>302</td>
</tr>
</tbody>
</table>
1. Introduction

Unit 1.1 - Rubber Sector in India
Unit 1.2 - Job of a Material Handling and Storage Operator
Key Learning Outcomes

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

- Learn about current state of Rubber Industry in India
- Recognize types of Rubber used in Industry
- Familiarise with role of Mill Operator
- Familiarise with the process the Rubber Manufacturing
UNIT 1.1: Rubber Sector In India

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

- Learn about current state of Rubber Industry in India
- Recognize types of Rubber used in Industry

Resources to be Used
- Available objects such as a duster, pen, notebook etc.
- Participant Manual
- Laptop/computer, projector

Do
- Welcome the participants to the Program.
- Introduce yourself to the participants mentioning about you, your name and work experience.
- Before starting the session tell them what they are going to learn in this program.

Say
- Tell the participants about the rubber industry. Explain that rubber has been used across the world, from time immemorial, from humble beginnings of use as an eraser (suggested by noted explorer Magellan), today rubber is used across various industries like auto, aviation, healthcare, etc. which drive the economy. With origins in Brazil, today, rubber in its natural and synthetic forms is used across the world.
**Elaborate**

Top 4 rubber producing countries are: (Natural Rubber only):

1. Thailand - 31%
2. Indonesia - 28%
3. Malaysia - 9%
4. India - 8%

**Top ranking Rubber Companies (Tyre segment) in the world**

The main impetus behind global NR production growth in recent years has come from Indonesia. Indonesia's NR production grew by 9 per cent in 2011, compared with growth of 9.1 per cent in 2010.

<table>
<thead>
<tr>
<th>Company / headquarters country or region</th>
<th>2011 tire sales (100 million U.S. dollars)</th>
<th>2010 tire sales (100 million U.S. dollars)</th>
<th>2009 tire sales (100 million U.S. dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bridgestone / Japan</td>
<td>284.5</td>
<td>244.25</td>
<td>205.000</td>
</tr>
<tr>
<td>Michelin / France</td>
<td>274.14</td>
<td>225.15</td>
<td>196.000</td>
</tr>
<tr>
<td>Goodyear / United States</td>
<td>204.9</td>
<td>169.5</td>
<td>157.490</td>
</tr>
<tr>
<td>Continental</td>
<td>107.45</td>
<td>81.0</td>
<td>65.000</td>
</tr>
<tr>
<td>Pirelli / Italy</td>
<td>78.02</td>
<td>63.2</td>
<td>55.483</td>
</tr>
<tr>
<td>Sumitomo Rubber Industries / Japan</td>
<td>74.13</td>
<td>58.5</td>
<td>47.301</td>
</tr>
<tr>
<td>Yokohama Rubber / Japan</td>
<td>60.28</td>
<td>47.5</td>
<td>39.560</td>
</tr>
<tr>
<td>The Korea Tire / South Korea</td>
<td>57.44</td>
<td>45.131</td>
<td>37.600</td>
</tr>
<tr>
<td>Cheng Shin Rubber / China Taiwan</td>
<td>42.68</td>
<td>33.564</td>
<td>27.230</td>
</tr>
<tr>
<td>Cooper Tire &amp; Rubber / United States</td>
<td>39.27</td>
<td>33.61</td>
<td>27.790</td>
</tr>
</tbody>
</table>

Fig.1.1.6: Top ranking Rubber Companies

Here, you can notice that the top four tyre companies have their presence in India. Now let's have a look at the top non-tyre segment, rubber companies in the world.
### Top Ranking Rubber Companies (Non-Tyre segment)

<table>
<thead>
<tr>
<th>Rank order</th>
<th>Company/ headquarters</th>
<th>2012 annual sales</th>
<th>2011 annual sales</th>
<th>Annual growth rate (%)</th>
<th>The proportion of total revenue (%)</th>
<th>Pure interest rate (% total revenue)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mainland China / Germany</td>
<td>46.050</td>
<td>41.643</td>
<td>22.0</td>
<td>11.8</td>
<td>4.3</td>
</tr>
<tr>
<td>2</td>
<td>Hutchinson / France</td>
<td>38.962</td>
<td>38.903</td>
<td>14.4</td>
<td>86.7</td>
<td>5.4</td>
</tr>
<tr>
<td>3</td>
<td>Trelleborg / Sweden</td>
<td>37.934</td>
<td>33.930</td>
<td>17.4</td>
<td>46.5</td>
<td>6.0</td>
</tr>
<tr>
<td>4</td>
<td>The Godfrey in accordance with Deng Beige / Germany</td>
<td>30.350</td>
<td>29.560</td>
<td>0.4</td>
<td>95.0</td>
<td>2.4</td>
</tr>
<tr>
<td>5</td>
<td>Bridgestone / Japan</td>
<td>29.535</td>
<td>24.700</td>
<td>22.3</td>
<td>20.0</td>
<td>8.5</td>
</tr>
</tbody>
</table>

Fig.1.1.7: Top ranking Rubber Companies

---

**Say**

- Tell participants about the key facts and figures on natural rubber across the world. More than 90% of rubber production is in SE Asia (70% captive), namely Thailand, Indonesia and Malaysia. The tyre industry is almost the major user of natural rubber.

---

**Elaborate**

Tell them - 70% of NR produced worldwide is used by tyre industry; the remaining 30% is mainly destined to the producers of general rubber goods made for the automobile, construction, and pharmaceutical industries in particular. Rubber is used as a necessary raw material in strategic sectors, such as transport, medical treatment, childcare etc. Global demand for rubber is significantly increasing: emerging countries in SE Asia (namely China, India and Indonesia) becoming the major consumers.

---

**Say**

- Now tell participants about the advantages of the Industry.
Tell them – The Industry has certain distinct advantages like:

- The area under rubber plantations in India is ranked sixth globally
- India ranks fourth in the world natural rubber production
- India is ranked second in the consumption of natural rubber, behind China
- India is the top ranked nation globally in terms of productivity
- Indigenous availability of the basic raw materials, like natural rubber, synthetic rubber, reclaim rubber, carbon black, rubber chemicals, fatty acids, rayon and nylon yarn and so on.
- Fairly large domestic market.
- Availability of cheap labor.
- Training facility in various technical institutes.
- Rapid growth of automobile sector

Range of Products

The wide ranges of rubber products manufactured by the Indian rubber industry are –

- Auto tyres
- Auto tubes
- Automobile parts
- Footwear
- Belting
- Hoses
- Cycle tyres and tubes
- Cables and wires
- Camel back
- Battery boxes
- Latex products
- Pharmaceutical goods

Hi-tech industrial products

The important areas which the industry caters to include are -

- All the three wings of defense
- Civil
- Aviation
- Aeronautics
- Railways and agriculture transport
- Textile engineering industries
- Pharmaceuticals, mines, steel plants
Exports: India’s exports of rubber products, including tyres exceed Rs.9600 Crores.

The range of products exported is:

- Automotive tyres and tubes
- Rubber and canvas footwear
- Cycle tyres
- Pharmaceutical goods
- Rubber hoses, cots & aprons
- Belts and beltings
- Sheeting

Some rubber industry players in India:

<table>
<thead>
<tr>
<th>MRF</th>
<th>Metro Tyres</th>
<th>Phoenix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apollo Tyres</td>
<td>St Gobain Industries</td>
<td>TVS Srichakra</td>
</tr>
<tr>
<td>HCL technologies</td>
<td>Ceat Tyres</td>
<td>HLL</td>
</tr>
<tr>
<td>J. K. Tyres</td>
<td>Good Year Tyres</td>
<td>Gas Authority of India Ltd.</td>
</tr>
<tr>
<td>Hi Tech Carbon</td>
<td>Michelin India Tyres</td>
<td>Birla Tyres</td>
</tr>
<tr>
<td>Deluxe Rubber Industries</td>
<td>Rubco</td>
<td>Madras Rubber Factory</td>
</tr>
<tr>
<td>Continental Tyres</td>
<td>Balkrishna Indstries- BKT Tyre</td>
<td>Falcon Tyres</td>
</tr>
</tbody>
</table>

Fig.1.1.11: Rubber industry players in India

Say

- Now tell participants about the rubber production in India. India’s production peaks in the final months of the calendar year, and in December 2012 production was up by nearly 18 per cent month on month.

Elaborate

Tell them – Medium-term prospects for Indian rubber production are promising, partly because the government is committed to expanding the country’s rubber-producing capacity. By the end of the 12th Five Year Plan in March 2017, it hopes to bring an additional 60,000 ha under cultivation.

Key facts:

- Kerala is the single largest rubber producing state in India accounting for 91 per cent of total NR production.
- Kerala and TN are considered to be the traditional rubber growing regions in the country.
- In recent years, among non-traditional region, Tripura and Assam have witnessed growing production of NR.
- Non-traditional areas so far identified as almost fully or marginally suitable for rubber cultivation are Arunachal Pradesh, Assam, Manipur, and lower reaches of hills of Meghalaya, Mizoram, Nagaland and Tripura, excluding the other states of India.
Rubber has been identified as one of the thrust areas in Tripura, in view of its suitability to the terrain and the acceptability amongst the people. Studies have shown that about 100,000 hectares of area in the state can be brought under rubber plantation.

In fact, Tripura is now considered the "Second Rubber Capital of India" by the Rubber Board.

**Introduce**

- Introduce the participants with the Production, Import, Export and Consumption of Natural and Synthetic Rubber in India.

**Explain**

- Now tell the participants about the Institutional Support.

**Elaborate**

Tell them – The institutional support for the rubber sector is driven by following organizations:

- Ministry of Commerce
- The Rubber Board
- Rubber Skill Development Centre

**The Ministry of Commerce**

The mandate of the Department of Commerce is regulation, development and promotion of India’s international trade and commerce through formulation of appropriate international trade & commercial policy and implementation of the various provisions thereof. The Rubber Board is organized under the Ministry of Commerce.

**The Rubber Board**

The Rubber Board is a statutory body constituted by the Government of India, under the Rubber Act 1947, for the overall development of the rubber industry in the country.

**Rubber Skill Development Council (RSDC)**

RSDC has been constituted under the aegis of National Skill Development Corporation (NSDC), in collaboration with All India Rubber Industries Association (AIRIA) and Automotive Tyre Manufacturers Association (ATMA), with the aim to identify and fulfill skill development needs in the Rubber sector. The RSDC will encourage the industry to employ skilled and certified manpower. It will create a dynamic LMIS to keep track of the labour market skill gaps, frame Occupational Standards, facilitate development of practical and high quality training content, ensure adequate availability of faculty through Train The Trainer initiatives, build affiliations and certification mechanisms and encourage capacity building through private sector participation. RSDC has been registered as a Section 25 company.

The purpose of RSDC is to ensure the generation of skilled manpower in both the tyre and the non-tyre sectors, provide employment opportunities to youth across the nation, create career paths in roles existing within the unorganized and organized segments of the rubber industry and ensure active participation of the industry in absorption of skilled manpower generated through RSDC.
Notes for Facilitation

- Ask participants about their expectations from this program.
- Tell participants to complete the questions at the end of the sub unit.
- Ask participants if they have any doubts. Encourage them to ask questions.
- Answer their queries satisfactorily.
UNIT 1.2: Roles and Responsibilities of Material Handler

Unit Objectives

At the end of the unit, students will be able to:
1. Paraphrase the roles and responsibilities of Material Handler
2. Describe the job of a Material Handler

Resources to be used

- Etiquette manual
- Responsibilities docket

Say

- Tell participants about the role of Material Handler.
- Material Handling and Storage Operators are responsible to work for the proper loading/unloading, locating in assigned locations, assembling of rubber products, packaging and storage of the material. He is responsible for sending the approved material to manufacturing by ensuring quality, quantity, FIFO and age limits and also to send the packaged final product as per the delivery order/order sheet to the internal and external customer/s.
- Brief the participants about the some attributes that are required for a Material Handler. Explain the following key attributes:
  » This job requires the individual to be physically strong, fit and energetic.
  » He should be proficient in local language to guide the helpers/labourers and well versed with the instructional language of the organization as well.
  » He should be very active and disciplined. He should be able to handle multiple products effectively.
  » He should be a keen observer to identify any problem at his level and handle a team of helpers with effective co-ordination.
  » He should demonstrate good product differentiation, presentation and skills.
  » He should be well versed with the properties of a wide range of material to be handled and stored.
  » Comfortable in performing laborious work.
- Now brief the participants about the key roles and responsibilities of a Material Handler:
- A materials handler identifies, transports, packs, removes, and disposes of materials.
• A worker must follow safety procedures and regulations, including wearing special protective gear and disposing of materials as regulated by law.
• A materials handler physically moves materials and uses heavy equipment to move materials.
• Operates pallet jacks and forklifts as and when needed
• Loads and unloads materials and merchandise from trucks
• Keeps track of orders shipped through timely filling of data in relevant inventories
• Ensures all raw materials are labeled properly with appropriate dates
• Packs the material appropriately before loading it for dispatching
• Keeps track of all orders and dispatches priority orders first
• Keeps the stock inventory updated
• Locates raw material and packed products in the warehouse as and when needed by inspecting teams
• Scans the material manually while stocking and notifies the supervisor immediately if any deficit is visible
• Enters daily transactions in the related software
• Support in distribution by timely picking, wrapping, packing and loading of ordered material for clients
• Assembles crates for loading, using hand tools if needed
• Installs bracing, padding and strapping to loaded materials in the vehicle to ensure safe and secure dispatching of ordered material
• Maintains the workplace and warehouse in a neat, clean and orderly condition

Ask

• Ask the students if they have doubts regarding the session
• Ask the students the responsibilities of a Material Handler

Notes for Facilitation

• You could ask the students about the expectations from the course.
• Invite students to participate. List the expectations on the whiteboard.
• Give the students a brief overview of what all will be covered in the program.
2. Perform Loading and Unloading Activity

Unit 2.1 – Introduction to Material Handling Equipments
Unit 2.2 – Transport Equipments
Unit 2.3 – Positioning Equipments
Unit 2.4 – Unit Load Formation Equipments
Unit 2.5 – Principles of Designing and Selecting Material Handling System
Key Learning Outcomes

At the end of this module, you will be able to:
1. Identify various material handling equipments used in rubber processing
2. Categorise the material handling equipment
3. Identify various transport equipments used in rubber processing
4. Use equipment like cranes, conveyors, industrial trucks etc.
5. Identify various positioning equipments used in rubber processing
6. Use equipment like lift, turn table, dock leveller, ball transfer table, manipulators.
7. Identify various unit load equipments used in rubber processing
8. Use equipment like pallets, skids, tote pans, cartons, shrink wrap etc.
9. Use equipment like pallet rack, drive through rack etc.
10. Paraphrase the principles of designing and selecting material handling system
UNIT 2.1: Introduction to Material Handling Equipments

Unit Objectives

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

1. Identify various material handling equipments used in rubber processing
2. Categorise the material handling equipment

Resources to be Used

• Available objects such as black or white Board, chalk pieces or white board marker pens, duster.
• PC with LCD Projector or Flip Chart.
• Participant Manual
• Copies of Handouts.

Do

• Greet and welcome the participants to the next unit of the program.
• Before starting the session ask them do they have any doubts pertaining to the previous unit.
• Acknowledge their responses and clear their doubts if any.
• Tell them they will learn how to plan the production process.

Say

• Tell them that they are going to learn about tools and equipments used in material handling and storage. Explain that it is the set of techniques which include the art of lifting, placing, storing or moving of materials through the use of appropriate handling of equipment & men.

Elaborate

Material Handling Equipment (MHE) are those equipments which are used for the material handling process. They encompasses a diverse range of tools, vehicles, storage units, appliances and accessories involved in transporting, storing, controlling, enumerating and protecting products at any stage of manufacturing, distribution consumption or disposal.
MHE are basically categorized into four types. They are:
1. Transport equipments
2. Positioning Equipments
3. Unit Load Formation equipments
4. Storage equipments
All the categories are discussed in the next units of this module.

**Summarize**

- Summarize the tools and equipment

**Activity**

- Conduct a skill practice activity.
- Ask the students to assemble together.
- Explain the purpose and duration of the activity
- Set guidelines pertaining to discipline and expected tasks

<table>
<thead>
<tr>
<th>Skill Practice</th>
<th>Time</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification of tools and equipment</td>
<td>3 hours</td>
<td>Tools/Equipment</td>
</tr>
</tbody>
</table>
Notes for Facilitation

- Ask participants about their expectations from this program.
- Tell participants to complete the questions at the end of the sub unit.
- Ask participants if they have any doubts. Encourage them to ask questions.
- Answer their queries satisfactorily.
UNIT 2.2: Transport Equipments

Unit Objectives

At the end of the unit, students will be able to:
1. Identify various transport equipments used in rubber processing
2. Use equipment like cranes, conveyors, industrial trucks etc.

Resources to be Used

- Available objects such as black or white Board, chalk pieces or white board marker pens, duster.
- PC with LCD Projector or Flip Chart.
- Participant Manual
- Copies of Handouts.

Do

- Greet and welcome the participants to the next unit of the program.
- Before starting the session ask them do they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they will learn how to plan the production process.

Say

- Tell them that now they will learn about transport equipments. Explain that transport equipments are equipments used to move materials from one location to another (e.g., between workplaces, between a loading dock and a storage area, etc.) within a facility or at a site.

Elaborate

The major subcategories of transport equipments are:

Conveyors
When material is to be moved frequently between specific points to move materials over a fixed path when there is a sufficient flow volume to justify the fixed conveyor investment.
Some of the common types of conveyors commonly used in rubber industry are:

**Chute Conveyor:**
- Unit/Bulk + On-Floor + Accumulate
- Inexpensive
- Used to link two handling devices
- Used to provide accumulation in shipping areas
- Used to convey items between floors
- Difficult to control position of the items

**Wheel Conveyor:**
- Unit + On-Floor + Accumulate
- Uses a series of skate wheels mounted on a shaft (or axle), where spacing of the wheels is dependent on the load being transported
- Slope for gravity movement depends on load weight
- More economical than the roller conveyor
- For light-duty applications
- Flexible, expandable versions available

**Roller Conveyor:**
- Unit + On-Floor + Accumulate
- May be powered (or live) or non powered (or gravity)
- Materials must have a rigid riding surface
- Minimum of three rollers must support smallest loads at all times
- Tapered rollers on curves used to maintain load orientation

**Gravity Roller Conveyor:**
- Alternative to wheel conveyor
- For heavy-duty applications
- Slope for gravity movement depends on load weight
- For accumulating loads

**Powered Roller Conveyor - Belt or chain driven:**
- Force-sensitive transmission can be used to disengage rollers for accumulation
- For accumulating loads and merging/sorting operations
- Provides limited incline movement capabilities
Facilitator Guide

Screw Conveyor:
- Bulk + On-Floor
- Consists of a tube or U-shaped stationary trough through which a shaft-mounted helix revolves to push loose material forward in a horizontal or inclined direction
- One of the most widely used conveyors in the processing industry
- Many applications in agricultural and chemical processing
- Water screw developed in 250 BC by Archimedes

Chain Conveyor:
- Unit + In-/On-Floor + No Accumulate
- Uses one or more endless chains on which loads are carried directly
- Parallel chain configuration used to transport pallets
- Vertical chain conveyor used for continuous high-frequency vertical transfers (cf. vertical conveyor used for low-frequency intermittent transfers)

Flat Belt Conveyor:
- Unit + On-Floor + No Accumulate
- For transporting light- and medium-weight loads between operations, departments, levels, and buildings
- When an incline or decline is required
- Provides considerable control over the orientation and placement of the load.
- No smooth accumulation, merging, and sorting on the belt
- The belt is roller or slider bed supported; the slider bed is used for small and irregularly shaped items

Troughed Belt Conveyor:
- Bulk + On-Floor
- Used to transport bulk materials
- When loaded, the belt conforms to the shape of the troughed rollers and idlers

Bucket Conveyor:
- Bulk + On-Floor
- Used to move bulk materials in a vertical or inclined path
- Buckets are attached to a cable, chain, or belt
- Buckets are automatically unloaded at the end of the conveyor run

Fig. 2.2.6: Chain Conveyor
Fig. 2.2.7: Flat Belt Conveyor
Fig. 2.2.8: Troughed Conveyor
Fig. 2.2.9: Bucket Conveyor
Fig. 2.2.10: Screw Conveyor
Cranes
Cranes are used to move materials over variable paths within a restricted area. The major types of cranes used in rubber industry are:
1. Jib crane
2. Bridge crane
3. Gantry crane

General characteristics of cranes:
• Used to move loads over variable (horizontal and vertical) paths within a restricted area
• Used when there is insufficient (or intermittent) flow volume such that the use of a conveyor cannot be justified
• Provide more flexibility in movement than conveyors
• Provide less flexibility in movement than industrial trucks
• Loads handled are more varied with respect to their shape and weight than those handled by a conveyor
• Most cranes utilize hoists for vertical movement, although manipulators can be used if precise positioning of the load is required

Jib Crane:
• Operates like an arm in a work area, where it can function as a manipulator for positioning tasks
• A hoist is attached to the arm for lifting
• Arm mounted on the wall or attached to a floor mounted support
• Arm can rotate 360°
• The hoist can move along the arm

Bridge Crane:
• Bridge mounted on tracks that are located on opposite walls of the facility
• Enables three-dimensional handling
• Top riding (heavier loads) or underhung (more versatile) versions of the crane
• Underhung crane can transfer loads and interface with other MHS (e.g., monorail systems)

Gantry Crane:
• Single leg, double leg, and mobile types of gantry cranes
• Similar to a bridge crane except that it is floor supported at one or both ends instead of overhead (wall) supported
• Used to span a smaller portion of the work area as compared to a bridge crane
• The supports can be fixed in position or they can travel on runways
• Can be used outdoors when “floor” supported at both ends
Industrial trucks

Industrial trucks are equipments which are used to move materials over variable paths, with no restrictions on the area covered by the movement. Industrial trucks are used to move materials over variable (horizontal) paths with no restrictions on the area covered (i.e., unrestricted area). They provide vertical movement if the truck has lifting capabilities. They are also used when there is insufficient (or intermittent) flow volume such that the use of a conveyor cannot be justified. They provide more flexibility in movement than conveyors and cranes. They are not licensed to travel on public roads — "commercial trucks" are licensed to travel on public roads.

Characteristics of industrial trucks:

- **Pallet/Non-Pallet**: Does the truck have forks for handling pallets, or does the truck have a flat surface on which to place loads. Non-Pallet => (usually) other means required to load truck.

- **Manual/Powered**: Does the truck have manual or powered vertical (lifting) and/or horizontal (travel) movement capabilities. Manual => walk => operator provides the force needed for lifting loads and/or pushing the vehicle. Powered => on-board power source (e.g., batteries) used for lifting and/or travel.

- **Walk/Ride**: For non-automated trucks, can the operator ride on the truck (in either a standing or sitting position) or is the operator required to walk with the truck during travel. Walk => manual or powered travel possible => powered travel speed limited to a normal walking pace. Ride => powered => travel speed can be faster than a walking pace.

- **Stack/No Stack**: Can the truck be used to lift loads for stacking purposes. Stack => can also be used as no stack => more expensive to add stacking capability. No Stack may lift a load a few inches to clear the floor for subsequent travel (e.g., pallet jack), but the loads cannot be stacked on top of each other or on shelves.

- **Narrow Aisle**: Is the lift truck designed to have a small turning radius or does it not have to turn at all in an aisle when loading/unloading. Narrow Aisle => greater cost and (usually) standing operator => less aisle space required. Counterbalance and/or straddle used for load support. Small turning radius => load support via straddle or reaching capabilities. No turning required => even narrower aisle => only one-side loading (side loaders) or the capability to rotate the load (turret truck).

- **Automated**: Is the truck automated so that it can transport loads without requiring an operator. Non-Automated => direct labor cost of operator is by far the largest cost to operate a non-automated truck. Semi-Automated => operator used to control loading/unloading, but automated transport control (e.g., the S/R machine of a Man-on-board AS/RS). Automated => Automated Guided Vehicle (AGV) => no direct labor cost, but higher equipment costs.

The various types of Industrial Trucks used in rubber industry are:

**Hand Truck**:

Hand trucks are basically manually handled non-pallet type MHEs. Various types of Hand trucks are:

- **Two-Wheeled Hand Truck**: Load tilted during travel

![Two-Wheeled Hand Truck](Fig.2.2.14: Two-Wheeled)
• **Dolly:** Three or more wheeled hand truck with a flat platform in which, since it has no handles, the load is used for pushing

• **Floor Hand Truck:** Four or more wheeled hand truck with handles for pushing or hitches for pulling. Sometimes referred to as a "cart" or "(manual) platform truck"

**Pallet Jack:**
They are pallet type MHE that is used for material movement, but not used for stacking. Front wheels are mounted inside the end of the forks and extend to the floor as the pallet is only lifted enough to clear the floor for subsequent travel.

Pallet restrictions: reversible pallets cannot be used, double-faced nonreversible pallets cannot have deck boards where the front wheels extend to the floor, and enables only two-way entry into a four-way notched-stringer pallet because the forks cannot be inserted into the notches. The various types of pallet jacks commonly used in rubber industry are:

• **Manual Pallet Jack:**
  » Pallet + walk + no stack + manual
  » Manual lifting and/or travel

• **Powered Pallet Jack:**
  » Pallet + walk + no stack + powered
  » Powered lifting and/or travel

**Walkie Stacker:**
They are pallet type MHE used mainly for stacking. Different types of Walkie stackers are:

• **Manual Walkie Stacker:**
  » Pallet + walk + stack + manual
  » Manual lifting and/or travel (and straddle load support)
• **Powered Walkie Stacker:**
  » Pallet + walk + stack + powered
  » Powered lifting and/or travel (and either counterbalance or straddle load support)

**Pallet truck:**
- Pallet + ride + no stack
- Same pallet restrictions as a pallet jack
- Control handle typically tilts to allow operator to walk during loading/unloading
- Powered pallet jack is sometimes referred to as a "(walkie) pallet truck"

**Platform Truck:**
Platform trucks are powered non-pallet type MHE which are not used for stacking but for material movement. Platform used to provide support for non palletized loads. They are usually used for skid handling; platform can lift skid several inches to allow it to clear the floor. Greater lifting capacity compared to fork trucks because the platform provides a greater lifting surface to support a load.

- **Walkie Platform Truck:**
  » Non-pallet + powered + no stack + walk
  » Operator walks next to truck
  » Floor hand truck is sometimes referred to as a "(manual) platform truck"

- **Rider Platform Truck:**
  » Non-pallet + powered + no stack + ride
  » Operator can ride on truck

**Counterbalanced (CB) Lift Truck:**
They are pallet type MHE used for stacking purpose. They are also referred to as fork truck. The weight of vehicle (and operator) behind the front wheels of truck counterbalances weight of the load (and weight of vehicle beyond front wheels) and front wheels act as fulcrum or pivot point.

The rated capacity reduced for load centers is greater than 24 in. and lift heights is greater than 13 ft. They are workhorses of material handling because of their flexibility: indoor/outdoor operation over a variety of different surfaces; variety of load capacities available; and variety of attachments available—fork attachments can replace the forks (e.g., carton clamps) or enhance the capabilities of the forks (e.g., blades for slip sheets).
• **Sit-Down Counterbalanced Lift Truck:**
  » Operator sits down
  » 12-13 ft. minimum aisle width requirement

![Fig.2.2.24: Pallet truck](image)

• **Stand-Up Counterbalanced Lift Truck:**
  » Operator stands up, giving vehicle narrow-aisle capability
  » 9-11 ft. minimum aisle width requirement
  » Faster loading/unloading time compared to NA straddle and reach trucks

![Fig.2.2.25: Stand-Up Counterbalanced Lift Truck](image)

**Side loader:**
Forks mounted perpendicular to direction of travel to allow for side loading and straddle load support 5-6 ft. minimum aisle width requirement Can be used to handle greater-than-pallet-size loads (e.g., bar stock)

![Fig.2.2.26: Side loader](image)

**Tractor-Trailer:**
- Non-load-carrying tractor used to pull a train of trailers (i.e., dollies or floor hand trucks)
- Extends the transporting capacity of floor hand trucks
- Typically used at airports for baggage handling

![Fig.2.2.27: Tractor-Trailer](image)

**No Equipments**
Material can also be transported manually using no equipment. Under ideal circumstances, maximum recommended weight for manual lifting to avoid back injuries is 51 lbs.

Recommendation based on NIOSH (National Institute for Occupational Safety and Health) 1994 Lifting Equation, which uses six multipliers to reduce maximum recommended weight for less than ideal lifting tasks.
Summarize

• Summarize the transport equipment.

Activity

• Conduct a skill practice activity.
• Ask the students to assemble together.
• Explain the purpose and duration of the activity
• Set guidelines pertaining to discipline and expected tasks

<table>
<thead>
<tr>
<th>Skill Practice</th>
<th>Time</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification of transport equipment</td>
<td>3 hours</td>
<td>Transport Tools/Equipment</td>
</tr>
</tbody>
</table>

Notes for Facilitation

• Ask participants about their expectations from this program.
• Tell participants to complete the questions at the end of the sub unit.
• Ask participants if they have any doubts. Encourage them to ask questions.
• Answer their queries satisfactorily.
UNIT 2.3: Positioning Equipments

Unit Objectives

At the end of the unit, students will be able to:
1. Identify various positioning equipments used in rubber processing
2. Use equipment like lift, turn table, dock leveller, ball transfer table, manipulators.

Resources to be Used

• Available objects such as black or white Board, chalk pieces or white board marker pens, duster.
• PC with LCD Projector or Flip Chart.
• Participant Manual
• Copies of Handouts.

Do

• Greet and welcome the participants to the next unit of the program.
• Before starting the session ask them do they have any doubts pertaining to the previous unit.
• Acknowledge their responses and clear their doubts if any.
• Tell them they will learn how to plan the production process.

Say

• Tell them that now they will learn about positioning equipments. Explain that positioning equipments are used to handle material at a single location so that the material is in the correct position for subsequent handling, machining, transport, or storage.
• Unlike transport equipments, positioning equipments are usually used for handling at a single workplace. Material can also be positioned manually using no equipment.
• As compared to manual handling, the use of positioning equipment can provide the several benefits [Modern Materials Handling, Sept. 1993]. They raise the productivity of each worker when the frequency of handling is high. They also improve the product quality and limit damage to materials and equipment when the item handled is heavy or awkward to hold and damage is likely through human error or inattention. Reduction of fatigue and injuries in a hazardous or inaccessible environment is also another benefit. The various types of positioning equipments used in rubber & allied industries are discussed in this unit as well.
• Tell them that material can be positioned manually using no equipment. Under ideal circumstances, maximum recommended weight for manual lifting to avoid back injuries is 51 lbs.

• Recommendation based on NIOSH (National Institute for Occupational Safety and Health) 1994 Lifting Equation, which uses six multipliers to reduce maximum recommended weight for less than ideal lifting tasks.

Demonstrate

Explain the different equipment with the participant.

Lift/Tilt/Turn Table
They are used when positioning involves the lifting, tilting, or turning of a load. They can be used to reduce or limit a worker’s lifting and/or reaching motions.

Pallet load levelers are lift and turn tables used in manual palletizing to reduce the amount of bending and stooping involved with manually loading a pallet by combining a lifting and turning mechanism with a device that lowers the table as each layer is completed so that loading always takes place at the optimal height of 30 inches.

Dock Leveler
As illustrated in the diagram, they are used at loading docks to compensate for height differences between a truck bed and the dock.

They are commonly used in raw material reception and finished goods dispatch areas.

Ball Transfer Table
They are used in conveyor systems to permit manual transfer to and from machines and conveyors and between different sections of conveyors. Since loads are pushed on the table, ball friction limits the maximum load weight to 600 lbs.

Hoists
Hoists are used for vertical translation (i.e., lifting and lowering) of loads.

They are frequently attached to cranes and monorails to provide vertical translation capability. They can be operated manually, electrically, or pneumatically.
Material Handling and Storage Operator

**Manipulator**
Manipulators are MHEs used for vertical and horizontal translation and rotation of loads. Acting as "muscle multipliers," manipulators counterbalance the weight of a load so that an operator lifts a small portion (1%) of the load’s weight. They can be powered manually, electrically, or pneumatically.

Manipulator’s end-effector can be equipped with mechanical grippers, vacuum grippers, electromechanical grippers, or other tooling. They fill the gap between hoists and industrial robots and they can also be used for a wider range of positioning tasks than hoists and are more flexible than industrial robots due to their use of manual control.

![Fig.2.3.5 (a): Rigid-Link Manipulator](image)
![Fig.2.3.5 (b): Articulated Jib Crane Manipulator](image)

**Balancers**
Balancers are mechanisms used to support and control loads so that an operator need only guide a balanced ("weightless") load, thus providing precision positioning. They can also be attached to hoists and manipulators.

![Fig.2.3.6: Balancer](image)

**Industrial Robots**
Industrial Robots are used in positioning to provide variable programmed motions of loads. "Intelligent" industrial robots utilize sensory information for complex control actions, as opposed to simple repetitive "pick-and-place" motions.

Industrial robots also used for parts fabrication, inspection, and assembly tasks. They consist of a chain of several rigid links connected in series by revolute or prismatic joints with one end of the chain attached to a supporting base and the other end free and equipped with an end-effector.
Activity

- Conduct a skill practice activity.
- Ask the students to assemble together.
- Explain the purpose and duration of the activity.
- Set guidelines pertaining to discipline and expected tasks.

<table>
<thead>
<tr>
<th>Skill Practice</th>
<th>Time</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification of positioning</td>
<td>3 hours</td>
<td>Positioning Tools/Equipment</td>
</tr>
<tr>
<td>equipment</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes for Facilitation

- Ask participants about their expectations from this program.
- Tell participants to complete the questions at the end of the sub unit.
- Ask participants if they have any doubts. Encourage them to ask questions.
- Answer their queries satisfactorily.
UNIT 2.4: Unit Load Formation Equipments

Unit Objectives

At the end of the unit, students will be able to:
1. Identify various unit load equipments used in rubber processing
2. Use equipment like pallets, skids, tote pans, cartons, shrink wrap etc.

Resources to be Used

- Available objects such as black or white Board, chalk pieces or white board marker pens, duster.
- PC with LCD Projector or Flip Chart.
- Participant Manual
- Copies of Handouts.

Do

- Greet and welcome the participants to the next unit of the program.
- Before starting the session ask them do they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they will learn how to plan the production process.

Say

- Tell them that now they will learn about unit load equipments. Explain that unit load formation equipments are used to restrict materials so that they maintain their integrity when handled a single load during transport and for storage.
- Some of the advantages of unit load equipments include the ability to handle more items at the same time, thereby reducing the number of trips required and, potentially, reducing handling costs, loading and unloading times, and product damage. Also, they enable the use of standardized material handling equipment.
- However, time spent forming and breaking down the unit load, cost of containers/pallets and other load restraining materials used in the unit load, empty containers/pallets needed to be returned to their point of origin, etc are disadvantages of Unit Load Formation equipments.
Some of the commonly used Unit Load equipments in rubber and allied industry are:

- **Self-Restraining (No Equipment):** One or more items that can maintain their integrity when handled as a single item (e.g., a single part or interlocking parts).

- **Pallets:** Pallets are platforms with enough clearance beneath its top surface (or face) to enable the insertion of forks for subsequent lifting purposes. They are commonly made of Wood, paper, plastic, rubber, or metal.

  Size of pallet is specified by its depth (i.e., length of its stringers or stringer boards) and its width (i.e., length its deckboards) - pallet height (typically 5 in.) is usually not specified; orientation of stringers relative to deckboards of pallet is specified by always listing its depth first and width last: Depth (stringer length) x Width (deckboard length).

  48 x 40 in. pallet is most popular in US (27% of all pallets—no other size over 5%) because its compatibility with railcar and truck trailer dimensions. 1200 x 800 mm “Euro-Pallet” is the standard pallet in Europe.

- **Skids:** Platforms (typically metal) with enough clearance beneath its top surface to enable a platform truck to move underneath for subsequent lifting purposes. Forks can also be used to handle skids since the clearance of a skid is greater than that of a pallet. Compared to a pallet, a skid is usually used for heavier loads and when stacking is not required; a metal skid can lift heavier loads than an equal-weight metal pallet because it enables a platform truck to be used for the lifting, with the platform providing a greater lifting surface to support the skid as compared to the forks used to support the pallet.

- **Slip sheets:** They are basically a thick piece of paper, corrugated fiber, or plastic upon which a load is placed. Handling method: tabs on the sheet are grabbed by a special push/pull lift truck attachment.

  **Advantages:** Usually used in place of a pallet for long-distance shipping because their cost is 10–30% of pallet costs and their weight and volume is 1–5% of a pallet.

  **Disadvantages:** Slower handling as compared to pallets; greater load damage within the facility; special lift truck attachment reduces the vehicle’s load capacity.

- **Tote Pans:** Tote pans are reusable container used to unitize and protect loose discrete items. Typically they are used for in-process handling. Returnable totes provide alternative to cartons for distribution.
• **Pallet Boxes/Skid Boxes**: Pallet / skid boxes are reusable containers used to unitize and protect loose items for fork / platform.

![Fig.2.4.5: Pallet Boxes](image)

• **Bins/Baskets/Racks**: They are storage equipments that also can be used to unitize and protect loose discrete items.

• **Cartons**: Cartons are disposable containers used to unitize and protect loose discrete items. Typically, they are used for distribution.

  Their dimensions are always specified as: Length x Width x Depth, where length is the larger, and width is the smaller, of the two dimension of the open face of the carton, and depth is the distance perpendicular to the length and width.

  Large quantities of finished carton blanks or knocked-down cartons can be stored on pallets until needed.

![Fig.2.4.6: Cartons](image)

• **Bags**: Bags are disposable containers used to unitize and protect bulk materials. They are typically used for distribution. Polymerized plastic ("poly") bags are available from light weight (1 mil.) to heavy weight (6 mil.) in flat and gusseted styles.

  Also, their dimensions are specified as: Width x Length, for flat bags, and Width x Depth (half gusset) x Length, for gusseted bags.

![Fig.2.4.7: Bags](image)

• **Bulk Load Containers**: Bulk load containers are reusable container used to unitize and protect bulk materials. They include drums, cylinders, etc. They are used for both distribution and in-process handling.

![Fig.2.4.8: Bulk Load Containers](image)
• **Crates**: Crates are disposable containers used to protect discrete items. They are typically used for distribution.

*Fig. 2.4.9: Crates*

• **Intermodal Containers**: They are reusable containers used to unitize and protect loose discrete items. They enable a load to be handled as a single unit when it is transferred between road, rail, and sea modes of transport; e.g., the container can be unloaded from a cargo ship and loaded onto a truck as a single unit.

It is not as common to use intermodal containers for airfreight transport because of aircraft shape and weight restrictions.

The standard outside dimensions of intermodal containers is: 20 or 40 ft. in length; 8 ft. in width; and 8, 8.5, or 9.5 ft. in height.

*Fig. 2.4.10: Intermodal Containers*

• **Strapping/Tape/Glue**: These are used for load stabilization. Straps are either steel or plastic made. Plastic strapping that shrinks is used to keep loads from becoming loose during shipment.

*Fig. 2.4.11: Intermodal Containers*

**Say**

• Now tell them about shrink wrap and stretch wrap. Explain that in shrink-wrapping, a film or bag is placed over the load and then heat is applied to shrink the film or bag; allows irregular loads to be stabilized; manual or automatic; most shrink-wrap applications are being replaced by stretch-wrapping.

• In stretch-wrapping, a film is wound around the load while the film is stretched; allows irregular loads to be stabilized; manual or automatic; as compared to shrink-wrapping, stretch-wrapping has lower material, labor, and energy costs.
Palletizers

Palletizers are used for load formation. Three general methods of building (or "palletizing") unit loads:

1. **Manual Palletizing**: Operators arrange items into the desired pattern used to form the unit load. Since the ergonomics of loading and unloading are important (e.g., vertically, the prime working zone is between the knees and the chest; horizontally, reaches of more than 24 in. with a load should be avoided), lift and turn tables are often used. Semi-mechanized palletizers use operators to arrange items into the desired pattern for each layer of the unit load and a powered device is used to transfer layers onto a pallet and then lower the load for the next layer.

2. **Robotic Pick and Place Palletizers**: They are fully automated devices to build unit loads. Usually used when flexibility is required (e.g., the "Distributor’s Pallet Loading Problem"). Its greatest limitation is the capacity, typically 6 cycles per minute; capacity is determined by the number of items handled with each pick operation.

   Operators arrange items into the desired pattern for each layer of the unit load and a powered device is used to transfer layers onto a pallet and then lower the load for the next layer.

---

**Summarize**

- Summarize the unit load equipment.

---

**Activity**

- Conduct a skill practice activity.
- Ask the students to assemble together.
- Explain the purpose and duration of the activity
- Set guidelines pertaining to discipline and expected tasks

<table>
<thead>
<tr>
<th>Skill Practice</th>
<th>Time</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification of unit load equipment</td>
<td>3 hours</td>
<td>Unit load Tools/Equipment</td>
</tr>
</tbody>
</table>
Notes for Facilitation

- Ask participants about their expectations from this program.
- Tell participants to complete the questions at the end of the sub unit.
- Ask participants if they have any doubts. Encourage them to ask questions.
- Answer their queries satisfactorily.
UNIT 2.5: Principles of Designing & Selecting Material Handling System

Unit Objectives

At the end of the unit, students will be able to:
1. Paraphrase the principles of designing and selecting material handling system

Resources to be Used

- Available objects such as black or white Board, chalk pieces or white board marker pens, duster.
- PC with LCD Projector or Flip Chart.
- Participant Manual
- Copies of Handouts.

Do

- Greet and welcome the participants to the next unit of the program.
- Before starting the session ask them do they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they will learn how to plan the production process.

Say

- Tell them that according to the Material Handling Institute, there are 20 principles for designing and selection of a material handling equipment.

Elaborate

These principles have to be taken care of irrespective of whether the industry is related to rubber or not. They are:

<table>
<thead>
<tr>
<th>Orientation Principle</th>
<th>Study the system relationships thoroughly prior to preliminary planning in order to identify existing methods and problems, and physical and economic constraints, and to establish future requirements and goals.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flexibility Principle</strong></td>
<td>Use methods and equipment which can perform a variety of tasks under a variety of operating conditions.</td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Planning Principle</strong></td>
<td>Establish a plan to include basic requirements, desirable options, and the consideration of contingencies for all material handling and storage activities.</td>
</tr>
<tr>
<td><strong>Simplification Principle</strong></td>
<td>Simplify handling by eliminating, reducing, or combining unnecessary movements and/or equipment.</td>
</tr>
<tr>
<td><strong>Systems Principle</strong></td>
<td>Integrate those handling and storage which are economically viable into a coordinated system of operation including receiving, storage, production, assembly, packaging, warehousing, shipping, and transportation.</td>
</tr>
<tr>
<td><strong>Gravity Principle</strong></td>
<td>Utilize gravity to move material wherever possible, while respecting limitations concerning safety, product damage, and loss.</td>
</tr>
<tr>
<td><strong>Unit Load Principle</strong></td>
<td>Handling product in as large a unit load as practical.</td>
</tr>
<tr>
<td><strong>Safety Principle</strong></td>
<td>Provide safe material handling equipment and methods which follow existing safety codes and regulations in addition to accrued experience.</td>
</tr>
<tr>
<td><strong>Space Utilization Principle</strong></td>
<td>Make effective utilization of all cubic space.</td>
</tr>
<tr>
<td><strong>Computerization Principle</strong></td>
<td>Consider computerization in material handling and storage systems when circumstances warrant for improved material and information control.</td>
</tr>
<tr>
<td><strong>Standardization Principle</strong></td>
<td>Standardize handling methods and equipment wherever possible.</td>
</tr>
<tr>
<td><strong>Layout Principle</strong></td>
<td>Prepare an operational sequence and equipment layout for all viable systems solutions, then select the alternative system which best integrates efficiency and effectiveness.</td>
</tr>
<tr>
<td><strong>Ergonomic Principle</strong></td>
<td>Recognize human capabilities and limitations by designing material handling equipment and procedures for effective interaction with the people using the system.</td>
</tr>
<tr>
<td><strong>Cost Principle</strong></td>
<td>Compare the economic justification of alternative solutions in equipment and methods on the basis of economic effectiveness as measured by expense per unit handled.</td>
</tr>
<tr>
<td><strong>Energy Principle</strong></td>
<td>Include energy consumption of the material handling systems and material handling procedures when making comparisons or preparing economic justifications.</td>
</tr>
<tr>
<td><strong>Maintenance Principle</strong></td>
<td>Prepare a plan for preventive maintenance and scheduled repairs on all material handling equipment.</td>
</tr>
<tr>
<td><strong>Environmental Principle</strong></td>
<td>Minimize adverse effects on the environment when selecting material handling equipment and procedures.</td>
</tr>
<tr>
<td><strong>Reliability Principle</strong></td>
<td>Provide reliable and dependable material handling equipment from manufacturers who have demonstrated quality and longevity in the industry.</td>
</tr>
<tr>
<td><strong>Mechanization Principle</strong></td>
<td>Mechanize the handling process where feasible to increase efficiency and economy in the handling of materials.</td>
</tr>
<tr>
<td><strong>Accessibility Principle</strong></td>
<td>Readily have access to the knowledge, expertise, professionalism, and industry leadership.</td>
</tr>
</tbody>
</table>

*Fig. 2.5.1: Principles*
**Summarize**

- Summarize the 20 principles for designing and selection of a material handling equipment.

**Activity**

- Conduct a skill practice activity.
- Ask the students to assemble together.
- Explain the purpose and duration of the activity.
- Set guidelines pertaining to discipline and expected tasks.

<table>
<thead>
<tr>
<th>Skill Practice</th>
<th>Time</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explanation of principles for designing and selection of a material handling equipment</td>
<td>3 hours</td>
<td>Pen and Papers</td>
</tr>
</tbody>
</table>

**Notes for Facilitation**

- Ask participants about their expectations from this program.
- Tell participants to complete the questions at the end of the sub unit.
- Ask participants if they have any doubts. Encourage them to ask questions.
- Answer their queries satisfactorily.
3. Rubber Product Packaging and Assembling

Unit 3.1 – Packaging and Assembling
Unit 3.2 – Standard Operating Procedures
Unit 3.3 – Weighing of Ingredients
Key Learning Outcomes

At the end of this module, you will be able to:
1. Familiarise with the concept of packaging and assembling
2. Paraphrase the world packaging market
3. Prepare the packaging environment
4. Identify the tools and equipment used in packaging and assembling
5. Explain the standard operating procedures (SOPs) and their types.
6. Prepare SOPs.
7. Paraphrase the product life cycle.
8. Weigh the ingredients accurately
9. Understand the sequence of weighing
10. Store and identify the weighed materials
UNIT 3.1: Packaging and Assembling

Unit Objectives

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

1. Familiarise with the concept of packaging and assembling
2. Paraphrase the world packaging market
3. Prepare the packaging environment
4. Identify the tools and equipment used in packaging and assembling

Resources to be Used

- Available objects such as black or white Board, chalk pieces or white board marker pens, duster.
- PC with LCD Projector or Flip Chart.
- Participant Manual
- Copies of Handouts.

Do

- Greet and welcome the participants to the next unit of the program.
- Before starting the session ask them do they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they will learn how to plan the production process.

Say

- Tell them that in this unit, they will learn about packaging and assembling of rubber products. Explain that in today’s society, packaging is pervasive and essential. It surrounds, enhances and protects the goods we buy, from processing and manufacturing through handling and storage to the final consumer. Without packaging, materials handling would be a messy, inefficient and costly exercise, and modern consumer marketing would be virtually impossible.
Elaborate

The historical development of packaging has been well documented elsewhere and will only be touched upon here. Suffice it to say that the highly sophisticated packaging industries which characterize modern society today are far removed from the simple packaging activities of earlier times.

Packaging lies at the very heart of the modern industry, and successful packaging technologists must bring to their professional duties a wide-ranging background drawn from a multitude of disciplines. Efficient packaging is a necessity for almost every type of product whether it is mined, grown, hunted, extracted or manufactured. It is an essential link between the product makers and their customers. Unless the packaging operation is performed correctly, the reputation of the product will suffer and the goodwill of the customer will be lost. All the skill, quality and reliability built into the product during development and production will be wasted, unless care is taken to see that it reaches the user in the correct condition. Properly designed packaging is the main way of ensuring safe delivery to the final user in good condition at an economical cost.

Definitions

Despite the importance and key role which packaging plays, it is often regarded as a necessary evil or an unnecessary cost. Furthermore, in the view of many consumers packaging is, at best, somewhat superfluous, and, at worst, a serious waste of resources and an environmental menace. Such a viewpoint arises because the functions which packaging has to perform are either unknown or not considered in full. By the time most consumers come into contact with a package, its job in many cases is almost over, and it is perhaps understandable that the view that excessive packaging has been used has gained some credence.

Packaging has been defined in a number of ways. A populist reference source defines packaging as an industrial and marketing technique for containing, protecting, identifying and facilitating the sale and distribution of agricultural, industrial and consumer products.

The Packaging Institute International defines packaging as the enclosure of products, items or packages in a wrapped pouch, bag, box, cup, tray, can, tube, bottle or other container form to perform one or more of the following functions: containment; protection and/or preservation; communications; and utility or performance. If the device or container performs one or more of these functions it is considered a package.

The UK Institute of Packaging provides three definitions of packaging:

• A coordinated system of preparing goods for transport, distribution, storage, retailing and end-use;
• A means of ensuring safe delivery to the ultimate consumer in sound condition at minimum cost;
• A techno-economic function aimed at minimizing costs of delivery while maximizing sales (and hence profits).

It is important to distinguish between packaging as defined above, and packing which can be defined as the enclosing of an individual item (or several items) in a container, usually for shipping or delivery.

Early Packaging

(An excellent reference covering the History of Packaging Development is Hine, 1995) Examples of early packaging include flex woven baskets, leaves, gourds, wooden barrel, pottery containers and glass. Glass packaging has a very long history but early types of glass packaging were very expensive and very rare form of packaging.

Fig.3.1.1: Flex woven basket
Demonstrate

World packaging market

![World packaging market](image)

**Fig. 3.1.2: World packaging market**

The top 18 Packaging Companies in the world are set out in table belo, based on their turnover.

<table>
<thead>
<tr>
<th>Company</th>
<th>US$million</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Crown Cork &amp; Seal</td>
<td>8,300.0</td>
</tr>
<tr>
<td>2. Smurfit - Stone Containers</td>
<td>7,624.0</td>
</tr>
<tr>
<td>3. Tetra Pak</td>
<td>7,590.0</td>
</tr>
<tr>
<td>4. Owens - Illinois</td>
<td>5,692.0</td>
</tr>
<tr>
<td>5. International Paper</td>
<td>4,970.0</td>
</tr>
<tr>
<td>6. Tenneco</td>
<td>4,459.0</td>
</tr>
<tr>
<td>7. Pechiney International</td>
<td>4,325.0</td>
</tr>
<tr>
<td>8. Saint Gobain</td>
<td>3,797.8</td>
</tr>
<tr>
<td>9. Toyo Sieken Kaisha</td>
<td>3,658.9</td>
</tr>
<tr>
<td>10. Jefferson Smurfit Group</td>
<td>3,624.1</td>
</tr>
<tr>
<td>11. Alcoa</td>
<td>3,370.0</td>
</tr>
<tr>
<td>12. Ball</td>
<td>3,305.3</td>
</tr>
<tr>
<td>13. Amcor</td>
<td>3,187.2</td>
</tr>
<tr>
<td>14. Rexam</td>
<td>3,000.0</td>
</tr>
<tr>
<td>15. Alcan</td>
<td>2,750.0</td>
</tr>
<tr>
<td>16. AssiDoman</td>
<td>2,719.0</td>
</tr>
<tr>
<td>17. Sealed Air/Cryovac</td>
<td>2,719.5</td>
</tr>
<tr>
<td>18. Sonoco Products</td>
<td>2,557.9</td>
</tr>
</tbody>
</table>

**Fig. 3.1.3: Top 18 packaging companies world wide**
• Now tell them about the functions of packaging, protection convenience and package environment. It is necessary to discuss in more detail the functions of packaging and the environments where the package must perform those functions.

**Elaborate**

**Containment**

This function of packaging is so obvious as to be overlooked by many, but it is probably the basic function of packaging. With the exception of large, discrete products, all other products must be contained before they can be moved from one place to another. The "package", whether it be a milk bottle or a bulk cement rail wagon, must contain the product to function successfully. Without containment, pollution could become widespread.

The containment function of packaging makes a huge contribution to protecting the environment from the myriad of products, which are moved from one place to another on numerous occasions each day in any modern society. Faulty packaging (or under packaging) could result in major pollution of the environment.

A study of packaging systems in China (Packaging Today – Australia 1979) found that:

• 17.5% of the country’s cement is lost in transit
• 50% of grain
• 20% of all glass is damaged before it can be used
• 40% of microscopes are broken before reaching the buyer.

While in North America, Northern Europe and Australasia only 2% - 3% of food is lost through spoilage, in developing countries food spoilage and damage is estimated to be between 30 to 50% of production. This is supported by information from Russia from the 1970s and 1980s, where a lack of packaging, distribution and storage facilities resulted in annual losses of:

• 45% of fresh vegetables
• 55% of fresh fruit
• 70% of potatoes
• 50% of grain
• One million tons of meat
• One and a half million tons of fish

A study by Harvey Alter of US Chamber of Commerce provides strong evidence that packaging saves waste. It shows that there is a strong relationship between the amount of packaging waste and the amount of food waste in municipal solid waste (MSW) worldwide: as the amount of packaging increased, the amount of food waste is decreased. Note this could also be partly accounted for by the high use of refrigerators in the countries that have high packaging waste figures.

**Protection**

This is often regarded as the primary function of the package: to protect its contents from outside environmental effects, be they water, moisture vapour, gases, odours, microorganisms, dust, shocks, vibrations, compressive forces, etc., and to protect the environment from the product.
This is especially important for those products such as toxic chemicals which may seriously damage the environment.

In the case of the majority of food products, the protection afforded by the package is an essential part of the preservation process. For example, aseptically packaged milk and fruit juices in cartons only remain aseptic for as long as the package provides protection; vacuum-packaged meat will not achieve its desired shelf life if the package permits oxygen to enter. In general, once the integrity of the package is breached, the product is no longer preserved.

Convenience

Modern industrialized societies have brought about tremendous changes in life styles and the packaging industry has had to respond to those changes. One of the major changes has been in the nature of the family and the role of women. Now an ever-increasing number of households are single-person; many couples either delay having children or opt not to at all; there is a greater percentage than ever before of women in the work force.

Two other aspects of convenience are important in package design. One of these can best be described as the apportionment function of packaging. In this context, the package functions by reducing the output from industrial production to a manageable, desirable "consumer" size. Thus a vat of wine is "apportioned" by filling into bottles; a churn of butter is "apportioned" by packaging into 10 gram minipats and minitubs; a batch of ice cream is "apportioned" by filling into 2 litre plastic tubs. Put simply, the large scale production of products which characterizes a modern society could not succeed without the apportionment function of packaging. The relative cheapness of consumer products is largely because of their production on an enormous scale and the associated savings which result. But as the scale of production has increased, so too has the need for effective methods of apportioning the product into consumer-sized dimensions.

Package Environments: The packaging has to perform its functions in three different environments. Failure to consider all three environments during package development will result in poorly designed packages, increased costs, consumer complaints and even avoidance or rejection of the product by the customer.

Physical Environment: This is the environment in which physical damage can be caused to the product. It includes shocks from drops, falls and bumps; damage from vibration arising from transportation modes including road, rail, sea and air; and compression and crushing damage arising from stacking in warehouses and during transportation, or in the home environment.

Ambient Environment: This is the environment which surrounds the package. Damage to the product can be caused as a result of gases (particularly oxygen), water and water vapour, light (particularly UV radiation), and the effects of heat and cold, as well as micro- and macro-organisms which are ubiquitous in many warehouses and retail outlets. Contaminants in the ambient environment such as exhaust fumes from automobiles and dust and dirt can also find their way into the product unless the package acts as an effective barrier.

Human Environment: This is the environment in which the package interacts with people, and designing packages for this environment requires a knowledge of the vision and strength capabilities and limitations of humans, as well as legislative and regulatory requirements. Since one of the functions of the package is to communicate, it is important that the messages are received clearly by consumers.

A distinction is usually made between the various "levels" of packaging

1. A primary package is one which is in direct contact with the contained product. It provides the initial and usually the major protective barrier. Examples of primary packages includes metal cans, glass bottles, and plastic pouches. It is frequently only the primary package which the consumer purchases at retail outlets.

2. A secondary package contains a number of primary packages, e.g. a corrugated case. It is the physical distribution carrier and is sometimes designed so that it can be used in retail outlets for the display of primary packages.
3. A **tertiary package** is made up of a number of secondary packages, the most common example being a stretch-wrapped pallet of corrugated cases.

4. A **quaternary package** is frequently used to facilitate the handling of tertiary packages in interstate and international trade. This is generally a metal container up to 12 m in length which can hold many pallets and is intermodal in nature. That is, it can be transferred to or from ships, trains, and flatbed trucks by cranes. Certain designs are also able to have their temperature, humidity and gas atmosphere controlled and this is necessary in particular situations such as for the transportation of frozen foods or fresh fruits and vegetables.

**Demonstrate**

**Tools and equipment used in packaging**

- **Fig.3.1.4: Carton Sealer**
- **Fig.3.1.5: Cello Tape**
- **Fig.3.1.6: Corrugated Paper Boxes**
- **Fig.3.1.7: Label Applicator Machine**
- **Fig.3.1.8: Polyester Strap**
- **Fig.3.1.9: Strapping Tensioner**
Activity

- Conduct a skill practice activity.
- Ask the students to assemble together.
- Explain the purpose and duration of the activity
- Set guidelines pertaining to discipline and expected tasks

<table>
<thead>
<tr>
<th>Skill Practice</th>
<th>Time</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discuss the functions of packaging and packaging environment</td>
<td>3 hours</td>
<td>Pen and Papers</td>
</tr>
<tr>
<td>Identification of tools and equipment used in packaging</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Notes for Facilitation

- Ask participants about their expectations from this program.
- Tell participants to complete the questions at the end of the sub unit.
- Ask participants if they have any doubts. Encourage them to ask questions.
- Answer their queries satisfactorily.
UNIT 3.2: Standard Operating Procedures

Unit Objectives

At the end of the unit, students will be able to:
1. Explain the standard operating procedures (SOPs) and their types.
2. Prepare SOPs.
3. Paraphrase the product life cycle.

Resources to be Used

- Available objects such as black or white Board, chalk pieces or white board marker pens, duster.
- PC with LCD Projector or Flip Chart.
- Participant Manual
- Copies of Handouts.

Do

- Greet and welcome the participants to the next unit of the program.
- Before starting the session ask them do they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they will learn how to plan the production process.

Say

- Tell them that every product is born out of a need and has to go through the process of “Industrialisation” before it reaches the final customer. Like human beings, a product also has a “life cycle” – it is born, it grows, matures, and perishes at last. To extend the life cycle, the product has to have a good manufacturing process support.
- One of the key elements of consistent quality is ‘SOP’ which is to be followed like a scripture by the operator. Different types of SOPs are available according to the process in hand.
Elaborate

How a product is born?

Have you ever wondered how a product is born and brought up – whether it is a simple nail or a giant automobile? “A product is a set of benefits offered for exchange and can be tangible or intangible”.

As an example, let us consider a pneumatic tyre – it offers mobility for a vehicle and comfort and safety for the passenger. So it offers certain benefits which are tangible and intangible to the customers. But how on earth a product is born? Where does the need come from? Who designs and who markets?

There are several process involved in the development of a product:

- Idea generation- based on voice of customer
- Product design – to suit the specified and implied needs of the customer
- Robust process design..
- Market research and analysis, sales and after sales service.

This is in general the process by which a product is born and marketed.

The product life cycle – a bird’s eye view

Like every living being, a product also has to undergo different ups and downs in its life span. This process is popularly known as product life cycle (PLC).

There are generally four stages in the life of a product:

- Introduction stage
- Growth stage
- Maturity stage
- Decline stage

As you would have guessed, any industry would prefer to have a high growth, more prolonged maturity level and a delayed decline.

In order to achieve this goal, every functional area has to play a vital role, especially in the process function, where the product is manufactured and nurtured.
Good Manufacturing Practice (GMP)

Any successful organization, whether it is a service sector or manufacturing sector, should have good manufacturing practice prevailing in their process.

But what are the good manufacturing practices that we are talking about? A brief list of some of them is given below:

- A well defined manufacturing process with proper linkages
- Clear and unambiguous instructions and procedures
- Operators are trained on SOP with a focus on quality and safety
- Monitoring and documenting of process.
- All deviations are investigated and corrective and preventive actions taken
- Validation of critical processes using statistical techniques
- Management and control of changes in manufacturing process.
- Very good system of identification and traceability.
- All customer complaints are redressed in stipulated time.

**Note:**

- Now tell the participants about the standard operating procedures (SOPs). You must be aware that all of the manufacturing process can be described as input – process – output. So, process is the heart of any product manufacturing and hence the importance of standard operating procedure.

- A standard Operating procedure (SOP) is a document which describes in simple terms, the activities to be carried out for a routine operation with reference to safety of the operator and machine and quality of the process and product.
The purpose of an “SOP” is to carry out the operations in the most desired manner and always in the same manner.

An SOP is a document that should be available at the place of work. (preferably in the local language). An ‘SOP’ is a set of compulsory instructions. It must have the status of a “controlled document” in any organization. As the name indicates, it must be “standard” i.e. approved model.

Types of SOP
The term ‘SOP’ is more generic in nature in the industrial parlance. An ‘SOP’ can include work instructions, “Dos” and “Don’ts” safety instructions, and even specifications.

To name a few ‘SOP’, from a manufacturing scenario
- SOP for safety precautions
- SOP for loading of rubber compound on the mill
- SOP for stacking of materials in RMS (Raw material storage)
- SOP for warming up of press
- SOP for quality inspection
- SOP for identification and traceability etc

Preparation of SOP
An ‘SOP’ is a very important document and it should be prepared with utmost care and diligence.

An ‘SOP’ has to be prepared by a team of process experts. It should be comprehensible to all and subject to changes as and when required. It shall be short and precise.

‘SOP’ is a ‘TOOL’ and not a ‘GOAL’
An ‘SOP’ is one of the tools to achieve consistency in process and product quality.

The important message here is that only a good process can yield good product. Modern quality management systems re-emphasises the need for robust process to have superior product quality. An operator on floor is a link between the process and the product. Minute variations in process can have “butterfly effect” on end product. Process specifications and “Do’s” and “Don’ts” are documentations which guide the operator to carry out the process.

Specifications are unquestionable and any deviation from this has to have prior permission from authorized personnel. As per Taguchi a famous quality exponent, deviation is an evil in all process. So, SOP/specifications are to be followed like a holy scripture.

Example of SOP (For making a cup of tea!)
1. Obtain the specification of the tea or understand the customer requirement (Quantity, Black or white, light or strong, with or without sugar, etc)
2. Organise the resources (Burner, Vessels, Utensils, Raw materials etc.)
3. Proceed to make the tea following the SOP

SOP for making tea
(Given that the tea has to be black, light and without sugar referring to need as stated by the guest)
- Wear the Kitchen apron and fasten it firm on to your body.
• Clean the vessel and take the required amount of water inside it.
• Light the burner using the lighter and keep the vessel on it.
• Cover the vessel with its lid.
• Wait for the music of the kettle to be heard
• Open the vessel and wait for the water to fully boil. Please ensure Hand gloves, are in good condition and you are wearing them while handling the hot lid.
• When the water boils, add the specified amount of tea dust (as specified for a light tea)
• Close the vessel with the lid immediately
• Continue boiling for another half a minute
• Put off the flame and allow the tea dust to settle for three minutes.
• Carefully, using a filter placed on the cup, pour the tea decoction into the cup without spillage.
• Inspect the tea cup for any spillage and if found with tea decoction on the outside, clean it using a clean wipe.
• Arrange the filled tea cups in the serving tray, also placing the saucer below the cup, and serve.

While this SOP itself can be more detailed and elaborate and also including more activities such as keeping back the vessels and materials, cleaning the cooking pot, the principle of making a SOP may be noted – The emphasis is on the breaking up of the bulk activity of “Make two cups of tea” to as many sub activities as possible and detailing the way these sub activities are carried out, so that the variability in the end product every time it is prepared, is minimised.

**Summarize**

- Summarize the product life cycle and life of a product.
- Summarize the SOPs.

**Activity**

- Conduct a skill practice activity.
- Ask the students to assemble together.
- Explain the purpose and duration of the activity
- Set guidelines pertaining to discipline and expected tasks

<table>
<thead>
<tr>
<th>Skill Practice</th>
<th>Time</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discuss the life cycle of a product.</td>
<td>3 hours</td>
<td>Pen and Papers</td>
</tr>
<tr>
<td>Debrief the SOPs.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Notes for Facilitation

• Ask participants about their expectations from this program.
• Tell participants to complete the questions at the end of the sub unit.
• Ask participants if they have any doubts. Encourage them to ask questions.
• Answer their queries satisfactorily.
UNIT 3.3: Weighing of Ingredients

Unit Objectives

At the end of the unit, students will be able to:
1. Weigh the ingredients accurately
2. Understand the sequence of weighing
3. Store and identify the weighed materials

Resources to be Used

- Available objects such as black or white Board, chalk pieces or white board marker pens, duster.
- PC with LCD Projector or Flip Chart.
- Participant Manual
- Copies of Handouts.

Do

- Greet and welcome the participants to the next unit of the program.
- Before starting the session ask them do they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they will learn how to plan the production process.

Say

- Tell the participants that the accurate weighing of ingredients is essential for the quality of the compound and also for the expected performance of the finished product. It is a critical process from the point of view of the cost of the materials also, which cannot be wasted. There are many aspects of compounding such as the sequence of weighing, the tolerances to which the chemicals are weighed, the calibration of balances and many more... This session gives a total picture about the such aspects and tunes the mind of the participant to view the process of chemical weighing as one of extreme importance.
- Explain that compound quality is believed to be one of the core parameters of product quality and the weighing of ingredients is the most important factor affecting compound quality. Ingredients of a rubber mix are also extremely costly ingredients to waste. Further, any wrong chemical weighing will result in a compound that may have to be scrapped which is all the more costly. In bigger factories, testing of semi-finished products is
a line activity, whereas, many of the small scale units do not follow 100% testing of in-process materials. It therefore emphasizes the importance of chemical compounding (weighing of ingredients) once again, since the accurate weighing alone serves to bring out compound of the right quality in a consistent manner.

Elaborate

**Sequencing of Weighing**

Generally, chemical weighments are done by categorizing the total formula ingredients into the number of stages that has been fixed for mixing any compound. Typically, in the rubber mixing process, for the fear of the resultant temperature, the mixing is divided into Master Batch and Final Batch. In some of the compounds, there are additional stages designed for:

1. Improvement of uniformity, dispersion etc
2. Addition of special purpose ingredients and
3. Deliberate breakdown and reduction of viscosity

There could be stages where there are chemicals added and it is also likely that there could be stages without addition of any chemicals.

The smaller industries even today consider Mill mixing as their major method of compound mixing. The mill sizes are in the range of 60” to 84” wherein the batch weight is approximately 60 kilograms to 150 kilograms. Obviously, the amount of ingredients that are to be weighed for the Mill mixing is small. Further, unlike in Banburys, all the chemicals cannot be added in one stretch and they will have to be weighed as individual packets, facilitating addition of one after the other.

Therefore, the chemical weighing will have to be done in such a manner to suit the end requirements as decided by the mixing sequence and equipment.

**Weighing of Chemicals for Master Batch**

Typically, all the ingredients, except Sulphur, Accelerators and Retarders can be added in a single step in Master Batch mixing. In chemical compounding for Banburys the ingredients are all weighed into a polythene packet one over the other. Liquid ingredients are added generally through automatic weighing systems which directly inject the ingredients into the Banbury. Free flowing powders like Carbon Blacks, Silica, and Clays can be programmed to be added into the Banbury chamber directly from the storage silos using automatic weighing arrangements.

**Weighing of Chemicals for Final Batch**

The weighing of chemicals for final batch is much more critical than that of master batches since the final batch chemicals affect the properties of the compound in much more significant manner. I.e, the Master Batch ingredients allow a greater freedom of tolerances and, the Final Batch ingredients weighed to the same tolerances critically affect the compound’s output characteristics. Therefore, the weighing of Final Batch chemicals is done generally with balances having greater precisions and accuracy.

**Weighing Tolerances**

The tolerance to which the chemicals are to be weighed is an important parameter of chemical weighing. These tolerances as we have seen now are of varying criticality in master batch and final batch. The tolerances are also dependent to the weight of the batch of which the ingredients form a part of. While it is acceptable to have larger tolerances for the larger batch weights (for e.g. F-660, F-440, etc., Banbury sizes) it is weighed to narrow tolerances for lower size Banburys and also for smaller Intermixes.
In 200 Kg Banbury mixing, the rubbers are weighed to the tolerances of +/- 300 gms, Carbon Blacks are weighed to the tolerances of +/- 150 gms, Oils are weighed to tolerance of +/- 100 gms and Chemicals for Master Batches in general are weighed to the tolerances of +/- 20 gms and chemical for Final Batches are weighed to tolerance of +/- 10 gms.

The accuracy of the balances shall follow the common principle of having least count to the tune of 1/10 the of the allowable tolerance

**Automation in Weighing**

All along, the practice in the rubber industry was to weigh the chemicals by hand one over the other, checking the cumulative weights of ingredients added one after the other. This is a very vulnerable process as far as the accuracy of the weighing is concerned. Also is very labour intensive. Of late, these types of manual weighing systems are replaced by automatic chemical dispensers which will dispense the required amount of chemicals into the same bag using pre programmed information. The development and maintenance of this type of machinery has already become an industry by its own.

**Calibration of Balances**

In any method of chemical weighing, the calibration and maintenance of the accuracy of balance is of utmost important as far as the weighing quality is concerned. Factories have their own internal schedule of calibration of balances and they have fully equipped calibration laboratories inside the factories. However for small scale units, where such facilities are not set up, external help in the form of certified calibration agencies are available.

**Storage and Identification of Weighed Materials**

The weighed ingredients are to be used up at the earliest. Exposure of chemicals out of their basic or parent packaging, makes them susceptible to attack to moisture, dust, etc. Therefore, it is important that the weighed chemical packets are kept fully closed while in storage and in transit from the chemical area to the machine proper. It is also important to identify the chemical packets in an appropriate manner so that the risk of chemical and compound wastage because of unidentified chemical packets, wrong usage of chemical packages, etc., are minimized.

---

**Summarize**

- Summarize the sequence of weighing.

---

**Notes for Facilitation**

- Ask participants about their expectations from this program.
- Tell participants to complete the questions at the end of the sub unit.
- Ask participants if they have any doubts. Encourage them to ask questions.
- Answer their queries satisfactorily.
4. Undertake Storage of Material

Unit 4.1 – Storage Equipment
Unit 4.2 – Storage of Material
At the end of this module, you will be able to:
1. Identify various storage equipments used in dispatch and storage
2. Use equipment like pallet rack, drive through rack etc.
3. Familiarise with the general standards of storing material
4. Store rubber tyres effectively
5. Follow the tyre storage tips
UNIT 4.1: Storage Equipments

Unit Objectives

At the end of the unit, students will be able to:
1. Identify various storage equipments used in rubber processing
2. Use equipment like pallet rack, drive through rack etc.

Resources to be Used

- Available objects such as black or white Board, chalk pieces or white board marker pens, duster.
- PC with LCD Projector or Flip Chart.
- Participant Manual
- Copies of Handouts.

Do

- Greet and welcome the participants to the next unit of the program.
- Before starting the session ask them do they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they will learn how to plan the production process.

Say

- Tell the participants that storage equipments are used for holding or buffering materials over a period of time. The most common reason for storing a product allows the other elements of production to operate more efficiently on a per-unit basis because the fixed costs associated with utilizing the element can be spread over more products; e.g., storing up to a truckload of product in a facility reduces the per-unit costs of shipping; and buffering or storage of work in process enables batch production which reduces the per-unit setup costs.
- Explain that other potential reasons for storage include: time bridging—allows product to be available when it is needed (e.g., storing spare machine parts at the facility); processing—for some products (e.g., mixed compound), storage can be considered as a processing operation because the product undergoes a required change during storage; and securing. The major types of storage equipments are given in detail in this unit.
Elaborate

Block Stacking (No Equipment)

Bulk storage using block stacking can result in the minimum cost of storage since cube utilization is high and no storage medium is required, but material accessibility is low since only the top of the front stack is accessible and loads at bottom of a stack must not require support. Storage racks are used when support and/or material accessibility is required.

Selective Pallet Rack

This is the most popular type of storage rack in the industry. Pallets are supported between load-supporting beams. Special attachments and decking can be used to make the racks capable of supporting other types of unit loads besides pallets (e.g., coils, drums, skids). Selective racks can be used for the following types of storage:

- **Standard**: Single-deep storage using a counterbalanced lift truck;
- **Narrow-Aisle**: Storage using a narrow-aisle lift truck;
- **Deep-Reach**: Greater than single-deep storage (typically double-deep storage).

Drive-Through Rack

In this type of rack, loads are supported by rails attached to the upright beams and lift trucks are driven between the uprights beams to stack the materials. They require similar-width loads. They are open at both ends, allowing access from both ends (FIFO-First In First Out)

1. **Flow-Through Rack**: In this system, loads are supported on an incline to enable gravity-based movement of the loads within the rack (via, e.g., a gravity roller conveyor).
   
   They are loaded at the higher end and unloaded at the lower end (FIFO). Eg. Nylon fabric storage in tyre industry.

2. **Sliding Rack**: In this system, only one mobile aisle is used to access several rows of racks. The location of the aisle is changed by sliding the rows of racks along guide rails in the floor. These are typically found in spare inventory stores and libraries.
3. **Shelves/Bins/Drawers**: As evident from the figure, this system is a simple shelf / drawer system. These are usually used in storing the spares of equipments.

4. **Storage Carousel**: Carousel consists of a set of vertically or horizontally revolving storage baskets or bins. The materials (and the storage medium) move to the operator, "part-to-man," for end-of-aisle picking.

   Each level of the carousel can rotate independently in a clockwise or counter-clockwise direction. These are usually found in spare stores.

   Its control ranges from manually activated push buttons to automated computer controlled systems. It provides an alternative to typical "man-to-part" AS/RS (Automatic Storage / Retrieval Systems), where the S/R machine moves to the part. It is similar to a trolley conveyor with storage baskets.

5. **Automatic Storage/Retrieval Systems (AS/RS)**: This system consists of an integrated computer-controlled system that combines the storage medium, transport mechanism, and controls with various levels of automation for fast and accurate random storage of products and materials. Storage/retrieval (S/R) machine in an AS/RS operates in narrow aisle, serving rack slots on both sides of aisle; it can travel in horizontal (along the aisle) and vertical (up and down a rack) directions at same time.

   **Advantages:** fewer material handlers, better material control (including security), and more efficient use of storage space.

   **Disadvantages:** high capital and maintenance costs, and difficult to modify.
**Activity**

- Conduct a skill practice activity.
- Ask the students to assemble together.
- Explain the purpose and duration of the activity.
- Set guidelines pertaining to discipline and expected tasks.

<table>
<thead>
<tr>
<th>Skill Practice</th>
<th>Time</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify the different equipment used in storing rubber products.</td>
<td>3 hours</td>
<td>Pen and Papers</td>
</tr>
</tbody>
</table>

**Notes for Facilitation**

- Ask participants about their expectations from this program.
- Tell participants to complete the questions at the end of the sub unit.
- Ask participants if they have any doubts. Encourage them to ask questions.
- Answer their queries satisfactorily.
UNIT 4.2: Storage of Material

Unit Objectives
At the end of the unit, students will be able to:
1. Familiarise with the general standards of storing material
2. Store rubber tyres effectively
3. Follow the tyre storage tips

Resources to be Used
- Available objects such as black or white Board, chalk pieces or white board marker pens, duster.
- PC with LCD Projector or Flip Chart.
- Participant Manual
- Copies of Handouts.

Do
- Greet and welcome the participants to the next unit of the program.
- Before starting the session ask them do they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they will learn how to plan the production process.

Say
- Tell the participants about the standards of rubber material storage.

Elaborate

General Requirements for Storage of Materials
Store materials in a planned and orderly manner that does not endanger employee safety. Ensure stacks, tiers, and piles are stable and stacked to aid safe handling and loading. Store hazardous materials in accordance with the individual requirements.
Store all materials on pallets to discourage rodent infestation. Immediately clean up spills and leaks that create such rodent habitat.

Use slings to hoist bagged material, lumber, bricks, masonry blocks, and similar loosely stacked materials only if the slings are fully secured against falling by straps, sideboards, nets, or other suitable devices.

**Storing Materials in an Open Yard**

Storing materials in an open yard requires attention to combustible materials, access, powerlines, and fire protection.

- **Combustible Materials**: Stack combustible materials securely. Stacks or piles must be no more than 16 feet high. Store combustible material at least 10 feet away from a building or structure.
- **Access**: Driveways between and around combustible storage piles must be at least 15 feet wide. Keep them free from accumulations of material or rubbish. Use a map grid system of 50 by 150 feet when planning driveways in open-yard combustible material storage areas.
- **Powerlines**: Do not store materials under power lines or where materials may block egress or emergency equipment.
- **Fire Protection**: Provide portable fire extinguishing equipment rated 2-A:40-B:C at accessible marked locations in the yard so that the nearest extinguisher is no more than 50 feet away for a Class B hazard or 75 feet away for a Class A hazard.

**Requirements for Storing Materials Indoors**

Storing materials indoors requires attention to access, fire prevention and protection, floor loading, and overhead hazards. Buildings under construction require special precautions.

- **Access**: Place or store materials so they do not interfere with access ways, doorways, electrical panels, fire extinguishers, or hoistways. Do not obstruct access ways or exits with accumulations of scrap or materials. Aisles must be wide enough to accommodate forklifts or firefighting equipment.
- **Fire Prevention**: When storing, handling, and piling materials, consider the fire characteristics. Store noncompatible materials that may create a fire hazard at least 25 feet apart or separate them with a barrier having at least a 1-hour fire rating. Pile material to minimize internal fire spread and to provide convenient access for firefighting.
- **Fire Doors**: Maintain a 24-inch clearance around the travel path of fire doors.
- **Sprinklers**: Maintain at least an 18-inch clearance between stored materials and sprinkler heads.
- **Heating Appliances**: Maintain at least a 3-foot clearance between stored materials and unit heaters, radiant space heaters, duct furnaces, and flues or the clearances shown on the approval agency label.
- **Fire Protection**: Emergency fire equipment must be readily accessible and in good working order.
- **Floor Loading**: Conspicuously post load limits in all storage areas, except for floors or slabs on grade.
- **Buildings Under Construction**: Store materials inside buildings under construction at least 6 feet away from any hoistway or inside floor openings, and 10 feet away from an exterior wall that does not extend above the top of the material stored.

**Requirements for Stacking Bagged Material**

Stack bagged materials by stepping back the layers and cross-keying the bags at least every 10 bags high, except when restrained by walls or partitions of adequate strength.
Requirements for Storing Material in Bulk

Ensure entry to bulk storage locations, such as silos, hoppers, tanks, or bins (which are also classified as confined spaces) complies with OSHA requirements and local operating procedures.

Requirements for Lumber Storage

Stack lumber on level and solidly supported sills so that the stacks are stable. Do not pile lumber more than 16 feet high.

---

Say

- Tell them how to store the rubber tyres. Explain that stored tires should be protected against environmental effects such as sunlight, high heat, ozone and other potentially damaging conditions. Weather checking/ozone cracking can occur during direct and extended exposure to damaging effects of the environment, such as ozone and heat from sunlight. Ozone cracking can also be caused by exposure to electric motors, welding equipment, or other ozone generating sources.

Elaborate

Tires with severe weather checking/ozone cracking or any cracking that extends to the tire casing cords/plies should be removed from service.

- Store tires where the area is clean, dry and well ventilated, but with a minimum of circulating air.
- Store tires in an area with temperate ambient conditions (mild temperatures, shaded or dark).
- Store tires raised off a storage area’s floor surface to minimize exposure to moisture or damage.
- Avoid contact with petroleum-based products and/or other volatile solvents or substances.
- Store tires away from electric motors, battery chargers, generators, welding equipment or other ozone generating sources.

Indoor storage is recommended, however if tires must be stored outdoors:

- Store tires where they are raised off the ground (or on storage racks) and not in contact with heat absorbent surfaces.
- Protect tires with an opaque, waterproof covering with some type of vent openings to avoid creating a “heat box” or “steam bath” effect.

Tire Storage Tips

If you regularly use more than one set of tires (for example, winter tires vs. all-season tires, or racing tires vs. everyday tires) you may not have given much thought to how or where you store the set you’re not currently using. When it comes to tires, a little TLC can go a long way. So if you’ve been storing tires outside, hauling them around in the trunk of your car, or just tossing them in the garage, check out these ten easy tips that’ll help your tires last longer -- and help you save a little cash.

1. **Keep it clean:** always clean tires before storing. Sounds like advice from Mom, doesn’t it? And as usual, Mom knows best. During normal use, tires accumulate brake dust, dirt, and road grime, and all that gunk can cause tire damage if it sits on your tires for a long time. Use soap, water, and a tire brush to clean your tires. If the
tires are still mounted on the rims, it’s also a good time to clean the wheels (use an approved wheel cleaner). Wipe the tires and wheels down with a towel, then let them dry completely. Do not use tire dressing or tire gloss when storing tires.

2. **Airtight is all right:** Once your tires are clean and dry, put them into large, dark, airtight plastic bags like lawn and garden bags. Try to remove as much air from the bags as possible before sealing them securely with tape. This will help prevent the lubricating oil within the tire compounds from evaporating. If you really want to go crazy, you can even use your vacuum cleaner to draw out air before sealing the bags.

3. **Upright is all right:** The best way to store tires is standing upright — it puts less stress on the tires. If you have to stack your tires, try not to stack them too high. If your tire tower gets too tall, it could topple over and damage the tires. However, if your tires are mounted on the rims, you should store them stacked, not upright.

4. **To hang ... or not to hang:** If your tires are mounted on the rims, hanging them from hooks is a great storage option. But unmounted tires should never be hung – the stress can cause distortion and damage.

5. **Tire totes? Do such things really exist?** They do — some folks like to use “tire totes” to store and carry tires. While these totes are convenient, tidy, and make carrying tires easier, they’re not airtight, so they don’t necessarily protect tires from the atmosphere. If you want to use tire totes, we recommend putting the tires in plastic bags (as described above) first, then putting them in the totes.

6. **Your tires need sunscreen:** Not really — but they should stay out of the sun. Because tires are black, they soak up the heat of the sun and can easily heat up to over 120 degrees F. This intense heat, coupled with the sun’s ultraviolet rays, can cause the rubber to break down.

7. **Ozone is a no-no:** Ozone can damage tires, so it’s best to keep your tires away from machinery that can generate ozone, like electric motors, furnaces, central vacuums, or your basement sump pump.

8. **Storing a vehicle? Give the tires a break:** If you have to store a vehicle for long periods of time, the constant weight on the tires can cause tire damage. If you can, move the vehicle or take it out for a short drive every once in a while — you’ll relieve the stress on the tire and help keep the tire’s rubber compounds lubricated and supple. If your vehicle is stored outside, cover the tires to protect them from direct sunlight.

9. **Some like it hot. But tires like it cool and dry:** When it’s time to put your tires away, make sure you store them in a cool, dry place like your basement, climate-controlled garage, or workshop. Avoid storing tires outdoors, in a standard garage, or in an attic — basically, any place that could be very hot, wet, humid, or cold (yes, tires can actually freeze).

10. **Keep those whitewalls (and letters) white:** Use caution when storing whitewall or white-lettered tires. If you stack the tires, stack white-to-white and black-to-black (white sides touching each other and black sides touching each other). This will help keep the white parts of the tire pristine and clean. And of course, if you used storage bags as mentioned earlier, this won’t even be a concern.

---

**Summarize**

- Summarize the standards of rubber product storage.
- Summarize how to store the rubber tyres.
Activity

- Conduct a skill practice activity.
- Ask the students to assemble together.
- Explain the purpose and duration of the activity.
- Set guidelines pertaining to discipline and expected tasks.

<table>
<thead>
<tr>
<th>Skill Practice</th>
<th>Time</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussion of rubber tyre storage</td>
<td>3 hours</td>
<td>Pen and Papers</td>
</tr>
</tbody>
</table>

Notes for Facilitation

- Ask participants about their expectations from this program.
- Tell participants to complete the questions at the end of the sub unit.
- Ask participants if they have any doubts. Encourage them to ask questions.
- Answer their queries satisfactorily.
5. Undertake Dispatch Activities

Unit 5.1 – Undertake Dispatch Activities
At the end of this module, you will be able to:
1. Check pre-shipment document
2. Identify the best suitable logistics as per buyer’s standard
3. Interpret and negotiate the logistics cost with different type of shipment mode
4. Track the shipment and follow up for payment
5. Communicate with logistic agency, buying offices and buyers
6. Get knowledge of different types of transport and the best suitable method
7. Manage dispatch processes as per norms
UNIT 5.1: Storage Equipments

Unit Objectives

At the end of the unit, students will be able to:
1. Check pre-shipment document
2. Understand and identify the best suitable logistics as per buyer’s standard
3. Interpret and negotiate the logistics cost with different type of shipment mode
4. Track the shipment and follow up for payment
5. Communicate with logistic agency, buying offices and buyers
6. Get knowledge of different types of transport and the best suitable method
7. Manage dispatch processes as per norms

Resources to be Used

- Available objects such as black or white Board, chalk pieces or white board marker pens, duster.
- PC with LCD Projector or Flip Chart.
- Participant Manual
- Copies of Handouts.

Do

- Greet and welcome the participants to the next unit of the program.
- Before starting the session ask them do they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they will learn how to plan the production process.

Say

- Tell the participants “Logistics is the process of planning, implementing and controlling the efficient, effective flow and storage of goods, services and related information from point of origin to point of consumption for the purpose of conforming to the customer requirement”. Logistical management includes the design and administration of systems to controls the flow of material, work- in – process, and finished inventory to support business unit strategy.
Elaborate

Logistics is the designing and managing of a system in order to control the flow of material throughout a corporation. This is a very important part of an international company because of geographical barriers. Logistics of an international company includes movement of raw materials, coordinating flows into and out of different countries, choices of transportation, and cost of the transportation, packaging the product for shipment, storing the product, and managing the entire process.

Say

- Explain the key concepts for international trade logistics.
- Describe the different types of transport used in dispatching the material and their benefits.
- Describe the different types of containers.
Elaborate

Key Concepts for International Trade Logistics

1. Multi-modal transport: Multi-modal transport (also known as combined transport) is the transportation of goods under a single contract, but performed with at least two different means of transport; the carrier is liable (in a legal sense) for the entire carriage, even though it is performed by several different modes of transport (by rail, sea and road, for example). The carrier does not have to possess all the means of transport and in practice usually does not; the carriage is often performed by sub-carriers (referred to in legal language as "actual carriers"). The carrier responsible for the entire carriage is referred to as a multi-modal transport operator, or MTO.

Article 2.2. of the United Nations Multi-modal Convention defines multi-modal transport as follows:

'International multi-modal transport' means the carriage of goods by at least two different modes of transport on the basis of a multi-modal transport contract from a place in one country at which the goods are taken in charge by the multi-modal transport operator to a place designated for delivery situated in a different country”.

2. Containerization: A container essentially can be called as equipment utilized to carry goods or store goods. Based upon this concept of a container, we can say that containerization is technique or a method of distributing goods in unitized form thereby making it convenient to revive or establish an inter-modal transport system which can be a combination of railways, roadways, waterways or airways. Containers are usually standard sized and are referred to 20 ft. containers, 40 ft. containers etc.

The international organization has defined freight container as an article of transport equipment:

- Of a permanent character and accordingly strong enough for repeated use
- Specially designed to facilitate the carriage of goods by one or more modes of transport without intermediate reloading
- Fitted with devices permitting its ready handling
- So designed as to be easy to fill and empty
- Having an internal volume of 1 m³ or more.
Benefits of containerization:

- It eliminates the need for intermediate handling.
- The absence of intermediate handling as well as the goods being transported quickly indicates that there are few chances for a cargo to get damaged or pilfered.
- Since there is less risk of damage and pilferage due to containerization, transporting companies can charge profitable cargo carrying premiums. Such premiums cannot be changed in the conventional mode of cargo shipment.
- Since the need for intermediate handling at terminal points such as ports, is avoided, savings on labour can be realized.
- Since goods are transport in standardized containers, saving on packaging materials, labour required for packing, etc can be realized.
- There is improvement in total quality service.

Various types of Containers:

- **General Cargo Container**: This container is packed with all general type of cargo that does not require any specific temperature control. Today most of the containers that are in use are overwhelmingly the general cargo type.

- **Thermal Container**: These containers are specifically designed to carry cargo that requires refrigeration or thermal insulation. It is covered with a special material that has low heat transfer such as polystyrene foam. Thermal containers are further classified in to three types:
Refrigerated containers meant for food items that require cold storage facility. E.g. meat, fish etc.

Insulated containers for fruit, vegetables etc. Here dry ice is used as cooling medium.

Ventilated containers which allow the passage and circulation of air through openings made either on the sides of the containers or at the ends of the containers. E.g. coffee seeds, tea leaves etc. are carried in these containers.

*Dry Cargo Containers:* These containers are in maximum use. Such containers are very useful when cargo has to be stuffed in to the container after the container has been mounted on to a wagon or a trailer.

*Flat Container:* These containers have only a strong base and no side walls. They are useful when the cargo is of odd size or when the cargo is very heavy. Trucks which carry heavy machinery, large sized pipes or railway wagons which carry army tanks make use of such containers. These containers are also called flat rack.
- **Bulk Containers:** Are basically large sized containers, which have man holes in them. Man holes are openings or holes at the top of the container similar to what we see in petrol or water tankers. Such man holes facilitate the loading of bulk cargo using gravity.

- **Garment Containers:** These containers have hangers built in them. Clothes can be hung from the hangers instead of folding and packing them in boxes. Such containers are thus used for transport of garments only.
• **Liquid Containers:** These containers are usually made of stainless steel. They have manholes built in them. These manholes are very useful to load or unload liquid cargo. We can see such containers in the transportation of milk.

![Liquid Containers](image1.png)

• **Gas Containers:** These are specialized containers that have fixture fittings which help to fill or empty liquefied gas. E.g. Liquid oxygen. They have thick walls and are made of high quality stainless steel. This is required for safe transport of liquid gas.

![Gas Containers](image2.png)

1. **Maritime Transport:** Maritime transport is the shipment of goods (cargo) and people by sea and other waterways. Port operations are a necessary tool to enable maritime trade between trading partners. To ensure smooth port operations and to avoid congestion in the harbor it is inevitable to permanently upgrade the port’s physical infrastructure, invest in human capital, fostering connectivity of the port and upgrade the port operations to prevailing standards. Hence, port operations can be defined as all policies, reforms and regulations that influence the infrastructure and operations of port facilities including shipping services.

More than 80% of world trade is carried by sea, constituting by far the most important means of transport of goods. Maritime transport has been growing annually by around 4.1% for the past three decades. Although there are many shipping companies in the maritime industry, most of them are small with insignificant market shares. For example, 52% of the world TEU capacity in 2012 was provided by the top 10 largest service operators. The top 3 (Maersk Line, Denmark; MSC, Switzerland; and the CMA-CGM Group, France) supply a total of 5,291,145 TEU, approximately 30% of of the world’s total TEU capacity. Even though the largest shipping companies are located in developed economies their fleets are by large registered in developing
countries. Panama and Liberia, the two leading registries account for one third of the world’s deadweight tonnage.

International maritime transport costs tend to be on average between two to three times as high as custom duties of importing countries. Still it is the cheapest way of transporting large amounts of goods compared to other transport methods. For example, the rental rate for a 20 foot container was as low as USD 0.70 per day in the beginning of 2009. The price of shipping a container depends largely on the route and the current economic situation. However, besides costs, available services to traders and ships as well as service quality concerning speed, reliability, frequencies, safety and security are of increasing significance in the context of globalized production processes and just in time deliveries. Big differences exist between countries regarding the quality and costs of the port and shipping services available to their importers and exporters e.g. towage, mooring etc. But also the existing infrastructure and connectivity are of major importance for traders to bring their goods to its destination. The increasing globalization of trade and high complexity of port operations requires the application of a sophisticated ICT system. In recent years the size of ships has doubled and has added to the difficulty in managing port operations and demanded an even larger logistical effort. The trend towards just-in-time manufacture requires a permanent improvement of the information flow and integration of the transport business in the production process. Maritime transport and port security has become, especially after the 9/11 terror attacks, a major concern. Measures taken to increase security, such as the International Ship and Port Facility (ISPS) code, had a significant impact on trade and port operations. As part of the SOLAS (Safety of Life at Sea) initiative, it is a comprehensive set of measures to enhance the security for the port and the ships in the harbor. The SOLAS program requires countries to permanently assess their prevailing security situation that corresponds to a certain set of security measures to be taken by ships, ports and port authorities. A major challenge poses piracy in some regions in the world. Although there is a general agreement about the threats pirates and terrorists pose to international trade, multiple stakeholders pursue different interests. The World Customs Organization (WCO) adopted the “Framework of Standards to Secure and Facilitate Global Trade” (SAFE Framework) to increase safety of cargo. This framework provides guidelines and standards to harmonize national customs operations, enhance cooperation among them and establish partnerships between customs and business. One of the major challenges, especially among developing countries, remains the mutual recognition of other country’s Authorized Economic Operators (AEO).

2. Inland Container Depot: The present trend in the international trade is containerization of cargo. The full benefits of containerization can be derived only when the containers are, permitted to be moved to points in close proximity to important industrial station so that the importers can get clearance of the imported goods at the nearest point to their factory/premise. The facility is helpful to the exporters as they can export the goods from the nearest point of their factory/premise in order to provide this facility some statutory conditions are to be fulfilled and necessary infrastructure provided. To start with, the Government of India issued a notification under Section 7 of the Customs Act 1962 appointing a suitable place as inland container Depot for the unloading of the import goods and the loading of export goods or any class of such goods. After issue of such notification, the Commissioner of Customs having jurisdiction over that place issues a notification under Section 8 of the Customs Act, 1962 approving proper places in the ICD for the loading and unloading of the goods and also specify the limits of Customs area and post Customs Officers and staff to attend to work.

The exporters may take the goods to the ICD/CFS and file the Shipping Bill and other documents. The goods are examined by the Customs Officers and they are stuffed into the containers and thereafter the containers are sealed. Such containers are transported to the Seaports (gate way ports) by the Container Corporation of India or any other authorized agency, either by rail or road, when the containers are loaded into the vessels (ships) for delivery of the same at the specified foreign port. In the case of export through ICD, the exporters are requested to file two additional copies of Shipping Bills known as “Transference Copies” along with other documents as discussed. The rest of the procedure is the same as in the case of exports through Customs Port/Airport.
1. **Cargo Freight Stations:** A facility where freight shipments are consolidated or de-consolidated and staged between transport legs. A CFS is typically located in proximity to an ocean, port, or airport, where cargo containers are transported to and from. The term CFS at loading port means the location designated by carriers for the receiving of cargo to be loaded into containers by the carrier. At discharge or destination ports, the term CFS means the bonded location designated by carriers for devanning of containerized cargo.

For most exporters, importers, Customs house and shipping line agents, and even Customs officers, there is no difference between Container Freight Stations (CFS) and Inland Container Depots (ICD). In both the places, the imported goods or export goods are ordinarily kept before clearance by the Customs and where filing of Customs manifests, bills of entry, shipping bills and other declarations, assessment and all the activities related to clearance of goods for home consumption, warehousing, temporary admissions, re-export, temporary storage for onward transit and outright export, transshipment, etc, take place. So, CFS and ICD mean the same thing for many. However, they do not mean the same facility, says the Central Board of Excise and Customs (CBEC). A recent CBEC circular clarifies that CFS is merely an appendage to a parent Customs station at a port, airport, land Customs station (LCS) or ICD whereas an ICD is a Customs station in its own right having independent existence on a par with any Customs station at a port, airport or LCS. A CFS is an extension of a port/airport/LCS/ICD customs station, set up with the main objective of decongesting the ports, where only a part of the customs process mainly the examination of goods is normally carried out by Customs.

At CFS, goods are stuffed into containers or de-stuffed therefrom and aggregation/segregation also takes...
place at such places. Custom's function relating to processing of manifest, import/export declarations that are filed by the carrier/importer or exporter and assessment of bill of entry/shipping bill are performed in the Custom House/Custom Office that exercises jurisdiction over the parent port/airport/ICD/LCS to which the said CFS is attached. In the case of customs stations where automated processing of documents has been introduced, terminals have been provided at such CFSs for recording the result of examination, etc. In some CFSs, extension of service centers have also been made available for filing documents, amendments etc. However, the assessment of the documents is carried out centrally. On the other hand, an ICD would have an automated system of its own with a separate station code [such as INTKD 6, INSNF6, etc.] allotted by the Directorate General of Systems and with the inbuilt capacity to not only enter examination reports but also to enable assessment of documents, processing of manifest, amendments, etc. says the CBEC. So, a Commissioner can approve a standalone ICD but not approve a standalone CFS.

Fig.5.1.12: Cargo Freight Stations

2. **Buying House:** An apparel buying house works as mediator between apparel buyers (retailers) and garment manufacturers or export houses. Buying house is also known buying agency and buying office. Buying office may be buyer’s regional office or an independent company that works with multiple buyers. For example, H&M has its own regional buying office to the sourcing countries. On the other hand Asmara International is a buying house that works with many buyers, brands and High street retailers. There is two way to know more about a buying house. One, services provided by buying houses or functions of apparel buying house in apparel supply chain. Second, what all departments are there in a buying house?

**Major functions of a buying house:**

- A buying house may provide number of services to their buyers. In this post I have listed down major services provided by most of the apparel buying houses.
- Product development and sampling for buyers
- Finding good suppliers for their buyers
- Order processing from local vendors
- Contacting with buyers and taking approval on developments, samples, swatches, strike offs etc.
- Forwarding buyers comments on samples and buyers requirement to vendors
- Giving local approvals to vendors
- Follow up order processing with vendors (export houses)
Material Handling and Storage Operator

- Take care of product quality from sample development to final inspection
- Sometimes buying house do outsourcing of fabrics and trims for buyers and vendors
- Conducting social compliance audit at vendor factories
- Shipping and logistics

Various departments of a buying house: A buying office may be run by couple of people from a single room office to a big office equipped with various departments and dozens of employees. A middle size buying house is set with following departments.
- Design and product development
- Technical team (Pattern making and fit approval)
- Merchandising team
- Quality assurance team
- Sampling room with few sewing machines and tailors
- Shipping and Documentation
- Textile testing lab
- Sourcing of fabric and trims
- Factory compliance audit team
- Shipping and documentation
- Other administrative departments

Storage operator may perform some or all of the following tasks while dispatching some material:
- Schedule, dispatch and monitor resources (e.g. human or material) in transit and at locations according to written schedules, work orders, customer requests, specifications, or needs, or as required by emergency situations
- Relay work orders, messages, and exchange information using a variety of communication devices, including computer-aided, and dispatching equipment
- Implement and communicate company policy/procedures related to dispatch activities and health and safety regulatory requirements
- Determine compliance with laws, regulations, and/or standards and complete appropriate documentation as required
- Oversee all communications within specific geographic areas
• Communicate effectively by providing clear and concise information, explanation and direction
• Confer with customers or supervising personnel to address questions, challenges, and/or requests
• Prepare daily work and run schedules while keeping in mind corporate, company and/or departmental goals and objectives
• Receive or prepare work instructions and prioritize work activities
• Record and maintain dispatch files and records of customer requests, work or services performed, charges, expenses, inventory, and other dispatch information
• Advise personnel about route or traffic problems
• Ensure timely and efficient movement of dispatched resources according to orders and schedules
• Order materials and supplies required for dispatch activities and perform day to day administrative tasks
• Access environmental information, retrieve satellite and radar imagery and print out maps
• Use various computer applications and databases, and obtain and apply computer-generated information to dispatching activities
• Receive and respond to requests for emergency assistance or service from dispatched resources
• Maintain records of mileage, fuel use, repairs and other expenses, and generate reports
• Advise drivers and clients regarding methods of transport for various substances including dangerous goods
• Utilize communication abbreviations and location identifiers

**Summarize**

• Summarize the pre-shipment document.
• Summarize the elements of logistics system.
• Summarize the key concepts for international trade logistics.

**Activity**

• Conduct a skill practice activity.
• Ask the students to assemble together.
• Explain the purpose and duration of the activity
• Set guidelines pertaining to discipline and expected tasks

<table>
<thead>
<tr>
<th>Skill Practice</th>
<th>Time</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify the different logistics containers</td>
<td>3 hours</td>
<td>Pen and Papers</td>
</tr>
</tbody>
</table>
Notes for Facilitation

- Ask participants about their expectations from this program.
- Tell participants to complete the questions at the end of the sub unit.
- Ask participants if they have any doubts. Encourage them to ask questions.
- Answer their queries satisfactorily.
6. Health and Safety

Unit 6.1 - First Aid and CPR
At the end of this module, you will be able to:
1. Identify different methods of first aid.
2. Perform first aid.
3. Understand CPR.
4. Perform CPR in case of emergency.
Unit 6.1: First Aid and CPR

Unit Objectives

At the end of the unit, students will be able to:
1. Identify different methods of first aid.
2. Perform first aid.
3. Understand CPR.
4. Perform CPR in case of emergency.

Notes for Facilitation

• You could ask the students about the expectations from the course.
• Invite students to participate. List the expectations on the whiteboard.
• Give the students a brief overview of what all will be covered in the program.

Say

• First aid is the assistance given to any person suffering a sudden illness or injury, with care provided to preserve life, prevent the condition from worsening, and/or promote recovery. First aid is generally performed by the layperson, with many people trained in providing basic levels of first aid, and others willing to do so from acquired knowledge.
• We will learn how to perform CPR and give First Aid Help.

Do

• Explain the importance of being aware of CPR and other First Aid methods

Demonstrate

• Show them the CPR process on a dummy
• Show them the contents of a First Aid Box
Activity

- Conduct a skill practice activity.
- Ask the students to assemble together.
- Explain the purpose and duration of the activity

<table>
<thead>
<tr>
<th>Skill Practice</th>
<th>Time</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Practice CPR on a dummy</td>
<td>1 hour</td>
<td>Dummy</td>
</tr>
</tbody>
</table>
7. Housekeeping

Unit 7.1 – Introduction to housekeeping
Unit 7.2 – Pre-housekeeping activities
Unit 7.3 – Housekeeping activities
Unit 7.4 – Post housekeeping activities
At the end of this module, you will be able to:

1. Familiarise with housekeeping and its importance in Compression Moulding
2. Do Preparation for housekeeping activities
3. Carry out housekeeping activities
4. Do Post housekeeping activities
5. Perform pre-housekeeping activities
6. Identify the reasons and principles of doing cleaning
7. Clean material, cleaning equipment and its maintenance
8. Do inspection and how to select of cleaning method
9. Plan housekeeping activity
10. Identify signs of poor housekeeping
11. Improve housekeeping at your workplaces
12. Do recommended housekeeping practices
13. Follow the cleaning methods
14. Identify the elements of effective housekeeping program
15. Deal with accidental damage
16. Deal with accidental damage, if any, caused while carrying out the work
17. Report the appropriate person any difficulties in carrying out your work
18. Identify and report to the appropriate person any additional cleaning required that is outside one's responsibility or skill
19. Perform Post housekeeping activities
20. Do equipment and supplies maintenance
UNIT 7.1: Introduction to Housekeeping

Unit Objectives

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

1. Perform Housekeeping activities
2. Familiarise with the importance and purpose of Housekeeping
3. Identify the Benefits of Good Housekeeping
4. Recognize the concept of ‘5S’

Resources to be Used

- Available objects such as black or white Board, chalk pieces or white board marker pens, duster
- PC with LCD Projector or Flip Chart
- Participant Manual
- Personal Protective Equipment (PPE)
- Respiratory Protective Equipment (RPE)

Do

- Greet and welcome the participants to the next session of the program.
- Before starting the session ask them do they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they will learn about introduction to housekeeping in this unit.

Say

- Tell them housekeeping refers to the activities carried out to keep the things in order at work place. It includes keeping area clean and tidy. Housekeeping must ensure that no rubber compound, rubber uncured or cured product is lying on the floor. All usable rubber material should be on pallet/table properly identified and covered at the end of the shift.
- Now explain the importance of housekeeping with the participants as follows: Effective housekeeping can eliminate some workplace hazards and help get a job done safely and properly.
• Explain - Housekeeping is not just cleanliness. It includes keeping work areas neat and orderly, maintaining halls and floors free of slip and trip hazards; and removing of waste materials (e.g., paper, cardboard) and other fire hazards from work areas. Housekeeping ensures all usable rubber compounds are free of any contaminations.

Elaborate

• Explain the purpose of the workplace housekeeping. Poor housekeeping can be a cause of accidents, such as:
  » Tripping over loose objects on floors, stairs and platforms
  » Being hit by falling objects
  » Slipping on greasy, wet or dirty surfaces
  » Striking against projecting, poorly stacked items or misplaced material
  » Can be the cause of production delays and defective cured product
• Discuss with the participants that in order to avoid these hazards, a workplace must "maintain" order throughout a workday.

Demonstrate

• Demonstrate the benefits of good housekeeping practices- Effective housekeeping results in:
  » Reduced handling to ease the flow of materials
  » Fewer tripping and slipping accidents in clutter-free and spill-free work areas
  » Decreased fire hazards
  » Lower worker exposures to hazardous substances (e.g. dusts, vapours)
  » Better control of tools and materials, including inventory and supplies
  » More efficient equipment cleanup and maintenance
  » Better hygienic conditions leading to improved health
  » More effective use of space
  » Reduced property damage by improving preventive maintenance
  » Less janitorial work
  » Improved morale
  » Improved productivity (tools and materials will be easy to find)
Elaborate

• Explain the 5S concept to the participants. Tell them – ‘5S’ is a system of steps and procedures that can be used by individuals and teams to arrange work areas in the best manner to optimize performance, comfort, safety, and cleanliness.

• Explain the 5S in detail with the help of table.

<table>
<thead>
<tr>
<th>Japanese ‘S’</th>
<th>Translation</th>
<th>English ‘S’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seiri</td>
<td>Organization</td>
<td>Sorting</td>
</tr>
<tr>
<td>Seiton</td>
<td>Neatness</td>
<td>Simplifying Access</td>
</tr>
<tr>
<td>Seiso</td>
<td>Cleaning</td>
<td>Sweeping</td>
</tr>
<tr>
<td>Seitetsu</td>
<td>Standardization</td>
<td>Standardization</td>
</tr>
<tr>
<td>Shitsuke</td>
<td>Discipline</td>
<td>Self-Discipline</td>
</tr>
</tbody>
</table>

Fig. 7.1.1: 5S acronym of five Japanese words

Notes for Facilitation

• Summarise the main points of the unit.
• Ask participants if they have any doubts. Encourage them to ask questions.
• Answer their queries satisfactorily.

Activity

• Tell participants they have to go and visit a rubber factory and observe the housekeeping practices being performed in the factory.
• Tell them they need to observe these details very minutely and they need to prepare and present a report on the same.
• Give ten minutes to every participant for their report presentation.
• Once presentations are complete appreciate the efforts made by the group and summarise the highlights of the activity.

<table>
<thead>
<tr>
<th>Skill Practice</th>
<th>Time</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factory Visit and Report Presentation on Housekeeping practices in a rubber factory</td>
<td>8 Hours</td>
<td>Charts</td>
</tr>
</tbody>
</table>
UNIT 7.2: Pre-housekeeping Activities

Unit Objectives

At the end of the unit, students will be able to:
1. Perform pre-housekeeping activities
2. Identify the reasons and principles of doing cleaning
3. Clean material, cleaning equipment and its maintenance
4. Do inspection and how to select of cleaning method
5. Plan housekeeping activity
6. Identify signs of poor housekeeping
7. Improve housekeeping at your workplaces
8. Do recommended housekeeping practices

Resources to be Used

- Available objects such as black or white Board, chalk pieces or white board marker pens, duster
- PC with LCD Projector or Flip Chart
- Participant Manual
- Personal Protective Equipment (PPE)
- Respiratory Protective Equipment (RPE)
- Cleaning Material
- Cleaning Equipment

Do

- Greet and welcome the participants to the next session of the program.
- Before starting the session ask them do they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they will learn about pre housekeeping activities in this unit.
Say

- Tell them about pre housekeeping activities include accessing area for housekeeping, selection of cleaning method and cleaning equipment and planning for housekeeping.
- Discuss the reasons for doing cleaning in detail with the participants.
- Explain the basic principles of cleaning that they need to follow in any type of cleaning that they need to perform irrespective of the surface or the soil as:
  » All soil should be removed
  » Soil should be removed without harming the surface being cleaned or the surrounding surfaces
  » The surface should be restored to its original state after the cleaning process
  » The simplest method should be tried first using the mildest cleaning agent

Elaborate

- Describe cleaning material and equipment to them with examples in detail as:
  » Cleaning agents are substances, usually liquids, powders, sprays and granules that are used to remove dirt, including dust, stains, bad smells and clutter on surfaces.
  » Acidic washing agents are mainly used for removal of inorganic deposits like scaling to unblock clogged pipes by dissolving greases, proteins and even carbohydrate-containing.
  » Alkaline washing agents contain strong bases like sodium hydroxide and/or potassium hydroxide. The alkali also dissolves grease, oils, fats, and protein-based deposits.
  » Neutral washing agents are pH-neutral and based on non-ionic surfactants that disperse different types of dirt.
  » Degreaser Cleaning agents specially made for removal of grease are called degreasers.
- Now explain other important equipment used for cleaning as:
  » PPE to be used while cleaning
  » Safety ladder to reach the heights for cleaning
  » Containers for collection of waste
  » Pallets and forklifts for material handling
- Tell them before performing cleaning activity it is very important to carry out inspection of the premises and select the materials for cleaning and equipment accordingly. Explain them the points to be inspected as:
  » Area to be cleaned
  » Number of machines housed
  » Accessories around the machine
  » Oil and grease leakage points
  » Volume of waste material generated
  » Obstructions for cleaning
» Location of chimneys and sky lights
» Height of the places to be cleaned

**Demonstrate**

- Show all the manual cleaning equipment to the participants mentioned in the table.

<table>
<thead>
<tr>
<th>Cleaning Equipment</th>
<th>Types</th>
<th>Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brushes</td>
<td>Hard Brushes</td>
<td>Hard brushes have bristles that are fairly stiff and well-spaced out. They are most suitable for removal of heavy soil and litter from carpets and for cleaning rough surfaces. –Example: deck scrubber for floors</td>
</tr>
<tr>
<td></td>
<td>Soft Brushes</td>
<td>Soft brushes have bristles that are fairly flexible and set close together. They help to remove loose soil and litter on hard and smooth surfaces. Such brushes may be designed to dust carpets and furniture, especially those that are made of cane and wicker e.g. upholstery brush</td>
</tr>
<tr>
<td>Broom</td>
<td>Soft bristled broom</td>
<td>These brooms are made of corn-fiber, grass and are used for smooth floors.</td>
</tr>
<tr>
<td></td>
<td>Hard broom</td>
<td>These brooms are made of coconut fiber and are used for coarse surface, especially outdoors.</td>
</tr>
<tr>
<td></td>
<td>Wall broom</td>
<td>These are ceiling brooms called Turk’s head. These brooms are used to remove cobwebs or dust from ceiling, and high edges.</td>
</tr>
<tr>
<td></td>
<td>Box sweeper</td>
<td>These are also called as carpet sweepers and are used for sweeping up the dust from smooth floor coverings such as rugs and carpets. A box sweeper consists of a friction brush that revolves when the equipment is pushed manually over the carpet or floor. The dust gets collected into the built in dust pans.</td>
</tr>
<tr>
<td>Mop</td>
<td>Dry mop</td>
<td>Consist of acrylic, nylon, or polyester strands fixed to a backing stretched over a metal frame. These are used for holding the dust by sweeping.</td>
</tr>
<tr>
<td></td>
<td>Wet mops</td>
<td>Consist of cotton strands fixed to a length of cotton fabric which is in turn inserted into a metal flat stock.</td>
</tr>
<tr>
<td>Cloths</td>
<td>Swab</td>
<td>These are loosely woven cotton cloths, absorbent material and are used for damp wiping of floor surfaces. Also used for sanitary fittings, bath tubs and wash basins.</td>
</tr>
<tr>
<td>Containers</td>
<td>Scrim</td>
<td>These are loosely woven linen material resembling fine sack cloth, highly absorbent and lint free in nature, used for cleaning mirrors and windows.</td>
</tr>
<tr>
<td></td>
<td>Buckets</td>
<td>Plastic or galvanized iron buckets are used in different areas of housekeeping while washing of floor, scrubbing of floor, etc.</td>
</tr>
<tr>
<td></td>
<td>Dustpan</td>
<td>These are used in conjunction with a broom or brush for gathering dust. They are made of plastic or metal. They should be emptied after.</td>
</tr>
<tr>
<td></td>
<td>Dust bins</td>
<td>These are used to collect waste from guest rooms and it may be made of plastic, metals, or wood. This should be emptied and wiped daily.</td>
</tr>
</tbody>
</table>
Sani-bins
These are metal or plastic bins with lid. They are found in toilets for collection of soiled sanitary towels. They should be lined with plastic or paper bags for easy cleaning and must be wiped daily for the reasons of hygiene.

Hand caddy
Also called cleaner’s boxes, made of wood or metal or plastic, used by the room attendant for carrying cleaning supplies from room to room while guest room cleaning is done.

Mop-wringer trolley
This piece of equipment consists of mop and one or twin buckets with an attached wringer all mounted on a trolley with wheels. It may have a provision for holding cleaning agent as well as a trash bag.

---

Do

- Ask participants if they have understood the concepts discussed with them.
- Ask them to come up with their doubts, if they have any pertaining to previous concepts.
- Clear their doubts and answer their queries satisfactorily.
- Revise the concepts if you feel it is necessary.

---

Fig. 7.2.1: Manual Equipment

<table>
<thead>
<tr>
<th>Material Handling and Storage Operator</th>
<th></th>
</tr>
</thead>
</table>

| Sani-bins | These are metal or plastic bins with lid. They are found in toilets for collection of soiled sanitary towels. They should be lined with plastic or paper bags for easy cleaning and must be wiped daily for the reasons of hygiene. |
| Hand caddy | Also called cleaner’s boxes, made of wood or metal or plastic, used by the room attendant for carrying cleaning supplies from room to room while guest room cleaning is done. |
| Mop-wringer trolley | This piece of equipment consists of mop and one or twin buckets with an attached wringer all mounted on a trolley with wheels. It may have a provision for holding cleaning agent as well as a trash bag. |

---

Fig. 7.2.2: Mechanical Equipment

<table>
<thead>
<tr>
<th>Cleaning Equipment</th>
<th>Types</th>
<th>Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vacuum Cleaners/ Suction Cleaners</td>
<td>Dry vacuum cleaners</td>
<td>These are used for removing dust and small pieces of debris from the floors, upholstery, furnishings walls and ceilings. It comes with different flexible attachment such as crevice nozzle, upholstery cleaning brush, floor cleaning brush, etc.</td>
</tr>
<tr>
<td>Wet and dry vacuum</td>
<td>These are extremely useful for housekeeping operations. They can pick up spills and excess water when it is used on a wet mode. When on a dry mode, they help to remove the dust and debris. In hotels, they are used in large areas when they are scrubbed.</td>
<td></td>
</tr>
<tr>
<td>Large tank-type vacuum cleaners</td>
<td>These are also called as industrial vacuum cleaners and are meant for dry and wet pick up or both. The waste water is squeezed by a rubber attached to it through the nozzle which travels back into the tank. They are ideal for cleaning large working area</td>
<td></td>
</tr>
<tr>
<td>High Pressure Washers</td>
<td>These types of equipment are designed to remove soil from the surface with the help of water and steam subjected to high pressure. Water under pressure dislodges the dirt from the surface.</td>
<td></td>
</tr>
<tr>
<td>Scrubbing/Polishing Machine</td>
<td>Scrubbing can be done with the help of the bristle attached to the machine and is normally used for large areas.</td>
<td></td>
</tr>
</tbody>
</table>
Say

- Tell them now they learn about planning housekeeping activity.
- Explain the importance of planning to them. A good housekeeping program plans and manages the orderly storage and movement of materials from point of entry to exit. It includes a material flow plan to ensure minimal handling. The plan also ensures that work areas are not used as storage areas by having workers move materials to and from work areas as needed.
- Also discuss with them that worker training is an essential part of any good housekeeping program. Workers need to know how to work safely with the products they use. They also need to know how to protect other workers such as by posting signs (e.g., "Wet - Slippery Floor") and reporting any unusual conditions.
- Illustrate that Housekeeping order is "maintained" not "achieved." Cleaning and organization must be done regularly, not just at the end of the shift. Integrating housekeeping into jobs can help ensure this is done.

Elaborate

- Share with them that pre housekeeping activity checklist is an important tool to ensure that cleaning is happening as per schedule or not.
- Discuss the sample checklist mentioned in the participant manual with them in detail.

<table>
<thead>
<tr>
<th>Items</th>
<th>Checks</th>
<th>Meets Standards as per</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aisles</td>
<td>Clean</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clear</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Well-marked</td>
<td></td>
</tr>
<tr>
<td>Exits and Entrances</td>
<td>Clear</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Well-marked</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Free of water and other obstructions</td>
<td></td>
</tr>
<tr>
<td>Hand and Portable Tools</td>
<td>Properly stored when not in use</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fire Fighting Equipment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clearly marked</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Accessible</td>
<td></td>
</tr>
<tr>
<td>Floors</td>
<td>Clean</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clear</td>
<td></td>
</tr>
<tr>
<td></td>
<td>In good condition</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Well-drained</td>
<td></td>
</tr>
<tr>
<td>Ladders</td>
<td>In good condition</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Free of grease/oil</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Secure when in use/not in use</td>
<td></td>
</tr>
<tr>
<td>Lighting</td>
<td>Adequate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clean</td>
<td></td>
</tr>
</tbody>
</table>
**Machines**  |  **Clean**  
---|---
| **Clear**  
| **In good condition**  

**Roadways, Parking Areas**  |  **In good repair**  
---|---
| **Well-marked**  
| **Free of water and other obstructions**  

**Signs, Tags**  |  **Adequate**  
---|---
| **Appropriate**  
| **Clean**  

**Stacking and Storage**  |  **Aisles clear**  
---|---
| **Stacks stable, secure**  
| **Well labeled**  
| **Area clean and clear**  

**Stairs**  |  **Non-slip tread**  
---|---
| **Clean**  
| **Clear**  
| **In good condition**  

**Ventilation System**  |  **Clean**  
---|---
| **Clear**  

**Waste Disposal**  |  **adequate number of bins**  
---|---
| **separate and approved containers for oily rags, flammable scrap, etc.**

**Fig.7.2.3: Sample checklist**

**Say**
- Tell them about the signs of the poor housekeeping activity.
- Also discuss the impact of the same with the participants with relevant examples.
- Share some tips with them to improve housekeeping in their workplace. Tell them Good housekeeping requires effort and teamwork, but it’s worth it.
- Also share some recommended housekeeping practices with the participants.

**Notes for Facilitation**
- Summarise the main points of the unit.
- Ask participants if they have any doubts. Encourage them to ask questions.
- Answer their queries satisfactorily.
Activity

• Divide the class into four equal groups.
• Tell them they need to demonstrate cleaning equipments discussed in the unit.
• Tell them they will get 45 minutes for preparation and 15 minutes for demonstration.
• Once presentations are complete appreciate the efforts made by the group and summarise the highlights of the activity.

<table>
<thead>
<tr>
<th>Skill Practice</th>
<th>Time</th>
<th>Resources</th>
</tr>
</thead>
</table>
| Demonstration of Cleaning Equipments | 3 Hours | • Charts
                                             • Moulding Machine |
UNIT 7.3: Housekeeping Activities

Unit Objectives

At the end of the unit, students will be able to:
1. Follow the cleaning methods
2. Identify the elements of effective housekeeping program
3. Deal with accidental damage
4. Deal with accidental damage, if any, caused while carrying out the work
5. Report the appropriate person any difficulties in carrying out your work
6. Identify and report to the appropriate person any additional cleaning required that is outside one's responsibility or skill

Resources to be Used

- Available objects such as black or white Board, chalk pieces or white board marker pens, duster
- PC with LCD Projector or Flip Chart
- Participant Manual
- Cleaning Material
- Cleaning Equipment
- Personal Protective Equipment (PPE)
- Respiratory Protective Equipment (RPE)

Do

- Greet and welcome the participants to the next session of the program.
- Before starting the session ask them do they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they will learn about housekeeping activities in this unit.
Say

- Tell participants about different cleaning methods which includes:
  - Manual sweeping and mopping
  - Machine assisted sweeping and mopping
  - Cleaning the carbon deposits on electrical points with a piece of cloth
  - Mopping the area around the coolant water tank
  - Removing the waste around the machine by sweeping and collecting in the container
  - Cleaning the oil, grease and the other materials fallen around the machine with a cloth
  - Cleaning the control and display part of the machine

Demonstrate

- Discuss with them the elements of effective housekeeping program and practically show all these process in detail to the participants.
- Tell them first thing in the list is dust and dirt removal. Vacuum cleaners are suitable for removing light dust and dirt. Special-purpose vacuums are useful for removing hazardous substances. Compressed air should not be used for removing dust, dirt or chips from equipment or work surfaces.
- Demonstrate this activity practically to them.
- Tell them second element of housekeeping activities is employee facilities. Employee facilities need to be adequate, clean and well maintained. Washroom facilities require cleaning once or more each shift. They also need to have a good supply of soap, towels plus disinfectants, if needed.
  - If workers are using hazardous materials, employee facilities should provide special precautions such as showers, washing facilities and change rooms
  - Smoking, eating or drinking in the work area should be prohibited where toxic materials are handled.
- Tell them now they learn about the cleaning of the surfaces. These include:
  - Floor: Areas that cannot be cleaned continuously, such as entrance ways, should have anti-slip flooring.
  - Walls: Light-coloured walls reflect light while dirty or dark-coloured walls absorb light. Contrasting colours warn of physical hazards and mark obstructions such as pillars
- Next element of housekeeping activity is maintaining light fixtures. Dirty light fixtures reduce essential light levels. Clean light fixtures can improve lighting efficiency significantly. Aisles and stairways are next in line elements of housekeeping activity. Aisles should be wide enough to accommodate people and vehicles comfortably and safely. Keeping aisles and stairways clear is important.
- Also share spill control methods with the participants. Tell them the best way to control spills is to stop them before they happen.
- Illustrate the importance of cleaning tools and equipment.
- Also share the significance of maintenance of building and equipment. Maintenance involves keeping buildings, equipment and machinery in safe, efficient working order and in good repair. This includes maintaining sanitary facilities and regularly painting and cleaning walls.
Tell participants about waste disposal as a part of housekeeping activity. The regular collection, grading and sorting of scrap contribute to good housekeeping practices.

Storage is an important activity of housekeeping. Good organization of stored materials is essential for overcoming material storage problems whether on a temporary or permanent basis.

Share some tips with the participants about the storage of cleaning agents as:

- It is necessary to ensure that no damage occurs to the equipment during housekeeping.
- Electrical supply to the machines should be totally cut off whenever machine cleaning is involved.
- In case any damage occurs, it should be reported to the supervisor immediately. In case it is proved that it is absolutely due to the negligence of the housekeeper, appropriate action will be taken by the HR as per the estimate of damage from the supervisor and finance.
- In case it is proved that it is because of the defective equipment, action will be taken against the concerned and repairs will be carried out by the maintenance department to avoid reoccurrence.
- Facilities department and safety personnel in case of injury/accident will also study the reason for damage and implement changes in the cleaning procedure.
- The trainer will explain to you the SOP followed in your company.

Tell participants it very important to deal with an accidental damage. In case of an accidental damage the following should be kept into consideration:

- Electrical supply to the machines should be totally cut off whenever machine cleaning is involved.
- In case any damage occurs, it should be reported to the supervisor immediately. In case it is proved that it is absolutely due to the negligence of the housekeeper, appropriate action will be taken by the HR as per the estimate of damage from the supervisor and finance.
- In case it is proved that it is because of the defective equipment, action will be taken against the concerned and repairs will be carried out by the maintenance department to avoid reoccurrence.
- Facilities department and safety personnel in case of injury/accident will also study the reason for damage and implement changes in the cleaning procedure.
- The trainer will explain to you the SOP followed in your company.

Notes for Facilitation

- Summarise the main points of the unit.
- Ask participants if they have any doubts. Encourage them to ask questions.
- Answer their queries satisfactorily.
- Ask them to answer the questions at the end of unit given in the participant’s manual.
- Ensure that every participant answer all questions.
Activity

- Divide the class into four equal groups.
- Tell them they need to demonstrate elements of housekeeping activities discussed in the unit.
- Tell them they will get 45 minutes for preparation and 15 minutes for demonstration.
- Once presentations are complete appreciate the efforts made by the group and summarise the highlights of the activity.

<table>
<thead>
<tr>
<th>Skill Practice</th>
<th>Time</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstration of housekeeping activities</td>
<td>3 Hours</td>
<td>Cleaning Equipment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cleaning Material</td>
</tr>
</tbody>
</table>
UNIT 7.4: Post Housekeeping Activities

Unit Objectives

At the end of the unit, students will be able to:
1. Perform Post housekeeping activities
2. Do equipment and supplies maintenance

Resources to be Used

- Available objects such as black or white Board, chalk pieces or white board marker pens, duster
- PC with LCD Projector or Flip Chart
- Participant Manual
- Cleaning Material
- Cleaning Equipment
- Personal Protective Equipment (PPE)
- Respiratory Protective Equipment (RPE)

Do

- Greet and welcome the participants to the next session of the program.
- Before starting the session ask them do they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they will learn about post housekeeping activities in this unit.

Say

- Tell them about post housekeeping activities include post housekeeping inspection.
Elaborate

- Discuss with the participants the important points to consider while performing post housekeeping inspection:
  - The floor is dry
  - Areas surrounding the compression moulding machine are free from waste
  - No oil stains and grease stains on the floor
  - Display and controls on the compression moulding machine are free from dust and muck.
  - Check whether the cleaning equipment is clean and all the cleaning materials and tools are returned to their proper places.
  - All usable compound for moulding is well covered, placed on pallet/skid/table and in ready to use condition.

Say

- Explain to them that equipment and supplies maintenance is an important part of the post housekeeping activities. Replenishment of the consumables used for cleaning is very critical. In case of breakdown it is necessary to inform the breakdown of the equipment to the maintenance department regularly.

Elaborate

- Share equipment care tips with the participants as follows:
  - All staff should know the correct methods of careful cleaning and storage.
  - The correct equipment should be selected for each task and used correctly.
  - All equipments should be cleaned after use.
  - Manufacturer’s instructions for operation and maintenance should be followed.
  - Equipment should be stored correctly.
  - All equipments must be inspected before and after use and all defects should be reported.
  - Follow equipment manual /sop on machine cleaning to protect from dust/carbon particles.

Say

- Now tell participants about the safety measures to taken post housekeeping activity regarding electrical appliances, wirings and fittings.
- Share some tips with the participants regarding post housekeeping activities which will make the work of compression moulding operator more effective.
**Notes for Facilitation**

- Summarise the main points of the unit.
- Ask participants if they have any doubts. Encourage them to ask questions.
- Answer their queries satisfactorily.
- Ask them to answer the questions at the end of unit given in the participant’s manual.
- Ensure that every participant answer all questions.

**Activity**

- Divide the class into four equal groups.
- Tell participants they need to create a role play on the post housekeeping activities.
- Tell them they need to act the same scenario as they working in a factory.
- They will get 15 minutes time to prepare for the same and each group will be given 20 minutes to present their activity.
- Once presentations are complete appreciate the efforts made by the group and summarise the highlights of the activity.

<table>
<thead>
<tr>
<th>Skill Practice</th>
<th>Time</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role Play – Post Housekeeping Activity</td>
<td>3 Hours</td>
<td>• Charts&lt;br&gt;• Cleaning Equipment&lt;br&gt;• Cleaning Material</td>
</tr>
</tbody>
</table>
8. Reporting and Documentation

Unit 8.1 – Reporting and Documentation
Key Learning Outcomes

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

1. Report data/problems/incidents as applicable by following company reporting procedures
2. Do documentation within stipulated time according to company procedure
3. Respond to requests for information in an appropriate manner whilst following organizational procedures
UNIT 8.1: Reporting and Documentation

Unit Objectives

At the end of the unit, students will be able to:
1. Report data/problems/incidents as applicable by following company reporting procedures
2. Do documentation within stipulated time according to company procedure
3. Respond to requests for information in an appropriate manner whilst following organizational procedures

Resources to be Used

- Available objects such as black or white Board, chalk pieces or white board marker pens, duster
- PC with LCD Projector or Flip Chart
- Participant Manual
- Production status report format
- Maintenance request format
- Daily production report format
- Incident report format
- Request for information

Do

- Greet and welcome the participants to the next session of the program.
- Before starting the session ask them do they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they will learn about reporting and documentation in this unit.

Say

- Tell them - Timely reporting is extremely important to keep a track of production and other activities carried out at the different stages of production. It ensures the desired rate of production and initiation of the corrective actions at the earliest. Urgent reports are to be first conveyed orally to the immediate supervisor/ the person to whom who is identified for reporting.
Elaborate

- Discuss a daily production plan in detail with the participants. Tell them if there are any concerns these should be immediately reported to the supervisor.

<table>
<thead>
<tr>
<th>Product Code/Part NO</th>
<th>Batch Code</th>
<th>No. of Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>xxxx-100</td>
<td>MI-001</td>
<td></td>
</tr>
<tr>
<td>S. No    Type of Compound Code Die Code</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Butyl Rubber IIR XXX</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product Code/Part NO</th>
<th>Batch Code</th>
<th>No. of Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>xxxx-101</td>
<td>MI-002</td>
<td></td>
</tr>
<tr>
<td>S. No    Type of Compound Code Die Code</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Chloroprene Rubber CR XXX</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fig. 8.1.1: Production Plan for the day

Demonstrate

- Tell participants there are defined formats for reports and documentation which they need to use while preparing a report. Share the formats mentioned in the participant’s manual and discuss these in detail with the class as:
  » Production status format
  » Maintenance request form
  » Daily production report
  » Incident report
  » Request for information format
- Also share these formats with all the participants and make sure every participant should fill these formats completely.
- Check and see if they require any assistance in completing these. If required revise the main points of the concept shared with them.

Say

- Tell participants about the importance of record keeping.
- Explain - all the documents similar to the above are to be filed immediately in the file or stored in the PC. All
Elaborate

- Tell participants that records are extremely important for the profitability and reputation of the company. Some other reasons for the significance are mentioned under:
  - For procurement of quality materials by avoiding the sources which supplied the low quality ingredients.
  - For rectification of the machines and accessories which when are in operation, the defects have occurred.
  - For retraining the operators who were operating the machine when the defects occurred.
  - To change the SOP to avoid re-occurrence of the same defects.
  - Strategize the sales of the final product based on the pace of production.
  - To plan for adaptation of new processes and plan the equipment.

Say

- Share some tips for the effective reporting and documentation.

Notes for Facilitation

- Summarise the main points of the unit.
- Ask participants if they have any doubts. Encourage them to ask questions.
- Answer their queries satisfactorily.
- Ask them to answer the questions at the end of unit given in the participant’s manual.
- Ensure that every participant answer all questions.
Facilitator Guide

Activity

• Divide participants into five equal groups
• Allocate one format to each group as Production status report format, Maintenance request format, Daily production report format, Incident report format, Request for information
• Tell them they need to fill the specific format assigned to them. They will be given 20 minutes for preparation.
• Give 20 minutes to every group for their report presentation.
• Once presentations are complete, appreciate the efforts made by the group and summarise the highlights of the activity.
• Also highlight the shortcomings or any points they missed during their presentation.

<table>
<thead>
<tr>
<th>Skill Practice</th>
<th>Time</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filling and presenting reporting formats</td>
<td>4 Hours</td>
<td>Charts, Production status report format, Maintenance request format, Daily production report format, Incident report format, Request for information, Participant Manual</td>
</tr>
</tbody>
</table>
9. Quality

Unit 9.1 – To Carry out Quality Check
Key Learning Outcomes

At the end of this module, you will be able to:
1. Identify activities and standards set by the company involved in Quality check
2. Recognise the quality methodologies and standard set by company.
3. Analyze the need of quality checks and determines the appropriate method and procedure to meet the standards
UNIT 9.1: To Carry out Quality Check

Unit Objectives

At the end of the unit, students will be able to:
1. Identify activities and standards set by the company involved in Quality check
2. Recognise the quality methodologies and standard set by company.
3. Analyze the need of quality checks and determines the appropriate method and procedure to meet the standards

Resources to be Used

- Available objects such as black or white Board, chalk pieces or white board marker pens, duster
- PC with LCD Projector or Flip Chart
- Participant Manual
- Vernier caliper,
- Micrometer
- Plug gauge
- Profile projector
- Magnification glass
- Final inspection report format
- Dimension report format

Do

- Greet and welcome the participants to the next session of the program.
- Before starting the session ask them do they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they will learn to carry out quality checks in this unit.
Tell them quality checks are performed in a setup through inspections. The instruments used to perform inspection are: Vernier calliper, micrometer, plug gauge, profile projector, magnification glass etc.

Besides instrumental checkups inspection can also performed by non instrument checks as running finger to check for defect check.

Discuss the significance of quality control procedures with the participants.

Also tell them in case of non conformance to quality standards can result in product failure, product recall and even loss of market share. In case of non conformities a detailed analysis is made. On the basis of root causes or "5WHY" analysis, the action needed to prevent the recurrence of non-conformities should be arrived at. Corrective action should be reviewed periodically (monthly/quarterly) to be sure about the effectiveness of the corrective action.

Discuss the reporting of the quality inspection. Quality inspection data should be discussed with the section supervisor and QC in charge as soon as possible so that appropriate actions only are initiated within reasonable time limits. All action taken should be recorded for follow up later on. Discuss the quality reporting formats with the participants in detail as: final inspection report, dimension report format.

Share tips with the participant how to ensure effective quality check on moulded part.

Summarise the main points of the unit.

Ask participants if they have any doubts. Encourage them to ask questions.

Answer their queries satisfactorily.

Ask them to answer the questions at the end of unit given in the participant’s manual.

Ensure that every participant answer all questions.
Activity

- Divide participants into five equal groups.
- Tell them that they need to perform a role play demonstrating quality checks in mould rubber. Give 20 minutes to prepare the role play and 20 minutes per group would be given for presenting role play.
- Once presentations are complete appreciate the efforts made by the group and summarise the highlights of the activity.
- Also highlight the shortcoming or any points they missed during their presentation.

<table>
<thead>
<tr>
<th>Skill Practice</th>
<th>Time</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role Play – Quality check in moulds</td>
<td>4 Hours</td>
<td>Vernier caliper, Micrometer, Plug gauge, Profile projector, Magnification glass, Final inspection report format, Dimension report format</td>
</tr>
</tbody>
</table>
10. Problem Identification and Escalation

Unit 10.1 – Problem Identification, Necessary Action and Escalation
Key Learning Outcomes

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

1. Discuss various problems and issues related to raw materials, rubber products, equipment, and any other (such as administration, HR etc)
2. Analyze problem related to raw material, procedures, moulding process, rubber compounds, rubber products, machines etc. to identify the appropriate solution
3. Follow escalation matrix whenever necessary
UNIT 10.1: Problem Identification, Necessary Action and Escalation

Unit Objectives

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

1. Discuss various problems and issues related to raw materials, rubber products, equipment, and any other
   (such as administration, HR etc)
2. Analyze problem related to raw material, procedures, moulding process, rubber compounds, rubber products,
   machines etc. to identify the appropriate solution
3. Follow escalation matrix whenever necessary

Resources to be Used

- Available objects such as black or white Board, chalk pieces or white board marker pens, duster
- PC with LCD Projector or Flip Chart
- Participant Manual

Do

- Greet and welcome the participants to the next session of the program.
- Before starting the session ask them do they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they will learn about problem identification, necessary action and escalation in this unit.

Say

- Tell them - The operator is the center of all the activities in compression moulding. As such pro-active behavior
  from the operator to identify the problems related to the materials, products, and the equipment, is going
  to benefit the company.
**Elaborate**

- The operator should look out for the following with reference to materials:
  - Signs of contamination
  - Condition of the containers in which the materials are supplied for loading
  - Condition of weighing machines in the weighing room
  - Condition of storing arrangement for the materials in stores
  - Condition of materials on receipt
  - Proof for random checking of the raw materials
  - Change of suppliers
  - Moisture condensing on the raw materials
  - Whether the reports indicate that the specifications are met at the maximum and minimum limits
  - Shelf life of the raw materials
  - Good housekeeping of the materials around the machine and in the storage areas

- Explain that Problems related to raw materials, products and equipment need continuous identification and solution for profitable operation of the compression moulding machine with minimum rejections and rework.

**Say**

- Tell them once problem is identified the next step is to find solution to the existing problem.

**Elaborate**

- Describe the actions to be taken for common problem during moulding areas under:
  - Blistering/ heavy section: Whenever you encounter a blistering/ heavy section ensure that you increase the cure, and slow close.
  - Porosity: When you notice porosity immediately increase the pressure, reduce the temperature and increase stop duration.
  - Mould sticking: When you come across mould sticking, it is very crucial to raise the mould temperature and increase stop duration.
  - War page: Upon noticing war page: necessary action to be taken right away is to ensure that uniform mould temperature is maintained.
  - Burned marks: To overcome burned marks, reduce the stop and the mould temperature.
  - Dull surface: Dull surfaces can be taken care of by adjusting the mould temperature and extending stop.
Say

• Tell participants it is very important to inform your superior authority, Quality personnel and production personnel as soon as the problem is identified.

• Share some tips with the participants regarding problem identification, necessary action and escalation.

Notes for Facilitation

• Summarise the main points of the unit.

• Ask participants if they have any doubts. Encourage them to ask questions.

• Answer their queries satisfactorily.

• Ask them to answer the questions at the end of unit given in the participant’s manual.

• Ensure that every participant answer all questions.

» Heavy flash: When heavy flash is noticed: immediately check the material flow.

» Dimpled surface: Necessary action to be taken to overcome dimpled surfaces include: slower closing, lowering temperature and increasing the charge.

» Pitted surface: Problems with pitted surfaces can be solved by simply using stiffer material and increasing the stop duration.

» Contamination: Contamination is the most common problem encountered

• Explain that at his level operator may consider applicable corrections and formulate corrective action with respect to the identified problem during the compression moulding. It is important to consider following for corrective action:

  » Report/documentation problem and corrective action in an appropriate manner

  » Monitor corrective action

  » Evaluate implementation of corrective action taken to determine if the problem has been resolved
Activity

• Divide participants into five equal groups.
• Tell them that they need to perform a role play reporting problem to a supervisor and solving the problem. Give 20 minutes to prepare the role play and 20 minutes per group would be given for presenting role play.
• Once presentations are complete appreciate the efforts made by the group and summarise the highlights of the activity.
• Also highlight the shortcoming or any points they missed during their presentation.

<table>
<thead>
<tr>
<th>Skill Practice</th>
<th>Time</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role Play – Reporting a problem to supervisor</td>
<td>4 Hours</td>
<td>• Participant Manual</td>
</tr>
</tbody>
</table>
11. Soft Skills And Communication Skills

Unit 11.1 - Introduction to the Soft Skills
Unit 11.2 - Effective Communication
Unit 11.3 - Grooming and Hygiene
Unit 11.4 - Interpersonal Skill Development
Unit 11.5 - Social Interaction
Unit 11.6 - Group Interaction
Unit 11.7 - Time Management
Unit 11.8 - Resume Preparation
Unit 11.9 - Interview Preparation
Key Learning Outcomes

At the end of this module, you will be able to:
1. Familiarise with the art of Effective Communication.
2. Able to handle effective Communication with co-workers and their Family.
3. Able to handle effective Communication with Peers/colleagues using medical terminology in communication.
4. Maintain health and hygiene
5. Develop interpersonal skills
6. Develop effective social interaction
7. Manage time effectively
8. Prepare for interviews
UNIT 11.1: Introduction to the Soft Skills

Unit Objectives

At the end of the unit, students will be able to:
1. Describe the basic meaning of Soft Skills, their components and their benefits.
2. Familiarise with work readiness and its significance.

Resources to be Used

- Available objects such as black or white Board, chalk pieces or white board marker pens, duster
- PC with LCD Projector or Flip Chart
- Participant Manual

11.1.1 What is a Soft Skill?

Say

- Employees are a crucial part of an organization, understanding them personally can be helpful in various aspects. There is much more to their identity than merely their skills. This brings into light, the concept of ‘soft skills’.
- Soft skills are personal attributes that describes an individual’s ability to interact with others. It includes the cluster of personality traits, social graces, communication language, personal habits, friendliness and optimism that characterize relationship with other people.
- Soft skills have more to do with who we are than what we know.
- Soft Skills complement hard skills which are occupational requirements of a job and many other activities.
- According to a survey, the long term success in job is 75 % due to soft skills and 25 % due to technical knowhow.

Activity

- Ask the students to form a circle.
- Starting from a one person, ask each of them to tell something about themselves. This should necessarily include their strengths and weaknesses.
- This will give them a better chance of knowing each other.
Explain

- Discuss what helps in keeping you happy in your school- academic knowledge or company of friends.

11.1.2 Components of Soft Skills

Say

Soft skills essentially relate to the personality of a person. There are certain components that relate a person to the rest of the group and on which communication depends largely. This largely ensures how a person gets along with other people:

- **Adaptability**: It is about how quickly and efficiently a person is able to blend in and get productive in an altered environment.
- **Emotional Strength**: An emotionally strong person succeeds in directing his moods and emotions such as anger frustration and excitement.
- **Leadership Quality**: How one manages conflict in personal and professional situation and convinces people reflects upon his leadership quality.
- **Team Playing Ability**: It is the ability to manage different types of people and make them work harmoniously with each other.
- **Decision Making**: This reflects upon how one manages his time and other resources in efficient and productive manner.
- **Interpersonal Communication**: This is an individual’s ability to effective communication with other and in the process creating a positive image of him.
- **Negotiation Skills**: This is how one negotiates with others and reduces the level of stress in work, professional and personal environment.

Activity

- Ask students to sit in a circle.
- Blindfold a student and give him a packet of biscuit.
- Ask the other students to come one by one and ask for the packet and make attempt to convince him as to why he should be given the packet.
- The blindfolded person has the authority to refuse to give to the people who fail to convince him and give it only to the person who succeeds in convincing him.
- At the end of the game we would be able to have an insight as to which person possesses the best communication skills, negotiation skills, etc.
Material Handling and Storage Operator

**Explain**

- On the basis of the activity, discuss what corrective steps could the other people take to improve their communication/negotiation skills.

**11.1.3 Benefits of Soft Skills**

**Say**

A person who interacts well with others gets added advantages other than personal satisfaction. Also, personal traits like decision making, leadership ability are not only related to the concerned person himself but they affect others to whom the person interacts. Some of these benefits include:

- Increased credibility with customers
- Increased customer satisfaction
- More productive employees
- Recognition from the industry, employer and peers.

In short, they aid in the personal growth of a person.

**Activity**

- Ask the students to sit separately.
- Ask them to write whether they buy grocery products from one shop daily or prefer to go to any shop selling such products.
- If they go to one shop, ask them to give reason for their loyalty. Is it the good behavior of the shopkeeper that keeps them loyal?
- Also, ask the people who do not have any such preference, reasons for this behaviour.

**11.1.4 Work Readiness**

**Say**

How do employees differ from each other? What makes an inexperienced person more successful than a previously working person? On being asked, the answer to this question could be right attitude. Merely performing a task is not the requirement. A person should do it with the right kind of attitude to get the best results. This can include:
- An enthusiastic attitude to the employer.
- A clear interest in the work being done.
- The ability to communicate appropriately in an adult working environment.
- The capacity to acknowledge customers and provide the assistance recommended by the employer.
- A commitment to maintaining their reliability and punctuality for the whole of the period spent in the workplace.

**Activity**

- Ask the students to form a group.
- Ask them about their interest: painting, dancing, etc. People might come up with different interests.
- Based on it, ask the entire group to do an activity say painting.
- Observation can show that people who like doing a particular task say painting are likely to show more zeal than others who do not have much interest in it.
- Also, such people are more likely to have an active participation throughout the activity and enjoy it rather than taking it as a burden.

**Explain**

- Based on the results, discuss why some student’s/ groups were able to get better results. This could be due to difference of interests, enthusiasm, confidence, etc.
UNIT 11.2: Effective Communication

Unit Objectives

At the end of the unit, students will be able to:
1. Do public speaking.
2. Describe his/her likes and dislikes for five minutes in the classroom.
3. Basic etiquette during a conversation with another person, overcome shyness etc.

Resources to be Used

- Available objects such as black or white Board, chalk pieces or white board marker pens, duster
- PC with LCD Projector or Flip Chart
- Participant Manual

11.2.1 Introduction

Say

- Communication is a tool that connects us with other human beings. An effective communication not only helps in developing a sense of belonging but also facilitates better working, improves relationships, reduces stress.

11.2.2 The Communication Process

Say

- Communication is the process of exchange of words, ideas, feelings. It is the meaningful exchange of information between two or more participants.
- Communication requires a sender, a message, a medium and a recipient.
- Communication process is complete only when a receiver understands the sender message.
Elements Of Communication

Communication seems effortless but it essentially involves different stages in which information gets passed from the person who wants to share something with someone. These elements are as follows:

- **Message**: The speaker/communicator might want to share thoughts, feelings, information, etc. Message relates to the content that is intended to be communicated.

- **Encoding**: A message won’t be of much use and would not be called message in the first place if it stays in the mind of the speaker and is not intended to be communicated (except in intra-personal communication). For conveying a message, it has to be communicated using signs, symbols, words, etc.

- **Decoding**: Communication process would not be completed if the receiver doesn’t understand the message conveyed by the speaker/initiator in the intended way. He/she tries to understand the meaning of the message as expected by the speaker.

Understanding whether a message has been effectively conveyed and understood by the receiver can be done with the help of a feedback. It is a feedback that brings out the success or failure of a communication process.

**Activity**

- Call 2 students.
- Ask them to have a casual conversation.
- With respect to their conversation, explain who is the speaker, what is the message.
- Also explain encoding, decoding and feedback with respect to the conversation.

**Explain**

- Discuss the importance of tone of voice, gestures, etc. in a communication process.
11.2.3 Verbal and Non-Verbal Communication

Say

Communication is not merely restricted to exchange of ideas and information verbally. In fact, it extends far beyond that. Even a newspaper is a mode of communication. It can be categorized into three basic types:

- **Verbal Communication:** It involves communication of ideas verbally. It is the most common used means of communication in our day-to-day lives. Verbal communication has the advantage of immediate feedback, are best for conveying emotions and can involve storytelling and crucial conversations.

- **Written Communication:** They include letters, books, newspapers are printed messages. They are generally used for formal communication as in case of a notice in an institution. Also, these days mass communication mediums like newspapers are gaining popularity among the educated.

- **Non Verbal Communication:** Ever seen people widening their eyes or using their hands while trying to explain something? Their gestures too communicate a lot and aid them in conveying the meaning of the message or intensity. Generally, non-verbal communication is used along with verbal communication.

According to a study only 7% of a receiver’s comprehension of a message is based on sender’s actual words, 38% is based on paralanguage (tone, pace and volume of speech) and 55% is based on nonverbal cues.

Activity

- Ask 2 students to explain the process of communication.
- Pay attention to the way they explain.
- Categorize the various types of communication used by them.

Explain

- Discuss the situations in which each of them is used.

11.2.4 Communicating Effectively Identifying Barriers

Say

- Communication may not always be carried on without hurdles. There might be many hurdles that might prevent from reaching the message to the receiver effectively.
- The most common barrier known in communication is ‘noise’. It not only creates a sense of irritation but may affect the intensity of effect of the message.
• Apart from this, there are certain other barriers that affect communication/exchange of ideas between the sender and receiver. They are as shown in the figure:

![Diagram showing barriers in communication](image)

*Fig.11.2.2: Barriers in Communication*

• Some of the barriers can be overcome—using simple language, active listening can be of great help.

### Activity

• Organize students into groups of 2.
• Give one of the students, an article about a totally unknown topic.
• Give him 10mins. Time to read it.
• Let him explain to the class by the end of the time, what is the topic all about and crucial details in it.
• Ask the students what they have understood.
• Discuss about problems in understanding (if any) faced by the rest of students.

### Explain

• On the basis of the activity above, discuss the barriers in communication.
• Also, discuss how these barriers can be taken care of.
11.2.5 Effective Communication-Practice

**Say**

By now, we know that communication is a two-way process. It is not merely about the way a speaker communicates an information but equally about how the receiver receives it. In verbal communication, most of the problems can be taken care of if the listener is listening actively.

- An active listening involves all the attention on the receiver/listener’s part to what the speaker is saying.
- It can not only help to deal with certain communication barriers but also help to avoid uneasy situations between the two and reduce chances of misunderstanding.

**Activity**

- Call 3 students.
- Give a student a written piece. Ask him to read it out loudly to the other 2 students.
- Provide one student with earphones to listen to music while listening to the information.
- Let the other person listen to it without any distraction.
- At the end of the reading, ask both the student to tell what has been read out.
- As a matter of fact we would find out that the person who has put all his attention in listening would yield better results in comparison to the other one.

11.2.5.1 Some Tips for Active Listening

**Say**

Most of the people are not good listeners. Not listening carefully can land a person into various unfavourable situations. However, this habit can be improved. Some tips are as follows:

- Concentrate what the person is talking about and not on noise or other external distractions.
- Understand his emotions and you get it all right. Is the speaker angry, happy or plainly inquisitive?
- When the speaker is saying or telling something, don’t break the chain of his thoughts.
- Don’t avoid completing sentences of the speaker. Let them speak and speak only after they finish.
Activity

- Ask the students to sit forming a circle.
- A student to start saying counting, the next one should follow saying the consecutive number.
- At the gap of multiples of 5, the respective student is expected to clap instead of saying the number.
- The student who fails to do this, would be disqualified for the game. The others would proceed.
- At the end the one who wins the game would be considered the best listener.

Explain

- Discuss with the students the importance of being an active speaker in a debate where counter-questioning is allowed.
UNIT 11.3: Grooming and Hygiene

Unit Objectives
At the end of the unit, students will be able to:
1. Maintain cleanliness and hygiene.
2. Keep their dress clean and tidy.
3. Maintain positive body language while speaking.
4. Enable to perform more of the do’s than the don’ts.
5. Learn about good eating habit and their impact on health.
6. Avoiding bad things such as gutkha and alcohol.
7. Learn about AIDS and its prevention.

Resources to be Used
• Available objects such as black or white Board, chalk pieces or white board marker pens, duster
• PC with LCD Projector or Flip Chart
• Participant Manual

11.3.1 Personal Grooming

Say
• The first impression that a person has on others is generally based on the way he/she looks. This doesn’t include the physical beauty of a person but the way he carries himself.
• Personal grooming not only makes us presentable to other people but good personal hygiene is essential for good health. Taking care of one’s personal cleanliness - bathing, dressing according to the work environment, etc. form crucial part in creating impression about a person.
• Every employee in an organization represents it in a certain way.
• The personal appearance of each employee should be in accordance with the work environment.
• Uniform/personal clothes should be neat and clean, ironed and well-buttoned.
• Shoes should be well polished.
• Emphasis should also be laid on having a decent hairstyle and neat nails.
11.3.2 The Communication Process

**Say**

- Communication is the process of exchange of words, ideas, feelings. It is the meaningful exchange of information between two or more participants.
- Communication requires a sender, a message, a medium and a recipient.
- Communication process is complete only when a receiver understands the sender message.

**Activity**

- Show the students a chart having 2 girls- one dressed in a shabby way and another dressed decently.
- Ask the students which one they would prefer to be associated with in real life.
- Ask them to give reasons.

**Explain**

- Discuss the importance of bathing daily, wearing neat clothes, etc. as they have learn from society.
- Also discuss whether one’s appearance (in terms of clothes, cleanliness) affects the way people behave with them.

11.3.2 Specific Uniform Guidelines

**Say**

There are certain norms as to how one should dress in a work arena. A decent appearance should be maintained. This includes:

- Neat and ironed uniform
- A decent hairstyle should be adopted. Women with long hair should tie them.
- Nails should be neat, clean and well-trimmed.
- Flashy and noisy jewellery should be avoided.
Activity

• Ask the students to write about why one’s uniform should be neat, clean and ironed.

Explain

• Ask the students to discuss the importance of uniform in school.
• Also ask them to discuss about incidents when they formed an opinion about others based on their dress.

11.3.3 Body Posture

Say

• The body posture of a person tells a lot about his personality. Also, the posture and gestures of a person convey about what is his attitude towards his work, display his seriousness, etc. Maintaining the right body posture generally involves the following do’s and don’ts:
  » Maintain straight & upright posture on the shop floor.
  » Slouching on the floor, hands in pockets, hands on the hips are not courteous to the customer & hence should be avoided
• Apart from a good body posture, a person should
  » Be on time
  » Be courteous and attentive
  » Be positive

Explain

• Why are students advised to keep their hands at the back while talking to a teacher or while walking in a line?

11.3.4 Positive Body Language

Say

• Body language plays a great role in conveying about a person. A positive body language is very important for conveying information positively. Certain do’s and don’t’s in this regard are as follows:
» Avoid your pockets. Keep your hands out of your pocket. Hand in pocket shows we are uncomfortable and unsure of ourselves. Keeping our hand in open indicates confidence and show that people has nothing to hide.

» Don’t Fidget. Fidgeting is a clear sign of nervousness. An individual who can’t keep still is an individual who is worried, tense and not confident. Keep your gesture calm and under control.

» Keep your eyes forward. This indicates that you are interested in communication with other.

» Stand up straight with your shoulders back. It communicates confidence.

» Take wide steps. It makes you seem purposeful and suggest a personal tranquillity and denotes confidence.

» Firm handshake. Grip other persons hand firmly and confidently instead of getting a palm full of dead fish. Firmness adds warmth and enthusiasm to the handshake. But make sure that you don’t crush the other person’s hand and don’t hold on too long.

» Don’t cross your arms when meeting other persons. Crossing your arms is a protective posture. Relax and keep your arms uncrossed.

» Use contact to show appreciation.

**Activity**

- Call 5-7 students. Ask them to enact different gestures like- one is told to stand up straight, other is told to enact the movements of shaky hands.
- Ask the rest of the class to judge the body language and the possible implications it could have on the viewer.

**Explain**

- Why is so much attention laid at school level on making children stand straight?

**11.3.5 Personal Hygiene**

**Say**

- Personal Hygiene is the set of practices to follow to keep oneself healthy. Personal hygiene is directly related to the health of employees.
- The following figure lists various activities that aid in keeping a person healthy.
Explain

- Why is maintaining personal hygiene considered important?
- If an employee doesn’t maintain personal hygiene, can it have any effect on the people around him or the impression he makes on them?

11.3.6 Physical Fitness

Say

Physical fitness is very important for doing work effectively and efficiently. It can be maintained by different exercises like cycling, weight-lifting, jogging.
- It maintains optimal body weight.
- It reduces risk of diseases.
- It boosts confidence and self-esteem.
- It reduces stress, anxiety and depression

If employees are free from such danger of diseases due to various factors like sitting for long hours, etc. They can
stay fit and this will eventually help in increasing productivity.

Healthy Eating

Eating food just for its taste wouldn’t be of much good to our body. Excessively eating junk, over-consuming fried food, etc. can be detrimental to our health. Unhealthy eating habits can considerably affect the level of energy, concentration, etc.

For staying healthy, one should:

- Always try to eat home-made food
- Avoid oily food
- Always cook and eat fresh food
- Avoid junk food like burgers, carbonated drinks etc.
- Eat fruits regularly
- Drink lot of water

Alcoholism

The increasing levels of alcohol consumption in our country are alarming. Alcohol has the potential to damage almost every organ in the body including brain. Not only this, it increases the risk of heart diseases, cancer, impaired immune system, liver infection (Cirrhosis) etc.

- Reduced work focus and drop in performance
- Degradation in social and economic status
- Withdrawal symptoms like anxiety, trembling, fatigue, headache and depression etc.

Tobacco

- Tobacco is the second largest cause of death in the world. It claims one death in every six seconds.
- Oral and spit tobacco increase the risk of oral cancer. It also causes mouth and throat cancer.
- It is the biggest reason for oral cancer which effects mouth, tongue, cheek, gums and lips
- Chewing tobacco lessens a person’s sense of taste and ability to smell
- Smokers face a greater risk of suffering from lung cancer

Fig.11.3.2: Effects of alcohol

Fig.11.3.3: Risks from smoking
**Gutkha**

- Excessive use of gutkha can lead to loss of appetite; promote unusual sleeping pattern and loss of concentration along with other tobacco related problems. A gutkha user can be easily identified by prominently stained teeth ranging from dirty yellowish orange to reddish black. The stains are difficult to remove by normal brushing usually need the attention of dentist. According to a global adult tobacco survey 53.5% of Indians use tobacco products.
- Each sachet contains 4000 chemicals, including 50 that cause cancer, Betel nut, Tobacco, Flavouring.
- Loss of sensation in tongue
- Disfigured mouth
- Increased sensitivity to heat, spices, cold and spices
- Inability to open the mouth
- Swelling, lumps, rough spots on gums or in other places inside the mouth
- Unexplained bleeding in mouth
- Difficulty in swallowing and finally Mouth Cancer

![Fig.11.3.4: Oral Cancer](image)

**Activity**

- Ask the students to make posters like- SAY NO TO SMOKING, etc. and ask them to wave them around the school.
- Also ask them to speak about the harmful effects of these bad habits on health.

**Explain**

- How can smoking effect the productivity of a worker?
- The intake of alcohol, cigarettes is increasing in India. What steps can be taken to handle minimize their use?

**11.3.7 AIDS/HIV Awareness**

**Say**

- AIDS stands for Acquired Immunodeficiency Syndrome. It is caused by HIV-human immunodeficiency virus.
- There is a general notion that it is caused merely by unprotected sexual relationships. However, it is not true. There are other ways of its transmission as well:
» Contaminated blood transfusion
» Hypodermic Needles
» From infected mother to child

- As per studies in India HIV/AIDS is largely due to unsafe sex worker interactions. About 86% HIV incidents in the country is from unprotected sex.
- A survey has shown gender based difference. Out of the total population of 0.29% females are suffering from AIDS while in males it accounts to 0.43%.
- AIDS is not a disease like cancer or malaria, but is a condition that weakens a person’s ability to fight diseases (immune system).
- There are no medicines or vaccines for AIDS so far. The treatment and medicines which are available in the market are expensive and have side effects.

![Fig.11.3.5: AIDS transmission](image)

![Fig.11.3.6: Acute HIV Infection](image)
• Organizations like national aids control organization (NACO) aims to make people aware about the causes and symptoms of AIDS and emphasize the importance of having protected sex.

**Say No To AIDS**

• Even one visit to a sex worker may result in HIV infection. So it is advisable to avoid multiple sex-partners and always use protection (condoms/nirodh) during intercourse.
• Use of Condom as a protection against it.
• AIDS has no cure but can be prevented, therefore be cautious of it- not afraid of it.
• Take blood only after checking proper medical certificates.

It is generally seen that people suffering from AIDS have to undergo not only physical pain but social alienation as well. It is important to know certain facts about the disease:

**AIDS does NOT spread through**

• Hugging
• Touching hands
• Mosquito bite
• Saliva or cough
• Taking care
• Sharing clothes
• Eating together or sharing utensils

Thus, AIDS does not spread so easily. HIV positive people should not be socially discriminated.

**Activity**

• To judge the understanding of the students, randomly pick up any of them and ask about topics like symptoms of AIDS.

**Explain**

• Discuss with the students if they have known anybody suffering from aids and noticed any social discrimination experienced by that person.
• Discuss the importance of spreading awareness about AIDS.
UNIT 11.4: Interpersonal Skill Development

Unit Objectives

At the end of the unit, students will be able to:
1. Develop a positive attitude and behaviour.
2. Paraphrase Goal Setting.
3. Motivated for team participation at work.
4. Learn how to manage relations.
5. Learn about Stress and anger management skills.
6. Develop leadership qualities.

Resources to be Used

- Available objects such as black or white Board, chalk pieces or white board marker pens, duster
- PC with LCD Projector or Flip Chart
- Participant Manual

11.4.1 Introduction

Say

- Interpersonal skill development is the blend of different traits of day to day life that play an important role in creating our impression in other’s mind. It starts from inside. The role of interpersonal skill development is to help us understand how to make choices about our attitudes and actions.
- One can learn to control over many aspects of our job and their environment by making appropriate choices and responses. These include various traits like:
  » Positive Attitude
  » Motivation
  » Goal Setting
  » Team Work
  » Managing Relations
  » Etiquette
11.4.2 Positive Attitude

**Say**

- The attitude of a person includes various aspects like our approach, our outlook towards situations and others, the emotions we express towards others.
- A positive attitude has the ability to deal with even the most difficult situations.
- A positive attitude manifests in:
  - Positive thinking
  - Constructive things
  - Creative thinking
  - Optimism
  - The motivation and energy to do things to accomplish goals
  - An attitude of happiness
- Positivity not only affects a person to get the desired results in workplace but attracts people to his positive energy.

**Activity**

- Ask the students to organize themselves in groups of 10-12.
- Give them a time of around 30mins. And ask them to organize a 3mins. Play
- Ask them to solve all aspects related to the organization of the play themselves.
- After the end of the time duration, ask the teams to perform one by one.
- Assess their performance.

**Explain**

- On the basis of the above activity, ask the students about the challenges faced by them in the process of preparation.
- Try to point out what could be the possible reason behind the hurdle faced.
Activity

- Make 5-7 slips stating a difficult situation, for instance - there is an annual event in the school. Due to some reason the tent house people could not manage to come there and carry out the tent and other decoration work. The event is just 1hr away. How would you manage the situation?
- After everybody has received a chit, give the students a time of 2-4mins. to think over the situation and write a possible solution.
- Collect the slips of the people who have got same situations. Compare them in terms of practical application, positivity, etc.
- Suggest other possible solutions.
- Applaud the students whose answers show the correct attitude and will to deal with the situation using their creativity.

Explain

- An embroider who doesn’t know how to carry out phulkari embroidery has been assigned the task of carrying it out due to labour shortage. Can he succeed in his work?

11.4.2.1 Story of Carrot, Egg and Coffee Beans

Explain

- Explain the following story to the students to explain them better about positive attitude.

Raju works as a Supervisor in a factory. He is not happy with his job. One day he spoke about his dejection to his elderly friend, Prashant, who runs a small canteen for the factory workers.

“Prashant I am not satisfied with my job. There are so many problems in the factory. If I solve one, another one crops up. The problems seem to be never ending. I am quite fed up and wish to quit.”

Prashant said nothing. He quietly put three pots with water on the stove. He put some carrots into one pot, some eggs into another and coffee beans into the third pot. The water in the pots began to boil.

Raju wondered what was going on! “Oh, here I am with my tale of woes, and this illiterate cook goes about his business!”

After some time, Prashant switched off the stove and put the carrots, eggs and the beans in different bowls. He then said, “My friend, what do you see here?” “Carrots, eggs and coffee”, said Raju irritably. “Of course! Now come and feel them one by one”, said Prashant. “Oh God! What do you want to prove?” asked Raju controlling his anger. “The carrots have turned soft. The egg is hard boiled beneath its shell and the coffee is stronger in aroma”. “Exactly” said Prashant “Each of them faced the same degree of heat, but each reacted differently. The carrots that were so hard before became soft and weak. The egg was fragile with its thin outer shell, but after boiling it became hardened and the inner liquid portion became hard boiled. But the coffee beans are unique. After boiling in water, they became stronger and richer. So my friend, tell me, are you the carrot, the egg or the...
coffee bean? How do you respond to difficult situations? Are you like the carrot that is hard to look at but with the slightest difficulty becomes weak and soft? Are you the egg born with a soft heart but became tough and stiff after a difficult or a bitter experience? Or are you like the coffee bean that gets stronger and tougher and reaches its peak in extreme adversity or difficulty?

When things get worse, you get better.

“Thank you Prashant. You’ve opened my eyes. I shall strive and do my best.”

### 11.4.2.2 Some Successful People

**Say**

- Give examples of various successful people like Rajnikanth, Dhirubai Ambani who had a humble background but succeeded in achieving their goals.

### 11.4.3 Goal Setting

**Say**

Goals provide a person a way of fulfilling his aspirations about ideal future. For achieving an overall career goal, it is important for a person to set up small terms goal. This not only helps in timely completion of work in the company where the employee is working but also aids in personal growth of the individual.

**Goals should be SMART in nature.**

- **S:** Specific
- **M:** Measurable
- **A:** Attainment
- **R:** Relevant
- **T:** Time bound

Having goals is not just important in terms of an organization but it aids an individual more than an organization. For an individual, goals render a helping hand for future because:

- Goals narrow attention and direct efforts to goal related activities.
- Goals lead to more effort.
- One works through setbacks if he is pursuing a goal.
- It develops and changes individual’s behaviour.

**Categorization of Goals**

A goal might not merely involve a professional aspiration. It can be for anything that a person wants to achieve in life. This may or may not be related to the professional arena.
- **Career goals**: They are regarding what a person wants to be in life—the final destination of their career—their aspiration. It is the larger picture which needs to be achieved using smaller pieces (smaller goals).

- **Financial goals**: They relate to what amount of money a person wants to earn in life. Most people have high financial goals. They are generally dependent on career goals. It should be kept in mind that financial goals (aspiration for monetary income after 10yrs) should be met by efforts from the present time itself.

- **Education goals**: Education as is said is not related to age, many people want to get a particular degree or knowledge regarding a particular field in their life respective or irrespective of their job status.

- **Family goals**: It includes aspirations for family members. This could include planning to go to a world tour with family. It is usually dependent on financial goals and their outcomes.

- **Health goals**: Generally people aspire to lead a healthy life. For achieving it they might indulge in activities like yoga, running, regular exercise, etc.

- **Public Service**: People think about improving the present state of world, curse it for problems like poverty, gender inequality, etc. but how many of us are actually serious to plan to create a difference in our society? Obviously, such a difference cannot be created in a day.

![Diagram of Goals](image)

*Fig.11.4.1: Categorization of Goals*

- We can see in the fig. that these goals are not independent. In some way or the other, they are dependent on each other. However, the degree of this dependence varies.

**Activity**

- Ask the students to write about different types of goals in their life.
11.4.4 Team Dynamics

Say

- People working in an organization belong to different backgrounds, social setting, etc. They might be different in terms of their aspirations. However, within an organization, they have to join hands and work as one to achieve the organizational goals. In doing so, their personal goals take a back step.
- Unity becomes the guiding way to achieve them.
- A dynamic gets created between team members due to their dependence on each other for success.

Following aspects help in keeping the team spirit:

- Cooperation
- Trust worthiness
- Dependability
- Tolerance

For teamwork, the following things need to be kept in mind:

- A single person cannot achieve a big task single handedly.
- Big and difficult tasks can be accomplished only through collective effort, through teams.
- In a team, the team members stand by each other during good and bad times alike.
- Work together towards a common goal.
- Divide the task and share the burden.
- Help and accept help from others.

Activity

- Ask the students to divide themselves in groups of 7-8.
- Give each group the task of solving a series of riddles to reach the final destination that has different objects for different groups like needle for one, cloth for other and so on.
- While solving a riddle, the group members should not be standing with the other who is solving the riddle.
- In fact, the person who is solving it should give the clue obtained as an answer to the riddle and then the other should do the same. This would continue till the series of riddles is solved and the final object is reached.
- This gives a chance of teamwork, trustworthiness, etc. between the team members.

Explain

- Discuss about the importance of setting goals in life.
- Discuss the importance of setting up short-term goals.
Explain

- Discuss the importance of team dynamics in a badminton doubles match.

11.4.4.1 Story: Small Fishes and Big Fish

Say

- Explain to the students the following story in order to make them understand the importance of coordination and teamwork without which an organization would not be able to work well.

Once there was a shoal of tiny red fish living in the sea. One among them was a little different. His name was Swimmy and he was black in colour. Swimmy was the fastest swimmer in the shoal. The fish would swim around in the sea looking for food. One day when they were busy searching for lunch, Swimmy who was far ahead of the others saw a big fish coming in their direction. The big fish was also looking for his lunch—smaller fish. Swimmy was scared! If the big fish would spot his shoal, all of them would be eaten up. Swimmy thought hard of a way out and quickly came up with a plan. He quickly swam back to his shoal and told all the fish about the big fish and also explained his plan to escape from being eaten.

When the big fish came closer he was shocked to see an even bigger fish swimming in his direction with its huge jaws wide open. Frightened that he would get eaten up, the big fish swam away. If he had looked carefully, he would have realised that the huge fish was actually all the tiny red fish swimming very closely together in such a way that they looked like one big fish. And little black Swimmy, being different, became the eye of the ‘huge’ fish!

11.4.5 Managing Relations

Say

- Since human beings are social beings, they cannot remain alone. They meet people around them and form relations with them. Talking to other people and developing relationships with them helps us to feel comfortable in a place.

- Building relations and talking to people not only helps us to feel comfortable in a place but help in performing our job better. 70% of the workplace learning is informal, when people talk to each other at work they actually are learning to do their job better.

- Also, friendlier workers are effective communicators, more productive and trusted more by employers and co-workers.

- Tips for improving relations with people around us:
  » Observe how you react to people such as do you reach to a conclusion before knowing all the facts.
  » Introspect honestly about how you think and interact with other people.
Explain

• Ask from the students whether they have ever felt awkward on a day when their friend was absent.
• Discuss the possible implications.

11.4.6 Etiquette

Say

Different people have different personalities. Their basic nature, the way they respond to others, etc. may not be same. In fact, this is what makes them different from others. However, in an official and public setting, a person doing simply what he wants may be uncomfortable for others around him/her. This brings into light, the importance of etiquettes.

Etiquettes are the customs or rules governing behaviour regarded as correct or acceptable in social and official life. Certain etiquettes that should be kept in mind are as follow:

• Stand straight, make eye contact and turn towards people when they are speaking and genuinely smile at people.
• Follow the dress code prescribed by the organization.
• Limit personal calls especially when you are working in a manufacturing unit.
• Eat and smoke to the designated areas only otherwise it may disturb other people.
• Apart from certain etiquettes, certain ethics are also expected to be followed by the employees of an organization. Ethics are basic rules regarding how people of a particular profession/professional setting are...
supposed to work. Certain work ethics include:

- **Discipline:** It is important in each and every activity of an employee from completing work on target, following dress code to talking to seniors.
- **Commitment to work:** This is very important for an employee. Commitment to work helps in timely completion of goals, motivates a person to learn new things, reach office on time, etc.
- **Punctuality:** Being punctual gives a sense of professionalism and commitment.
- **Ownership and responsibility:** An employee should carry on all the responsibilities that he has with utmost care. He should take responsibility for his actions.
- **Striving to excel:** A person who wants to excel should make an attempt to learn new skills, techniques, methods required to uplift his career.

**Activity**

- Ask the students to narrate instances when they have been scolded by their school teachers/ elders for behaving inappropriately-like dragging one’ feet while walking, etc.
- Look for other such instances.

**Explain**

- To test what the students have understood, discuss with them various etiquettes that need to be taken care of in a school.

### 11.4.7 Stress and Anger Management

**Say**

- In the modern era, our lives have got so busy that stress and anger have become common.
- Anger is a normal and healthy emotion. However, managing anger can be a problem for some people.
- There are many health issues related to a unresolved anger such as high blood pressure, heart attack, depression, anxiety, colds and flu and problems related with digestion.
- Signs of anger include faster heartbeat, quick breathing, tension in shoulder or clinching fists.
  - Express your feelings instead of boiling them up.
  - Accept the things you can’t change.
  - Learn to forgive.
  - **ANGER** is only one letter away from **DANGER**.
Explain

- Discuss the problem of increasing levels of stress and anger among the youth.
- Also discuss the ways to manage anger and stress.

Activity

- Ask the students about situations when they realized that their stress/anger disabled them from performing their best.

11.4.8 Conflict Resolution

Say

A conflict is a situation that is difficult to understand, a problem between to people having opposing opinions, etc.

- It is important to solve a conflict otherwise it could have grave results.
- It could result in negative feelings between the concerned people.
- It could also increase misunderstandings.

Such situation can hamper the smooth flow of work within the employees. This would eventually show in terms of non-fulfillment of organizational goals.

Conflicts can be managed if following things are kept in mind:

1. STOP . . . before you lose control of your temper and make the conflict worse.
2. SAY . . . what you feel is the problem. What is causing the disagreement? What do you want?
3. LISTEN . . . to the other person’s ideas and feelings.
4. THINK . . . of solutions that will satisfy both of you.

Do’s

- Post pone for a few seconds whatever you wish to say or do.
- Take a deep breath.

» Anger can destroy lives, destroy relationships.
**Activity**

- Call out a student randomly.
- Ask them to narrate an incident when they had a fight with their friend and it resulted in further problems in school, became a cause for mental stress.

**Explain**

- Discuss the importance of resolving conflicts for a person's mental peace, maintaining order and healthy environment in workplace.

---

**11.4.9 Leadership Skills**

**Say**

- An organization involves a large number of people. How about if everybody works according to their own convenience and there is nobody to take care who will do what and assign deadlines?
- A leader has to take care of all these responsibilities.
- Generally, an organization cannot function with a single leader. It needs many. There might be a leader department-wise who is responsible for assigning duties and is accountable for their performance. Or simply, a senior in an organization could act like a leader.
- The ability to lead effectively is based on a number of key skills like:
  - **Honesty**: A leader who is honest will arise a feeling of trust amongst other employees.
  - **Ability to delegate**: Assigning who should do what depending on their strengths.
  - **Good communications skills**: Being able to communicate clearly is quite important.
  - **Confidence**: Keeps morale of the team high even in the tough times.
  - **Commitment**: If you expect your team to work hard and produce quality content then you should lead by example.
  - **Positive Attitude**: Keeping teams motivated towards continued success of the company.
  - **Creativity**: During the critical situations it is important to think out of the box solutions than to prefer the set course of action.
  - **Be decisive**: He should be able to decide between different alternatives available and handle conflicts.
  - **Focus on the big picture**: Planning long term strategies for your department helps in the accomplishment of organizational goals.
- For becoming a leader, a person needs to grab opportunities, think out-of-box, take initiative in solving problems, be innovative in approach and have good relations with others.
Activity

• Ask students to arrange themselves in group of 7-8.
• Assign each group the task of selling products of companies (enactment).
• Ask the group members to choose a leader.
• Ask the leader to coordinate different activities of his team members to create a collective campaign for the brand.
• Give them 20mins. Time for doing this.
• See the performance of different groups.
• Seeing the performance of each group, assess whether the leader has carried out his responsibilities well.
• Suggest changes, if necessary in the practices/attitude of the leader.

Explain

• Discuss the role of a team leader in terms of team’s performance.
UNIT 11.5: Social Interaction

Unit Objectives

At the end of the unit, students will be able to:
1. Describe the social interaction and its behaviours.
2. Give a brief description about himself/herself in public.
3. Follow daily duties.
4. Cooperate with peers, family and other members in society.

Resources to be Used

- Available objects such as black or white Board, chalk pieces or white board marker pens, duster
- PC with LCD Projector or Flip Chart
- Participant Manual

11.5.1 Social Interaction

Say

- A person is judged good or bad from the way he behaves with other people.
- Social interaction is the process by which we act and react to those around us.
- Social interaction includes a large number of behaviours:
  - Exchange: Exchange is the most basic type of social interaction. It’s a social process by which social behaviour is exchanged for some type of reward for equal or greater value.
  - Competition: It can lead to psychological stress, a lack of cooperation in social relationship, inequality and even conflict.
  - Cooperation: It’s a process in which people work together to achieve shared goals. No group can complete its task without cooperation.
  - Conflict: Social conflict is the struggle for agency or power within a society to gain control of scarce resources. It occurs when two or more people oppose one another in social interaction to attain incompatible goals.
  - Coercion: Individuals or groups are forced to give in to the will of other individuals or groups.
11.5.2 Self-Introduction

Say

• People tend to form an impression about as even before we have a conversation with them (based on our body language, gestures). However, the way we present ourselves in front of people is the real indicator of our personality. Self-introduction is an activity in which a person introduces himself (generally in front of strangers or people who don’t know him much).

• It is generally based on a person’s thinking about self—his strengths and weaknesses, his personality traits etc.

• Generally introduction about self is in the form of a speech that may vary from 3-5mins.

• It has a great impact on one’s self-esteem and self-confidence.

• Also, it gives others a chance of knowing each other’s likes and dislikes but also facilitates traits like cooperation, coordination while having fun.

Explain

• Discuss the difference between a setting where people know each other well, are ready to cooperate and coordinate with a situation where people are not ready to resolve differences, etc.

Activity

• Explain to the larger group that in a moment they will be dividing into smaller groups according to some commonality. For example “Divide yourselves into groups according to your favorite season!” At this time, all the people who enjoy summer get into a group, and so on.

• Once groups are formed, the facilitator points to each group and asks them to shout in unison what group they have formed. If another group has the same category, have the two groups merge and celebrate together.

• After all groups have been identified, the facilitator shouts out another type of division.

• This activity not only gives a chance to the students of knowing each other’s likes and dislikes but also facilitates traits like cooperation, coordination while having fun.
11.5.3 Our Duties and Responsibilities

Being the citizen of India, citizens not only have certain rights but certain duties as well. According to Indian constitution, a total of 11 duties exist. These duties include:

- To abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem.
- To cherish and follow the noble ideals which inspired our national struggle for freedom.
- To uphold and protect the sovereignty, unity and integrity of India.
- To defend the country and render national service when called upon to do so
Material Handling and Storage Operator

167

Explain

• Discuss what would be the situation if people do not follow their respective duties and responsibilities in different areas.

Activity

• Divide the students into groups of 7-8.
• Assign each group to come up with duties that are to be taken care of in different areas- say workplace, home, school, etc.

11.5.4 Cooperation

Say

• Imagine what be the situation when people work in their own way and do not care about the convenience of others.
• Cooperation is the process of groups of people working or acting together for their mutual benefit.
• It is the backbone of any society.
• In a family setting, cooperation might involve planning together and sharing responsibilities.

Effective peer support can be in form of:

» Social Support: In form of positive psychological interactions with others with whom there is mutual trust and concern.
» Experiential Knowledge: contributes to solving problems and improving quality of life.
» Emotional support: Esteem, attachment and reassurance
» Instrumental Support: Material goods and services

• A person cannot merely expect others to be cooperative. For others to behave in a cooperative way with him, he needs to be cooperative with them too. This might involve:
  » Share when you have something that others would like to have.
» Take Turns when there is something that nobody wants to do, or when more than one person wants to do the same thing.
» Compromise when you have a serious conflict.
» Do your part the very best that you possibly can. This will inspire others to do the same.
» Show appreciation to people for what they contribute.
» Encourage people to do their best.
» Don’t isolate or exclude anyone. Everybody has something valuable to offer, and nobody likes being left out.

**Activity**

- Ask the students to choose a partner for themselves.
- Now, give each team a task of carrying out different types of stitches on different types of clothes.
- Ask them to divide the work between themselves and carry it out within a time span of 20mins (One can fetch the materials needed from other room from time to time, other could carry out the task of doing the actual stitch).
- Assess the performance of students.

**Explain**

- Based on the above activity, discuss the problems faced while doing the task.
- Also discuss what could have been the possible solutions to it.
UNIT 11.6: Group Interaction

Unit Objectives

At the end of the unit, students will be able to:
1. Participate in group discussions in the class.
2. Give speech in the public.
3. Describe the importance of team building and team work.

Resources to be Used

• Available objects such as black or white Board, chalk pieces or white board marker pens, duster
• PC with LCD Projector or Flip Chart
• Participant Manual

11.6.1 Group Interaction

Say

• In an organization, most activities need to be done in a group. For carrying out the activities in a smooth manner and avoid any duplication of work, misunderstanding or communication gap, group interaction is very important.
• For a successful and positive group interaction these steps needs to be followed:
  » Put your mobile phone away or place in silent mode.
  » Greet everyone.
  » Be friendly with everyone in the group.
  » Show an interest in others by paying someone a compliment and listen carefully to what is being discussed.
  » Be proactive and introduce yourself to others in the group.
  » Sit up straight. Poor body posture is an indication of low self-esteem.
  » Focus your attention on the person talking.
  » Consider everyone’s comment. Remember everyone is different and have different the ability to think.

Fig.11.6.1: Group Interaction
Think before you speak. Don’t be too quick to jump into the conversation.
» Be a respect listener and observer.
» Include everyone when talking. Be sure to share eye contact with each person in the group.
» Don’t start or participate in a side conversation.
» Make sure to smile shake hands and embrace and use each person’s name during discussion.

**Activity**

- Give the class a topic to have a healthy discussion, say Effects of Modernization on Environment.
- Encourage them to come up with different points and all possible aspects.
- Ask people to support or negate a point according to their perspective.

**Explain**

- Observe students during the activity.
- If you find any of the persons flouting norms of a group interaction, guide him accordingly.
- Also discuss how does not complying with norms affect the ongoing/effect of a group interaction.

**11.6.2 Importance of Group Interactions**

**Say**

Group interaction not only serves the purpose of carrying out a task efficiently but also serves to be useful as:
- It helps to understand a subject more deeply.
- It improves the ability to think critically.
- It helps in solving a particular problem.
- It helps the group to make a particular decision.
- It gives the chance to hear other students’ ideas.
- It increases your confidence in speaking.

As a moderator a group interaction helps in understanding ones attitude, selecting a perspective candidate in a perspective methodology.
Dos and Don’ts of Group Interaction

<table>
<thead>
<tr>
<th>Do’s</th>
<th>Don’t</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Speak pleasantly and politely to the group.</td>
<td>• Lose your temper. A discussion is not an argument.</td>
</tr>
<tr>
<td>• Respect the contribution of every speaker.</td>
<td>• Shout. Use a moderate tone and medium pitch.</td>
</tr>
<tr>
<td>• Remember that a discussion is not an argument. Learn to disagree politely.</td>
<td>• Use too many gestures when you speak. Gestures like finger pointing and table thumping can appear aggressive.</td>
</tr>
<tr>
<td>• Think about your contribution before you speak. How best can you answer the question/contribute to the topic?</td>
<td>• Dominate the discussion. Confident speakers should allow quieter students a chance to contribute.</td>
</tr>
<tr>
<td>• Try to stick to the discussion topic. Don’t introduce irrelevant information.</td>
<td>• Draw too much on personal experience or anecdote. Although some tutors encourage students to reflect on their own experience, remember not to generalize too much.</td>
</tr>
<tr>
<td>• Be aware of your body language when you are speaking.</td>
<td>• Interrupt. Wait for a speaker to finish what they are saying before you speak.</td>
</tr>
<tr>
<td>• Agree with and acknowledge what you find interesting.</td>
<td></td>
</tr>
</tbody>
</table>

Fig.11.6.2: Dos and Don’ts of Group Interaction

Activity

• Try games like telephone, where you sit in a circle and one person whispers a scenario into the ear of the next person, such as how an important report was not delivered to the president in time.
• The “telephone” chain continues until the last person, who announces what he or she heard. Generally, by the end of the chain the story has been altered substantially.
• This gives employees a chance to discuss how the story changed along the way and methods they could use in the future to improve communication.

Explain

• Discuss the importance of interaction among your family members.

11.6.3 Team Work

Say

• A good team is the one that motivates its members to have a positive attitude, perform better.
• Team work is a very important part of working life. They can have a big impact on the profitability of an organization, team and individual performance, company reputation, etc.
• Team building is important because:
  » Facilitates better communication
  » Motivates employees
  » Promotes creativity
  » Develops problem-solving skills
  » Breaks the barrier

• Maintaining a team is not an easy job since there are a variety of people involved having different strengths and weaknesses. This task can be made easier by following certain do’s and don’ts
  » Don’t argue in public: If you have a disagreement with someone in the team find a neutral place to discuss the situation.
  » Do encourage each other: When things get tough the tough gets going. Contribute to the team in trying situation.
  » Don’t talk behind the backs: If you have trouble with some team member don’t share with others. Go directly to the person in a kind and compassionate manner and share what is in your mind.
  » Do lend a hand: If a team member is asking for help don’t hesitate in helping him.
  » Don’t be the weakest link: Live up to your responsibilities, meet team expectations and communicate effectively in the team.
  » Give and receive feedback: As a part of growing team give and receive feedback respectfully and graciously.

**Activity**

• Ask students to organize themselves in a team of 7-8.
• Assign them the task of giving a presentation on different types of stitches.

**Explain**

• On the basis of the activity, ask the students to judge who was the best team member.
• Discuss the qualities of this person so that other people can improve themselves and cooperate and be more effective in future.
UNIT 11.7: Time Management

Unit Objectives

At the end of the unit, students will be able to:
1. Describe the importance of time management.
2. Develop time management skills.
3. Learn about effective time planning.

Resources to be Used

- Available objects such as black or white Board, chalk pieces or white board marker pens, duster
- PC with LCD Projector or Flip Chart
- Participant Manual

11.7.1 Time Management

Say

- In a professional arena, deadlines should be met for creating goodwill. Since activities in an organization are complex, time has to be managed as to how activities would be carried out within a definite time span.
- Time management is the act of process of planning and exercising conscious control over the amount of time spent on specific activities, especially to increase effectiveness, efficiency or productivity.
- It is an activity with the goal to maximize the overall benefit of a set of activities within the boundary condition of a limited amount of time.
- Activities that aid in time management are:
  » Delegate tasks.
  » Identify time wasters.
  » Combine activities – Plan for them.
  » Break down big tasks down to the smallest task possible.
  » Accomplish them one by one.
  » At the end of the day conduct a simple analysis to see which activity took time.
**Activity**

- Ask the students to assemble in groups of 9-10 in ground.
- Organize a race that is broken into various stages like lemon race, followed by one-leg race and balloon race.
- Ask the team members to decide among themselves who will do what.
- The team that would be able to complete the task within a time of 4mins/ at the earliest would be the winner.

**Explain**

- On the basis of the activity, discuss the factors that caused the team members lag behind and which factors enabled them to carry it within the assigned time.
- Relate it to the wider arena- that is to time management (when more than 1 person is involved) in general sense.

**11.7.2 Time Robbers**

**Say**

- Although employees try their best to be efficient, still there are certain activities that pop up and therefore result in the wastage of time.
- Time robbers are those activities which create interruption at the workplace. These activities create a deviation from the objectives which needs to be achieved. Time Robbers could be:
  - Poor personal planning and scheduling.
  - Interruptions by people without appointments.
  - Poor delegation.
  - Poor use of the media: Telephone, Mobile, e-mail, and fax, etc.
  - Reading junk mail.
  - Lack of concern for good time management.
  - Lack of clear priorities
- However, time robbers are not inevitable. They can be kept in check. The Time Robbers can be avoided by:
  - Being active all the time
  - Developing and maintaining an organized personal activity schedule
  - Setting priorities
  - Proper delegation
  - Utilizing modern technical media
Activity

• Divide students into groups of 3-4.
• Ask them to choose a fabric of their choice, cut it in a particular shape and perform any embroidery of their choice.
• Give them a time limit of around 30mins.

Explain

• On the basis of the activity, discuss what factors caused delay in time (if any).
• Also discuss what can be done in future to avoid such wastage of time.

11.7.3 Pareto Analysis

Say

• Not only is the completion of task important, equally important is finishing it on time. A task that is not completed on time may lead to decline in goodwill, decrease in productivity and consequent losses, etc.
• There are several ways of doing a task. One needs to opt for the smart way that is the one which involves minimum work and therefore requires less time without compromising the quality. If one uses complex ways then it will be time consuming. One should always try to find out alternate ways to complete a task.
• According to this 80% of the tasks can be completed in 20% of the time. The remaining 20 % of the tasks take 80 % of your time. And the task which should fall in first category should be given a higher priority.

Urgent Important Matrix

<table>
<thead>
<tr>
<th>1. The Urgent and Important Tasks</th>
<th>2. The Non Urgent but Important Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>DO NOW</td>
<td>PLAN TO DO THEM</td>
</tr>
<tr>
<td>• Emergencies, complaints and crisis issues</td>
<td>• Planning, preparation</td>
</tr>
<tr>
<td>• Demands from superiors</td>
<td>• Scheduling</td>
</tr>
<tr>
<td>• Planned tasks or project work now due</td>
<td>• Designing, testing</td>
</tr>
<tr>
<td>• Meetings with superiors/colleagues</td>
<td>• Thinking, creating, modeling the data</td>
</tr>
</tbody>
</table>
### 3. The Non Important but Urgent Tasks

<table>
<thead>
<tr>
<th>REJECT AND EXPLAIN</th>
<th>4. The Non Important and non-Urgent Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Trivial requests from others</td>
<td>• Comfort' activities, computer</td>
</tr>
<tr>
<td>• Apparent emergencies</td>
<td>• Games, net surfing, excessive</td>
</tr>
<tr>
<td>• Misunderstandings appearing in work</td>
<td>• Cigarette breaks</td>
</tr>
<tr>
<td>• Pointless routines or activities</td>
<td>• Chat, gossip, social</td>
</tr>
<tr>
<td></td>
<td>• Communications</td>
</tr>
<tr>
<td></td>
<td>• Reading irrelevant and useless material</td>
</tr>
</tbody>
</table>

**Fig. 12.7.1: Urgent Important Matrix**

- Based on this fig., importance can be assigned to activities and they can be carried out accordingly depending on their importance.
- Enlisting and categorization of tasks in terms of their importance is probably the most important activity. Other things fall in place.

### Activity

- Ask each student to name the activities he engages in after going back to home.
- Ask him to categorize them as ‘most important’, ‘important’ or ‘least important’.
- Discuss the list.
- Compare answers of different students.

### Explain

- Discuss the importance of categorization of tasks in terms of time management.
UNIT 11.8: Resume Preparation

Unit Objectives

At the end of the unit, students will be able to:
1. Describe the different sections of a resume.
2. Learn how to prepare a resume.

Resources to be Used

- Available objects such as black or white Board, chalk pieces or white board marker pens, duster
- PC with LCD Projector or Flip Chart
- Participant Manual

11.8.1 Introduction

Say

- It is a matter of fact that all people are not suitable for all types of jobs. Imagine all sorts of people (fit and unfit for that particular designation) applying for a particular job! What would be the condition of the interviewer if he/she would have to take the interview of all the applicants? He would be exhausted and irritated.
- To avoid this situation, a resume is needed. A resume is a self-advertisement that, when done properly shows how your skills, experience and achievements match the requirement of the job you want.
- It convinces the employer that you have what it takes to be a successful in the new career or position.

Remember that...

- Your resume is to get you an interview not a job
- Your resume will be screened by an employer for just 15-20 seconds. That’s all the time your resume has to make an impact.
- Every point in your resume should be specific and must be supported be supported by a number of factual information.
- Use action verbs in all your points. They catch attention immediately and make your sentences clear.
- Use bullets not paragraphs.
• Do not mention your responsibilities mention what you have accomplished.
• A common mistake we make while constructing the resume is to copy the format from our friends resume and built it based on that.

11.8.1.1 Resume Header

Say

It includes basic details that are used to identify/contact a person in case he has to be called for the interview.
• Do not include your photo.
• Do not write your resume as a heading to the file
• Do not occupy much space to fill insignificant information like marital status, etc.

11.8.1.2 Framing the Objective

Say

It includes basic details that are used to identify/contact a person in case he has to be called for the interview.
• The objective of every job is different although eventually to reach the overall objective of the company.
• It is crucial to convey to your employer what your goal is. It should be aimed towards getting a particular position in a specific industry.
• Your objective should include the following:
  » Position wanted
  » Functional area
• Keep the employers requirement in mind while writing the objective. The objective is not what you desire from the company, it’s about company’s need.
• Be specific and restrict it to minimum words.
• One’s objective should be different to each role one applies to.
11.8.1.3 Education

Say 📖

The educational qualifications of a person matter a great degree to the nature of work for which a person is required. For instance, for the field of engineering certain subjects and specialization would be required. Write all educational qualifications from class 10 till present.

- For class 10 and 12 – include school/college name, Board, Stream/Specialization (If any), year study, Marks.
- For undergraduate – include college name, University name, Degree and Specialization, year of study.
- Write all your qualifications in reverse chronological order, i.e. the latest qualification on top.
- You may write the educational qualifications in a tabular format or in a simple one after the other order.

11.8.1.4 Projects, Internships, Etc.

Say 📖

What will give insight to the employer about your achievements, interests? The projects, internships one has undertaken reflect a great deal about the person’s interests.

- This is a critical component of resume, as it reflects the initiatives one has taken apart from curriculum.
- It not only reflects one’s real potential but helps in differentiating one’s resume from peers.
- The heading should be – title / project name, role, company/organisation name, -2 lines description about the specific time period.
- Time period is must.
- The entries under each heading must be in reverse chronological order.
- Be very specific on what you have accomplished. Add numbers and facts wherever possible.

11.8.1.5 Skills

Say 📖

All the jobs might not pay much important to educational qualifications and internships. After all there are skills required to carry on a particular job that are required in a practical setting.

- List your skill and add a point which supports your skill the best.
- Make specific points. Add numbers and facts wherever possible.
• Pick only three to four soft skills that describes you the best.
• Dig your past to discover the best of these skills you possess and the best instance you can quote to support it.

One can have multiple headings under skills. Common heading can include:

• **Soft Skills**: Must include, they showcase your personality traits.
• **Core occupational skills**: Optional include if you possess any core skills. These are skills you possess relevant to the role you are applying for.
• **IT Skills**: Optional, Advisable to include this if you are applying for IT/software related roles.

### 11.8.1.6 Interests

**Say**

One’s interests tell a great deal about the way a person is. They might also aid in some way in revealing the basic nature of a person. While writing about one’s interests, one should keep in mind to:

• List interests which are meaningful and display some learning.
• Support the interest you have listed
• Make points specific and add supporting fact to it.
• Do not just list random cluster of interests like: adventure, guitar, reading, environment
• Never include interests like partying, watching movies etc. they create wrong impression.

### 11.8.1.7 References

**Say**

• Before selecting a candidate, an employer would like to know about the candidate’s previous professional dedication. This might aid/ be negative immensely because it is this behavior that the person would exhibit in the work arena. Skills, etc. can be acquired through training but an employee should be hard working, trustworthy, responsible, etc.
• The proof of all this can be best obtained from previous employers, teachers, etc.
• The last thing on your resume should be a list of 2-4 professional references.
• Include the name of the reference, their relationship to you, mailing address, e mail and phone number.
• The place where one is applying may contact these people, so one should always call them in advance to let them know that you are using them for a reference and are currently applying for a job.
11.8.1.8 Points to Remember

**Say**

Since resume is the first thing that would make an impression in front of the employer, one should make sure that it is professional enough in appearance. For ensuring this, certain things should be kept in mind:

Make sure that the length of your resume does not exceed 2 pages.

- Do a thorough recheck and make sure there are absolutely no errors in your resume. No grammatical errors, no spelling mistakes, no punctuation errors.
- Run through your resume time and again for to make improvements and wording sentences better.
- Choose a professional font in a size 11 or 12. You can use multiple fonts for different parts of resume, but try to limit it maximum of two fonts. Instead of changing between fonts, try making specific sections bold or italicized instead.
- The font size of your header and the introduction to a section may be a size 14 or 16.
- Your text should always be printed in solid black ink. Make sure to deactivate any hyperlinks so that they don’t print in blue or other contrasting colour.
- Your page should have one inch margin all the way around with 1.5 or 2 point line spacing. The body of your resume should align left and your header should be centered at the top of the page.

**Activity**

- Ask the students to prepare their resume.
- Guide them, if necessary.

**Explain**

- Discuss with the students the type of language and font that should be used in a resume.
- Also, discuss why a long resume should be avoided.

**Summarize**

- Give the students a summary of do’s and don’t’s while making a resume.
UNIT 11.9: Interview Preparation

Unit Objectives

At the end of the unit, students will be able to:
1. Describe the procedure of interview.
2. Go thorough mock interviews.
3. Present self during an interview.
4. Motivated to work after the training period is over.

Resources to be Used

• Available objects such as black or white Board, chalk pieces or white board marker pens, duster
• PC with LCD Projector or Flip Chart
• Participant Manual

11.9.1 Interview

Say

• Once the recruiter finds an applicant’s resume in par with the requirements, he is called for an interview to know about him in person. Also, it helps to know about the personality traits of a person—confidence, patience, etc.

• An interview is a conversation between two or more people (the interviewer(s) and the interviewee) where questions are asked by the interviewer to obtain information from the interviewee.

Common Types of Interview

• Traditional HR Interview: Most interviews are face to face. The most traditional is a one-on-one conversation with the HR Executive. Maintaining a good eye contact, listening keenly and giving prompt answers is advised.

• Panel Interview: In this situation, there is more than one interviewer. A panel ranging from two to ten members may conduct this part of the selection process. This might be scary for most people. However, it helps in showcasing how a person can deal with pressure confidently and patiently without losing his calmness.

• Technical Interview: The objective of this interview is to basically evaluate technical knowledge. Majority of the questions will be based on the skills sets mentioned in the candidate’s resume.

• Telephone Interview: Telephone interviews may also be used as a preliminary interview for candidates who live far away from the job site.
An interview could be a nightmare and may not fetch favourable results if the interviewee is not well acquainted to the

- Company- What does it do basically and what are its goals.
- Job description- A person should have an idea about the job role he is applying to. He can answer to the questions of the interviewer accordingly.

Apart from knowing about the company and job role, a person should know about himself. He should not be afraid otherwise he would not be able to bring out his best. He should be free from all sorts of doubts about himself/herself and be

- Confident
- Relaxed
- Sure of yourself
- Prepared
- Before, during and after the interview, it is important for you to be prepared.
- Dress Professionally
- Choose your words properly
- Maintain an eye contact

To have a good impression and convey one’s level of seriousness, formal attire, minimalistic jewellery and clean and simple shoes are advised.

11.9.2 The Do’s and Don’ts in an Interview

Say

- Certain etiquettes need to taken care of while giving an interview. This is because they are responsible for forming a favourable/unfavourable impression on the interviewer.

Activity

- Ask the students to answer. Discuss why each of the activity falls in a ‘do’ or ‘don’t’ category.

<table>
<thead>
<tr>
<th>Sentence</th>
<th>Do’s</th>
<th>Don’ts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Be yourself</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burp while talking!!!</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Just out from a ‘powder factory’ ( worn too much make-up)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reach just about the right time for the interview</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Just barge in the cabin/ office</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forget to greet the receptionist/ don’t respond</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Think before you speak
Do your homework- Visit the company website
Take time to think (TTTT)
Wear bright colour clothes on the D-day
Emphasis on your strengths
Argue/ Debate with the interviewer
Chew gum during the interview.
Review your educational and work experiences
See your documents flying out of the file (Being clumsy)
Thank the interviewer
Have the ‘they need me’ attitude
Maintain eye contact and good body language
Only give monosyllabic answers (depends on the kind of questions asked... in-between)
Carry a copy of your resume

**Explain**

- Discuss with the students whether telling lies about oneself during the interview is right or wrong.

**11.9.3 During the Interview**

**Say**

- Apart from the content of one’s answers (choice of one’s words, etc.) , the tone at which one presents himself is of considerable importance.
- Also, one should be fully aware about what he has written in the resume and have proper reasons for writing it and should not write anything shallow.
- While, undergoing an interview, following things should be kept in mind:
  » Be confident, not arrogant
  » Sell yourself - Keep your energy up
  » Maintain your posture
  » Be positive, don’t complain
Activity

• While conducting mock interviews in pairs, notice the body language, tone, etc. of students minutely.
• Give suggestions, if necessary.

Explain

• Discuss the importance of maintaining an eye contact with the interviewer.

11.9.4 Active listening

Say

• While undergoing an interview, it is really important that the interviewee employees his full attention to the questions posed by the interviewer.
• If his mind gets diverted, he would not be able to answer appropriately.
• Also, in terms of selection, this could act as a big hurdle.

Activity

• Read out a passage to students.
• While reading, intentionally mispronounce certain words.
• Ask the students to stop you as soon as you mispronounce a word.
• Ask the students to carry it among themselves whenever they get free time.
• This would aid a great deal in knowing and developing their active listening skills.

Explain

• Discuss the importance of active listening on the part of students when a teacher is explaining a topic.

Activity

• Also, ask them to conduct mock interviews in groups of 2.
12. IT Skills

Unit 12.1 - Introduction to Computer
Unit 12.2 - Basic Computer Knowledge
Unit 12.3 - Components of Computer
Unit 12.4 - Concept of Operating System
Unit 12.5 - MS Word
Unit 12.6 - MS PowerPoint
Unit 12.7 - MS Excel
Unit 12.8 - Internet Concepts
At the end of this module, you will be able to:
1. Familiarise with computers
2. Identify and use basic uses of a computer
3. Familiarise with a computer motherboard
4. Familiarise with a computer operating system
5. Use Microsoft Word, Excel and Powerpoint
6. Familiarise with Internet and use e-mails
Unit 12.1: Introduction to Computer

Unit Objectives

At the end of the unit, students will be able to:
1. Define the computer.
2. Recognise its various parts.
3. Differentiate the advantages and disadvantages of computer.

Resources to be Used

- Participant Manual
- Computer Lab

Do

- Greet and welcome the participants to the next session of the program.
- Before starting the session ask them do they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they will learn about introduction to computer in this unit.

Say

- Tell participants about the computer. Computer plays a very important role in our personal and professional lives. It has become an integral part of our lives.
- Tell them about important characteristics and application of a computer.

Notes for Facilitation

- Summarise the main points of the unit.
- Ask participants if they have any doubts. Encourage them to ask questions.
- Answer their queries satisfactorily.
- Ask them to answer the questions at the end of unit given in the participant’s manual.
- Ensure that every participant answer all questions.
**Activity**

- Tell participants to demonstrate the parts of computer.
- Give them 15 minutes to prepare.
- Tell them each participant will be given 10 minutes to demonstrate the same.
- Once presentations are complete appreciate the efforts made by the group and summarise the highlights of the activity.

<table>
<thead>
<tr>
<th>Skill Practice</th>
<th>Time</th>
<th>Resources</th>
</tr>
</thead>
</table>
| 1. Demonstration of Computer | 4 Hours | • Participant Manual  
                          |                     | • Computer Lab       |
Unit 12.2: Basic Computer Knowledge

Unit Objectives

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

- Use computer.
- Explain the web, email services.

Resources to be Used

- Participant Manual
- Computer Lab

Do

- Greet and welcome the participants to the next session of the program.
- Before starting the session ask them do they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they will learn about basic computer knowledge in this unit.

Say

- Tell participants about the application of the computer in daily life. In the workplace, many people use computers to keep records, analyze data, do research, and manage projects. At home, you can use computers to find information, store pictures and music, track finances, play games, and communicate with others—and those are just a few of the possibilities. Tell them about important characteristics and application of a computer.
- Now explain the concept of web. The World Wide Web is a gigantic storehouse of information. The web is the most popular part of the Internet, partly because it displays most information in a visually appealing format.
- Tell them about the application part of the web and introduce them with the use of different applications as email, instant messaging, picture music and movies with them.

Notes for Facilitation

- Summarise the main points of the unit.
- Ask participants if they have any doubts. Encourage them to ask questions.
Facilitator Guide

- Answer their queries satisfactorily.
- Ask them to answer the questions at the end of unit given in the participant’s manual.
- Ensure that every participant answer all questions.

Activity

- Tell participants to prepare an online report using web.
- Tell them they can choose any topic of their interest. Give them one hour to prepare.
- Tell them each participant will be given 10 minute to present their report to the class.
- Once presentations are complete appreciate the efforts made by the group and summarise the highlights of the activity.

<table>
<thead>
<tr>
<th>Skill Practice</th>
<th>Time</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Prepare Online report</td>
<td>4 Hours</td>
<td>• Participant Manual</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Computer Lab with internet</td>
</tr>
</tbody>
</table>
Unit 12.3: Components of Computer

Unit Objectives
At the end of the unit, students will be able to:
• Recognise the different parts and components of computer.
• Describe the CPU, RAM and BIOS.

Resources to be Used
• Participant Manual
• Personal Protective Equipment (PPE)

Do
• Greet and welcome the participants to the next session of the program.
• Before starting the session ask them do they have any doubts pertaining to the previous unit.
• Acknowledge their responses and clear their doubts if any.
• Tell them they will learn about the components of the computer in this unit.

Say
• Tell them about different parts of the computer.
• Explain them about different parts of motherboard in detail.

Notes for Facilitation
• Summarise the main points of the unit.
• Ask participants if they have any doubts. Encourage them to ask questions.
• Answer their queries satisfactorily.
• Ask them to answer the questions at the end of unit given in the participant’s manual.
• Ensure that every participant answer all questions.
Activity

- Tell participants to demonstrate the motherboard.
- Tell them they will get 30 minutes to prepare and each student will have to demonstrate for the same.
- Once presentations are complete, appreciate the efforts made by the group and summarise the highlights of the activity.

<table>
<thead>
<tr>
<th>Skill Practice</th>
<th>Time</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Demonstration of Motherboard</td>
<td>4 Hours</td>
<td>• Participant Manual</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Computer Lab</td>
</tr>
</tbody>
</table>
Unit 12.4: Concept of Operating System

Unit Objectives

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

• Familiarise with the concept of operating system.
• Work on Windows 8 and 9.1.
• Add or Remove desktop icons, make or delete a folder etc.

Resources to be Used

• Participant Manual
• Computer System

Do

• Greet and welcome the participants to the next session of the program.
• Before starting the session ask them do they have any doubts pertaining to the previous unit.
• Acknowledge their responses and clear their doubts if any.
• Tell them they will learn about operating system in this unit.

Say

• Tell them about windows XP. And explain that Windows XP let you use different types of applications or software on the operating system.
• Familiarise them with the different versions of Windows.

Demonstrate

• Explain tools and parts of an operating system with the participants.
• Show them all these parts practically on the computer system.
• Then explain add or delete desktop shortcut from the desktop.
• Also explain how to create a new folder.
• Tell all participants to create a folder on computer. Then explain how to work on multiple windows.
• Now demonstrate the keyboard to the participants and tell them the correct way to use the keyboard.
Elaborate

- Discuss common window commands with the participants.
- Explain the table to the participants.

Table: Common Window Commands

<table>
<thead>
<tr>
<th>Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alt + F</td>
<td>File menu options in current program</td>
</tr>
<tr>
<td>Alt + E</td>
<td>Edit options in current program</td>
</tr>
<tr>
<td>Alt + Tab</td>
<td>Switch between open programs</td>
</tr>
<tr>
<td>F1</td>
<td>Universal Help in almost every Windows program</td>
</tr>
<tr>
<td>F2</td>
<td>Rename a selected file</td>
</tr>
<tr>
<td>F5</td>
<td>Refresh the current program window</td>
</tr>
<tr>
<td>Ctrl + N</td>
<td>Create a new, blank document in some software programs</td>
</tr>
<tr>
<td>Ctrl + O</td>
<td>Open a file in current software program</td>
</tr>
<tr>
<td>Ctrl + A</td>
<td>Select all text</td>
</tr>
<tr>
<td>Ctrl + B</td>
<td>Change selected text to be Bold</td>
</tr>
<tr>
<td>Ctrl + I</td>
<td>Change selected text to be in Italics</td>
</tr>
<tr>
<td>Ctrl + U</td>
<td>Change selected text to be Underlined</td>
</tr>
<tr>
<td>Ctrl + F</td>
<td>Open find window for current document or window</td>
</tr>
<tr>
<td>Ctrl + S</td>
<td>Save current document file</td>
</tr>
<tr>
<td>Ctrl + X</td>
<td>Cut selected item</td>
</tr>
<tr>
<td>Shift + Del</td>
<td>Cut selected item</td>
</tr>
<tr>
<td>Ctrl + C</td>
<td>Copy selected item</td>
</tr>
<tr>
<td>Ctrl + Ins</td>
<td>Copy selected item</td>
</tr>
<tr>
<td>Ctrl + V</td>
<td>Paste</td>
</tr>
<tr>
<td>Shift + Ins</td>
<td>Paste</td>
</tr>
<tr>
<td>Ctrl + K</td>
<td>Insert hyperlink for selected text</td>
</tr>
<tr>
<td>Ctrl + P</td>
<td>Print the current page or document</td>
</tr>
<tr>
<td>Home</td>
<td>Goes to beginning of current line</td>
</tr>
<tr>
<td>Ctrl + Home</td>
<td>Goes to beginning of document</td>
</tr>
<tr>
<td>End</td>
<td>Goes to end of current line</td>
</tr>
<tr>
<td>Ctrl + End</td>
<td>Goes to end of document</td>
</tr>
<tr>
<td>Shift + Home</td>
<td>Highlights from current position to beginning of line</td>
</tr>
<tr>
<td>Shift + End</td>
<td>Highlights from current position to end of line</td>
</tr>
<tr>
<td>Ctrl + Left arrow</td>
<td>Moves one word to the left at a time</td>
</tr>
<tr>
<td>Ctrl + Right arrow</td>
<td>Moves one word to the right at a time</td>
</tr>
<tr>
<td>Ctrl + Esc</td>
<td>Opens the START menu</td>
</tr>
<tr>
<td>Ctrl + Shift + Esc</td>
<td>Opens Windows Task Manager</td>
</tr>
<tr>
<td>Alt + F4</td>
<td>Close the currently active program</td>
</tr>
<tr>
<td>Alt + Enter</td>
<td>Open the Properties for the selected item (file, folder, shortcut, etc.)</td>
</tr>
</tbody>
</table>

Fig. 12.4.1: Some Important Keys and Their Uses
Notes for Facilitation:

- Summarise the main points of the unit.
- Ask participants if they have any doubts. Encourage them to ask questions.
- Answer their queries satisfactorily.
- Ask them to answer the questions at the end of unit given in the participant’s manual.
- Ensure that every participant answer all questions.

Activity:

- Give one newspaper cutting to each student and tell them they need to type the same.
- Tell them they have to use correct fingers on keyboard and make sure work is free from errors.
- Give them one hour for typing practice and ensure that each participant is typing.
- Finally share some tips for correct typing and summarise the highlights of the activity.

<table>
<thead>
<tr>
<th>Skill Practice</th>
<th>Time</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Typing Practice</td>
<td>2 Hours</td>
<td>• News paper</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Computer Systems</td>
</tr>
</tbody>
</table>


Unit 12.5: MS Word

Unit Objectives

At the end of the unit, students will be able to:
- Learn the concept of and practice MS-Word.
- Format a document.
- Print a document etc.

Resources to be Used

- Participant Manual
- Computer System with MS Word

Do

- Greet and welcome the participants to the next session of the program.
- Before starting the session ask them do they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they will learn about MS Word in this unit.

Say

- Tell them about concept of word processing. Word processing skills allow us to prepare text documents such as letters, memos, and other correspondence.

Demonstrate

- Tell them to open MS Word in their respective systems.
- Show them how to create a word document in MS word software.
- Practically demonstrate how to perform different operations on MS Word document as:
  - Saving a Document
  - Change Font Type and Size
  - Create Headers and Footers by Inserting Texts
Notes for Facilitation

- Summarise the main points of the unit.
- Ask participants if they have any doubts. Encourage them to ask questions.
- Answer their queries satisfactorily.
- Ask them to answer the questions at the end of unit given in the participant’s manual.
- Ensure that every participant answer all questions.

Activity

- Give one news paper cutting to each student and tell them they need to type this in MS Word and perform different operations like saving documents, Saving a Document, Change Font Type and Size, Create Headers and Footers by Inserting Texts, Indents and Spacing
- Tell them they have to use correct fingers on keyboard and make sure work is free from errors.
- Give them one hour for typing practice and ensure that each participant is typing.
- Finally share some tips for correct typing and summarise the highlights of the activity

<table>
<thead>
<tr>
<th>Skill Practice</th>
<th>Time</th>
<th>Resources</th>
</tr>
</thead>
</table>
| 1. Typing and Formatting – MS Word | 3 Hours | • News paper  
|                                 |        | • Computer Systems            |
Unit 12.6: MS PowerPoint

Unit Objectives

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

- Practice MS-Powerpoint.
- Make a new presentation.
- Format a slide as well

Resources to be Used

- Participant Manual
- Computer System with MS Office

Do

- Greet and welcome the participants to the next session of the program.
- Before starting the session ask them do they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they will learn about MS Word in this unit.

Say

- Tell them about the power point. PowerPoint is the presentation graphics software in the Microsoft Office suite. PowerPoint has predefined layouts, themes, and templates to create dynamic and professional presentations.

Demonstrate

- Tell them to open MS power-point in their respective systems.
- Show them how to create a power point in MS Power-point software.
- Practically demonstrate how to perform different operations on MS Power-point presentation as:
  - Saving a Powerpoint
  - Working with slides
Notes for Facilitation

- Summarise the main points of the unit.
- Ask participants if they have any doubts. Encourage them to ask questions.
- Answer their queries satisfactorily.
- Ask them to answer the questions at the end of unit given in the participant’s manual.
- Ensure that every participant answer all questions.

Activity

- Tell participants they have to prepare a power-point presentation on MS Powerpoint Software.
- Tell them they need to perform following operations while working on this software, Saving a Powerpoint, View tabs, Animating text and Images and inserting Charts.
- Give them one and half hour to prepare the same.
- Finally share some tips for correct typing and summarise the highlights of the activity.

<table>
<thead>
<tr>
<th>Skill Practice</th>
<th>Time</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Presentation on MS Powerpoint</td>
<td>4 Hours</td>
<td>• Participant Manual</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Computer Lab</td>
</tr>
</tbody>
</table>
Unit 12.7: MS Excel

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

- Work on MS-Excel
- Format cells and cell content
- Use formulas
- Make Charts and Pivot Table.

Resources to be Used
- Participant Manual
- Computer System

Do
- Greet and welcome the participants to the next session of the program.
- Before starting the session ask them do they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they will learn about Ms Excel in this unit.

Say
- Tell them about the power point. MS Excel stands for - Microsoft Excel is one of the most popular electronic spreadsheet applications supported by both Mac and PC platforms. As with a paper spreadsheet, you can use Excel to organize your data into rows and columns and to perform mathematical calculations.
- Discuss the application of Excel with the participants.

Demonstrate
- Tell them to open MS Excel in their respective systems.
- Show them how to create a spread sheet in MS Excel software.
- Practically demonstrate how to perform different operations on MS Excel as:
Notes for Facilitation

- Summarise the main points of the unit.
- Ask participants if they have any doubts. Encourage them to ask questions.
- Answer their queries satisfactorily.
- Ask them to answer the questions at the end of unit given in the participant’s manual.
- Ensure that every participant answer all questions.

Activity

- Tell participants they have to prepare a spread sheet on MS Excel Software.
- Share data of a class with the participants in which participants name, height, weight and age is given.
- Tell them they need to perform following operations while working on, Add Command to the quick access tool bar, Change the default excel options, Cell Addresses, Move Across a worksheet using key board, Formatting, Calculation and Analysis, Change page orientation
- Give them one and half hour to prepare the same.
- Finally share some tips for correct data typing and summarise the highlights of the activity.

<table>
<thead>
<tr>
<th>Skill Practice</th>
<th>Time</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Preparing Spread Sheet on MS Excel</td>
<td>4 Hours</td>
<td>• Participant Manual</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Computer Lab with MS Office Software</td>
</tr>
</tbody>
</table>
Unit 12.8: Internet Concepts

Unit Objectives

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

- Understand internet concepts.
- Recognise the different types of URLs.
- Use MS-Outlook.

Resources to be Used

- Participant Manual
- Computer with Internet

Do

- Greet and welcome the participants to the next session of the program.
- Before starting the session ask them do they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they will learn about internet concept in this unit.

Say

- Tell them about internet and its uses.
- Explain the concept of URL. The full form of URL is Uniform Resource Locator. It is the global address of documents and other resources on the World Wide Web. The URL is divided into two different parts. The first part of the URL is called a protocol identifier as it helps us identifying what protocol to use.
- Now tell them about different types of URLs.
Demonstrate

- Tell them now they will learn how to open an email account in outlook.
- Demonstrate the entire process to the participants. Make sure every student should open an e-mail account.
- Now tell them how to create and send an e-mail. Explain the entire steps in detail.
- Now show them how to read an email and reply email.
- Then explain attachment. The process of attaching a file or document.

Notes for Facilitation

- Summarise the main points of the unit.
- Ask participants if they have any doubts. Encourage them to ask questions.
- Answer their queries satisfactorily.
- Ask them to answer the questions at the end of unit given in the participant’s manual.
- Ensure that every participant answer all questions.

Activity

- Tell participants they have send emails to other participants with an attachment.
- Tell them first they need to create a word, excel or power point. They can choose between any three of the formats.
- Give 2 hours for each participant for this entire activity.
- Once activity is complete share some tips of e-mail etiquette with them and summarise the highlights of the activity.

<table>
<thead>
<tr>
<th>Skill Practice</th>
<th>Time</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Send e-mail with attachment</td>
<td>2 Hours</td>
<td>Computers with Internet</td>
</tr>
</tbody>
</table>
13. Employability and Entrepreneurship Skills

Unit 13.1 – Personal Strengths & Value Systems
Unit 13.2 – Digital Literacy: A Recap
Unit 13.3 – Money Matters
Unit 13.4 – Preparing for Employment & Self Employment
Unit 13.5 – Understanding Entrepreneurship
Unit 13.6 – Preparing to be an Entrepreneur
At the end of this module, you 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. Understand 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. Understand 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 how to maintain a positive attitude
15. Discuss the role of attitude in self-analysis
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
32. Identify the basic parts of a computer
33. Identify the basic parts of a keyboard
34. Recall basic computer terminology
35. Recall basic computer terminology
36. Recall the functions of basic computer keys
37. Discuss the main applications of MS Office
38. Discuss the benefits of Microsoft Outlook
39. Discuss the different types of e-commerce
40. List the benefits of e-commerce for retailers and customers
41. Discuss how the Digital India campaign will help boost e-commerce in India
42. Explain how you will sell a product or service on an e-commerce platform
43. Discuss the importance of saving money
44. Discuss the benefits of saving money
45. Discuss the main types of bank accounts
46. Describe the process of opening a bank account
47. Differentiate between fixed and variable costs
48. Describe the main types of investment options
49. Describe the different types of insurance products
50. Describe the different types of taxes
51. Discuss the uses of online banking
52. Discuss the main types of electronic funds transfers
53. Discuss the steps to prepare for an interview
54. Discuss the steps to create an effective Resume
55. Discuss the most frequently asked interview questions
56. Discuss how to answer the most frequently asked interview questions
57. Discuss basic workplace terminology
58. Discuss the concept of entrepreneurship
59. Discuss the importance of entrepreneurship
60. Describe the characteristics of an entrepreneur
61. Describe the different types of enterprises
62. List the qualities of an effective leader
63. Discuss the benefits of effective leadership
64. List the traits of an effective team
65. Discuss the importance of listening effectively
66. Discuss how to listen effectively
67. Discuss the importance of speaking effectively
68. Discuss how to speak effectively
69. Discuss how to solve problems
70. List important problem solving traits
71. Discuss ways to assess problem solving skills
72. Discuss the importance of negotiation
73. Discuss how to negotiate
74. Discuss how to identify new business opportunities
75. Discuss how to identify business opportunities within your business
76. Understand the meaning of entrepreneur
77. Describe the different types of entrepreneurs
78. List the characteristics of entrepreneurs
79. Recall entrepreneur success stories
80. Discuss the entrepreneurial process
81. Describe the entrepreneurship ecosystem
82. Discuss the government’s role in the entrepreneurship ecosystem
83. Discuss the current entrepreneurship ecosystem in India
84. Understand the purpose of the Make in India campaign
85. Discuss the relationship between entrepreneurship and risk appetite
86. Discuss the relationship between entrepreneurship and resilience
87. Describe the characteristics of a resilient entrepreneur
88. Discuss how to deal with failure
89. Discuss how market research is carried out
90. Describe the 4 Ps of marketing
91. Discuss the importance of idea generation
92. Recall basic business terminology
93. Discuss the need for CRM
94. Discuss the benefits of CRM
95. Discuss the need for networking
96. Discuss the benefits of networking
97. Understand the importance of setting goals
98. Differentiate between short-term, medium-term and long-term goals
99. Discuss how to write a business plan
100. Explain the financial planning process
101. Discuss ways to manage your risk
102. Describe the procedure and formalities for applying for bank finance
UNIT 13.1: Personal Strengths & Value Systems

Unit Objectives

At the end of the unit, students 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. Understand 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. Understand 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 how to maintain a positive attitude
15. Discuss the role of attitude in self-analysis
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
Resources to be Used

- Available objects such as black or white Board, chalk pieces or white board marker pens, duster.
- Pc with LCD Projector or Flip Chart.
- Participant Manual.
- Copies of Handouts.

Do

- Greet and welcome the participants to the next session of the program.
- Before starting the session ask them do they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they will learn about Personal Strengths and value systems.

Say

- Tell the participants about the Health, Habits and Hygiene. What is Health? As per the World Health Organization (WHO), health is a “State of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity.”

Elaborate

Explain – This means being healthy does not simply mean not being unhealthy – it also means you need to be at peace emotionally, and feel fit physically. For example, you cannot say you are healthy simply because you do not have any physical ailments like a cold or cough. You also need to think about whether you are feeling calm, relaxed and happy.

Common Health Issues

Some common health issues are:

- Allergies
- Asthma
- Skin Disorders
- Depression and Anxiety
- Diabetes
- Cough, Cold, Sore Throat
- Difficulty Sleeping
- Obesity
• Give participants some tips to prevent health issues.

Elaborate

Explain – Taking measures to prevent ill health is always better than curing a disease or sickness. You can stay healthy by:

• Eating healthy foods like fruits, vegetables and nuts
• Cutting back on unhealthy and sugary foods
• Drinking enough water everyday
• Not smoking or drinking alcohol
• Exercising for at least 30 minutes a day, 4-5 times a week
• Taking vaccinations when required
• Practicing yoga exercises and meditation

How many of these health standards do you follow? Tick the ones that apply to you.

• Get minimum 7-8 hours of sleep every night.
• Avoid checking email first thing in the morning and right before you go to bed at night.
• Don’t skip meals – eat regular meals at correct meal times.
• Read a little bit every single day.
• Eat more home cooked food than junk food
• Stand more than you sit.
• Drink a glass of water first thing in the morning and have at least 8 glasses of water through the day.
• Go to the doctor and dentist for regular checkups.
• Exercise for 30 minutes at least 5 days a week.
• Avoid consuming lots of aerated beverages.

Say

• Tell the participants what is hygiene. As per the World Health Organization (WHO), “Hygiene refers to conditions and practices that help to maintain health and prevent the spread of diseases.” In other words, hygiene means ensuring that you do whatever is required to keep your surroundings clean, so that you reduce the chances of spreading germs and diseases.
Elaborate

Explain – For instance, think about the kitchen in your home. Good hygiene means ensuring that the kitchen is always spick and span, the food is put away, dishes are washed and dustbins are not overflowing with garbage. Doing all this will reduce the chances of attracting pests like rats or cockroaches, and prevent the growth of fungus and other bacteria, which could spread disease.

How many of these health standards do you follow? Tick the ones that apply to you.

• Have a bath or shower every day with soap – and wash your hair with shampoo 2-3 times a week.
• Wear a fresh pair of clean undergarments every day.
• Brush your teeth in the morning and before going to bed.
• Cut your fingernails and toenails regularly.
• Wash your hands with soap after going to the toilet.
• Use an anti-perspirant deodorant on your underarms if you sweat a lot.
• Wash your hands with soap before cooking or eating.
• Stay home when you are sick, so other people don’t catch what you have.
• Wash dirty clothes with laundry soap before wearing them again.
• Cover your nose with a tissue/your hand when coughing or sneezing.

See how healthy and hygienic you are, by giving yourself 1 point for every ticked statement! Then take a look at what your score means.

Your Score

• 0-7/20: You need to work a lot harder to stay fit and fine! Make it a point to practice good habits daily and see how much better you feel!
• 7-14/20: Not bad, but there is scope for improvement! Try and add a few more good habits to your daily routine.
• 14-20/20: Great job! Keep up the good work! Your body and mind thank you.

Say

• Tell the participants about the Swatch Bharat Abhiyan. The ‘Swachh Bharat Abhiyan’ (Clean India Mission) launched by Prime Minister Shri Narendra Modi on 2nd October 2014, believes in doing exactly this. The aim of this mission is to clean the streets and roads of India and raise the overall level of cleanliness. Currently this mission covers 4,041 cities and towns across the country. Millions of our people have taken the pledge for a clean India. You should take the pledge too, and do everything possible to keep our country clean!
• Also tell the participants about the habits.
Elaborate

Explain – A habit is a behaviour that is repeated frequently. All of us have good habits and bad habits. Keep in mind the phrase by John Dryden: “We first make our habits, and then our habits make us.” This is why it is so important that you make good habits a way of life, and consciously avoid practicing bad habits.

Some good habits that you should make part of your daily routine are:

- Always having a positive attitude
- Making exercise a part of your daily routine
- Reading motivational and inspirational stories
- Smiling! Make it a habit to smile as often as possible
- Making time for family and friends
- Going to bed early and waking up early

Some bad habits that you should quit immediately are:

- Skipping breakfast
- Snacking frequently even when you are not hungry
- Eating too much fattening and sugary food
- Smoking, drinking alcohol and doing drugs
- Spending more money than you can afford
- Worrying about unimportant issues
- Staying up late and waking up late

Do

Give participants some safety tips to design a safe workplace. Every employer is obligated to ensure that his workplace follows the highest possible safety protocol. When setting up a business, owners must make it a point to:

- Use ergonomically designed furniture and equipment to avoid stooping and twisting
- Provide mechanical aids to avoid lifting or carrying heavy objects
- Have protective equipment on hand for hazardous jobs
- Designate emergency exits and ensure they are easily accessible
- Set down health codes and ensure they are implemented
- Follow the practice of regular safety inspections in and around the workplace
- Ensure regular building inspections are conducted
- Get expert advice on workplace safety and follow it
Tell the participants about the Negotiable Employee Safety Habits.

Tell them — Every employer is obligated to ensure that his workplace follows the highest possible safety protocol. When setting up a business, owners must make it a point to:

- Immediately report unsafe conditions to a supervisor
- Recognize and report safety hazards that could lead to slips, trips and falls
- Report all injuries and accidents to a supervisor
- Wear the correct protective equipment when required
- Learn how to correctly use equipment provided for safety purposes
- Be aware of and avoid actions that could endanger other people
- Take rest breaks during the day and some time off from work during the week

Tell the participants about the Self Analysis. To truly achieve your full potential, you need to take a deep look inside yourself and find out what kind of person you really are. This attempt to understand your personality is known as self-analysis. Assessing yourself in this manner will help you grow, and will also help you to identify areas within yourself that need to be further developed, changed or eliminated.

Tell the participants about the motivation. Very simply put, motivation is your reason for acting or behaving in a certain manner. It is important to understand that not everyone is motivated by the same desires — people are motivated by many, many different things. We can understand this better by looking at Maslow’s Hierarchy of Needs.

Also tell the participants about the Maslow’s Hierarchy of needs.

Tell them — Famous American psychologist Abraham Maslow wanted to understand what motivates people. He believed that people have five types of needs, ranging from very basic needs (called physiological needs) to more important needs that are required for self-growth (called self-actualization needs). Between the physiological and self-actualization needs are three other needs — safety needs, belongingness and love needs, and esteem needs. These needs are usually shown as a pyramid with five levels and are known as Maslow’s Hierarchy of Needs.
As you can see from the pyramid, the lowest level depicts the most basic needs. Maslow believed that our behaviour is motivated by our basic needs, until those needs are met. Once they are fulfilled, we move to the next level and are motivated by the next level of needs. Let’s understand this better with an example:

“Rupa comes from a very poor family. She never has enough food, water, warmth or rest. According to Maslow, until Rupa is sure that she will get these basic needs, she will not even think about the next level of needs – her safety needs. But, once Rupa is confident that her basic needs will be met, she will move to the next level, and her behaviour will then be motivated by her need for security and safety. Once these new needs are met, Rupa will once again move to the next level, and be motivated by her need for relationships and friends. Once this need is satisfied, Rupa will then focus on the fourth level of needs – her esteem needs, after which she will move up to the fifth and last level of needs – the desire to achieve her full potential.”

**Say**

- Tell the participants about the Achievements Motivation. We now know that people are motivated by basic, psychological and self-fulfilment needs. However, certain people are also motivated by the achievement of highly challenging accomplishments. This is known as Achievement Motivation, or ‘need for achievement’.

**Elaborate**

Tell them – The level of motivation achievement in a person differs from individual to individual. It is important that entrepreneurs have a high level of achievement motivation – a deep desire to accomplish something important and unique. It is equally important that they hire people who are also highly motivated by challenges and success.

**Characteristics of Entrepreneurs with Achievement Motivation**

- Entrepreneurs with achievement motivation can be described as follows:
- Unafraid to take risks for personal accomplishment
- Love being challenged Future-oriented Flexible and adaptive
- Value negative feedback more than positive feedback
- Very persistent when it comes to achieving goals
- Extremely courageous
- Highly creative and innovative
- Restless - constantly looking to achieve more
- Feel personally responsible for solving problems

**Think about it:**

- How many of these traits do you have?
- Can you think of entrepreneurs who display these traits?
Tell the participants how to cultivate a positive attitude. The good news is attitude is a choice. So it is possible to improve, control and change our attitude, if we decide we want to!

Tell them – The following tips help foster a positive mindset:
- Remember that you control your attitude, not the other way around
- Devote at least 15 minutes a day towards reading, watching or listening to something positive
- Avoid negative people who only complain and stop complaining yourself
- Expand your vocabulary with positive words and delete negative phrases from your mind
- Be appreciative and focus on what’s good in yourself, in your life, and in others
- Stop thinking of yourself as a victim and start being proactive
- Imagine yourself succeeding and achieving your goals

Tell the participants about the attitude. Now that we understand why motivation is so important for self-analysis, let’s look at the role our attitude plays in better understanding ourselves. Attitude can be described as your tendency (positive or negative), to think and feel about someone or something.

Tell them – Attitude is the foundation for success in every aspect of life. Our attitude can be our best friend or our worst enemy. In other words:

“The only disability in life is a bad attitude.”

When you start a business, you are sure to encounter a wide variety of emotions, from difficult times and failures to good times and successes. Your attitude is what will see you through the tough times and guide you towards success. Attitude is also infectious. It affects everyone around you, from your customers to your employees to your investors. A positive attitude helps build confidence in the workplace while a negative attitude is likely to result in the demotivation of your people.
Tell the participants about the Honesty and Work Ethics. Honesty is the quality of being fair and truthful. It means speaking and acting in a manner that inspires trust.

Tell them – A person who is described as honest is seen as truthful and sincere, and as someone who isn’t deceitful or devious and doesn’t steal or cheat. There are two dimensions of honesty – one is honesty in communication and the other is honesty in conduct. Honesty is an extremely important trait because it results in peace of mind and builds relationships that are based on trust. Being dishonest, on the other hand, results in anxiety and leads to relationships full of distrust and conflict.

Tell the participants about the Qualities of Honesty People.

Tell them – Honest individuals have certain distinct characteristics. Some common qualities among honest people are:

- They don’t worry about what others think of them. They believe in being themselves – they don’t bother about whether they are liked or disliked for their personalities.
- They stand up for their beliefs. They won’t think twice about giving their honest opinion, even if they are aware that their point of view lies with the minority.
- They are think skinned. This means they are not affected by others judging them harshly for their honest opinions.
- They forge trusting, meaningful and healthy friendships. Honest people usually surround themselves with honest friends. They have faith that their friends will be truthful and upfront with them at all times.

They are trusted by their peers. They are seen as people who can be counted on for truthful and objective feedback and advice.

- **Honesty and employees**: When entrepreneurs build honest relationships with their employees, it leads to more transparency in the workplace, which results in higher work performance and better results.
- **Honesty and investors**: For entrepreneurs, being honest with investors means not only sharing strengths but also candidly disclosing current and potential weaknesses, problem areas and solution strategies. Keep
in mind that investors have a lot of experience with startups and are aware that all new companies have problems. Claiming that everything is perfectly fine and running smoothly is a red flag for most investors.

- **Honesty with oneself:** The consequences of being dishonest with oneself can lead to dire results, especially in the case of entrepreneurs. For entrepreneurs to succeed, it is critical that they remain realistic about their situation at all times, and accurately judge every aspect of their enterprise for what it truly is.

**What are Work Ethics?**

Being ethical in the workplace means displaying values like honesty, integrity and respect in all your decisions and communications. It means not displaying negative qualities like lying, cheating and stealing. Workplace ethics play a big role in the profitability of a company. It is as crucial to an enterprise as high morale and teamwork. This is why most companies lay down specific workplace ethic guidelines that must compulsorily be followed by their employees. These guidelines are typically outlined in a company’s employee handbook.

**Say**

- Tell the participants about the Elements of Work Ethics.

**Elaborate**

Tell them – An entrepreneur must display strong work ethics, as well as hire only those individuals who believe in and display the same level of ethical behavior in the workplace. Some elements of a strong work ethic are:

- **Professionalism:** This involves everything from how you present yourself in a corporate setting to the manner in which you treat others in the workplace.

- **Respectfulness:** This means remaining poised and diplomatic regardless of how stressful or volatile a situation is.

- **Dependability:** This means always keeping your word, whether it’s arriving on time for a meeting or delivering work on time.

- **Dedication:** This means refusing to quit until the designated work is done, and completing the work at the highest possible level of excellence.

- **Determination:** This means embracing obstacles as challenges rather than letting them stop you, and pushing ahead with purpose and resilience to get the desired results.

- **Accountability:** This means taking responsibility for your actions and the consequences of your actions, and not making excuses for your mistakes.

- **Humility:** This means acknowledging everyone’s efforts and had work, and sharing the credit for accomplishments.
Tell the participants how to foster a good work ethic. As an entrepreneur, it is important that you clearly define the kind of behavior that you expect from each and every team member in the workplace.

Tell them – You should make it clear that you expect employees to display positive work ethics like:

- **Honesty**: All work assigned to a person should be done with complete honesty, without any deceit or lies.
- **Good attitude**: All team members should be optimistic, energetic, and positive.
- **Reliability**: Employees should show up where they are supposed to be, when they are supposed to be there.
- **Good work habits**: Employees should always be well groomed, never use inappropriate language, conduct themselves professionally at all times, etc.
- **Initiative**: Doing the bare minimum is not enough. Every team member needs to be proactive and show initiative.
- **Trustworthiness**: Trust is non-negotiable. If an employee cannot be trusted, it’s time to let that employee go.
- **Respect**: Employees need to respect the company, the law, their work, their colleagues and themselves.
- **Integrity**: Each and every team member should be completely ethical and must display above board behaviour at all times.
- **Efficiency**: Efficient employees help a company grow while inefficient employees result in a waste of time and resources.

Tell the participants about the creativity and innovation.

What is Creativity?
Creativity means thinking outside the box. It means viewing things in new ways or from different perspectives, and then converting these ideas into reality. Creativity involves two parts: thinking and producing. Simply having an idea makes you imaginative, not creative. However, having an idea and acting on it makes you creative.
Characteristics of Highly Creative People
Some characteristics of creative people are:

• They are imaginative and playful
• They see issues from different angles
• They notice small details
• They have very little tolerance for boredom
• They detest rules and routine
• They love to daydream
• They are very curious

What is Innovation?
There are many different definitions of innovation. In simple terms, innovation means turning an idea into a solution that adds value. It can also mean adding value by implementing a new product, service or process, or significantly improving on an existing product, service or process.

Characteristics of Highly Innovative People
Some characteristics of highly innovative people are:

• They embrace doing things differently
• They don’t believe in taking shortcuts
• They are not afraid to be unconventional
• They are highly proactive and persistent
• They are organized, cautious and risk-averse

Say

• Tell the participants about the Time Management. Time management is the process organizing your time, and deciding how to allocate your time between different activities. Good time management is the difference between working smart (getting more done in less time) and working hard (working for more time to get more done).

Elaborate

Tell them – Effective time management leads to an efficient work output, even when you are faced with tight deadlines and high pressure situations. On the other hand, not managing your time effectively results in inefficient output and increases stress and anxiety.

Benefits of Time Management
Time management can lead to huge benefits like:

• Greater productivity
• Higher efficiency
• Better professional reputation
• Reduced stress
• Higher chances for career advancement
• Greater opportunities to achieve goals

Not managing time effectively can result in undesirable consequences like:
• Missing deadlines
• Inefficient work output
• Substandard work quality
• Poor professional reputation
• Stalled career
• Increase in stress and anxiety

**Do**

Discuss with the participants about the Traits of effective Time Managers. Some traits of effective time managers are:
• They begin projects early
• They set daily objectives
• They modify plans if required, to achieve better results
• They are flexible and open-minded
• They inform people in advance if their help will be required
• They know how to say no
• They break tasks into steps with specific deadlines
• They continually review long term goals
• They think of alternate solutions if and when required
• They ask for help when required

**Say**

• Tell the participants about the effective time management techniques.
Elaborate

Tell them – You can manage your time better by putting into practice certain time management techniques. Some helpful tips are:

- Plan out your day as well as plan for interruptions. Give yourself at least 30 minutes to figure out your time plan. In your plan, schedule some time for interruptions.
- Put up a “Do Not Disturb” sign when you absolutely have to complete a certain amount of work.
- Close your mind to all distractions. Train yourself to ignore ringing phones, don’t reply to chat messages and disconnect from social media sites.
- Delegate your work. This will not only help your work get done faster, but will also show you the unique skills and abilities of those around you.
- Stop procrastinating. Remind yourself that procrastination typically arises due to the fear of failure or the belief that you cannot do things as perfectly as you wish to do them.
- Prioritize. List each task to be completed in order of its urgency or importance level. Then focus on completing each task, one by one.
- Maintain a log of your work activities. Analyze the log to help you understand how efficient you are, and how much time is wasted every day.
- Create time management goals to reduce time wastage.

Say

- Now tell the participants about the Anger Management.

Elaborate

Tell them – Anger management is the process of:

- Learning to recognize the signs that you, or someone else, is becoming angry
- Taking the best course of action to calm down the situation in a positive way Anger management does not mean suppressing anger.

Importance of Anger Management

Anger is a perfectly normal human emotion. In fact, when managed the right way, anger can be considered a healthy emotion. However, if it is not kept in check, anger can make us act inappropriately and can lead to us saying or doing things that we will likely later regret.

Extreme anger can:

- Hurt you physically: It leads to heart disease, diabetes, a weakened immune system, insomnia, and high blood pressure.
- Hurt you mentally: It can cloud your thinking and lead to stress, depression and mental health issues.
• Hurt your career: It can result in alienating your colleagues, bosses, clients and lead to the loss of respect.

• Hurt your relationships: It makes it hard for your family and friends to trust you, be honest with you and feel comfortable around you.

This is why anger management, or managing anger appropriately, is so important.

**Tell the participants about the Anger Management Strategies.**

**Elaborate**

Tell them – Here are some strategies that can help you control your anger:

**Strategy 1: Relaxation**

Something as simple as breathing deeply and looking at relaxing images works wonders in calming down angry feelings. Try this simple breathing exercise:

• Take a deep breath from your diaphragm (don’t breathe from your chest)
• Visualize your breath coming up from your stomach
• Keep repeating a calming word like ‘relax’ or ‘take it easy’ (remember to keep breathing deeply while repeating the word)
• Picture a relaxing moment (this can be from your memory or your imagination)

Follow this relaxation technique daily, especially when you realize that you’re starting to feel angry.

**Strategy 2: Cognitive Restructuring**

Cognitive restructuring means changing the manner in which you think. Anger can make you curse, swear, exaggerate and act very dramatically. When this happens, force yourself to replace your angry thoughts with more logical ones. For instance, instead of thinking ‘Everything is ruined’ change your mindset and tell yourself ‘It’s not the end of the world and getting angry won’t solve this’.

**Strategy 3: Problem Solving**

Getting angry about a problem that you cannot control is a perfectly natural response. Sometimes, try as you may, there may not be a solution to the difficulty you are faced with. In such cases, stop focusing on solving the problem, and instead focus on handling and facing the problem. Remind yourself that you will do your best to deal with the situation, but that you will not blame yourself if you don’t get the solution you desire.

**Strategy 4: Better Communication**

When you’re angry, it is very easy to jump to inaccurate conclusions. In this case, you need to force yourself to stop reacting, and think carefully about what you want to say, before saying it. Avoid saying the first thing that enters your head. Force yourself to listen carefully to what the other person is saying. Then think about the conversation before responding.
Strategy 5: Changing Your Environment

If you find that your environment is the cause of your anger, try and give yourself a break from your surroundings. Make an active decision to schedule some personal time for yourself, especially on days that are very hectic and stressful. Having even a brief amount of quiet or alone time is sure to help calm you down.

Say

• Tell the participants about the Stress Management. We say we are ‘stressed’ when we feel overloaded and unsure of our ability to deal with the pressures placed on us. Anything that challenges or threatens our well-being can be defined as a stress.

Elaborate

Tell them – It is important to note that stress can be good and bad. While good stress keeps us going, negative stress undermines our mental and physical health. This is why it is so important to manage negative stress effectively.

Causes of Stress

Stress can be caused by internal and external factors.

Internal causes of stress:
• Constant worry
• Rigid thinking
• Unrealistic expectations
• Pessimism
• Negative self-talk
• All in or all out attitude

External causes of stress:
• Major life changes
• Difficulties with relationships
• Having too much to do
• Difficulties at work or in school
• Financial difficulties
• Worrying about one’s children and/or family
Tell the participants about the Symptoms of Stress.

Tell them – Stress can manifest itself in numerous ways. Take a look at the cognitive, emotional, physical and behavioral symptoms of stress.

<table>
<thead>
<tr>
<th>Cognitive Symptoms</th>
<th>Emotion Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memory problems</td>
<td>Depression</td>
</tr>
<tr>
<td>Concentration issues</td>
<td>Agitation</td>
</tr>
<tr>
<td>Lack of judgement</td>
<td>Irritability</td>
</tr>
<tr>
<td>Pessimism</td>
<td>Loneliness</td>
</tr>
<tr>
<td>Anxiety</td>
<td>Anxiety</td>
</tr>
<tr>
<td>Constant worrying</td>
<td>Anger</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Physical Symptoms</th>
<th>Behavioral Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aches and pain</td>
<td>Increase or decrease in appetite</td>
</tr>
<tr>
<td>Diarrhea or constipation</td>
<td>Over sleeping or not sleeping enough</td>
</tr>
<tr>
<td>Nausea</td>
<td>Withdrawing socially</td>
</tr>
<tr>
<td>Dizziness</td>
<td>Ignoring responsibilities</td>
</tr>
<tr>
<td>Chest pain and/or rapid heartbeat</td>
<td>Consumption of alcohol or cigarettes</td>
</tr>
<tr>
<td>Frequent cold or flu like feelings</td>
<td>Nervous habits like nail biting, pacing etc.</td>
</tr>
</tbody>
</table>

Give participants Tips for managing Stress. The following tips can help you manage your stress better:

- Note down the different ways in which you can handle the various sources of your stress.
- Remember that you cannot control everything, but you can control how you respond.
- Discuss your feelings, opinions and beliefs rather than reacting angrily, defensively or passively.
- Practice relaxation techniques like meditation, yoga or tai chi when you start feeling stressed.
- Devote a part of your day towards exercise.
- Eat healthy foods like fruits and vegetables. Avoid unhealthy foods especially those containing large amounts of sugar.
• Plan your day so that you can manage your time better, with less stress.
• Say no to people and things when required.
• Schedule time to pursue your hobbies and interests.
• Ensure you get at least 7-8 hours of sleep.
• Reduce your caffeine intake.
• Increase the time spent with family and friends.

Notes for Facilitation

• Summarise the main points of the unit.
• Ask participants if they have any doubts. Encourage them to ask questions.
• Answer their queries satisfactorily.
• Ask them to answer the questions at the end of unit given in the participant’s manual.
• Ensure that every participant answer all questions.

Activity

• Divide the class into two equal groups.
• Tell the participants they have to give a presentation on Work Ethics and Innovation.
• Tell them they would be given a time of 20 minute for preparation. The time for presentation for each group should not exceed 20 minutes per group.
• Once the presentations are complete appreciate the efforts made by the group and summarize the highlights of the activity.

<table>
<thead>
<tr>
<th>Skill Practice</th>
<th>Time</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Presentation on work ethics and innovation</td>
<td>2 Hours</td>
<td>• Charts and markers</td>
</tr>
</tbody>
</table>
UNIT 11.2: Digital Literacy: A Recap

Unit Objectives

At the end of the unit, students 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 basic computer terminology
5. Recall the functions of basic computer keys
6. Discuss the main applications of MS Office
7. Discuss the benefits of Microsoft Outlook
8. Discuss the different types of e-commerce
9. List the benefits of e-commerce for retailers and customers
10. Discuss how the Digital India campaign will help boost e-commerce in India
11. Describe how you will sell a product or service on an e-commerce platform

Resources to be Used

- Available objects such as black or white Board, chalk pieces or white board marker pens, duster.
- Pc with LCD Projector or Flip Chart.
- Participant Manual.
- Copies of Handouts.

Do

- Greet and welcome the participants to the next session of the program.
- Before starting the session ask them do they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they will learn about Digital Literacy.

Say

- Tell the participants about the basic parts of a Computer.
**Elaborate**

- **Central Processing Unit (CPU):** The brain of the computer. It interprets and carries out program instructions.
- **Hard Drive:** A device that stores large amounts of data.
- **Monitor:** The device that contains the computer screen where the information is visually displayed.
- **Desktop:** The first screen displayed after the operating system loads.
- **Background:** The image that fills the background of the desktop.
- **Mouse:** A hand-held device used to point to items on the monitor.
- **Speakers:** Devices that enable you to hear sound from the computer.
- **Printer:** A device that converts output from a computer into printed paper documents.
- **Icon:** A small picture or image that visually represents something on your computer.
- **Cursor:** An arrow which indicates where you are positioned on the screen.
- **Program Menu:** A list of programs on your computer that can be accessed from the Start menu.
- **Taskbar:** The horizontal bar at the bottom of the computer screen that lists applications that are currently in use.
- **Recycle Bin:** A temporary storage for deleted files.

**Do**

Discuss with the participants about the basic internet terms.

- **The Internet:** Avast, international collection of computer networks that transfers information.
- **The World Wide Web:** A system that lets you access information on the Internet.
- **Website:** A location on the World Wide Web (and Internet) that contains information about a specific topic.
- **Homepage:** Provides information about a website and directs you to other pages on that website.
- **Link/Hyperlink:** A highlighted or underlined icon, graphic, or text that takes you to another file or object.
- **Web Address/URL:** The address for a website.
- **Address Box:** A box in the browser window where you can type in a web address.

**Say**

- **Tell the participants about the basic computer keys.**
  - Arrow Keys: Press these keys to move your cursor.
  - Space bar: Adds a space.
  - Enter/Return: Moves your cursor to a new line.
  - Shift: Press this key if you want to type a capital letter or the upper symbol of a key.
» Caps Lock: Press this key if you want all the letters you type to be capital letters. Press it again to revert back to typing lowercase letters.
» Backspace: Deletes everything to the left of your cursor.

- Also tell the participants about the MS office and Email.

Elaborate

Tell them – MS Office or Microsoft Office is a suite of computer programs developed by Microsoft. Although meant for all users, it offers different versions that cater specifically to students, home users and business users. All the programs are compatible with both, Windows and Macintosh.

Most Popular Office Products

Some of the most popular and universally used MS Office applications are:

1. **Microsoft Word**: Allows users to type text and add images to a document.
2. **Microsoft Excel**: Allows users to enter data into a spreadsheet and create calculations and graphs.
3. **Microsoft PowerPoint**: Allows users to add text, pictures and media and create slideshows and presentations.
4. **Microsoft Outlook**: Allows users to send and receive email.
5. **Microsoft OneNote**: Allows users to make drawings and notes with the feel of a pen on paper.
6. **Microsoft Access**: Allows users to store data over many tables.

Why Choose Microsoft Outlook

A popular email management choice especially in the workplace, Microsoft Outlook also includes an address book, notebook, web browser and calendar. Some major benefits of this program are:

- Integrated search function: You can use keywords to search for data across all Outlook programs.
- Enhanced security: Your email is safe from hackers, junk mail and phishing website email.
- Email syncing: Sync your mail with your calendar, contact list, notes in One Note and...your phone!
- Offline access to email: No Internet? No problem! Write emails offline and send them when you’re connected again.

Say

- Tell the participants about the E-Commerce. E-commerce is the buying or selling of goods and services, or the transmitting of money or data, electronically on the internet. E-Commerce is the short form for “electronic commerce.”
Elaborate

Tell them – Followings are the examples of E-Commerce:

- Online shopping
- Online auctions
- Online ticketing
- Electronic payments
- Internet banking

Types of E-Commerce

E-commerce can be classified based on the types of participants in the transaction. The main types of e-commerce are:

- **Business to Business (B2B):** Both the transacting parties are businesses.
- **Business to Consumer (B2C):** Businesses sell electronically to end-consumers.
- **Consumer to Consumer (C2C):** Consumers come together to buy, sell or trade items to other consumers.
- **Consumer-to-Business (C2B):** Consumers make products or services available for purchase to companies looking for exactly those services or products.
- **Business-to-Administration (B2A):** Online transactions conducted between companies and public administration.
- **Consumer-to-Administration (C2A):** Online transactions conducted between individuals and public

The e-commerce business provides some benefits for retailers and customers.

**Benefits for retailers:**

- Establishes an online presence
- Reduces operational costs by removing overhead costs
- Increases brand awareness through the use of good keywords
- Increases sales by removing geographical and time constraints

**Benefits for customers:**

- Offers a wider range of choice than any physical store
- Enables goods and services to be purchased from remote locations
- Enables consumers to perform price comparisons

Do

- Discuss with the participants about the Digital India Campaign. Prime Minister Narendra Modi launched the Digital India campaign in 2015, with the objective of offering every citizen of India access to digital services, knowledge and information. The campaign aims to improve the country’s online infrastructure and increase internet connectivity, thus boosting the e-commerce industry.
- Currently, the majority of online transactions come from tier 2 and tier 3 cities. Once the Digital India campaign is in place, the government will deliver services through mobile connectivity, which will help deliver internet
to remote corners of the country. This will help the e-commerce market to enter India’s tier 4 towns and rural areas.

E-Commerce Activity
Choose a product or service that you want to sell online. Write a brief note explaining how you will use existing e-commerce platforms, or create a new e-commerce platform, to sell your product or service.

Notes for Facilitation
- Summarise the main points of the unit.
- Ask participants if they have any doubts. Encourage them to ask questions.
- Answer their queries satisfactorily.
- Ask them to answer the questions at the end of unit given in the participant’s manual.
- Ensure that every participant answer all questions.

Activity
- Divide the class into two equal groups.
- Tell the participants they have to demonstration the steps of opening a Bank account and on online banking.
- Tell them they would be given a time of 20 minute for preparation. The time for presentation for each group should not exceed 20 minutes per group.
- Once the presentations are complete appreciate the efforts made by the group and summarize the highlights of the activity.

<table>
<thead>
<tr>
<th>Skill Practice</th>
<th>Time</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Demonstrate the process of opening a bank account and how to use online banking</td>
<td>2 Hours</td>
<td>Charts and markers</td>
</tr>
</tbody>
</table>
UNIT 13.3: Money Matters

Unit Objectives

At the end of the unit, students 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 transfers

Resources to be Used

- Available objects such as black or white Board, chalk pieces or white board marker pens, duster.
- PC with LCD Projector or Flip Chart.
- Participant Manual.
- Copies of Handouts.

Do

- Greet and welcome the participants to the next session of the program.
- Before starting the session ask them do they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they will learn about Money Matters.

Say

- Tell the participants about the Personal Finance. We all know that the future is unpredictable. You never know what will happen tomorrow, next week or next year. That’s why saving money steadily through the years is so important.
Elaborate

Tell them – Saving money will help improve your financial situation over time. But more importantly, knowing that you have money stashed away for an emergency will give you peace of mind. Saving money also opens the door to many more options and possibilities.

Benefits of Saving

Inculcating the habit of saving leads to a vast number of benefits. Saving helps you:

- **Become financially independent**: When you have enough money saved up to feel secure you can start making your choices, from taking a vacation whenever you want, to switching careers or starting your own business.
- **Invest in yourself through education**: Through saving, you can earn enough to pay up for courses that will add to your professional experience and ultimately result in higher paying jobs.
- **Get out of debt**: Once you have saved enough as a reserve fund, you can use your savings to pay off debts like loans or bills that have accumulated over time.
- **Be prepared for surprise expenses**: Having money saved enables you to pay for unforeseen expenses like sudden car or house repairs, without feeling financially stressed.
- **Pay for emergencies**: Saving helps you deal with emergencies like sudden health issues or emergency trips without feeling financially burdened.
- **Afford large purchases and achieve major goals**: Saving diligently makes it possible to place down payments towards major purchases and goals, like buying a home or a car.
- **Retire**: The money you have saved over the years will keep you comfortable when you no longer have the income you would get from your job.

Say

- Tell the participants about the Types of Bank Accounts.

Elaborate

Tell them – In India, banks offer four main types of bank accounts. These are:

- **Current Accounts**
- **Savings Accounts**
- **Recurring Deposit Accounts**
- **Fixed Deposit Accounts**

**Current Accounts**

Current accounts offer the most liquid deposits and thus, are best suited for businessmen and companies. As these accounts are not meant for investments and savings, there is no imposed limit on the number or amount of transactions that can be made on any given day. Current account holders are not paid any interest on the amounts held in their accounts. They are charged for certain services offered on such accounts.
**Savings Accounts**
Savings accounts are meant to promote savings, and are therefore the number one choice for salaried individuals, pensioners and students. While there is no restriction on the number and amount of deposits made, there are usually restrictions on the number and amount of withdrawals. Savings account holders are paid interest on their savings.

**Recurring Deposit Accounts**
Recurring Deposit accounts, also called RD accounts, are the accounts of choice for those who want to save an amount every month, but are unable to invest a large sum at one time. Such account holders deposit a small, fixed amount every month for a pre-determined period (minimum 6 months). Defaulting on a monthly payment results in the account holder being charged a penalty amount. The total amount is repaid with interest at the end of the specified period.

**Fixed Deposit Accounts**
Fixed Deposit accounts, also called FD accounts, are ideal for those who wish to deposit their savings for a long term in return for a high rate of interest. The rate of interest offered depends on the amount deposited and the time period, and also differs from bank to bank. In the case of an FD, a certain amount of money is deposited by the account holder for a fixed period of time. The money can be withdrawn when the period expires. If necessary, the depositor can break the fixed deposit prematurely. However, this usually attracts a penalty amount which also differs from bank to bank.

---

**Say**

- Tell the participants about Opening a Bank Accounts.

---

**Elaborate**

Tell them – Opening a bank account is quite a simple process. Take a look at the steps to open an account of your own:

**Step 1: Fill in the Account Opening Form**
This form requires you to provide the following information:
- Personal details (name, address, phone number, date of birth, gender, occupation, address)
- Method of receiving your account statement (hard copy/email)
- Details of your initial deposit (cash/cheque)
- Manner of operating your account (online/mobile banking/traditional via cheque, slip books) Ensure that you sign wherever required on the form.

**Step 2: Affix your Photograph**
Stick a recent photograph of yourself in the allotted space on the form.
Step 3: Provide your Know Your Customer (KYC) Details

KYC is a process that helps banks verify the identity and address of their customers. To open an account, every individual needs to submit certain approved documents with respect to photo identity (ID) and address proof. Some Officially Valid Documents (OVDs) are:

- Passport
- Driving License
- Voters’ Identity Card
- PAN Card
- UIDAI (Aadhaar) Card

Step 4: Submit All your Documents

Submit the completed Account Opening Form and KYC documents. Then wait until the forms are processed and your account has been opened!

Tell the participants about Fixed and variable costs.

Elaborate

Tell them – Fixed costs and variable costs together make up a company’s total cost. These are the two types of costs that companies have to bear when producing goods and services. A fixed cost does not change with the volume of goods or services a company produces. It always remains the same. A variable cost, on the other hand, increases and decreases depending on the volume of goods and services produced. In other words, it varies with the amount produced.

Differences between Fixed and Variable Costs

Let’s take a look at some of the main differences between fixed and variable costs:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Fixed Costs</th>
<th>Variable Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meaning</td>
<td>A cost that stays the same, regardless of the output produced.</td>
<td>A cost that changes when the</td>
</tr>
<tr>
<td>Incurred</td>
<td>Incurred irrespective of units being produced.</td>
<td>Incurred only when units are produced.</td>
</tr>
<tr>
<td>Unit cost</td>
<td>Inversely proportional to the number of units produced.</td>
<td>Remains the same, per unit.</td>
</tr>
<tr>
<td>Examples</td>
<td>Depreciation, rent, salary, insurance, tax etc.</td>
<td>Material consumed, wages, commission on sales,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>packing expenses, etc.</td>
</tr>
</tbody>
</table>
Tell the participants about the investment, insurance and taxes.

**Elaborate**

Tell them – Investment means that money is spent today with the aim of reaping financial gains at a future time. The main types of investment options are as follows:

- **Bonds**: Bonds are instruments used by public and private companies to raise large sums of money – too large to be borrowed from a bank. These bonds are then issued in the public market and are bought by lenders.
- **Stocks**: Stocks or equity are shares that are issued by companies and are bought by the general public.
- **Small Savings Schemes**: Small Savings Schemes are tools meant to save money in small amounts. Some popular schemes are the Employees Provident Fund, Sukanya Samriddhi Scheme and National Pension Scheme.
- **Mutual Funds**: Mutual Funds are professionally managed financial instruments that invest money in different securities on behalf of investors.
- **Fixed Deposits**: A fixed amount of money is kept aside with a financial institution for a fixed amount of time in return for interest on the money.
- **Real Estate**: Loans are taken from banks to purchase real estate, which is then leased or sold with the aim of making a profit on the appreciated property price.
- **Hedge Funds**: Hedge funds invest in both financial derivatives and/or publicly traded securities.
- **Private Equity**: Private Equity is trading in the shares of an operating company that is not publicly listed and whose shares are not available on the stock market.
- **Venture Capital**: Venture Capital involves investing substantial capital in a budding company in return for stocks in that company.

**Insurance**

There are two types of insurance:

1. **Life Insurance**
2. **Non-Life or General Insurance**.

**Life Insurance Products**

The main life insurance products are:

- **Term Insurance**: This is the simplest and cheapest form of insurance. It offers financial protection for a specified tenure, say 15 to 20 years. In the case of your death, your family is paid the sum assured. In the case of your surviving the term, the insurer pays nothing.
- **Endowment Policy**: This offers the dual benefit of insurance and investment. Part of the premium is allocated towards the sum assured, while the remaining premium gets invested in equity and debt. It pays a lump sum amount after the specified duration or on the death of the policyholder, whichever is earlier.
- **Unit-Linked Insurance Plan (ULIP)**: Here part of the premium is spent on the life cover, while the remaining amount is invested in equity and debt. It helps develop a regular saving habit.
**Money Back Life Insurance:** While the policyholder is alive, periodic payments of the partial survival benefits are made during the policy tenure. On the death of the insured, the insurance company pays the full sum assured along with survival benefits.

**Whole Life Insurance:** It offers the dual benefit of insurance and investment. It offers insurance cover for the whole life of the person or up to 100 years whichever is earlier.

**General Insurance**

General Insurance deals with all insurance covering assets like animals, agricultural crops, goods, factories, cars and so on.

**General Insurance Products:**

- **Motor Insurance:** This can be divided into Four Wheeler Insurance and Two Wheeler Insurance.
- **Health Insurance:** The main types of health insurance are individual health insurance, family floater health insurance, comprehensive health insurance and critical illness insurance.
- **Travel Insurance:** This can be categorised into Individual Travel Policy, Family Travel Policy, Student Travel Insurance and Senior Citizen Health Insurance.
- **Home Insurance:** This protects the house and its contents from risk.
- **Marine Insurance:** This insurance covers goods, freight, cargo etc. against loss or damage during transit by rail, road, sea and/or air.

**Taxes**

There are two types of taxes:

1. Direct Taxes
2. Indirect Taxes.

**Direct Tax**

Direct taxes are levied directly on an entity or a person and are non-transferrable. Some examples of Direct Taxes are:

- **Income Tax:** This tax is levied on your earning in a financial year. It is applicable to both, individuals and companies.
- **Capital Gains Tax:** This tax is payable whenever you receive a sizable amount of money. It is usually of two types – short term capital gains from investments held for less than 36 months and long term capital gains from investments held for longer than 36 months.
- **Securities Transaction Tax:** This tax is added to the price of a share. It is levied every time you buy or sell shares.
- **Perquisite Tax:** This tax is levied on perks that have been acquired by a company or used by an employee.
- **Corporate Tax:** Corporate tax is paid by companies from the revenue they earn.

**Indirect Tax**

Indirect taxes are levied on goods or services. Some examples of Indirect Taxes are:

- **Sales Tax:** Sales Tax is levied on the sale of a product.
- **Service Tax:** Service Tax is added to services provided in India.
- **Value Added Tax:** Value Added Tax is levied at the discretion of the state government. The tax is levied on goods sold in the state. The tax amount is decided by the state.
• **Customs Duty & Octroi:** Customs Duty is a charge that is applied on purchases that are imported from another country. Octroi is levied on goods that cross state borders within India.

• **Excise Duty:** Excise Duty is levied on all goods manufactured or produced in India.

**Say**

• Tell the participants about the online banking, NEFT, RTGS etc.

**Elaborate**

Tell them – Internet or online banking allows account holders to access their account from a laptop at any location. In this way, instructions can be issued. To access an account, account holders simply need to use their unique customer ID number and password.

**Internet banking can be used to:**

- Find out an account balance
- Transfer amounts from one account to another
- Arrange for the issuance of cheques
- Instruct payments to be made
- Request for a cheque book
- Request for a statement of accounts
- Make a fixed deposit

**Electronic Funds Transfers**

Electronic funds transfer is a convenient way of transferring money from the comfort of one’s own home, using integrated banking tools like internet and mobile banking.

Transferring funds via an electronic gateway is extremely convenient. With the help of online banking, you can choose to:

- Transfer funds into your own accounts of the same bank.
- Transfer funds into different accounts of the same bank.
- Transfer funds into accounts in different banks, using NEFT.
- Transfer funds into other bank accounts using RTGS.
- Transfer funds into various accounts using IMPS.

**NEFT**

NEFT stands for National Electronic Funds Transfer. This money transfer system allows you to electronically transfer funds from your respective bank accounts to any other account, either in the same bank or belonging to any other bank. NEFT can be used by individuals, firms and corporate organizations to transfer funds between accounts.
In order to transfer funds via NEFT, two things are required:

- A transferring bank
- A destination bank

Before you can transfer funds through NEFT, you will need to register the beneficiary who will be receiving the funds. In order to complete this registration, you will require the following:

- Recipient’s name
- Recipient’s account number
- Recipient’s bank’s name
- Recipient’s bank’s IFSC code

**RTGS**

RTGS stands for Real Time Gross Settlement. This is a real-time funds transfer system which enables you to transfer funds from one bank to another, in real time or on a gross basis. The transferred amount is immediately deducted from the account of one bank, and instantly credited to the other bank’s account. The RTGS payment gateway is maintained by the Reserve Bank of India. The transactions between banks are made electronically.

RTGS can be used by individuals, companies and firms to transfer large sums of money. Before remitting funds through RTGS, you will need to add the beneficiary and his bank account details via your online banking account. In order to complete this registration, you will require the following information:

- Name of the beneficiary
- Beneficiary’s account number
- Beneficiary’s bank address
- Bank’s IFSC code

**IMPS**

IMPS stands for Immediate Payment Service. This is a real-time, inter-bank, electronic funds transfer system used to transfer money instantly within banks across India. IMPS enables users to make instant electronic transfer payments using mobile phones through both, Mobile Banking and SMS. It can also be used through ATMs and online banking. IMPS is available 24 hours a day and 7 days a week. The system features a secure transfer gateway and immediately confirms orders that have been fulfilled.

To transfer money through IMPS, the you need to:

- Register for IMPS with your bank
- Receive a Mobile Money Identifier (MMID) from the bank
- Receive a MPIN from the bank

Once you have both these, you can login or make a request through SMS to transfer a particular amount to a beneficiary. For the beneficiary to receive the transferred money, he must:

- Link his mobile number with his respective account
- Receive the MMID from the bank

In order to initiate a money transfer through IMPS, you will need to enter the following information:

- The beneficiary’s mobile number
- The beneficiary’s MMID
• The transfer amount
• Your MPIN

As soon as money has been deducted from your account and credited into the beneficiary’s account, you will be sent a confirmation SMS with a transaction reference number, for future reference.

Notes for Facilitation
• Summarise the main points of the unit.
• Ask participants if they have any doubts. Encourage them to ask questions.
• Answer their queries satisfactorily.
• Ask them to answer the questions at the end of unit given in the participant’s manual.
• Ensure that every participant answer all questions.
UNIT 13.4: Preparing for Employment & Self Employment

Unit Objectives
At the end of the unit, students will be able to:
1. Discuss the steps 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. Discuss basic workplace terminology

Resources to be Used
- Available objects such as black or white Board, chalk pieces or white board marker pens, duster.
- Pc with LCD Projector or Flip Chart.
- Participant Manual.
- Copies of Handouts.

Do
- Greet and welcome the participants to the next session of the program.
- Before starting the session ask them do they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they will learn about Employment and Self Employment.

Say
- Tell the participants about the Interview Preparation. The success of your getting the job that you want depends largely on how well your interview for that job goes. Therefore, before you go in for your interview, it is important that you prepare for it with a fair amount of research and planning.
Elaborate

Tell them – Take a look at the steps to follow in order to be well prepared for an interview:

Research the organization that you are having the interview with.

- Studying the company beforehand will help you be more prepared at the time of the interview. Your knowledge of the organization will help you answer questions at the time of the interview, and will leave you looking and feeling more confident. This is sure to make you stand out from other, not as well informed, candidates.
- Look for background information on the company. Try and find an overview of the company and its industry profile.
- Visit the company website to get a good idea of what the company does. A company website offers a wealth of important information. Read and understand the company’s mission statement. Pay attention to the company’s products/services and client list. Read through any press releases to get an idea of the company’s projected growth and stability.
- Note down any questions that you have after your research has been completed.

Think about whether your skills and qualifications match the job requirements.

- Carefully read through and analyze the job description.
- Make a note of the knowledge, skills and abilities required to fulfill the job requirements.
- Take a look at the organization hierarchy. Figure out where the position you are applying for fits into this hierarchy.

Go through the most typical interview questions asked, and prepare your responses.

- Remember, in most interviews a mix of resume-based, behavioral and case study questions are asked.
- Think about the kind of answers you would like to provide to typical questions asked in these three areas.
- Practice these answers until you can express them confidently and clearly.

Plan your attire for the interview.

- It is always safest to opt for formal business attire, unless expressly informed to dress in business casual (in which case you should use your best judgement).
- Ensure that your clothes are clean and well-ironed. Pick neutral colours – nothing too bright or flashy.
- The shoes you wear should match your clothes, and should be clean and suitable for an interview.
- Remember, your aim is to leave everyone you meet with the impression that you are a professional and highly efficient person.

Ensure that you have packed everything that you may require during the interview.

- Carry a few copies of your resume. Use a good quality paper for your resume print outs.
- Always take along a notepad and a pen.
- Take along any information you may need to refer to, in order to fill out an application form.
- Carry a few samples of your work, if relevant.

Remember the importance of non-verbal communication.

- Practice projecting confidence. Remind yourself to smile and make eye contact. Practice giving a firm handshake.
• Keep in mind the importance of posture. Practice sitting up straight. Train yourself to stop nervous gestures like fidgeting and foot-tapping.

• Practice keeping your reactions in check. Remember, your facial expressions provide a good insight into your true feelings. Practice projecting a positive image.

**Make a list of questions to end the interview with.**

• Most interviews will end with the interviewer(s) asking if you have any questions. This is your chance to show that you have done your research and are interested in learning more about the company.

• If the interviewer does not ask you this question, you can inform him/her that you have some queries that you would like to discuss. This is the time for you to refer to the notes you made while studying the company.

Some good questions to ask at this point are:

• What do you consider the most important criteria for success in this job?

• How will my performance be evaluated?

• What are the opportunities for advancement?

• What are the next steps in the hiring process?

• Remember; never ask for information that is easily available on the company website.

---

**Say**

• Tell the participants how to prepare an effective resume. A resume is a formal document that lists a candidate’s work experience, education and skills. A good resume gives a potential employer enough information to believe the applicant is worth interviewing. That’s why it is so important to create a résumé that is effective.

---

**Elaborate**

Tell them – Take a look at the steps to create an effective resume:

**Step 1: Write the Address Section**

The Address section occupies the top of your resume. It includes information like your name, address, phone number and e-mail address. Insert a bold line under the section to separate it from rest of your resume.

**Example:**

```
Jasmine Watts
Breach Candy, Mumbai – India
Contact No: +91 2223678270
Email: jasmine.watts@gmail.com
```
Step 2: Add the Profile Summary Section
This part of your resume should list your overall experiences, achievements, awards, certifications and strengths. You can make your summary as short as 2-3 bullet points or as long as 8-10 bullet points.

Example:

Profile Summary
- A Content Writer graduated from University of Strathclyde having 6 years of experience in writing website copy.
- Core expertise lies in content creation for e-learning courses, specifically for the K-12 segment.

Step 3: Include Your Educational Qualifications
When listing your academic records, first list your highest degree. Then add the second highest qualification under the highest one and so on. To provide a clear and accurate picture of your educational background, it is critical that include information on your position, rank, percentage or CPI for every degree or certification that you have listed.

If you have done any certifications and trainings, you can add a Trainings & Certifications section under your Educational Qualifications section.

Example:

Educational Qualifications
- Masters in International Management (2007) from Columbia University with 8.8 CPI.
- Bachelor of Management Studies (2004) from Mumbai University with 87% marks.
- 10+2 with Math, Stats (2001) from Maharashtra Board with 91% marks.
- High School (1999) from Maharashtra Board with 93% marks.

Step 4: List Your Technical Skills
When listing your technical skills, start with the skills that you are most confident about. Then add the skills that you do not have as good a command over. It is perfectly acceptable to include just one skill, if you feel that particular skill adds tremendous value to your résumé. If you do not have any technical skills, you can omit this step.

Example:

Technical Skills
- Flash
- Photoshop

Step 5: Insert Your Academic Project Experience
List down all the important projects that you have worked on. Include the following information in this section:
Step 6: List Your Strengths

This is where you list all your major strengths. This section should be in the form of a bulleted list.

Example:

**Strengths**
- Excellent oral, written and presentation skills
- Action-oriented and result-focused
- Great time management skills

Step 7: List Your Extracurricular Activities

It is very important to show that you have diverse interests and that your life consists of more than academics. Including your extracurricular activities can give you an added edge over other candidates who have similar academic scores and project experiences. This section should be in the form of a bulleted list.

Example:

**Extracurricular Activities**
- Member of the Debate Club
- Played tennis at a national level
- Won first prize in the All India Camel Contest, 2010

Step 8: Write Your Personal Details

The last section of your résumé must include the following personal information:

- Date of birth
- Gender & marital status
- Nationality
- Languages known
Example:

<table>
<thead>
<tr>
<th>Personal Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of birth: 25th May, 1981</td>
</tr>
<tr>
<td>Gender &amp; marital status: Female, Single</td>
</tr>
<tr>
<td>Nationality: Indian</td>
</tr>
<tr>
<td>Languages known: English, Hindi, Tamil, French</td>
</tr>
</tbody>
</table>

**Say**

- Tell the participants about the interview FAQs.

**Elaborate**

Tell them – Take a look at some of the most frequently asked interview questions, and some helpful tips on how to answer them.

**Can you tell me a little about yourself?**

Tips to answer:
- Don’t provide your full employment or personal history.
- Offer 2-3 specific experiences that you feel are most valuable and relevant.
- Conclude with how those experiences have made you perfect for this specific role.

**How did you hear about the position?**

Tips to answer:
- Tell the interviewer how you heard about the job – whether it was through a friend (name the friend), event or article (name them) or a job portal (say which one).
- Explain what excites you about the position and what in particular caught your eye about this role.

**What do you know about the company?**

Tips to answer:
- Don’t recite the company’s About Us page.
- Show that you understand and care about the company’s goals.
- Explain why you believe in the company’s mission and values.
Why do you want this job?
Tips to answer:
• Show that you are passionate about the job.
• Identify why the role is a great fit for you.
• Explain why you love the company.

Why should we hire you?
• Tips to answer:
  • Prove through your words that you can not only do the work, but can definitely deliver excellent results.
  • Explain why you would be a great fit with the team and work culture.
  • Explain why you should be chosen over any other candidate.

What are your greatest professional strengths?
Tips to answer:
• Be honest – share some of your real strengths, rather than give answers that you think sound good.
• Offer examples of specific strengths that are relevant to the position you are applying for.
• Provide examples of how you’ve demonstrated these strengths.

What do you consider to be your weaknesses?
Tips to answer:
• The purpose of this question is to gauge your self-awareness and honesty.
• Give an example of a trait that you struggle with, but that you’re working on to improve.

What are your salary requirements?
Tips to answer:
• Do your research beforehand and find out the typical salary range for the job you are applying for.
• Figure out where you lie on the pay scale based on your experience, education, and skills.
• Be flexible. Tell the interviewer that you know your skills are valuable, but that you want the job and are willing to negotiate.

What do you like to do outside of work?
Tips to answer:
• The purpose of this question is to see if you will fit in with the company culture.
• Be honest – open up and share activities and hobbies that interest and excite you.

If you were an animal, which one would you want to be?
Tips to answer:
• The purpose of this question is to see if you are able to think on your feet.
• There’s no wrong answer – but to make a great impression try to bring out your strengths or personality traits through your answer.
What do you think we could do better or differently?

Tips to answer:
- The purpose of this question is to see if you have done your research on the company, and to test whether you can think critically and come up with new ideas.
- Suggest new ideas. Show how your interests and expertise would help you execute these ideas.

Do you have any questions for us?

Tips to answer:
- Do not ask questions to which the answers can be easily found on the company website or through a quick online search.
- Ask intelligent questions that show your ability to think critically.

Say

• Tell the participants about the work readiness.

Elaborate

Tell them – Every employee should be well versed in the following terms:

• **Annual leave**: Paid vacation leave given by employers to employees.

• **Background Check**: A method used by employers to verify the accuracy of the information provided by potential candidates.

• **Benefits**: A part of an employee’s compensation package.

• **Breaks**: Short periods of rest taken by employees during working hours.

• **Compensation Package**: The combination of salary and benefits that an employer provides to his/her employees.

• **Compensatory Time (Comp Time)**: Time off in lieu of pay.

• **Contract Employee**: An employee who works for one organization that sells said employee’s services to another company, either on a project or time basis.

• **Contract of Employment**: When an employee is offered work in exchange for wages or salary, and accepts the offer made by the employer, a contract of employment exists.

• **Corporate Culture**: The beliefs and values shared by all the members of a company, and imparted from one generation of employees to another.

• **Counter Offer/Counter Proposal**: A negotiation technique used by potential candidates to increase the amount of salary offered by a company.
• **Cover Letter:** A letter that accompanies a candidate’s resume. It emphasizes the important points in the candidate’s resume and provides real examples that prove the candidate’s ability to perform the expected job role.

• **Curriculum Vitae (CV)/Resume:** A summary of a candidate’s achievements, educational background, work experience, skills and strengths.

• **Declining Letter:** A letter sent by an employee to an employer, turning down the job offer made by the employer to the employee.

• **Deductions:** Amounts subtracted from an employee’s pay and listed on the employee’s pay slip.

• **Discrimination:** The act of treating one person not as favourably as another person.

• **Employee:** A person who works for another person in exchange for payment.

• **Employee Training:** A workshop or in-house training that an employee is asked to attend by his or her superior, for the benefit of the employer.

• **Employment Gaps:** Periods of unemployed time between jobs.

• **Fixed-Term Contract:** A contract of employment which gets terminated on an agreed-upon date.

• **Follow-Up:** The act of contacting a potential employer after a candidate has submitted his or her resume.

• **Freelancer/Consultant/Independent Contractor:** A person who works for him or herself and pitches for temporary jobs and projects with different employers.

• **Holiday:** Paid time-off from work.

• **Hourly Rate:** The amount of salary or wages paid for 60 minutes of work.

• **Internship:** A job opportunity offered by an employer to a potential employee, called an intern, to work at the employer’s company for a fixed, limited time period.

• **Interview:** A conversation between a potential employee and a representative of an employer, in order to determine if the potential employee should be hired.

• **Job Application:** A form which asks for a candidate’s information like the candidate’s name, address, contact details and work experience. The purpose of a candidate submitting a job application, is to show that candidate’s interest in working for a particular company.

• **Job Offer:** An offer of employment made by an employer to a potential employee.

• **Job Search Agent:** A program that enables candidates to search for employment opportunities by selecting criteria listed in the program, for job vacancies.

• **Lay Off:** A lay off occurs when an employee is temporarily let go from his or her job, due to the employer not having any work for that employee.

• **Leave:** Formal permission given to an employee, by his or her employer, to take a leave of absence from work.

• **Letter of Acceptance:** A letter given by an employer to an employee, confirming the offer of employment made by the employer, as well as the conditions of the offer.

• **Letter of Agreement:** A letter that outlines the terms of employment.

• **Letter of Recommendation:** A letter written for the purpose of validating the work skills of a person.

• **Maternity Leave:** Leave taken from work by women who are pregnant, or who have just given birth.

• **Mentor:** A person who is employed at a higher level than you, who offers you advice and guides you in your career.
• **Minimum wage**: The minimum wage amount paid on an hourly basis.

• **Notice**: An announcement made by an employee or an employer, stating that the employment contract will end on a particular date.

• **Offer of Employment**: An offer made by an employer to a prospective employee that contains important information pertaining to the job being offered, like the starting date, salary, working conditions etc.

• **Open-Ended Contract**: A contract of employment that continues till the employer or employee terminates it.

• **Overqualified**: A person who is not suited for a particular job because he or she has too many years of work experience, or a level of education that is much higher than required for the job, or is currently or was previously too highly paid.

• **Part-Time Worker**: An employee who works for fewer hours than the standard number of hours normally worked.

• **Paternity Leave**: Leave granted to a man who has recently become a father.

• **Recruiters/Headhunters/Executive Search Firms**: Professionals who are paid by employers to search for people to fill particular positions.

• **Resigning/Resignations**: When an employee formally informs his or her employer that he or she is quitting his or her job.

• **Self-Employed**: A person who has his or her own business and does not work in the capacity of an employee.

• **Time Sheet**: A form that is submitted to an employer, by an employee, that contains the number of hours worked every day by the employee.

---

**Notes for Facilitation**

• Summarise the main points of the unit.

• Ask participants if they have any doubts. Encourage them to ask questions.

• Answer their queries satisfactorily.

• Ask them to answer the questions at the end of unit given in the participant’s manual.

• Ensure that every participant answer all questions.
UNIT 13.5: Understand Entrepreneurship

Unit Objectives

At the end of the unit, students 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. Understand 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 government’s role in the entrepreneurship ecosystem
26. Discuss the current entrepreneurship ecosystem in India
27. Understand the purpose of the Make in India campaign
28. Discuss the relationship between entrepreneurship and risk appetite
29. Discuss the relationship between entrepreneurship and resilience
30. Describe the characteristics of a resilient entrepreneur
31. Discuss how to deal with failure
**Resources to be Used**

- Available objects such as black or white Board, chalk pieces or white board marker pens, duster.
- Pc with LCD Projector or Flip Chart.
- Participant Manual.
- Copies of Handouts.

**Do**

- Greet and welcome the participants to the next session of the program.
- Before starting the session ask them do they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they will learn about Entrepreneurship.

**Say**

- Tell the participants about the Entrepreneurship. Anyone who is determined to start a business, no matter what the risk, is an entrepreneur. Entrepreneurs run their own start-up, take responsibility for the financial risks and use creativity, innovation and vast reserves of self-motivation to achieve success.
- Tell the participants about the importance and characteristics of Entrepreneurship.

**Elaborate**

Tell them – Entrepreneurship is very important for the following reasons:

- It results in the creation of new organizations
- It brings creativity into the marketplace
- It leads to improved standards of living
- It helps develop the economy of a country

**Characteristics of Entrepreneurs**

All successful entrepreneurs have certain characteristics in common. They are all:

- Extremely passionate about their work
- Confident in themselves
- Disciplined and dedicated
• Motivated and driven
• Highly creative
• Visionaries
• Open-minded
• Decisive

Entrepreneurs also have a tendency to:
• Have a high risk tolerance
• Thoroughly plan everything
• Manage their money wisely
• Make their customers their priority
• Understand their offering and their market in detail
• Ask for advice from experts when required
• Know when to cut their losses

Tell the participants about the types of enterprises.

Tell them – As an entrepreneur in India, you can own and run any of the following types of enterprises:

**Sole Proprietorship**
In a sole proprietorship, a single individual owns, manages and controls the enterprise. This type of business is the easiest to form with respect to legal formalities. The business and the owner have no separate legal existence. All profit belongs to the proprietor, as do all the losses- the liability of the entrepreneur is unlimited.

**Partnership**
A partnership firm is formed by two or more people. The owners of the enterprise are called partners. A partnership deed must be signed by all the partners. The firm and its partners have no separate legal existence. The profits are shared by the partners. With respect to losses, the liability of the partners is unlimited. A firm has a limited life span and must be dissolved when any one of the partners dies, retires, claims bankruptcy or goes insane.

**Limited Liability Partnership (LLP)**
In a Limited Liability Partnership or LLP, the partners of the firm enjoy perpetual existence as well as the advantage of limited liability. Each partner’s liability is limited to their agreed contribution to the LLP. The partnership and its partners have a separate legal existence.
• Tell the participants about the Leadership and team Work. Leadership means setting an example for others to follow. Setting a good example means asking someone to do something that you wouldn’t willingly want to do yourself. Leadership is about figuring out what to do in order to win as a team, and as a company. Leaders believe in doing the right things.
• Also tell the participants about the Leadership qualities that all entrepreneurs needs.

Tell them – Building a successful enterprise is only possible if the entrepreneur in charge possesses excellent leadership qualities. Some critical leadership skills that every entrepreneur must have are:

• **Pragmatism**: This means having the ability to highlight all obstacles and challenges, in order to resolve issues and reduce risks.
• **Humility**: This means admitting to mistakes often and early, and being quick to take responsibility for your actions. Mistakes should be viewed as challenges to overcome, not opportunities to point blame.
• **Flexibility**: It is critical for a good leader to be very flexible and quickly adapt to change. It is equally critical to know when to adapt and when not to.
• **Authenticity**: This means showing both, your strengths and your weaknesses. It means being human and showing others that you are human.
• **Reinvention**: This means refreshing or changing your leadership style when necessary. To do this, it’s important to learn where your leadership gaps lie and find out what resources are required to close them.
• **Awareness**: This means taking the time to recognize how others view you. It means understanding how your presence affects those around you.

• Tell the participants about the benefits of effective Leadership. Effective leadership results in numerous benefits. Great leadership leads to the leader successfully:
  » Gaining the loyalty and commitment of the team members
  » Motivating the team to work towards achieving the company’s goals and objectives
  » Building morale and instilling confidence in the team members
  » Fostering mutual understanding and team-spirit among team members
  » Convincing team members about the need to change when a situation requires adaptability
• Discuss with the participants about the teamwork and teams. Teamwork occurs when the people in a workplace combine their individual skills to pursue a common goal. Effective teams are made up of individuals who work together to achieve this common goal. A great team is one who holds themselves accountable for the end result.
• Also tell the participants about the importance of team work in entrepreneurial success.
Tell them – For an entrepreneurial leader, building an effective team is critical to the success of a venture. An entrepreneur must ensure that the team he builds possesses certain crucial qualities, traits and characteristics. An effective team is one which has:

- **Unity of purpose**: All the team members should clearly understand and be equally committed to the purpose, vision and goals of the team.
- **Great communication skills**: Team members should have the ability to express their concerns, ask questions and use diagrams, and charts to convey complex information.
- **The ability to collaborate**: Every member should feel entitled to provide regular feedback on new ideas.
- **Initiative**: The team should consist of proactive individuals. The members should have the enthusiasm to come up with new ideas, improve existing ideas, and conduct their own research.
- **Visionary members**: The team should have the ability to anticipate problems and act on these potential problem before they turn into real problems.
- **Great adaptability skills**: The team must believe that change is a positive force. Change should be seen as the chance to improve and try new things.
- **Excellent organizational skills**: The team should have the ability to develop standard work processes, balance responsibilities, properly plan projects, and set in place methods to measure progress and ROI.

Tell the participants about the communication skills. Listening is the ability to correctly receive and understand messages during the process of communication. Listening is critical for effective communication. Without effective listening skills, messages can easily be misunderstood. This results in a communication breakdown and can lead to the sender and the receiver of the message becoming frustrated or irritated.

Also tell the participants how to listen effectively:

- Stop talking
- Stop interrupting
- Focus completely on what is being said
- Nod and use encouraging words and gestures
- Be open-minded
- Think about the speaker’s perspective
- Be very, very patient
• Pay attention to the tone that is being used
• Pay attention to the speaker’s gestures, facial expressions and eye movements
• Not try and rush the person
• Not let the speaker’s mannerisms or habits irritate or distract you

How to Listen Effectively
How successfully a message gets conveyed depends entirely on how effectively you are able to get it through. An effective speaker is one who enunciates properly, pronounces words correctly, chooses the right words and speaks at a pace that is easily understandable. Besides this, the words spoken out loud need to match the gestures, tone and body language used.

What you say, and the tone in which you say it, results in numerous perceptions being formed. A person who speaks hesitantly may be perceived as having low self-esteem or lacking in knowledge of the discussed topic. Those with a quiet voice may very well be labelled as shy. And those who speak in commanding tones with high levels of clarity, are usually considered to be extremely confident. This makes speaking a very critical communication skill.

Say
• Tell the participants how to speak effectively.

Elaborate
Tell them – To speak effectively you should:
• Incorporate body language in your speech like eye contact, smiling, nodding, gesturing etc.
• Build a draft of your speech before actually making your speech.
• Ensure that all your emotions and feelings are under control.
• Pronounce your words distinctly with the correct pitch and intensity. Your speech should be crystal clear at all times.
• Use a pleasant and natural tone when speaking. Your audience should not feel like you are putting on an accent or being unnatural in any way.
• Use precise and specific words to drive your message home. Ambiguity should be avoided at all costs.
• Ensure that your speech has a logical flow.
• Be brief. Don’t add any unnecessary information.
• Make a conscious effort to avoid irritating mannerisms like fidgeting, twitching etc.
• Choose your words carefully and use simple words that the majority of the audience will have no difficulty understanding.
• Use visual aids like slides or a whiteboard.
Say

Tell the participants about the problem solving and negotiation skills. As per The Concise Oxford Dictionary (1995), a problem is, “A doubtful or difficult matter requiring a solution”. All problems contain two elements:

- Goals
- Obstacles

The aim of problem solving is to recognize the obstacles and remove them in order to achieve the goals.
- Also tell the participants how to solve the problems.

Elaborate

Tell them – Solving a problem requires a level of rational thinking. Here are some logical steps to follow when faced with an issue:

- **Step 1:** Identify the problem
- **Step 2:** Study the problem in detail
- **Step 3:** List all possible solutions
- **Step 4:** Select the best solution
- **Step 5:** Implement the chosen solution
- **Step 6:** Check that the problem has really been solved

Do

Discuss with the participants about the important traits for problem solving. Highly developed problem solving skills are critical for both, business owners and their employees. The following personality traits play a big role in how effectively problems are solved:

- Being open minded
- Asking the right questions
- Being proactive
- Not panicking
• Having a positive attitude
• Focusing on the right problem

Say

• Tell the participants about the negotiation. Negotiation is a method used to settle differences. The aim of negotiation is to resolve differences through a compromise or agreement while avoiding disputes. Without negotiation, conflicts are likely to lead to resentment between people.

Elaborate

Tell them – Good negotiation skills help satisfy both parties and go a long way towards developing strong relationships.

Why Negotiate

Starting a business requires many, many negotiations. Some negotiations are small while others are critical enough to make or break a startup. Negotiation also plays a big role inside the workplace. As an entrepreneur, you need to know not only how to negotiate yourself, but also how to train employees in the art of negotiation.

How to Negotiate

Take a look at some steps to help you negotiate:

• **Step 1:** Pre-Negotiation Preparation: Agree on where to meet to discuss the problem, decide who all will be present and set a time limit for the discussion.
• **Step 2:** Discuss the Problem: This involves asking questions, listening to the other side, putting your views forward and clarifying doubts.
• **Step 3:** Clarify the Objective: Ensure that both parties want to solve the same problem and reach the same goal.
• **Step 4:** Aim for a Win-Win Outcome: Try your best to be open minded when negotiating. Compromise and offer alternate solutions to reach an outcome where both parties win.
• **Step 5:** Clearly Define the Agreement: When an agreement has been reached, the details of the agreement should be crystal clear to both sides, with no scope for misunderstandings.
• **Step 6:** Implement the Agreed Upon Solution: Agree on a course of action to set the solution in motion.

Say

• Now tell the participants about the Business opportunities Identification.
Tell them – The ability to identify business opportunities is an essential characteristic of an entrepreneur.

**What is an Opportunity?**
The word opportunity suggests a good chance or a favourable situation to do something offered by circumstances. A business opportunity means a good or favourable change available to run a specific business in a given environment, at a given point of time.

**Common Questions Faced by Entrepreneurs**
A critical question that all entrepreneurs face is how to go about finding the business opportunity that is right for them.

Some common questions that entrepreneurs constantly think about are:

- Should the new enterprise introduce a new product or service based on an unmet need?
- Should the new enterprise select an existing product or service from one market and offer it in another where it may not be available?
- Should the enterprise be based on a tried and tested formula that has worked elsewhere?

It is therefore extremely important that entrepreneurs must learn how to identify new and existing business opportunities and evaluate their chances of success.

**When is an Idea an Opportunity?**
An idea is an opportunity when:

- It creates or adds value to a customer
- It solves a significant problem, removes a pain point or meets a demand
- Has a robust market and profit margin
- Is a good fit with the founder and management team at the right time and place

**Factors to Consider When Looking for Opportunities**

- Consider the following when looking for business opportunities:
  - Economic trends
  - Changes in funding
  - Changing relationships between vendors, partners and suppliers
  - Market trends
  - Changes in political support
  - Shift in target audience

**Ways to Identify New Business Opportunities**

- Identify Market Inefficiencies: When looking at a market, consider what inefficiencies are present in the market. Think about ways to correct these inefficiencies.
- Remove Key Hassles: Rather than create a new product or service, you can innovatively improve a product, service or process.
- Create Something New: Think about how you can create a new experience for customers, based on existing business models.
• Pick a Growing Sector/Industry: Research and find out which sectors or industries are growing and think about what opportunities you can tap in the same.

• Think About Product Differentiation: If you already have a product in mind, think about ways to set it apart from the existing ones.

Ways to Identify Business Opportunities Within Your Business

SWOT Analysis: An excellent way to identify opportunities inside your business is by creating a SWOT analysis. The acronym SWOT stands for strengths, weaknesses, opportunities, and threats. SWOT analysis framework:

![SWOT Analysis Diagram]

**Fig.9.5.1: SWOT Analysis**

Consider the following when looking for business opportunities:

By looking at yourself and your competitors using the SWOT framework, you can uncover opportunities that you can exploit, as well as manage and eliminate threats that could derail your success.

Establishing Your USP

Establish your USP and position yourself as different from your competitors. Identify why customers should buy from you and promote that reason.

Opportunity Analysis

Once you have identified an opportunity, you need to analyze it. To analyze an opportunity, you must:

• Focus on the idea
• Focus on the market of the idea
• Talk to industry leaders in the same space as the idea
• Talk to players in the same space as the idea
Now tell the participants about the Entrepreneurship Support eco-system.

Tell them – An entrepreneur is a person who
- Does not work for an employee
- Runs a small enterprise
- Assumes all the risks and rewards of the enterprise, idea, good or service

**Types of Entrepreneurs**

There are four main types of entrepreneurs:

- **The Traditional Entrepreneur**: This type of entrepreneur usually has some kind of skill – they can be a carpenter, mechanic, cook etc. They have businesses that have been around for numerous years like restaurants, shops and carpenters. Typically, they gain plenty of experience in a particular industry before they begin their own business in a similar field.

- **The Growth Potential Entrepreneur**: The desire of this type of entrepreneur is to start an enterprise that will grow, win many customers and make lots of money. Their ultimate aim is to eventually sell their enterprise for a nice profit. Such entrepreneurs usually have a science or technical background.

- **The Project-Oriented Entrepreneur**: This type of entrepreneur generally has a background in the Arts or psychology. Their enterprises tend to be focus on something that they are very passionate about.

- **The Lifestyle Entrepreneur**: This type of entrepreneur has usually worked as a teacher or a secretary. They are more interested in selling something that people will enjoy, rather than making lots of money.

**Characteristics of an Entrepreneur**

- Successful entrepreneurs have the following characteristics:
  - They are highly motivated
  - They are creative and persuasive
  - They are mentally prepared to handle each and every task
  - They have excellent business skills – they know how to evaluate their cash flow, sales and revenue
  - They are willing to take great risks
  - They are very proactive – this means they are willing to do the work themselves, rather than wait for someone else to do it
  - They have a vision – they are able to see the big picture
  - They are flexible and open-minded
  - They are good at making decisions
Do

Discuss with the participants about the Entrepreneur Success Stories.

**Dhiru Bhai Ambani**

*Dhirubhai Ambani began his entrepreneurial career by selling “bhajias” to pilgrims in Mount Girnar on weekends. At 16, he moved to Yemen where he worked as a gas-station attendant, and as a clerk in an oil company. He returned to India with Rs. 50,000 and started a textile trading company. Reliance went on to become the first Indian company to raise money in global markets and the first Indian company to feature in Forbes 500 list.*

**Dr. Karsanbhai Patel**

*Karsanbhai Patel made detergent powder in the backyard of his house. He sold his product door-to-door and offered a money back guarantee with every pack that was sold. He charged Rs. 3 per kg when the cheapest detergent at that time was Rs.13 per kg. Dr. Patel eventually started Nirma which became a whole new segment in the Indian domestic detergent market.*

Say

- Now tell the participants about the Entrepreneurial Process.

Elaborate

Tell them – Let’s take a look at the stages of the entrepreneurial process.

- **Stage 1:** Idea Generation. The entrepreneurial process begins with an idea that has been thought of by the entrepreneur. The idea is a problem that has the potential to be solved.

- **Stage 2:** Germination or Recognition. In this stage a possible solution to the identified problem is thought of.

- **Stage 3:** Preparation or Rationalization. The problem is studied further and research is done to find out how others have tried to solve the same problem.

- **Stage 4:** Incubation or Fantasizing. This stage involves creative thinking for the purpose of coming up with more ideas. Less thought is given to the problem areas.

- **Stage 5:** Feasibility Study: The next step is the creation of a feasibility study to determine if the idea will make a profit and if it should be seen through.

- **Stage 6:** Illumination or Realization. This is when all uncertain areas suddenly become clear. The entrepreneur feels confident that his idea has merit.

- **Stage 7:** Verification or Validation. In this final stage, the idea is verified to see if it works and if it is useful.

Take a look at the diagram below to get a better idea of this process.
• Now tell the participants about the Entrepreneur. The entrepreneurship support ecosystem signifies the collective and complete nature of entrepreneurship. New companies emerge and flourish not only because of the courageous, visionary entrepreneurs who launch them, but they thrive as they are set in an environment or ‘ecosystem’ made of private and public participants.

**Elaborate**

Tell them – These players nurture and sustain the new ventures, facilitating the entrepreneurs’ efforts.

An entrepreneurship ecosystem comprises of the following six domains:

• **Favourable Culture:** This includes elements such as tolerance of risk and errors, valuable networking and positive social standing of the entrepreneur.

• **Facilitating Policies & Leadership:** This includes regulatory framework incentives and existence of public research institutes.

• **Financing Options:** Angel financing, venture capitalists and micro loans would be good examples of this.

• **Human Capital:** This refers to trained and untrained labour, entrepreneurs and entrepreneurship training programmes, etc.

• **Conducive Markets for Products & Services:** This refers to an existence or scope of existence of a market for the product/service.

• **Institutional & Infrastructural Support:** This includes legal and financing advisers, telecommunications, digital and transportation infrastructure, and entrepreneurship networking programmes.

These domains indicate whether there is a strong entrepreneurship support ecosystem and what actions should the government put in place to further encourage this ecosystem. The six domains and their various elements have been graphically depicted.

Every entrepreneurship support ecosystem is unique and all the elements of the ecosystem are interdependent. Although every region’s entrepreneurship ecosystem can be broadly described by the above features, each ecosystem is the result of the hundred elements interacting in highly complex and particular ways.

Entrepreneurship ecosystems eventually become (largely) self-sustaining. When the six domains are resilient enough, they are mutually beneficial. At this point, government involvement can and should be significantly minimized. Public leaders do not need to invest a lot to sustain the ecosystem. It is imperative that the entrepreneurship ecosystem incentives are formulated to be self-liquidating, hence focusing on sustainability of the environment.

• Now tell the participants about the Government’s role in the Entrepreneurship Ecosystem. Encouraging new ventures is a major focus for policymakers. Governments across the world are recognizing that new businesses flourish in distinctive types of supportive environments.
Elaborate

Tell them – Policymakers should study the scenario and take into account the following points whilst they formulate policies and regulations that enable successful entrepreneurship support ecosystems.

• Policymakers should avoid regulations that discourage new entrants and work towards building efficient methods for business startups. Policies and regulations that favour existing, dominant firms over entrepreneurial ventures restrict competition and obstruct entry for new companies.

• Instead of developing policies conceptually intended to correct market failures, policymakers should interact with entrepreneurs and understand the challenges faced by them. The feedback should be used to develop policies that incite idea exploration, product development and increased rates of deal flow.

• Entrepreneurial supporters should create a database that enables identifying who the participants in the ecosystem are and how they are connected. These ecosystem maps are useful tools in developing engagement strategies.

• Disruptions are unavoidable in economic and social life. However, it’s important to note that economic disruption gives rise to entrepreneurial opportunities. Architects of the entrepreneurship ecosystems (entrepreneurs, mentors, policymakers and consumers,) should anticipate these dips, thus capitalizing on the opportunities they create.

The need for effective strategies to enable local entrepreneurship support ecosystems is a practical one. Better understanding of the actual ecosystems provides a framework within which policy makers can ask relevant questions, envisage more efficient approaches, and assess ensuing outcomes.

Say

• Now tell the participants about the Snapshot of the Entrepreneurship Ecosystem in India. Entrepreneurship has earned a newfound respect in India. Many Indians, with exposure to the world of business, who traditionally would have opted for a job, are setting up their own ventures. Many elements of the entrepreneurship ecosystem are beginning to come together. For example, increase in venture capitalists, government schemes and incubators, academia industry linkages, and emerging clusters and support to rural economy.

Elaborate

Tell them – Policymakers should study the scenario and take into account the following points whilst they formulate policies and regulations that enable successful entrepreneurship support ecosystems.

• We need to review our attitude towards failures and accept them as learning experiences.

• We must encourage the educated to become entrepreneurs and provide students in schools and colleges with entrepreneurship skills.

• Universities, research labs and the government need to play the role of enablers in the entrepreneurship support ecosystem.

• Policymakers need to focus on reducing the obstacles such as corruption, red tape and bureaucracy.

• We need to improve our legal systems and court international venture capital firms and bring them to India.
• We must devise policies and methods to reach the secondary and tertiary towns in India, where people do not have access to the same resources available in the cities.

Today, there is a huge opportunity in this country to introduce innovative solutions that are capable of scaling up, and collaborating within the ecosystem as well as enriching it.

**Say**

• Now tell the participants about the Make in India Campaign.

**Elaborate**

Tell them – Every entrepreneur has certain needs. Some of their important needs are:

• To easily get loans
• To easily find investors
• To get tax exemptions
• To easily access resources and good infrastructure
• To enjoy a procedure that is free of hassles and is quick
• To be able to easily partner with other firms

The Make in India campaign, launched by Prime Minister Modi aims to satisfy all these needs of young, aspiring entrepreneurs. Its objective is to:

• Make investment easy
• Support new ideas
• Enhance skill development
• Safeguard the ideas of entrepreneurs
• Create state-of-the-art facilities for manufacturing goods

**Say**

• Now tell the participants about the Risk Appetite and Resilience.
Elaborate

Entrepreneurship and Risk

Entrepreneurs are inherently risk-takers. They are path-makers not path-takers. Unlike a normal, cautious person, an entrepreneur would not think twice about quitting his job (his sole income) and taking a risk on himself and his idea.

An entrepreneur is aware that while pursuing his dreams, assumptions can be proven wrong and unforeseen events may arise. He knows that after dealing with numerous problems, success is still not guaranteed. Entrepreneurship is synonymous with the ability to take risks. This ability, called risk-appetite, is an entrepreneurial trait that is partly genetic and partly acquired.

What is Risk Appetite?

Risk appetite is defined as the extent to which a company is equipped to take risk, in order to achieve its objectives. Essentially, it refers to the balance, struck by the company, between possible profits and the hazards caused by changes in the environment (economic ecosystem, policies, etc.). Taking on more risk may lead to higher rewards but have a high probability of losses as well. However, being too conservative may go against the company as it can miss out on good opportunities to grow and reach their objectives.

The levels of risk appetite can be broadly categorized as “low”, “medium” and “high.” The company’s entrepreneur(s) have to evaluate all potential alternatives and select the option most likely to succeed. Companies have varying levels of risk appetites for different objectives. The levels depend on:

- The type of industry
- Market pressures
- Company objectives

For example, a startup with a revolutionary concept will have a very high risk appetite. The startup can afford short term failures before it achieves longer term success. This type of appetite will not remain constant and will be adjusted to account for the present circumstances of the company.

Risk Appetite Statement

Companies have to define and articulate their risk appetite in sync with decisions made about their objectives and opportunities. The point of having a risk appetite statement is to have a framework that clearly states the acceptance and management of risk in business. It sets risk taking limits within the company. The risk appetite statement should convey the following:

- The nature of risks the business faces.
- Which risks the company is comfortable taking on and which risks are unacceptable.
- How much risk to accept in all the risk categories.
- The desired tradeoff between risk and reward.
- Measures of risk and methods of examining and regulating risk exposures.

Entrepreneurship and Resilience

Entrepreneurs are characterized by a set of qualities known as resilience. These qualities play an especially large role in the early stages of developing an enterprise. Risk resilience is an extremely valuable characteristic as it is believed to protect entrepreneurs against the threat of challenges and changes in the business environment.
What is Entrepreneurial Resilience?

Resilience is used to describe individuals who have the ability to overcome setbacks related to their life and career aspirations. A resilient person is someone who is capable of easily and quickly recovering from setbacks. For the entrepreneur, resilience is a critical trait. Entrepreneurial resilience can be enhanced in the following ways:

- By developing a professional network of coaches and mentors
- By accepting that change is a part of life
- By viewing obstacles as something that can be overcome

Characteristics of a Resilient Entrepreneur

The characteristics required to make an entrepreneur resilient enough to go the whole way in their business enterprise are:

- A strong internal sense of control
- Strong social connections
- Skill to learn from setbacks
- Ability to look at the bigger picture
- Ability to diversify and expand
- Survivor attitude
- Cash-flow conscious habits
- Attention to detail

Say

- Now tell the participants about the Success and Failures. Understanding Successes and Failures in Entrepreneurship.

Elaborate

Tell them – Shyam is a famous entrepreneur, known for his success story. But what most people don’t know, is that Shyam failed numerous times before his enterprise became a success. Read his interview to get an idea of what entrepreneurship is really about, straight from an entrepreneur who has both, failed and succeed

Interviewer: Shyam, I have heard that entrepreneurs are great risk-takers who are never afraid of failing. Is this true?

Shyam: Ha ha, no of course it’s not true! Most people believe that entrepreneurs need to be fearlessly enthusiastic. But the truth is, fear is a very normal and valid human reaction, especially when you are planning to start your own business! In fact, my biggest fear was the fear of failing. The reality is, entrepreneurs fail as much as they succeed. The trick is to not allow the fear of failing to stop you from going ahead with your plans. Remember, failures are lessons for future success!

Interviewer: What, according to you, is the reason that entrepreneurs fail?
Shyam: Well, there is no one single reason why entrepreneurs fail. An entrepreneur can fail due to numerous reasons. You could fail because you have allowed your fear of failure to defeat you. You could fail because you are unwilling to delegate (distribute) work. As the saying goes, “You can do anything, but not everything!” You could fail because you gave up too easily – maybe you were not persistent enough. You could fail because you were focusing your energy on small, insignificant tasks and ignoring the tasks that were most important. Other reasons for failing are partnering with the wrong people, not being able to sell your product to the right customers at the right time at the right price... and many more reasons!

Interviewer: As an entrepreneur, how do you feel failure should be looked at?

Shyam: I believe we should all look at failure as an asset, rather than as something negative. The way I see it, if you have an idea, you should try to make it work, even if there is a chance that you will fail. That’s because not trying is failure right there, anyway! And failure is not the worst thing that can happen. I think having regrets because of not trying, and wondering ‘what if’ is far worse than trying and actually failing.

Interviewer: How did you feel when you failed for the first time?

Shyam: I was completely heartbroken! It was a very painful experience. But the good news is, you do recover from the failure. And with every subsequent failure, the recovery process gets a lot easier. That’s because you start to see each failure more as a lesson that will eventually help you succeed, rather than as an obstacle that you cannot overcome. You will start to realize that failure has many benefits.

Interviewer: Can you tell us about some of the benefits of failing?

Shyam: One of the benefits that I have experienced personally from failing is that the failure made me see things in a new light. It gave me answers that I didn’t have before. Failure can make you a lot stronger. It also helps keep your ego in control.

Interviewer: What advice would you give entrepreneurs who are about to start their own enterprises?

Shyam: I would tell them to do their research and ensure that their product is something that is actually wanted by customers. I’d tell them to pick their partners and employees very wisely and cautiously. I’d tell them that it’s very important to be aggressive – push and market your product as aggressively as possible. I would warn them that starting an enterprise is very expensive and that they should be prepared for a situation where they run out of money.

I would tell them to create long term goals and put a plan in action to achieve that goal. I would tell them to build a product that is truly unique. Be very careful and ensure that you are not copying another startup. Lastly, I’d tell them that it’s very important that they find the right investors.

Interviewer: That’s some really helpful advice, Shyam! I’m sure this will help all entrepreneurs to be more prepared before they begin their journey! Thank you for all your insight!

Notes for Facilitation

- Summarise the main points of the unit.
- Ask participants if they have any doubts. Encourage them to ask questions.
- Answer their queries satisfactorily.
- Ask them to answer the questions at the end of unit given in the participant’s manual.
- Ensure that every participant answer all questions.
UNIT 13.6: Preparing to be an Entrepreneur

Unit Objectives

At the end of the unit, students 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. Understand 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 your own enterprise
16. List important questions that every entrepreneur should ask before starting an enterprise

Resources to be Used

- Available objects such as black or white Board, chalk pieces or white board marker pens, duster.
- Pc with LCD Projector or Flip Chart.
- Participant Manual.
- Copies of Handouts.

Do

- Greet and welcome the participants to the next session of the program.
- Before starting the session ask them do they have any doubts pertaining to the previous unit.
- Acknowledge their responses and clear their doubts if any.
- Tell them they will learn about Preparing to be an Entrepreneur.
Tell the participants about the market study.

Understanding Market Research
Market research is the process of gathering, analyzing and interpreting market information on a product or service that is being sold in that market. It also includes information on:

- Past, present and prospective customers
- Customer characteristics and spending habits
- The location and needs of the target market
- The overall industry
- Relevant competitors

Market research involves two types of data:
- Primary information. This is research collected by yourself or by someone hired by you.
- Secondary information. This is research that already exists and is out there for you to find and use.

Primary research
Primary research can be of two types:
- Exploratory: This is open-ended and usually involves detailed, unstructured interviews.
- Specific: This is precise and involves structured, formal interviews. Conducting specific research is the more expensive than conducting exploratory research.

Secondary research
Secondary research uses outside information. Some common secondary sources are:

- Public sources: These are usually free and have a lot of good information. Examples are government departments, business departments of public libraries etc.
- Commercial sources: These offer valuable information but usually require a fee to be paid. Examples are research and trade associations, banks and other financial institutions etc.
- Educational institutions: These offer a wealth of information. Examples are colleges, universities, technical.

Tell the participants about the 4 Ps of marketing.
Tell them – The 4 Ps of marketing are:

- **Product**,  
- **Price**,  
- **Promotion and**  
- **Place**.

Let’s look at each of these 4 Ps in detail.

**Product**
A product can be:
- A tangible good  
- An intangible service

Whatever your product is, it is critical that you have a clear understanding of what you are offering, and what its unique characteristics are, before you begin with the marketing process.

Some questions to ask yourself are:
- What does the customer want from the product/service?  
- What needs does it satisfy?  
- Are there any more features that can be added?  
- Does it have any expensive and unnecessary features?  
- How will customers use it?  
- What should it be called?  
- How is it different from similar products?  
- How much will it cost to produce?  
- Can it be sold at a profit?

**Price**
Once all the elements of Product have been established, the Price factor needs to be considered. The Price of a Product will depend on several factors such as profit margins, supply, demand and the marketing strategy.

Some questions to ask yourself are:
- What is the value of the product/service to customers?  
- Do local products/services have established price points?  
- Is the customer price sensitive?  
- Should discounts be offered?  
- How is your price compared to that of your competitors?

**Promotion**
Once you are certain about your Product and your Price, the next step is to look at ways to promote it. Some key elements of promotion are advertising, public relations, social media marketing, email marketing, search engine marketing, video marketing and more.
Some questions to ask yourself are:

- Where should you promote your product or service?
- What is the best medium to use to reach your target audience?
- When would be the best time to promote your product?
- How are your competitors promoting their products?

**Place**

According to most marketers, the basis of marketing is about offering the right product, at the right price, at the right place, at the right time. For this reason, selecting the best possible location is critical for converting prospective clients into actual clients.

Some questions to ask yourself are:

- Will your product or service be looked for in a physical store, online or both?
- What should you do to access the most appropriate distribution channels?
- Will you require a sales force?
- Where are your competitors offering their products or services?
- Should you follow in your competitors’ footsteps?
- Should you do something different from your competitors?

**Importance of an IDEA**

Ideas are the foundation of progress. An idea can be small or ground-breaking, easy to accomplish or extremely complicated to implement. Whatever the case, the fact that it is an idea gives it merit. Without ideas, nothing is possible. Most people are afraid to speak out their ideas, out for fear of being ridiculed. However, if you are an entrepreneur and want to remain competitive and innovative, you need to bring your ideas out into the light.

**Some ways to do this are by:**

- Establishing a culture of brainstorming where you invite all interested parties to contribute
- Discussing ideas out loud so that people can add their ideas, views, opinions to them
- Being open minded and not limiting your ideas, even if the idea who have seems ridiculous
- Not discarding ideas that you don’t work on immediately, but instead making a note of them and shelving them so they can be revisited at a later date.

**Say**

- Tell the participants about the Business entity concepts. If your aim is to start and run a business, it is crucial that you have a good understanding of basic business terms.
Tell them – Every entrepreneur should be well versed in the following terms:

- **Accounting**: A systematic method of recording and reporting financial transactions.
- **Accounts payable**: Money owed by a company to its creditors.
- **Accounts Receivable**: The amount a company is owed by its clients.
- **Assets**: The value of everything a company owns and uses to conduct its business.
- **Balance Sheet**: A snapshot of a company’s assets, liabilities and owner’s equity at a given moment.
- **Bottom Line**: The total amount a business has earned or lost at the end of a month.
- **Business**: An organization that operates with the aim of making a profit.
- **Business to Business (B2B)**: A business that sells goods or services to another business.
- **Business to Consumer (B2C)**: A business that sells goods or services directly to the end user.
- **Capital**: The money a business has in its accounts, assets and investments. The two main types of capital are debt and equity.
- **Cash Flow**: The overall movement of funds through a business each month, including income and expenses.
- **Cash Flow Statement**: A statement showing the money that entered and exited a business during a specific period of time.
- **Contract**: A formal agreement to do work for pay.
- **Depreciation**: The degrading value of an asset over time.
- **Expense**: The costs that a business incurs through its operations.
- **Finance**: The management and allocation of money and other assets.
- **Financial Report**: A comprehensive account of a business’ transactions and expenses.
- **Fixed Cost**: A one-time expense.
- **Income Statement (Profit and Loss Statement)**: Shows the profitability of a business during a period of time.
- **Liabilities**: The value of what a business owes to someone else.
- **Marketing**: The process of promoting, selling and distributing a product or service.
- **Net Income/Profit**: Revenues minus expenses.
- **Net Worth**: The total value of a business.
- **Payback Period**: The amount of time it takes to recover the initial investment of a business.
- **Profit Margin**: The ratio of profit, divided by revenue, displayed as a percentage.
- **Return on Investment (ROI)**: The amount of money a business gets as return from an investment.
- **Revenue**: The total amount of income before expenses are subtracted.
- **Sales Prospect**: A potential customer.
- **Supplier**: A provider of supplies to a business.
- **Target Market**: A specific group of customers at which a company’s products and services are aimed.
- **Valuation**: An estimate of the overall worth of the business.
Facilitator Guide

Say

• Tell the participants about the CRM. CRM stands for Customer Relationship Management. Originally the expression Customer Relationship Management meant managing one’s relationship with customers. However, today it refers to IT systems and software designed to help companies manage their relationships.

Elaborate

The Need for CRM
The better a company can manage its relationships with its customers, the higher the chances of the company’s success. For any entrepreneur, the ability to successfully retain existing customers and expand the enterprise is paramount. This is why IT systems that focus on addressing the problems of dealing with customers on a daily basis are becoming more and more in demand.

Customer needs change over time, and technology can make it easier to understand what customers really want. This insight helps companies to be more responsive to the needs of their customers. It enables them to modify their business operations when required, so that their customers are always served in the best manner possible.

Simply put, CRM helps companies recognize the value of their clients and enables them to capitalize on improved customer relations.

Benefits of CRM
CRM has a number of important benefits:
• It helps improve relations with existing customers which can lead to:
  • Increased sales
  • Identification of customer needs
  • Cross-selling of products
• It results in better marketing of one’s products or services
• It enhances customer satisfaction and retention
• It improves profitability by identifying and focusing on the most profitable customers

Say

• Tell the participants about the Networking. In business, networking means leveraging your business and personal connections in order to bring in a regular supply of new business. This marketing method is effective as well as low cost. It is a great way to develop sales opportunities and contacts.

Elaborate

Tell them – Networking can be based on referrals and introductions, or can take place via phone, email, and social and business networking websites.
The Need for Networking

Networking is an essential personal skill for business people, but it is even more important for entrepreneurs. The process of networking has its roots in relationship building. Networking results in greater communication and a stronger presence in the entrepreneurial ecosystem. This helps build strong relationships with other entrepreneurs.

Business networking events held across the globe play a huge role in connecting like-minded entrepreneurs who share the same fundamental beliefs in communication, exchanging ideas and converting ideas into realities. Such networking events also play a crucial role in connecting entrepreneurs with potential investors. Entrepreneurs may have vastly different experiences and backgrounds but they all have a common goal in mind – they all seek connection, inspiration, advice, opportunities and mentors. Networking offers them a platform to do just that.

Benefits of Networking

Networking offers numerous benefits for entrepreneurs. Some of the major benefits are:

- Getting high quality leads
- Increased business opportunities
- Good source of relevant connections
- Advice from like-minded entrepreneurs
- Gaining visibility and raising your profile
- Meeting positive and enthusiastic people
- Increased self-confidence
- Satisfaction from helping others
- Building strong and lasting friendships

Say

Tell the participants about the Business Plans. Setting goals is important because it gives you long-term vision and short-term motivation. Goals can be short term, medium term and long term.

Elaborate

Tell them – Short-Term Goals

- These are specific goals for the immediate future. Example: Repairing a machine that has failed. Medium-Term Goals
- These goals are built on your short term goals.
- They do not need to be as specific as your short term goals.

Example: Arranging for a service contract to ensure that your machines don’t fail again.
Long-Term Goals
These goals require time and planning. They usually take a year or more to achieve.
Example: Planning your expenses so you can buy new machinery

Why Create a Business Plan
A business plan is a tool for understanding how your business is put together. It can be used to monitor progress, foster accountable and control the fate of the business. It usually offers a 3-5 year projection and outlines the plan that the company intends to follow to grow its revenues. A business plan is also a very important tool for getting the interest of key employees or future investors.

A business plan typically comprises of eight elements.

Say

• Tell the participants about the Elements of a Business Plans. The executive summary follows the title page. The summary should clearly state your desires as the business owner in a short and businesslike way. It is an overview of your business and your plans. Ideally this should not be more than 1-2 pages.

Elaborate

Tell them – Your Executive Summary should include:
• The Mission Statement: Explain what your business is all about.
• Example: Nike’s Mission Statement
• Nike’s mission statement is “To bring inspiration and innovation to every athlete in the world.”
• Company Information: Provide information like when your business was formed, the names and roles of the founders, the number of employees, your business location(s) etc.
• Growth Highlights: Mention examples of company growth. Use graphs and charts where possible.
• Your Products/Services: Describe the products or services provided.
• Financial Information: Provide details on current bank and investors.
• Summarize future plans: Describe where you see your business in the future.

Business Description
The second section of your business plan needs to provide a detailed review of the different elements of your business. This will help potential investors to correctly understand your business goal and the uniqueness of your offering.

Your Business Description should include:
• A description of the nature of your business
• The market needs that you are aiming to satisfy
• The ways in which your products and services meet these needs
• The specific consumers and organizations that you intend to serve
• Your specific competitive advantages

Market Analysis
The market analysis section usually follows the business description. The aim of this section is to showcase your industry and market knowledge. This is also the section where you should lay down your research findings and conclusions.

Your Market Analysis should include:
• Your industry description and outlook
• Information on your target market
• The needs and demographics of your target audience
• The size of your target market
• The amount of market share you want to capture
• Your pricing structure
• Your competitive analysis
• Any regulatory requirements

Organization & Management
This section should come immediately after the Market Analysis. Your Organization & Management section should include:
• Your company’s organizational structure
• Details of your company’s ownership
• Details of your management team
• Qualifications of your board of directors
• Detailed descriptions of each division/department and its function
• The salary and benefits package that you offer your people
• The incentives that you offer

Service or Product Line
The next section is the service or product line section. This is where you describe your service or product, and stress on their benefits to potential and current customers. Explain in detail why your product of choice will fulfill the needs of your target audience.

Your Service or Product Line section should include:
• A description of your product/service
• A description of your product or service’s life cycle
• A list of any copyright or patent filings
• A description of any R&D activities that you are involved in or planning

Marketing & Sales
Once the Service or Product Line section of your plan has been completed, you should start on the description of the marketing and sales management strategy for your business.
Your Marketing section should include the following strategies:

- **Market penetration strategy:** This strategy focuses on selling your existing products or services in existing markets, in order to increase your market share.

- **Growth strategy:** This strategy focuses on increasing the amount of market share, even if it reduces earnings in the short-term.

- **Channels of distribution strategy:** These can be wholesalers, retailers, distributors and even the internet.

- **Communication strategy:** These can be written strategies (e-mail, text, chat), oral strategies (phone calls, video chats, face-to-face conversations), non-verbal strategies (body language, facial expressions, tone of voice) and visual strategies (signs, webpages, illustrations).

Your Sales section should include the following information:

- A salesforce strategy: This strategy focuses on increasing the revenue of the enterprise.

- A breakdown of your sales activities: This means detailing out how you intend to sell your products or services – will you sell it offline or online, how many units do you intend to sell, what price do you plan to sell each unit at, etc.

### Funding Request

This section is specifically for those who require funding for their venture. The Funding Request section should include the following information:

- How much funding you currently require.

- How much funding you will require over the next five years. This will depend on your long-term goals.

- The type of funding you want and how you plan to use it. Do you want funding that can be used only for a specific purpose, or funding that can be used for any kind of requirement?

- Strategic plans for the future. This will involve detailing out your long-term plans – what these plans are and how much money you will require to put these plans in motions.

- Historical and prospective financial information. This can be done by creating and maintaining all your financial records, right from the moment your enterprise started, to the present day. Documents required for this are your balance sheet which contains details of your company’s assets and liabilities, your income statement which lists your company’s revenues, expenses and net income for the year, your tax returns (usually for the last three years) and your cash flow budget which lists the cash that came in, the cash that went out and states whether you had a cash deficit (negative balance) or surplus (positive balance) at the end of each month.

### Financial Planning

Before you begin building your enterprise, you need to plan your finances. Take a look at the steps for financial planning:

- **Step 1:** Create a financial plan. This should include your goals, strategies and timelines for accomplishing these goals.

- **Step 2:** Organize all your important financial documents. Maintain a file to hold your investment details, bank statements, tax papers, credit card bills, insurance papers and any other financial records.

- **Step 3:** Calculate your net worth. This means figure out what you own (assets like your house, bank accounts, investments etc.), and then subtract what you owe (liabilities like loans, pending credit card amounts etc.) the amount you are left with is your net worth.
• **Step 4**: Make a spending plan. This means write down in detail where your money will come from, and where it will go.

• **Step 5**: Build an emergency fund. A good emergency fund contains enough money to cover at least 6 months’ worth of expenses.

• **Step 6**: Set up your insurance. Insurance provides long term financial security and protects you against risk

**Risk Management**

As an entrepreneur, it is critical that you evaluate the risks involved with the type of enterprise that you want to start, before you begin setting up your company. Once you have identified potential risks, you can take steps to reduce them. Some ways to manage risks are:

• Research similar business and find out about their risks and how they were minimized.

• Evaluate current market trends and find out if similar products or services that launched a while ago are still being well received by the public.

• Think about whether you really have the required expertise to launch your product or service.

• Examine your finances and see if you have enough income to start your enterprise.

• Be aware of the current state of the economy, consider how the economy may change over time, and think about how your enterprise will be affected by any of those changes.

• Create a detailed business plan.

**Say**

• Tell the participants what Information Should Entrepreneurs Offer Banks for Funding. When approaching a bank, entrepreneurs must have a clear idea of the different criteria that banks use to screen, rate and process loan applications. Entrepreneurs must also be aware of the importance of providing banks with accurate and correct information.

**Elaborate**

Tell them – It is now easier than ever for financial institutions to track any default behaviour of loan applicants. Entrepreneurs looking for funding from banks must provide banks with information relating to their general credentials, financial situation and guarantees or collaterals that can be offered.

**General Credentials**

This is where you, as an entrepreneur, provide the bank with background information on yourself. Such information includes:

• **Letter(s) of Introduction**: This letter should be written by a respected business person who knows you well enough to introduce you. The aim of this letter is set across your achievements and vouch for your character and integrity.

• **Your Profile**: This is basically your resume. You need to give the bank a good idea of your educational achievements, professional training, qualifications, employment record and achievements.
• **Business Brochure**: A business brochure typically provides information on company products, clients, how long the business has been running for etc.

• **Bank and Other References**: If you have an account with another bank, providing those bank references is a good idea.

• **Proof of Company Ownership or Registration**: In some cases, you may need to provide the bank with proof of company ownership and registration. A list of assets and liabilities may also be required.

**Financial Situation**
Banks will expect current financial information on your enterprise. The standard financial reports you should be prepared with are:

• Balance Sheet
• Profit-and-Loss Account
• Cash-Flow Statement
• Projected Sales and Revenues
• Business Plan
• Feasibility Study

**Guarantees or Collaterals**
Usually banks will refuse to grant you a loan without security. You can offer assets which the bank can seize and sell off if you do not repay the loan. Fixed assets like machinery, equipment, vehicles etc. are also considered to be security for loans.

**Say**

• Tell the participants about the landing criteria of banks.

**Elaborate**

Tell them – Your request for funding will have a higher chance of success if you can satisfy the following lending criteria:

• Good cash flow
• Adequate shareholders’ funds
• Adequate security
• Experience in business
• Good reputation

**The Procedure**
To apply for funding the following procedure will need to be followed.
Submit your application form and all other required documents to the bank.

The bank will carefully assess your credit worthiness and assign ratings by analyzing your business information with respect to parameters like management, financial, operational and industry information as well as past loan performance.

The bank will make a decision as to whether or not you should be given funding.

Tell the participants about the Enterprise Management. To manage your enterprise effectively you need to look at many different aspects, right from managing the day-to-day activities to figuring out how to handle a large scale event.

**Say**

Tell them – Let’s take a look at some simple steps to manage your company effectively.

**Step 1: Use your leadership skills and ask for advice when required.**

Let’s take the example of Ramu, an entrepreneur who has recently started his own enterprise. Ramu has good leadership skills – he is honest, communicates well, knows how to delegate work etc. These leadership skills definitely help Ramu in the management of his enterprise. However, sometimes Ramu comes across situations that he is unsure how to handle. What should Ramu do in this case? One solution is for him to find a more experienced manager who is willing to mentor him. Another solution is for Ramu to use his networking skills so that he can connect with managers from other organizations, who can give him advice on how to handle such situations.

**Step 2: Divide your work amongst others – realize that you cannot handle everything yourself.**

Even the most skilled manager in the world will not be able to manage every single task that an enterprise will demand of him. A smart manager needs to realize that the key to managing his enterprise lies in his dividing all his work between those around him. This is known as delegation. However, delegating is not enough. A manager must delegate effectively if he wants to see results. This is important because delegating, when done incorrectly, can result in you creating even more work for yourself. To delegate effectively, you can start by making two lists. One list should contain the things that you know you need to handle yourself. The second list should contain the things that you are confident can be given to others to manage and handle. Besides incorrect delegation, another issue that may arise is over-delegation. This means giving away too many of your tasks to others. The problem with this is, the more tasks you delegate, the more time you will spend tracking and monitoring the work progress of those you have handed the tasks to. This will leave you with very little time to finish your own work.

**Step 3: Hire the right people for the job.**

Hiring the right people goes a long way towards effectively managing your enterprise. To hire the best people suited for the job, you need to be very careful with your interview process. You should ask potential candidates the right questions and evaluate their answers carefully. Carrying out background checks is always a good practice. Running a credit check is also a good idea, especially if the people you are planning to hire will be handling your money. Create a detailed job description for each role that you want filled and ensure that all candidates have a clear and correct understanding of the job description. You should also have an employee manual in place, where
you put down every expectation that you have from your employees. All these actions will help ensure that the right people are approached for running your enterprise.

**Step 4: Motivate your employees and train them well.**

Your enterprise can only be managed effectively if your employees are motivated to work hard for your enterprise. Part of being motivated involves your employees believing in the vision and mission of your enterprise and genuinely wanting to make efforts towards pursuing the same. You can motivate your employees with recognition, bonuses and rewards for achievements. You can also motivate them by telling them about how their efforts have led to the company’s success. This will help them feel pride and give them a sense of responsibility that will increase their motivation.

Besides motivating your people, your employees should be constantly trained in new practices and technologies. Remember, training is not a one-time effort. It is a consistent effort that needs to be carried out regularly.

**Step 5: Train your people to handle your customers well.**

Your employees need to be well-versed in the art of customer management. This means they should be able to understand what their customers want, and also know how to satisfy their needs. For them to truly understand this, they need to see how you deal effectively with customers. This is called leading by example. Show them how you sincerely listen to your clients and the efforts that you put into understand their requirements. Let them listen to the type of questions that you ask your clients so they understand which questions are appropriate.

**Step 6: Market your enterprise effectively.**

Use all your skills and the skills of your employees to market your enterprise in an effective manner. You can also hire a marketing agency if you feel you need help in this area.

Now that you know what is required to run your enterprise effectively, put these steps into play, and see how much easier managing your enterprise becomes!

---

### Say

- Tell the participants about Considering Entrepreneurship.

### Elaborate

Tell them – Questions to Ask Yourself before Considering Entrepreneurship:

- Why am I starting a business?
- What problem am I solving?
- Have others attempted to solve this problem before? Did they succeed or fail?
- Do I have a mentor1 or industry expert that I can call on?
- Who is my ideal customer2?
- Who are my competitors3?
What makes my business idea different from other business ideas?
What are the key features of my product or service?
Have I done a SWOT analysis?
What is the size of the market that will buy my product or service?
What would it take to build a minimum viable product to test the market?
How much money do I need to get started?
Will I need to get a loan?
How soon will my products or services be available?
When will I break even or make a profit?
How will those who invest in my idea make a profit?
How should I set up the legal structure of my business?
What taxes will I need to pay?
What kind of insurance will I need?
Have I reached out to potential customers for feedback

Notes for Facilitation

- Summarise the main points of the unit.
- Ask participants if they have any doubts. Encourage them to ask questions.
- Answer their queries satisfactorily.
- Ask them to answer the questions at the end of unit given in the participant’s manual.
- Ensure that every participant answer all questions.
14. Annexures

Annexure I: Training Delivery Plan
Annexure II: Assessment Criteria
# Annexure I

## Training Delivery Plan

<table>
<thead>
<tr>
<th>Training Delivery Plan</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Program Name:</strong></td>
<td>Rubber Material Handling and Storage Operator</td>
</tr>
<tr>
<td><strong>Qualification Pack Name &amp; Ref. ID:</strong></td>
<td>RSC/Q3301</td>
</tr>
<tr>
<td><strong>Version No.:</strong></td>
<td>V1.0</td>
</tr>
<tr>
<td><strong>Version Update Date:</strong></td>
<td>As per QP</td>
</tr>
</tbody>
</table>

**Pre-requisites to Training:** Training on operation of machinery

**Training Outcomes:**

By the end of this program, the participants would have achieved the following competencies:

- Perform rubber product loading/unloading activity
- Carry out rubber product assembling and packaging
- Undertake storage of rubber product
- Undertake rubber product dispatch activities
- Carry out housekeeping
- Carry out reporting and documentation
- Carry out quality checks
- Carry out problem identification and escalation
<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Module Name</th>
<th>Session Name</th>
<th>Session Objectives</th>
<th>NOS</th>
<th>Methodology</th>
<th>Training Tools/Aids</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Global &amp; National Status of Rubber Industry</td>
<td>Introduction to Rubber &amp; Rubber Sector</td>
<td>Theory: • Learn about rubber and its properties. • Learn about vulcanisation of rubber. • Learn about rubber industry in India. • Learn about institutional support for rubber sector.</td>
<td>Bridge Module</td>
<td>Facilitator-led – Discussion • Demonstration</td>
<td>Available Objects such as a book, pen, duster, white board, marker, Computer, Projector etc.</td>
<td>4:00 hr.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Theory: • Learn about international grade descriptions for sheet rubber.</td>
<td>Bridge Module</td>
<td>Facilitator-led – Discussion • Demonstration</td>
<td>Available Objects such as a book, pen, duster, white board, marker, Computer, Projector etc.</td>
<td>4:00 hrs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Practical: Demonstrate • Rubber and its properties. • Vulcanisation of rubber</td>
<td>Bridge Module</td>
<td>Practical Lab</td>
<td>Note Pad, Pen, charts</td>
<td>5:00 hrs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Practical: Demonstrate • International Grade Descriptions for Sheet Rubber</td>
<td>Bridge Module</td>
<td>Practical Lab</td>
<td>Note Pad, Pen, charts</td>
<td>5:00 hrs.</td>
</tr>
<tr>
<td>2</td>
<td>Job of a Material Handling and Storage Operator</td>
<td>Introduction to Material Handling Equipment</td>
<td>Theory: • Familiarise with the job of a material handling and storage operator • Perform roles and responsibilities of a material handling and storage operator</td>
<td>RSC/N3301 PC1-PC23 KA1-KA16 KB1-KB17</td>
<td>Power-point presentation • Facilitator-led - discussion • Audio-visuals Images</td>
<td>Available Objects such as a book, pen, duster, white board, marker, Computer, Projector etc.</td>
<td>2:00 hrs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Practical: Demonstrate</td>
<td>RSC/N3301 PC1-PC23 KA1-KA16 KB1-KB17</td>
<td>Practical Lab</td>
<td>Note Pad, Pen, charts</td>
<td>1:00 hrs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Practical: Demonstrate</td>
<td>RSC/N3301 PC1-PC23 KA1-KA16 KB1-KB17</td>
<td>Practical Lab</td>
<td>Note Pad, Pen, charts</td>
<td>4:00 hrs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Practical: Demonstrate</td>
<td>RSC/N3301 PC1-PC23 KA1-KA16 KB1-KB17</td>
<td>Practical Lab</td>
<td>Note Pad, Pen, charts</td>
<td>4:00 hrs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Practical: Demonstrate</td>
<td>RSC/N3301 PC1-PC23 KA1-KA16 KB1-KB17</td>
<td>Practical Lab</td>
<td>Note Pad, Pen, charts</td>
<td>3:00 hrs.</td>
</tr>
<tr>
<td>Facilitator Guide</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Practical: Demonstrate</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Practice using various positioning equipment used in rubber processing.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RSC/N3301 PC1-PC23 KA1-KA16 KB1-KB17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Practical Lab</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note Pad, Pen, charts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Unit Load Formation Equipment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Theory:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Identify various unit load equipment used in rubber processing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Learn to use equipment like pallets, skids, tote pans, cartons, shrink wrap etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RSC/N3301 PC1-PC23 KA1-KA16 KB1-KB17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Power-point presentation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Facilitator- led discussion</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Audio- visuals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Images</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Available Objects such as a book, pen, duster, white board, marker, Computer, Projector etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>6:00 hrs.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Practical: Demonstrate</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Unit Load Equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RSC/N3301 PC1-PC23 KA1-KA16 KB1-KB17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Practical Lab</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note Pad, Pen, charts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2:00 hrs.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Principles of Designing and Selecting Material Handling System</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Theory:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Paraphrase the principles of designing and selecting material handling system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RSC/N3301 PC1-PC23 KA1-KA16 KB1-KB17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Power-point presentation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Facilitator- led discussion</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Audio- visuals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Images</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Available Objects such as a book, pen, duster, white board, marker, Computer, Projector etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2.00 hrs.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3. Rubber Product Packaging and Assembling</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Packaging and Assembling</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Theory:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Familiarise with the concept of packaging and assembling</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Paraphrase the world packaging market</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Learn about the Packaging Development</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Functions of Packaging</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Learn about Protection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Learn about Convenience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Learn about Package Environment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Identify the tools and equipment used in packaging and assembling</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RSC/N3302 PC1-PC32 KA1-KA15 KB1-KB29</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Power-point presentation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Facilitator- led discussion</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Audio- visuals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Images</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Available Objects such as a book, pen, duster, white board, marker, Computer, Projector etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>4:00 hrs.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Practical: Demonstrate</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Packaging</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Practice proper assembling procedures and techniques</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Gain working knowledge of defects on products to be assembled</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Tools and Equipment used in Packaging</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RSC/N3302 PC1-PC32 KA1-KA15 KB1-KB29</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Practical Lab</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note Pad, Pen, charts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5:00 hrs.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Standard Operating Procedures</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Theory:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Explain the Standard operating procedures (SOPs) and their types</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Prepare SOPs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Paraphrase the product life cycle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RSC/N3302 PC1-PC32 KA1-KA15 KB1-KB29</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Power-point presentation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Facilitator- led discussion</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Audio- visuals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Images</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Available Objects such as a book, pen, duster, white board, marker, Computer, Projector etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3:00 hrs.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Practical: Demonstrate</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Set up specifications for the machine in accordance with the company’s SOP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Examine the product cautiously for and abnormalities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RSC/N3302 PC1-PC32 KA1-KA15 KB1-KB29</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Practical Lab</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note Pad, Pen, charts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5:00 hrs.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Weighing of Ingredients

**Theory:**
- Weigh the ingredients accurately
- Understand the sequence of weighing
- Store and identify the weighed materials

**Practical:**
- Sequencing of weighing
- Weighing of Chemical for Master Batch
- Weighing of Chemicals for Final Batch

**RSC/N3302**
- PC1-PC32
- KA1-KA15
- KB1-KB29

**Power-point presentation**
- Facilitator-led discussion
- Audio-visuals Images

Available Objects such as a book, pen, duster, white board, marker, Computer, Projector etc.

**3:00 hrs.**

### Storage of Material

**Theory:**
- Identify various storage equipment used in rubber processing.
- Use equipment like pallet rack, drive through rack etc.

**Practical:**
- Block Stacking
- Selective Pallet Back.
- Drive-Through Rack.

**RSC/N3303**
- PC1-PC36
- KA1-KA16
- KB1-KB28

**Power-point presentation**
- Facilitator-led discussion
- Audio-visuals Images

Available Objects such as a book, pen, duster, white board, marker, Computer, Projector etc.

**8:00 hrs.**

---

<table>
<thead>
<tr>
<th>Activity</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighing of Ingredients</td>
<td>3:00 hrs.</td>
</tr>
<tr>
<td>Storage of Equipment</td>
<td>3:00 hrs.</td>
</tr>
<tr>
<td>Storage of Material</td>
<td>4:00 hrs.</td>
</tr>
<tr>
<td>Undertake Storage of Material</td>
<td>2:00 hrs.</td>
</tr>
<tr>
<td>Practical: Demonstrate</td>
<td>3:00 hrs.</td>
</tr>
<tr>
<td>Practical: Demonstrate</td>
<td>2:00 hrs.</td>
</tr>
<tr>
<td>Practical: Demonstrate</td>
<td>4:00 hrs.</td>
</tr>
<tr>
<td>Practical: Demonstrate</td>
<td>6:00 hrs.</td>
</tr>
<tr>
<td>Practical: Demonstrate</td>
<td>5:00 hrs.</td>
</tr>
<tr>
<td>Practical: Demonstrate</td>
<td>5:00 hrs.</td>
</tr>
<tr>
<td>Practical: Demonstrate</td>
<td>4:00 hrs.</td>
</tr>
<tr>
<td>5.</td>
<td>Undertake Dispatch Activities</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>
| **Theory:** | • Check pre-shipment document.  
• Understand and identify the best suitable logistics as per buyer’s standard.  
• Interpret and negotiate the logistics cost with different type of shipment mode | RSC/N3304 PC1-PC20 KA1-KA19 KB1-KB18  
• Power-point presentation  
• Facilitator-led discussion  
• Audio-visuals Images  
Available Objects such as a book, pen, duster, white board, marker, Computer, Projector etc. |
| **Theory:** | • Communicate with logistic agency, buying offices and byers.  
• Get knowledge of different types of transport and the best suitable method. | RSC/N3304 PC1-PC20 KA1-KA19 KB1-KB18  
• Power-point presentation  
• Facilitator-led discussion  
• Audio-visuals Images  
Available Objects such as a book, pen, duster, white board, marker, Computer, Projector etc. |
| **Theory:** | • Track the shipment and follow up for a payment.  
• Manage dispatch processes as per norms. | RSC/N3304 PC1-PC20 KA1-KA19 KB1-KB18  
• Power-point presentation  
• Facilitator-led discussion  
• Audio-visuals Images  
Available Objects such as a book, pen, duster, white board, marker, Computer, Projector etc. |
| **Practical: Demonstrate** | • Assemble the transportation or courier services in accordance with the need.  
• Assemble the trolleys/forklift and other tools needed for shifting the product from one place to another and for loading it on a dispatch vehicle.  
• Comply with all particular customer products (like number of pieces and their identifications complete with all the extra items) while dispatch | RSC/N3304 PC1-PC20 KA1-KA19 KB1-KB18  
• Practical Lab  
Note Pad, Pen, charts  
5:00 hrs. |
| **Practical: Demonstrate** | • Use first aid knowledge for managing any medical condition.  
• Use proper procedure of dispatch of final product. | RSC/N3304 PC1-PC20 KA1-KA19 KB1-KB18  
• Practical Lab  
Note Pad, Pen, charts  
5:00 hrs. |
| **Practical: Demonstrate** | • Gain practical knowledge of effective use of space inside the dispatch vehicles.  
• Gain practical knowledge of first aid treatment to respond to injuries. | RSC/N3304 PC1-PC20 KA1-KA19 KB1-KB18  
• Practical Lab  
Note Pad, Pen, charts  
5:00 hrs. |
| **Practical: Demonstrate** | • Compose the order sheet from the prominent sector in writing duly approved and signed by the designated authority.  
• Tell the consumer and the designated authority for any postponement in dispatch. | RSC/N3304 PC1-PC20 KA1-KA19 KB1-KB18  
• Practical Lab  
Note Pad, Pen, charts  
5:00 hrs. |
| **6.** | Health & Safety | First Aid and CPR |
| **Theory:** | • Introduction to First Aid.  
• First Aid for different types of injuries.  
• Degree of Burns.  
• Splints and Aids of Torso.  
• Performing CPR. | RSC/N3304 PC1-PC20 KA1-KA19 KB1-KB18  
• Power-point presentation  
• Facilitator-led discussion  
• Audio-visuals Images  
Available Objects such as a book, pen, duster, white board, marker, Computer, Projector etc. |
### Material Handling and Storage Operator

**Theory:**
- CPR using AED.
- Chain of Survival.
- Apply first aid on an injured person.
- Understand the procedures of doing CPR.

**Power-point presentation**
- Facilitator-led discussion
- Audio-visuals

**Available Objects such as a book, pen, duster, white board, marker, Computer, Projector etc.**

<table>
<thead>
<tr>
<th>Practical: Demonstrate</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perform CPR using AED.</td>
<td>5:00 hrs.</td>
</tr>
<tr>
<td>Splints and AIDS of TORSO.</td>
<td>5:00 hrs.</td>
</tr>
<tr>
<td>Performing CPR for an Adult.</td>
<td>5:00 hrs.</td>
</tr>
<tr>
<td>Chain of survival.</td>
<td>5:00 hrs.</td>
</tr>
</tbody>
</table>

### Housekeeping

**Introduction to Housekeeping**

**Theory:**
- Perform Housekeeping activities
- Familiarise with the importance and purpose of Housekeeping
- Identify the Benefits of Good Housekeeping
- Recognize the concept of ‘5S’

**Power-point presentation**
- Facilitator-led discussion
- Audio-visuals

| Available Objects such as a book, pen, duster, white board, marker, Computer, Projector etc. |

<table>
<thead>
<tr>
<th>Practical: Demonstrate</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefits of good housekeeping</td>
<td>2:00 hrs.</td>
</tr>
<tr>
<td>‘5S’ Concept</td>
<td>3:00 hrs.</td>
</tr>
</tbody>
</table>

### Pre Housekeeping Activities

**Theory:**
- Perform pre-housekeeping activities
- Identify the reasons and principles of doing cleaning
- Clean material, cleaning equipment and its maintenance
- Do inspection and how to select of cleaning method

**Power-point presentation**
- Facilitator-led discussion
- Audio-visuals

| Available Objects such as a book, pen, duster, white board, marker, Computer, Projector etc. |

<table>
<thead>
<tr>
<th>Practical: Demonstrate</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan housekeeping activity</td>
<td>5:00 hrs.</td>
</tr>
<tr>
<td>Identify signs of poor housekeeping</td>
<td>5:00 hrs.</td>
</tr>
<tr>
<td>Improve housekeeping at your workplaces</td>
<td>5:00 hrs.</td>
</tr>
<tr>
<td>Do recommended housekeeping practices</td>
<td>5:00 hrs.</td>
</tr>
</tbody>
</table>

### Housekeeping Practices

**Theory:**
- Cleaning material, equipment & its maintenance
- Inspection & Selection of Cleaning methods

**Power-point presentation**
- Facilitator-led discussion
- Audio-visuals

| Available Objects such as a book, pen, duster, white board, marker, Computer, Projector etc. |

<table>
<thead>
<tr>
<th>Practical: Demonstrate</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleaning material, equipment &amp; its maintenance</td>
<td>3:00 hrs.</td>
</tr>
<tr>
<td>Inspection &amp; Selection of Cleaning methods</td>
<td>1:00 hrs.</td>
</tr>
</tbody>
</table>

### Housekeeping Practices

**Theory:**
- Cleaning Manual Equipment
- Cleaning mechanical equipment

**Power-point presentation**
- Facilitator-led discussion
- Audio-visuals

| Available Objects such as a book, pen, duster, white board, marker, Computer, Projector etc. |

<table>
<thead>
<tr>
<th>Practical: Demonstrate</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleaning Manual Equipment</td>
<td>1:00 hrs.</td>
</tr>
<tr>
<td>Cleaning mechanical equipment</td>
<td>1:00 hrs.</td>
</tr>
</tbody>
</table>

### Housekeeping Practices

**Theory:**
- Plan housekeeping activity
- Housekeeping practices

**Power-point presentation**
- Facilitator-led discussion
- Audio-visuals

| Available Objects such as a book, pen, duster, white board, marker, Computer, Projector etc. |

<table>
<thead>
<tr>
<th>Practical: Demonstrate</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan housekeeping activity</td>
<td>1:00 hrs.</td>
</tr>
<tr>
<td>Housekeeping practices</td>
<td>1:00 hrs.</td>
</tr>
</tbody>
</table>
### Housekeeping Activities

**Theory:**
- Follow the cleaning methods
- Identify the elements of effective housekeeping program
- Deal with accidental damage
- Deal with accidental damage, if any, caused while carrying out the work
- Report the appropriate person any difficulties in carrying out your work
- Identify and report to the appropriate person any additional cleaning required that is outside one’s responsibility or skill

**Practical: Demonstrate**
- Elements of effective housekeeping program
- Cleaning methods

### Post Housekeeping Activities

**Theory:**
- Perform Post housekeeping activities
- Do equipment and supplies maintenance

**Practical: Demonstrate**
- Equipment & supply maintenance
- Equipment care
- Safety tips

### Reporting & Documentation

**Theory:**
- Report data/ problems/ incidents as applicable by following company reporting procedures
- Do documentation within stipulated time according to company procedure
- Respond to requests for information in an appropriate manner whilst following organizational procedures

**Practical: Demonstrate**
- Reporting
- Incident report
- Record keeping
<table>
<thead>
<tr>
<th>9.</th>
<th>Quality</th>
<th>To carry out quality check</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Theory:</strong></td>
<td></td>
<td>Practical: Demonstrate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RSC/N5002 PC1 – PC10 KA1 – KA17 KB1-KB14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RSC/N5003 PC1 – PC15 KA1-KA17 KB1 – KB13</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Practical Lab</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Note Pad, Pen, charts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5:00 hrs.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10.</th>
<th>Problem Identification &amp; Escalation</th>
<th>Problem Identification, Necessary Action &amp; Escalation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Theory:</strong></td>
<td></td>
<td>Practical: Demonstrate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RSC/N5004 PC1 – PC24 KA1-KA17 KB1 – KB15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RSC/N5004 PC1 – PC24 KA1-KA17 KB1 – KB15</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Practical Lab</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Note Pad, Pen, charts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5:00 hrs.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10.</th>
<th>Problem Identification &amp; Escalation</th>
<th>Problem Identification, Necessary Action &amp; Escalation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Theory:</strong></td>
<td></td>
<td>Practical: Demonstrate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RSC/N5004 PC1 – PC24 KA1-KA17 KB1 – KB15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RSC/N5004 PC1 – PC24 KA1-KA17 KB1 – KB15</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Practical Lab</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Note Pad, Pen, charts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5:00 hrs.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10.</th>
<th>Problem Identification &amp; Escalation</th>
<th>Problem Identification, Necessary Action &amp; Escalation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Theory:</strong></td>
<td></td>
<td>Practical: Demonstrate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RSC/N5004 PC1 – PC24 KA1-KA17 KB1 – KB15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RSC/N5004 PC1 – PC24 KA1-KA17 KB1 – KB15</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Practical Lab</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Note Pad, Pen, charts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5:00 hrs.</td>
</tr>
</tbody>
</table>
## Practical: Demonstrate
- **Problem identification**
  - RSC/N5004 PC1 – PC24 KA1-KA17 KB1 – KB15
- **Practical Lab**
  - Note Pad, Pen, charts
  - 7:00 hrs.
- **Problem escalation**
  - RSC/N5004 PC1 – PC24 KA1-KA17 KB1 – KB15
- **Practical Lab**
  - Note Pad, Pen, charts
  - 5:00 hrs.
- **Necessary action**
  - RSC/N5004 PC1 – PC24 KA1-KA17 KB1 – KB15
- **Practical Lab**
  - Note Pad, Pen, charts
  - 8:00 hrs.

### 11. Soft Skills & Communication Skills

#### Introduction to Soft Skills
- **Theory:**
  - Understand the basic meaning of Soft Skills, their components and their benefits.
  - Understand Work Readiness and its significance.
- **Bridge Module**
  - **Power-point presentation**
  - **Facilitator-led discussion**
  - **Audio-visuals Images**
  - Available Objects such as a book, pen, duster, white board, marker, Computer, Projector etc.

#### Effective Communication
- **Theory:**
  - Do public speaking.
  - Describe likes and dislikes of a person.
  - Know basic etiquette of conversation.
- **Bridge Module**
  - **Power-point presentation**
  - **Facilitator-led discussion**
  - **Audio-visuals Images**
  - Available Objects such as a book, pen, duster, white board, marker, Computer, Projector etc.

#### Grooming & Hygiene
- **Theory:**
  - Maintain cleanliness and hygiene.
  - Keep their dress clean and tidy.
  - Maintain positive body language while speaking.
  - Enable to perform more of the do’s than the don’ts.
  - Learn about good eating habit and their impact on health.
  - Avoiding bad things such as gutkha and alcohol.
  - Learn about AIDS and its prevention.
- **Bridge Module**
  - **Power-point presentation**
  - **Facilitator-led discussion**
  - **Audio-visuals Images**
  - Available Objects such as a book, pen, duster, white board, marker, Computer, Projector etc.

#### Interpersonal Skill Development
- **Theory:**
  - Develop a positive attitude and behaviour.
  - Understanding Goal Setting.
  - Motivated for team participation at work.
  - Learn how to manage relations.
  - Learn about Stress and anger management skills.
  - Learn to develop leadership qualities.
- **Bridge Module**
  - **Power-point presentation**
  - **Facilitator-led discussion**
  - **Audio-visuals Images**
  - Available Objects such as a book, pen, duster, white board, marker, Computer, Projector etc.

#### Social Interaction
- **Theory:**
  - Understand what is social interaction and what are social interaction behaviour.
  - Give a brief description about himself/herself in public.
  - Follow daily duties.
  - Cooperate with peers, family and other members in society.
- **Bridge Module**
  - **Power-point presentation**
  - **Facilitator-led discussion**
  - **Audio-visuals Images**
  - Available Objects such as a book, pen, duster, white board, marker, Computer, Projector etc.
<table>
<thead>
<tr>
<th>Theory</th>
<th>Bridge Module</th>
<th>Available Objects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group Interaction</td>
<td>Participate in group discussions in the class. Give speech in the public. Understand the importance of team building and team work.</td>
<td>Power-point presentation Facilitator-led discussion Audio-visuals Images</td>
</tr>
<tr>
<td>Time Management</td>
<td>Understand the importance of time management. Develop time management skills. Learn about effective time planning.</td>
<td>Power-point presentation Facilitator-led discussion Audio-visuals Images</td>
</tr>
<tr>
<td>Resume Preparation</td>
<td>Understand the importance of resume. Learn how to prepare a resume.</td>
<td>Power-point presentation Facilitator-led discussion Audio-visuals Images</td>
</tr>
<tr>
<td>Interview Preparation</td>
<td>Understand the procedure of interview. Go thorough mock interviews. Understand how to present themselves during an interview. Motivated to work after the training period is over.</td>
<td>Power-point presentation Facilitator-led discussion Audio-visuals Images</td>
</tr>
<tr>
<td>12. IT Skills Introduction to Computer</td>
<td>Define the computer. Recognise its various parts. Differentiate the advantages and disadvantages of computer.</td>
<td>Power-point presentation Facilitator-led discussion Audio-visuals Images</td>
</tr>
<tr>
<td>Basic Computer Knowledge</td>
<td>Use computer. Explain the web, email services.</td>
<td>Power-point presentation Facilitator-led discussion Audio-visuals Images</td>
</tr>
<tr>
<td>Components of Computer</td>
<td>Know the different parts and components of computer.</td>
<td>Power-point presentation Facilitator-led discussion Audio-visuals Images</td>
</tr>
<tr>
<td>Concept of Operating System</td>
<td>Familiarise with the concept of operating system. Work on Windows 8 and 8.1. Add or Remove desktop icons, make or delete a folder etc.</td>
<td>Power-point presentation Facilitator-led discussion Audio-visuals Images</td>
</tr>
<tr>
<td>Component</td>
<td>Theory</td>
<td>Digital Literacy</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| **MS Word**                      | • Learn the concept of and practice MS-Word.  
• Format a document etc.                                                                          | • Power-point presentation  
• Facilitator-led discussion  
• Audio-visuals  
• Images                                                            |                                                                                       |
| **MS Power Point**               | • Practice MS – Power point.  
• Make a new presentation.  
• Format a slide as well                                                                 | • Power-point presentation  
• Facilitator-led discussion  
• Audio-visuals  
• Images                                                            |                                                                                       |
| **MS Excel**                     | • Work on MS-Excel  
• Format cells and cell content  
• Use formulas  
• Make Charts and Pivot Table                                      | • Power-point presentation  
• Facilitator-led discussion  
• Audio-visuals  
• Images                                                            |                                                                                       |
| **Internet Concepts**            | • Understand internet concepts  
• Recognise the different types of URLs  
• Use MS-Outlook                                                        | • Power-point presentation  
• Facilitator-led discussion  
• Audio-visuals  
• Images                                                            |                                                                                       |
| **Employability and Entrepreneurship skills** | • Explain the meaning of health  
• List common health issues  
• Discuss tips to prevent common health issues  
• Explain the meaning of hygiene  
• Understand the purpose of Swachh Bharat Abhiyan  
• Explain the meaning of habit  
• Discuss ways to set up a safe work environment  
• Discuss critical safety habits to be followed by employees  
• Explain the importance of self-analysis  
• Understand 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 how to maintain a positive attitude                                                                   | • Power-point presentation  
• Facilitator-led discussion  
• Audio-visuals  
• Images                                                            |                                                                                       |
| **Personal Strengths & Value Systems** | • Explain the meaning of health  
• List common health issues  
• Discuss tips to prevent common health issues  
• Explain the meaning of hygiene  
• Understand the purpose of Swachh Bharat Abhiyan  
• Explain the meaning of habit  
• Discuss ways to set up a safe work environment  
• Discuss critical safety habits to be followed by employees  
• Explain the importance of self-analysis  
• Understand 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 how to maintain a positive attitude                                                                   | • Power-point presentation  
• Facilitator-led discussion  
• Audio-visuals  
• Images                                                            |                                                                                       |
### Material Handling and Storage Operator

- Discuss the role of attitude in self-analysis
- List your strengths and weaknesses
- 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
- List the characteristics of highly creative people
- List the characteristics of highly innovative people
- Discuss the benefits of time management
- List the traits of effective time managers
- Describe effective time management technique
- Discuss the importance of anger management
- Describe anger management strategies
- Discuss tips for anger management
- Discuss the causes of stress
- Discuss the symptoms of stress
- Discuss tips for stress management

### Digital Literacy: A Recap

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

### Bridge Module

- Power-point presentation
- Facilitator-led discussion
- Audio-visuals
- Images

Available Objects such as a book, pen, duster, white board, marker, Computer, Projector etc.
<table>
<thead>
<tr>
<th>Money Matters</th>
<th>Theory:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discuss the importance of saving money</td>
<td></td>
</tr>
<tr>
<td>Discuss the benefits of saving money</td>
<td></td>
</tr>
<tr>
<td>Discuss the main types of bank accounts</td>
<td></td>
</tr>
<tr>
<td>Describe the process of opening a bank account</td>
<td></td>
</tr>
<tr>
<td>Differentiate between fixed and variable costs</td>
<td></td>
</tr>
<tr>
<td>Describe the main types of investment options</td>
<td></td>
</tr>
<tr>
<td>Describe the different types of insurance products</td>
<td></td>
</tr>
<tr>
<td>Describe the different types of taxes</td>
<td></td>
</tr>
<tr>
<td>Discuss the uses of online banking</td>
<td></td>
</tr>
<tr>
<td>Discuss the main types of electronic funds transfers</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bridge Module</th>
<th>Power-point presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilitator-led discussion</td>
<td></td>
</tr>
<tr>
<td>Audio-visuals</td>
<td></td>
</tr>
<tr>
<td>Images</td>
<td></td>
</tr>
</tbody>
</table>

| Available Objects such as a book, pen, duster, white board, marker, Computer, Projector etc. |

<table>
<thead>
<tr>
<th>Preparing for Employment and Self – Employment</th>
<th>Theory:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discuss the steps to prepare for an interview</td>
<td></td>
</tr>
<tr>
<td>Discuss the steps to create an effective Resume</td>
<td></td>
</tr>
<tr>
<td>Discuss the most frequently asked interview questions</td>
<td></td>
</tr>
<tr>
<td>Discuss how to answer the most frequently asked interview questions</td>
<td></td>
</tr>
<tr>
<td>Discuss basic workplace terminology</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bridge Module</th>
<th>Power-point presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilitator-led discussion</td>
<td></td>
</tr>
<tr>
<td>Audio-visuals</td>
<td></td>
</tr>
<tr>
<td>Images</td>
<td></td>
</tr>
</tbody>
</table>

| Available Objects such as a book, pen, duster, white board, marker, Computer, Projector etc. |

<table>
<thead>
<tr>
<th>Understanding Entrepreneurship</th>
<th>Theory:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discuss the concept of entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>Discuss the importance of entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>Describe the characteristics of an entrepreneur</td>
<td></td>
</tr>
<tr>
<td>Describe the different types of enterprises</td>
<td></td>
</tr>
<tr>
<td>List the qualities of an effective leader</td>
<td></td>
</tr>
<tr>
<td>Discuss the benefits of effective leadership</td>
<td></td>
</tr>
<tr>
<td>List the traits of an effective team</td>
<td></td>
</tr>
<tr>
<td>Discuss the importance of listening effectively</td>
<td></td>
</tr>
<tr>
<td>Discuss how to listen effectively</td>
<td></td>
</tr>
<tr>
<td>Discuss the importance of speaking effectively</td>
<td></td>
</tr>
<tr>
<td>Discuss how to speak effectively</td>
<td></td>
</tr>
<tr>
<td>Discuss how to solve problems</td>
<td></td>
</tr>
<tr>
<td>List important problem solving traits</td>
<td></td>
</tr>
<tr>
<td>Discuss ways to assess problem solving skills</td>
<td></td>
</tr>
<tr>
<td>Discuss the importance of negotiation</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bridge Module</th>
<th>Power-point presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilitator-led discussion</td>
<td></td>
</tr>
<tr>
<td>Audio-visuals</td>
<td></td>
</tr>
<tr>
<td>Images</td>
<td></td>
</tr>
</tbody>
</table>

<p>| Available Objects such as a book, pen, duster, white board, marker, Computer, Projector etc. |</p>
<table>
<thead>
<tr>
<th>Preparing to be an Entrepreneur</th>
<th>Theory:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Discuss how market research is carried out</td>
</tr>
<tr>
<td></td>
<td>Describe the 4 Ps of marketing</td>
</tr>
<tr>
<td></td>
<td>Discuss the importance of idea generation</td>
</tr>
<tr>
<td></td>
<td>Recall basic business terminology</td>
</tr>
<tr>
<td></td>
<td>Discuss the need for CRM</td>
</tr>
<tr>
<td></td>
<td>Discuss the benefits of CRM</td>
</tr>
<tr>
<td></td>
<td>Discuss the need for networking</td>
</tr>
<tr>
<td></td>
<td>Discuss the benefits of networking</td>
</tr>
<tr>
<td></td>
<td>Understand the importance of setting goals</td>
</tr>
<tr>
<td></td>
<td>Differentiate between short-term, medium-term and long-term goals</td>
</tr>
<tr>
<td></td>
<td>Discuss how to write a business plan</td>
</tr>
<tr>
<td></td>
<td>Explain the financial planning process</td>
</tr>
<tr>
<td></td>
<td>Discuss ways to manage your risk</td>
</tr>
<tr>
<td></td>
<td>Describe the procedure and formalities for applying for bank finance</td>
</tr>
<tr>
<td></td>
<td>Discuss how to manage your own enterprise</td>
</tr>
<tr>
<td></td>
<td>List important questions that every entrepreneur should ask before starting an enterprise</td>
</tr>
</tbody>
</table>

| Bridge Module | Power-point presentation |
|               | Facilitator-led discussion |
|               | Audio-visuals |
|               | Images |

| Available Objects such as a book, pen, duster, white board, marker, Computer, Projector etc. |
## Annexure II

### Assessment Criteria

#### CRITERIA FOR ASSESSMENT OF TRAINEES

**Assessment Criteria for Bamboo Basket Maker**

<table>
<thead>
<tr>
<th>Job Role</th>
<th>Material Handling and Storage Operator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualification Pack</td>
<td>RSC/Q0108</td>
</tr>
<tr>
<td>Sector Skill Council</td>
<td>Rubber Skill Development Council</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Guidelines for Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks.</td>
</tr>
<tr>
<td>2</td>
<td>Each NOS will be assessed both for theoretical knowledge and practical.</td>
</tr>
<tr>
<td>3</td>
<td>The assessment will be based on the knowledge bank of questions created by the SSC.</td>
</tr>
<tr>
<td>4</td>
<td>Individual assessment agencies will create unique question papers for theory and skill practical part for each candidate at each examination/training center.</td>
</tr>
<tr>
<td>5</td>
<td>To pass the Qualification Pack, every trainee should score a minimum of 70% in every NOS.</td>
</tr>
<tr>
<td>6</td>
<td>In case of successfully passing only certain number of NOS’s, the trainee is eligible to take subsequent assessment on the balance NOS’s to pass the Qualification Pack.</td>
</tr>
</tbody>
</table>

#### RSC/N3301 Perform rubber product loading/unloading activity

<table>
<thead>
<tr>
<th>Assessment outcomes</th>
<th>Assessment Criteria for outcomes</th>
<th>Total Marks: 900</th>
<th>Compulsory NOS</th>
<th>Marks Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC1. Keep hand tools and different equipments used in loading/unloading operation ready before commencing loading/unloading</td>
<td></td>
<td>7 5 2</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>PC2. Check the planning department schedule and ensure availability of material, compound mix, semi finished and finished products to be loaded/unloaded</td>
<td></td>
<td>7 5 2</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>PC3. Visual inspection of material, compound mix, semi finished and finished products to be loaded/unloaded</td>
<td></td>
<td>7 5 2</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>PC4. Ensure the completion of loading/unloading of material within the given timeline</td>
<td></td>
<td>1 0 1</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>PC5. Perform checking of material based on random selection of the material as per the company’s guidelines for the same</td>
<td></td>
<td>6 3 3</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>PC6. Perform weight checks as per instructions from technical to record shortages/excess in supplies/dispatch</td>
<td></td>
<td>5 2 3</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>PC7. Inspect for any damage and report the same to the purchase officer/supplier/relevant department</td>
<td></td>
<td>5 2 3</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>PC8. Instruct for making the space available for the unloaded material</td>
<td></td>
<td>5 2 3</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>PC9. Ensure that the quantity of material loaded/unloaded is properly recorded</td>
<td></td>
<td>5 2 3</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>PC10. Ensure that all the loaded/unloaded material is identified properly</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>PC11. Report any shortage/excess vis-à-vis the detail provided</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PC12. Send the loaded/unloaded material at the designated place</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>PC13. Arrange for placing/storing the damaged/rejected material at proper place</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>PC14. Ensure the use of certified equipments and tools for loading/unloading/moving the material</td>
<td>5</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>PC15. Safety measures to avoid use of anything that may cause material to catch fire while loading/unloading</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>PC16. Prepare MSDS (material safety data sheet) of each raw material under usage</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>PC17. Ensure that Face/eye wash area is operational and having water running</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>PC18. First aid treatment to handle any injury, cut or sprain while lifting the material</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>PC19. Handle the ingredients/material using hand gloves and other safety equipment as directed by organizations, safety department</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>PC20. Adhere to all safety norms (such as wearing protective gloves and shoes, safety masks etc)</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>PC21. Avoid spillage and in case of spillage occur, follow safety measures as laid down by safety department</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>PC22. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>PC23. Follow the guidance of safety department to contain spillages which may affect the health and safety of self or the environment in the weighing area</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>60</strong></td>
<td><strong>40</strong></td>
<td></td>
</tr>
</tbody>
</table>

RSC\N3302

| Carry out rubber product assembling and packaging |  |
|---|---|---|---|
| PC1. Ensure that the tools are clean and ready to use for assembling and packaging | 3 | 2 | 1 |
| PC2. Check the functioning of the packaging machine | 4 | 2 | 2 |
| PC3. Set parameters for the machine as per the organizational SOP | 4 | 3 | 1 |
| PC4. Inspect the product carefully for any defect | 2 | 1 | 1 |
| PC5. Check product dimensions and weight controls | 2 | 1 | 1 |
| PC6. Check that OK stamp or release tags are available on the products meant for assembling | 3 | 2 | 1 |
| PC7. Ensure availability of chemical/powder for lubrication | 2 | 0 | 2 |
| PC8. Ensure the availability of product to be assembled and packed as per the schedule | 2 | 0 | 2 |
| PC9. Ensure the availability of packaging material as per the schedule | 2 | 0 | 2 |
| PC10. Carry out assembling of products as per the guidelines | 3 | 2 | 1 |
| PC11. Use tools and equipments appropriately for assembling products | 3 | 2 | 1 |
| PC12. Inspect assembled product for any visual defect | 3 | 2 | 1 |
| PC13. Organize for transporting the assembled product to the designated area | 3 | 2 | 1 |
| PC14. Record the quantity of the components received for assembling | 3 | 2 | 1 |
| PC15. Record the quantity of the assembled product sent to the | 3 | 2 | 1 |
| PC16. Record the products rejected due some defect. | 3 | 2 | 1 |
|PC17. Achieve the target for assembling per shift efficiently | 3 | 2 | 1 |
|PC18. Assembled product stacking is important to avoid any deterioration hence stacking height should be as per SOP for particular assembled product | 3 | 2 | 1 |
|PC19. Report any defect in the product received for assembling to the concerned person | 3 | 2 | 1 |
|PC20. Report any problems faced while assembling the components | 2 | 1 | 1 |
|PC21. Instruct the helpers to perform the packaging properly as per the guidelines from technical and also ensure customer specific items are checked for compliance | 3 | 1 | 2 |
|PC22. Classification of products w.r.t. packaging requirement | 3 | 1 | 2 |
|PC23. Perform packing of products as per the requirement such as individual packing, box packing, carton packing etc. | 3 | 1 | 2 |
|PC24. Operate and monitor packing machine | 3 | 1 | 2 |
|PC25. Allotment of batch/lot number for the packed product | 3 | 1 | 2 |
|PC26. Ensure the display of information regarding shelf life and indication of uses on packs | 3 | 1 | 2 |
|PC27. Maintain records of packing done per shift : a) quantity of the product received for packaging; b) quantity of the packed material sent to the shipment area ; c) quantity of packaging material used, in stock and required | 4 | 1 | 3 |
|PC28. Ensure product differentiation on the basis of different/different colour packaging material and bold identification tags mentioning OK for shipment | 3 | 0 | 3 |
|PC29. Inform the concerned person for the storage requirement of packed products | 4 | 1 | 3 |
|PC30. Adhere to all safety norms (such as wearing protective gloves, masks and shoes). | 2 | 2 | 0 |
|PC31. Comply with health, safety, environment guidelines, regulations etc in accordance with International/national standards or organizational standards (SOP) | 5 | 3 | 2 |
|PC32. Carry out disposal of waste material safely as per SOP | 8 | 5 | 3 |
|Total | 100 | 50 | 50 |

**RSC/N3303 Undertake storage of rubber product**

<p>| PC1. Keep hand tools and equipments used in material handling ready | 2 | 1 | 1 |
|PC2. Inspect the cleanliness of the storage area | 2 | 0 | 2 |
|PC3. Ensure storage area is maintained at appropriate conditions w.r.t temperature, exposure to heat / light and moisture as per the storage requirement for different materials | 4 | 3 | 1 |
|PC4. Ensure that the approach path/Aisle from the storage area to the production unit is free and clear of impediments or obstructions | 3 | 2 | 1 |
|PC5. Ensure the appropriate storage pin trucks, saddle trucks, liners, skids, gondolas, containers are available | 3 | 2 | 1 |
|PC6. Ensure that the rooms for cold storage and any other refrigerated cabins/rooms are available and ready to use (requirement for certain raw materials to protect from degradation) | 3 | 2 | 1 |
|PC7. Ensure FIFO compliance by regular inspection and relocating the material for easy dispatch | 2 | 0 | 2 |
| PC8. Check the availability of material, compound mix, semi finished and finished products to be stored | 3 2 1 |
| PC9. Visual Inspection of material, compound mix, semi finished and finished products to be store | 3 2 1 |
| PC10. Check the paper document/ written instructions or details received from the relevant departments’ end with the material | 3 2 1 |
| PC11. Ensure the completion of loading/unloading of material within the given timeline | 1 0 1 |
| PC12. Perform checking of material based on random selection of the material as per the company’s guidelines for the same | 2 1 1 |
| PC13. Inspect for any damage and report the same to the purchase officer/supplier/relevant department | 3 1 2 |
| PC14. Instruct for making the space available for the material | 3 1 2 |
| PC15. Arrange the proper stacking of material | 3 1 2 |
| PC16. Ensure proper identification on each material | 3 1 2 |
| PC17. Indicate proper placement location of the raw material w.r.t the pillar numbers/ bin numbers/or other indications to facilitate location of storage | 2 1 1 |
| PC18. Ensure that the quantity of material stored is properly recorded | 2 1 1 |
| PC19. Ensure that the company process for inflow and outflow of raw material from storage area is adhered to | 3 2 1 |
| PC20. Ensure that time delay between the receipt of material requirement and material being sent from the storage area is within limits specified by company | 3 2 1 |
| PC21. Ensure that all the stored material is identified properly with all relevant details | 3 2 1 |
| PC22. Ensure that all materials must have MSDS (Material Safety Data Sheet) | 3 1 2 |
| PC23. Sampling and getting the release done through in house LAB | 3 2 1 |
| PC24. Ensure the availability of the material as per the scheduler | 1 0 1 |
| PC25. Coordinate with the weighing operator and purchase officer for proper inventory control and facilitate new material procurement | 3 2 1 |
| PC26. Ensure stored materials have tags indicating the age and are constantly moved to facilitate consumption based on FIFO | 2 1 1 |
| PC27. Send the contaminated/ off spec/ rejected material/ component /semi finished/finished to Red tag Hold Area, report it to /concerned department and ensure its disposal on regular basis at the earliest available time | 3 2 1 |
| PC28. Held up area must be clear of all red tag/hold material as soon as possible to avoid any misuse | 3 2 1 |
| PC29. Ensure the use of certified material handling tools and equipments | 2 0 2 |
| PC30. Get the timely checking of safety tools done (fire extinguisher, spray etc.) | 4 2 2 |
| PC31. Ensure material safety in the storage area from water, oil &amp; grease, fire, insects, rodents and excessive heat | 3 1 2 |
| PC32. First aid treatment to handle any injury, cut or sprain while lifting the material | 3 1 2 |
| PC33. Handle the ingredients/material using hand gloves and other safety equipment as directed by organizations safety department | 3 2 1 |
| PC34. Adhere to all safety norms (such as wearing protective gloves and shoes, safety masks etc.) | 3 | 1 | 2 |
| PC35. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards. | 4 | 2 | 2 |
| PC36. Follow the guidance of safety department to contain spillages which may affect the health and safety of self or the environment in the weighing area | 4 | 2 | 2 |
| <strong>Total</strong> | <strong>100</strong> | <strong>50</strong> | <strong>50</strong> |
| PC1. Get the order sheet from the relevant department in writing duly signed by the concerned authority | 5 | 4 | 1 |
| PC2. Communicate the requirement along with the timeline to the store/finished goods warehouse head | 4 | 3 | 1 |
| PC3. Ensure that the proper packaging is done for the respective order | 3 | 2 | 1 |
| PC4. Arrange fork lift or tow truck for transporting goods to the transporting vehicle | 5 | 3 | 2 |
| PC5. Arrange for the transportation or courier services as per the requirement | 5 | 3 | 2 |
| PC6. Inspect the truck/any other carrier of goods for any nails or any protruding objects that might damage the product to be dispatched | 5 | 3 | 2 |
| PC7. Ensure that the truck/any other carrier of goods is well covered with tarpaulin to prevent any damage due to heat/moisture | 1 | 0 | 1 |
| PC8. Guide the helpers associated for the dispatch of the product | 5 | 3 | 2 |
| PC9. Arrange for the trolleys/forklift and other equipments required for moving product from one place to another and for loading on to dispatch vehicle | 6 | 3 | 3 |
| PC10. Dispatch order of right product in right quantity through the best mode in the given timeline to the customer with the correct address and contact details | 6 | 3 | 3 |
| PC11. Ensure that all customer specific items (such as number of pieces and their identifications complete with all additional items) during dispatch is complied with | 6 | 3 | 3 |
| PC12. Ensure to send the proper paper documents (bill, order detail etc) with the order | 6 | 3 | 3 |
| PC13. Maintain proper record of the details of fulfilled order such as quantity, time, mode, details of the transport used, courier details and charges and of the remaining orders to be delivered | 6 | 3 | 3 |
| PC14. Inform the customer as well as the concerned authority of the unit for the completing the dispatch for orders | 6 | 3 | 3 |
| PC15. Inform the customer as well as concerned authority for any delay in dispatch | 6 | 3 | 3 |
| PC16. Confirm the receiving at customer's end | 6 | 3 | 3 |
| PC17. Settlement of any dispute arising out of the order delivery problems w.r.t. time, quantity, packaging, product etc. | 6 | 3 | 3 |
| PC18. Knowledge of first aid for handling any injury | 5 | 4 | 1 |
| PC19. Adhere to all safety norms (such as wearing protective gloves and masks) | 4 | 4 | 0 |
| PC20. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards. | 4 | 4 | 0 |</p>
<table>
<thead>
<tr>
<th>RSC/N5001 Carry out housekeeping in rubber product manufacturing</th>
<th>Total</th>
<th>100</th>
<th>60</th>
<th>40</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC1. Inspect the area while taking into account various surfaces</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>PC2. Identify the material requirements for cleaning the areas inspected, by considering risk, time, efficiency and type of stain</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>PC3. Ensure that the cleaning equipment is in proper working condition</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>PC4. Select the suitable alternatives for cleaning the areas in case the appropriate equipment and materials are not available and inform the appropriate person</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>PC5. Plan the sequence for cleaning the area to avoid re-soiling clean areas and surfaces</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>PC6. Inform the affected people about the cleaning activity</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>PC7. Display the appropriate signage for the work being conducted</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>PC8. Ensure that there is adequate ventilation for the work being carried out</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>PC9. Wear the personal protective equipment required for the cleaning method and materials being used</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>PC10. Use the correct cleaning method for the work area, type of soiling and surface</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>PC11. Carry out cleaning activity without disturbing others</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>PC12. Deal with accidental damage, if any, caused while carrying out the work</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>PC13. Report to the appropriate person any difficulties in carrying out your work</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>PC14. Identify and report to the appropriate person any additional cleaning required that is outside one’s responsibility or skill</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>PC15. Ensure that there is no oily substance on the floor to avoid slippage</td>
<td>9</td>
<td>3</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>PC16. Ensure that no scrap material is lying around</td>
<td>9</td>
<td>3</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>PC17. Maintain and store housekeeping equipment and supplies</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>PC18. Follow workplace procedures to deal with any accidental damage caused during the cleaning process</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>PC19. Ensure that, on completion of the work, the area is left clean and dry and meets requirements</td>
<td>8</td>
<td>2</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>PC20. Return the equipment, materials and personal protective equipment that were used to the right places making sure they are clean, safe and securely stored</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>PC21. Dispose the waste garnered from the activity in an appropriate manner</td>
<td>9</td>
<td>3</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>PC22. Dispose of used and un-used solutions according to manufacturer’s instructions, and clean the equipment thoroughly</td>
<td>9</td>
<td>3</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>PC23. Maintain schedules and records for housekeeping duty</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>PC24. Replenish any necessary supplies or consumables</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RSC/N5002 Carry Out Reporting And Documentation</th>
<th>Total</th>
<th>100</th>
<th>70</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC1. Report data/problems/incidents as applicable in a timely manner</td>
<td>12</td>
<td>8</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>PC2. Report to the appropriate authority as laid down by the company</td>
<td>12</td>
<td>8</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>PC3. Follow reporting procedures as prescribed by the company</td>
<td>12</td>
<td>8</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>PC4. Identify documentation to be completed relating to one’s role</td>
<td>10</td>
<td>6</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>PC5. Record details accurately an appropriate format</td>
<td>16</td>
<td>6</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>
### PC6. Complete all documentation within stipulated time according to company procedure

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>14</td>
<td>4</td>
</tr>
</tbody>
</table>

### PC7. Ensure that the final document meets with the requirements of the supervisor

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6</td>
<td>4</td>
</tr>
</tbody>
</table>

### PC8. Make sure documents are available to all appropriate authorities to inspect

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6</td>
<td>4</td>
</tr>
</tbody>
</table>

### PC9. Respond to requests for information in an appropriate manner whilst following organizational procedures

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

### PC10. Inform the appropriate authority of requests for information received

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

#### Total

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100</td>
<td>60</td>
</tr>
</tbody>
</table>

### RSC/N5003 Carry Out Quality Checks

<table>
<thead>
<tr>
<th>PC1. Ensure that total range of checks are regularly and consistently performed</th>
<th>24</th>
<th>10</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC2. Use appropriate measuring instruments, equipment, tools, accessories etc., as required</td>
<td>24</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>PC3. Identify non-conformities to quality assurance standards</td>
<td>6</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>PC4. Identify potential causes of non-conformities to quality assurance standards</td>
<td>5</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>PC5. Identify impact on final product due to non-conformance to company standards</td>
<td>5</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>PC6. Evaluating the need for action to ensure that problems do not recur</td>
<td>6</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>PC7. Suggest corrective action to address problem</td>
<td>5</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>PC8. Review effectiveness of corrective action</td>
<td>5</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>PC9. Interpret the results of the quality check correctly</td>
<td>4</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>PC10. Take up results of the findings with QC in charge/appropriate authority</td>
<td>3</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>PC11. Take up the results of the findings within stipulated time</td>
<td>3</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>PC12. Record of results of action taken</td>
<td>3</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>PC13. Record adjustments not covered by established procedures for future reference</td>
<td>3</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>PC14. Review effectiveness of action taken</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>PC15. Follow reporting procedures where the cause of defect cannot be identified</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

#### Total

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100</td>
<td>60</td>
</tr>
</tbody>
</table>

### RSC/N5004 Carry Out Problem Identification And Escalation

<table>
<thead>
<tr>
<th>PC1. Identify defects/indicators of problems</th>
<th>7</th>
<th>4</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC2. Identify any wrong practices that may lead to problems</td>
<td>6</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PC3. Identify practices that may impact the final product quality</td>
<td>6</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>PC4. Identify if the problem has occurred before</td>
<td>5</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>PC5. Identify other operations that might be impacted by the problem</td>
<td>6</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>PC6. Ensure that no delays are caused as a result of failure to escalate problems</td>
<td>5</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>PC7. Take appropriate materials and sample, conduct tests and evaluate results to establish reasons to confirm suspected reasons for non-conformance (where required)</td>
<td>8</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>PC8. Consider possible reasons for identification of problems</td>
<td>8</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>PC9. Consider applicable corrections and formulate corrective action</td>
<td>3</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>
PC10. Formulate action in a timely manner | 3 | 3 | 0  
PC11. Communicate problem/remedial action to appropriate parties | 7 | 5 | 2  
PC12. Take corrective action in a timely manner | 2 | 2 | 0  
PC13. Take corrective action for problems identified according to the company procedures | 2 | 2 | 0  
PC14. Report/document problem and corrective action in an appropriate manner | 8 | 5 | 3  
PC15. Monitor corrective action | 2 | 2 | 0  
PC16. Evaluate implementation of corrective action taken to determine if the problem has been resolved | 2 | 2 | 0  
PC17. Ensure that corrective action selected is viable and practical | 2 | 2 | 0  
PC18. Ensure that correct solution is identified to an identified problem | 2 | 2 | 0  
PC19. Take corrective action for problems identified according to the company procedures | 1 | 1 | 0  
PC20. Ensure that no delays are caused as a result of failure to take necessary action | 1 | 1 | 0  
PC21. Escalate problem as per laid down escalation matrix | 4 | 3 | 1  
PC22. Escalate the problem within stipulated time | 4 | 3 | 1  
PC23. Escalate the problem in an appropriate manner | 3 | 2 | 1  
PC24. Ensure that no delays are caused as a result of failure to escalate problems | 3 | 2 | 1  
**Total** | **100** | **70** | **30**

**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.