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सत्यमेव जयते
GOVERNMENT OF INDIA
MINISTRY OF SKILL DEVELOPMENT
& ENTREPRENEURSHIP

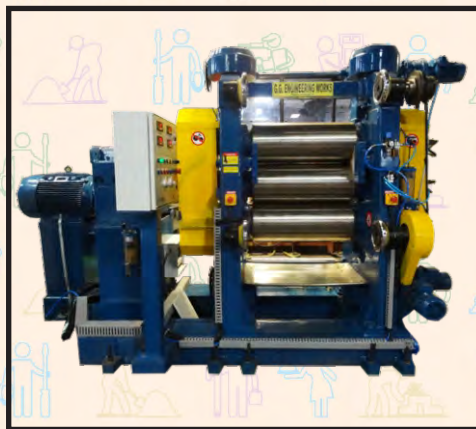


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Transforming the skill landscape



Facilitator Guide



Sector
Rubber Industry

Sub-Sector
Tyre & Non-Tyre

Occupation
Calendering

Reference ID: RSC/Q2701, Version 1.0
NSQF Level: 4

Rubber Calendering Operator

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Shri Narendra Modi
Prime Minister of India

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

Acknowledgements

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We are also grateful to the partner organizations for their efforts in reviewing and endorsing this facilitator guide.

About this Guide

The facilitator guide for 'Rubber Calendering Operator' is designed for trainers to support them to train and upgrade the knowledge and basic skills of candidates for 'Rubber Calendering Operator' in 'Rubber Industry' sector. All the aspects of training to be given by trainer, are covered in this guide. This facilitator guide is designed to enable training for the specific Qualification Pack (QP) drafted by Rubber Skill Development Council (RSDC) and ratified by National Skill Development Corporation (NSDC). It covers following National Occupational Standard (NOS) across Unit/s:

- RSC/N2704 - Perform pre rubber calendering activities
- RSC/N2705 - Perform calendering operation using 3 roll/ 4 roll calender
- RSC/N2706 - Perform post rubber calendering activities
- RSC/N5001 - Carry out housekeeping in rubber product manufacturing
- RSC/N5002 - Carry out reporting and documentation
- RSC/N5003 - Carry out quality checks
- RSC/N5004 - Carry out problem identification and escalation
- RSC/N5007 - Carry out health and safety

This guide is designed to provide the necessary knowledge and skill inputs for a trainer to train candidates in an organized and disciplined manner by following safe working practices.

Key Learning Objectives for the specific NOS mark the beginning of the Unit/s for that NOS. The symbols used in this book are described below.

Symbols Used



Steps



Activity



Tips



Notes



Objectives



Do



Ask



Explain



Elaborate



Facilitation Notes



Learning Outcomes



Say



Role Play



Demonstrate



Exercise



Team Activity



Resources



Summary

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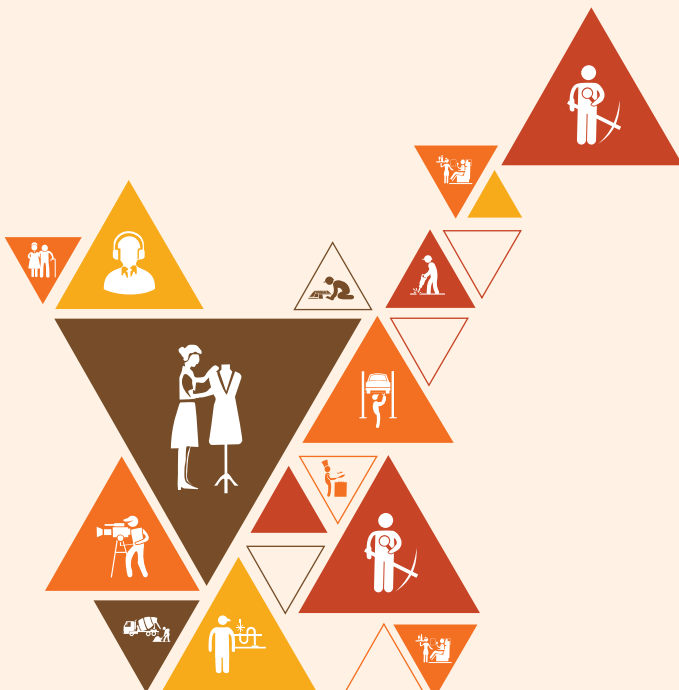
1. Introduction to Rubber Calendering

Unit 1.1 – Introduction to Rubber Industry

Unit 1.2 – Rubber Calendering Basics

Unit 1.3 – Process of Rubber Calendering

Unit 1.4 – Job Role of a Rubber Calendering Operator



Key Learning Outcomes

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

1. Discuss about rubber industry.
2. Explain different sources of rubber.
3. Discuss about major Indian rubber associations.
4. Explain the rubber terminology.
5. Explain the basics of rubber calendering process
6. Define material used in rubber calendering
7. Explain equipment used for rubber calendering
8. Define roles and responsibilities for rubber calendering operator

UNIT 1.1: Introduction to Rubber Industry

Unit Objectives

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

1. Discuss rubber and rubber industry.
2. Define types of rubber.
3. Explain about rubber manufacturing processes.
4. Explain different uses of rubber.
5. Discuss about various rubber bodies and associations in India.

Resources to be Used

- Laptop.
- Projector.
- White board.
- Marker.
- Slides.
- Videos
- Samples – RSS sheets
- Crepe rubber
- TSR rubber
- Synthetic rubber
- Reclaimed rubber
- Rubber product – 20 nos.

Notes for Facilitation

- Start the first session with very high energy.
- Be ready with course curriculum.
- Make list of benefit from the course for the participants.
- It would be good if you have some success stories of previous batch participants, it will create enthusiasm in the new participants.
- Make list of expectation from the participants.
- Prepare some questions related to the job roles for asking from the participants for generating curiosity, for example – Ask participants if they know what is tyre made of or how tyre is made?
- Be ready for answering any question related to the job role, you should give a feeling to the participants that you have authority over the subject.
- Ensure all the resources, such as white board, marker or projector are in working condition before participants arrive.
- Create some rubber related stories to start the session for making the first session interesting and engaging.
- Arrive early in class before the participants.

- Start the class on time and close the session on time, so that you can give clear message of valuing your and participants time.
- Introduce yourself with your name, qualification and work experience.
- Give details of objectives of this course.
- Give details of today's session and what they are going to learn.
- Give Safety Instructions to be followed during class.
- Brief them about the rules of class and Do's and Don'ts.
- Encourage them to share their thoughts and doubts now and during the process of this course.

Do



- Make the small circle of the participants.
- Welcome all the participants and appreciate them for choosing this course.

Ask



- Ask all the participants to introduce themselves.
- Ask their expectations from the course.

Notes for Facilitation



- Make rules for class, for example:
 - All the participants will come on time
 - In case of leave, participants will inform atleast a day in advance
 - No talk over mobile will be allowed in class
 - Mobile will always be in silent / switch off mode in class
 - No gossip in class
 - Any break in class will be taken with trainer permission only
 - If any participant wants to say anything, he/she will raise his/her hand. He/ she will only speak when trainer ask for it.
- You can add any other rules, which will increase effectiveness of training.
- Objectives of this program is that after completing the course, the participants will be able to –
 - Understand requirement of skilled work force for making strong India
 - Discuss about related Sector and Sub Sector
 - Describe the job role in detail
 - Perform all the responsibilities of job role
 - Get developed as a job ready person
 - Get recognized certificate for acquired skill
 - To get job in related industry based on certificate received after completing the course.
- Some of the roles and responsibilities of a Trainer are –
 - To provide training as per QP and NOS defined.
 - To clear all doubts of the participants related to the job role during training
 - To create required discipline in class
 - To ensure health and safety of all the participants during class training and field visits
 - Provide maximum practical exposure to participants for job role

Say

- Thank the participants for their participation.
- Inform them rules of the class.
- Inform them about course curriculum.
- Inform them about assessment and assessment procedure.
- Inform them about your role and responsibility.

Notes for Facilitation

- To know participants better, you can ask their hobbies, the sport they like, the sports person or film star they like. It will help you open them up and create some bonding.
- Learn their name, this is very important in order to have a feeling of connectivity.
- Create your own rules for the class. Rules can be flexible but should ensure discipline in the class.
- It is necessary to let the participants know about assessment procedures so that they can do study in line with that and assessment should not come as a surprise to them.
- Anticipate questions from the new participants and prepare in advance.
- If the participants appear bored then have some activity in class.
- Stay organised in class, student give respect to organised teachers.
- Use variety of teaching techniques, so that you can engage all the participants.
- Set high but realistic expectation from the participants.

Team Activity-1

Objective: To get introduction of all the participants of the course.

Procedure:

- Ask the participants to make a circle.
- Give a ball to any participant to start the activity.
- The participant needs to pass the ball to the person whose name starts with letter 'A'.
- After getting the ball the participant will tell her name, native place and hobby.
- Now the participant needs to pass the ball to another participant whose name starts with letter 'A', if no other person available of the name with letter 'A', then ball should be passed to the person having name with the next letter.
- Get introduction from all the participant by end of the activity.

Activity Outcome:

- While having the fun, all the participant will know about each other.
- Facilitator will be able to break the ice with the participants

Activity	Time	Resources
Ball passing introduction activity	2 Hours	Rubber ball

Table 1.1.1

1.1.1: The Rubber

Do



- Prepare the topics to be taught in the class for the day.
- Give summary of previous session.
- Ask for any doubts in previous session.
- Acknowledge for their doubt-raising, if any. Clear the doubts.
- Give details of today's session and what they are going to learn.
- Encourage them to share their thoughts and doubts now and during process of this course.

Ask



- Ask the participants what they know about rubber?
- Ask the participants about products made of rubber?

Elaborate



In this session elaborate below topics with appropriate examples and references:

- Rubber and its source, such as: natural rubber, synthetic rubber and reclaimed rubber.
- Uses of rubber.
- Brief about rubber's history and evolution of rubber industry .
- Trend of rubber consumption and major sectors of rubber consumption.
- Prominent organizations related to rubber industry.
- Role of Rubber Skill Development Council (RSDC) for skill development in rubber industry.

Notes for Facilitation



- You could ask the students what they know about rubber and products made by rubber.
- Give students some time to think about how the rubber industry has grown in the last five years.
- Set the context and describe the industry trends in rubber.

Ask



- Ask students whether they have seen the rubber plant?
- Ask students about places where rubber plants grow?

Explain

- Explain rubber tree plantation.
- Explain requirement of climate for growing rubber trees.
- Explain areas favorable for growing rubber tree in India.
- Explain process of tapping.

Demonstrate

- Show photographs of rubber tree plantation.
- Show photographs / video of tapping process.

Ask

- Ask students how natural rubber sheets are produced?
- Ask students about purpose of making sheets?

Explain

Sheets

- Explain process of latex processing for making rubber.
- Explain types of dried natural rubber form
- Show samples of RSS and ADS
- Explain difference in five grade of RSS
- Explain purpose of creating sheets

Demonstrate

- Show sample of natural rubber sheet to students.

Ask

- Ask students how crepes are produced?
- Ask students about purpose of making crepes?

Explain

Explain how crepes is derived from coagulated latex/ field coagulum and the process of rolling between rollers and drying in air.

Example



Differentiate between examples of the crepes:

- Pale latex crepes,
- Estae brown crepes,
- Thin brown crepes,
- Thick blanket crepes,
- Flat blanket crepes,
- Standard flat bark crepes
- Pure smoked blanket crepes.

Demonstrate



- Show sample of crepes to students.

Ask



- Ask students meaning of TSR?
- Ask students about purpose of creating TSR?

Explain



- Explain specifications included in TSR rubber.
- Explain different countries specification of TSR rubber.

Demonstrate



- Show sample of TSR to students.
- Show specifications of TSR to students.

Ask



- Ask students what is synthetic rubber?
- Ask students about purpose of making synthetic rubber.

Explain



- Explain the source of synthetic rubber and the need of creating synthetic rubber.
- Explain the meaning and construction of co-monomer.

Example

Differentiate between examples of the below synthetic rubber types:

1. Emulsion styrene butadiene (ESBR).
2. Butadiene rubber (BR).
3. Solution styrene butadiene (SSBR).
4. Isobutylene isoprene butyl (IIR).
5. Acrylonitrile butadiene (NBR).
6. Ethylene propylene diene monomer (EPDM).

Demonstrate

- Show sample of synthetic rubber to students.

Explain

- Explain briefly the process of producing reclaimed rubber.
- Explain different products used to produce reclaimed rubber.

Demonstrate

- Show samples of reclaimed rubber to students.

1.1.2: Uses of Rubber

Ask

- Ask students the uses of rubber?

Example

- Tyres and tubes
- 'Under the bonnet' products for automobile, such as: door and window profiles, noses, bells, matting, flooring and dampeners (anti-vibration mounts).
- Conveyor belt
- Hoses and pipes
- Medical equipment, such as: gloves (medical household and industrial), toy balloons, rubber bands
- Shock absorbers, such as: machine mounting pads for reducing vibration transfer from machine to floor.

Demonstrate

- Show different products made of rubber to students.

1.1.3: Rubber Industry

Ask

- Ask students position of India in world for producing natural rubber?
- Ask students about world's top rubber producer country?

Elaborate

Elaborate the evolution of rubber industry from South America during 19th century. Also elaborate the history of rubber plantation in India and its place in world rubber industry.

Ask

- Ask students to name some of the big rubber parts producing companies?
- Ask students about highest rubber producing states of India?

Explain

- Explain the state of Indian rubber industry and job opportunities available in rubber industry.
- Explain the position on different states for rubber production and consumption.

Ask

- Ask students the sector name, which consumes biggest part of rubber.

Explain

The major sectors consuming rubber in India are as follows:

1. Automotive tyre sector.
2. Bicycles tyres and tubes.
3. Footwear.
4. Camelback and latex products.
5. Belts and hoses.
6. Rest of the products.

1.1.5: Rubber act, rubber promotion and development bodies

Ask

- Ask students the names of prominent rubber bodies?
- Ask students about purpose of having various rubber associations for rubber?

Explain

- Details of organisations and bodies helping promotion of rubber and rubber products .
- Explain the role and purpose of rubber promotion organisation.

Say

We will now conduct an activity session for identifying rubber raw material and product made of rubber.

Team Activity-1

Objective: Identify rubber raw materials and rubber products..

Procedure:

- Arrange a display of rubber raw materials and products made of rubber, plastic and metal.
- The participants need to identify the name of rubber raw materials and the products made of rubber and write their answer in their note pad.
- The participants need to submit the answers to the facilitator.
- The facilitator will declare the real identity of rubber raw material and products, once all the participants complete the identification process.

Activity Outcome:

- You will be able to test the knowledge of participants.
- Participant will be keen to know more about the rubber.

Activity	Time	Resources
Identify rubber raw materials and rubber products.	4 Hours	Rubber raw material from different sources, product made of different type of rubber, plastic and metal.

Table 1.1.2

Do

- Conduct the activity in a controlled manner.
- Share your feedback and ask participant to talk freely.
- Ensure participation of all the participants.
- Get feedback from participants for making activity session more effective.

Answers

Q.1. Differentiate between the following:

i. Natural Rubber and Synthetic Rubber

Natural Rubber is mainly harvested from rubber plants while Synthetic rubber is manmade rubber, which is derived from petroleum, coal, oil, natural gas and acetylene.

ii. Sheets and Creps

Sheets are derived from plain latex and dried in a smoke house while Creps are derived from coagulated latex / field Coagulam after getting rolled many times in between rollers & then dried in air.

iii. Synthetic Rubber and Reclaimed Rubber

Synthetic rubber is manmade rubber, which is derived from petroleum, coal, oil, natural gas and acetylene, while Reclaimed rubber is derived from the processing of vulcanized scrap rubber tyres, tubes and miscellaneous waste rubber goods.

Q.2. Write five uses of rubber:

1. Tyres and Tubes
2. Door and window profiles,
3. Hoses,
4. Belts,
5. Conveyor Belt

Notes



UNIT 1.2: Rubber Calendering Basics

Unit Objectives

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

1. Describe common terminology used in rubber industry.
2. Explain what is calendering.
3. Describe the constituent material of calendered part
4. Define the types of calendering.

Resources to be Used

- Laptop/ Slides
- Projector
- White Board
- Marker
- Notes, Videos

Do

- Greet the participants for the day.
- Give summary of previous session.
- Ask for any doubts in previous session.
- Acknowledge for their doubt-raising, if any. Clear the doubts.
- Give details of today's session and what they are going to learn.
- Encourage them to share their thoughts and doubts now and during process of this course.

1.2.1: Basic terminology

Say

In our last session we learned about rubber industry and source of rubber raw material. Today we will discuss about the terminologies used in rubber industry.

Ask

- Ask participants to name some terminologies used in rubber calendering.
- Ask participants the purpose of using terminologies in an industry.

Explain

Explain the following terminologies to the participants:

- Accelerator
- Autoclave
- Compression moulding
- Compound
- Co-polymer
- Cure
- Elasticity
- Elongation
- Extrusion
- Flashes
- Fillers
- Hardness
- Injection moulding
- Master batch
- Moulding
- Polymer
- Shelf life
- Shrinkage
- Swell
- Vulcanization

1.2.2 What is a Calender

Ask

- Ask participants what is calendering?
- Ask participants the purpose of calendered rubber?

Explain

Explain to the participants about calender and its origin. Explain which kind of material can be processed with the process of calendering and how the calendering process is carried out.

Demonstrate

- Show the process of calendering to the participants.
- Show the calendered rubber to the participants.
- Show the mechanism of calendering.

1.2.3: History of Rubber Calendering

Elaborate



Elaborate to the participants about the history of rubber calendering from year 1836 when Edwin M. Chaffee, of the Roxbury India Rubber Company, invented a four-roll calender to make rubber sheet, to modern calenders which can achieve tolerances around ± 0.005 mm and their lines are adaptive for most sophisticated precision requirements of products.

1.2.4: Types of Calender

Explain



Explain to the participants the following classification of rubber calenderes:

1. Rubber calendering
2. Fabric calendering
3. Steel cord calendering

Demonstrate



- Show the process of fabric calendering to the participants
- Show the process of steel cord calendering to the participants

1.2.5: Calender classification

Explain



Explain to the participants that we can also classify the calenders based on calender construction, i.e.

1. The number of rolls
2. The position or orientation of the rolls

Explain the roller quantity and construction of below calenders:

- 2- Roll calender
- 3- Roll calender
- 3- Roll calender vertical stack
- 3- Roll calender off set stack
- 4- Roll calender vertical stack
- 4- Roll calender off set stack 'Z'
- 4- Roll calender off set stack 'Z'

1.2.6: Roller arrangement in a calender

Ask



- Ask the participants why it is important to arrange roller according to the application?

Explain



Explain to the participants about different roller arrangement being used in a calendar and their applications for producing various products:

- Vertical roller arrangement.
- Horizontal roller arrangement.
- 'S' shape roller arrangement.
- 'L' shape roller arrangement.
- 'Z' shape roller arrangement

Demonstrate



- Show the participants through video how different roller arrangements are used in various calender.

1.2.7: Roller Headline

Explain



- Explain to the participants about roller headline and their use in producing textile coating.

Demonstrate



- Show the participants some of the calender and extruder combinations to produce sheet products.

1.2.8: The roll dimensions

Explain



Explain to the participants about the importance of roll dimensions in rubber calendering process:

- How the roll gap loadings are calculated by the ratio of roll diameter to roll length.
- How roller dimensions depends on the material to be processed.

1.2.9: Sizes of Calenders

Elaborate



Elaborate to the participants the significance of size of calenders in any rubber calendering process, with the help of below table:

Roll Diameter (Inches)	6	12	16	20	22	24	26	28	30	32
Roll length or Face width (Inches)	13	24	42	54	60	68	72	80	92	97

Table 1.2.1. Size of Calenders

1.2.10: Calendering process

Ask



- Ask the participants what are the different steps in calendering?
- Ask the participants the difference between rolling of rubber mix and another calendering process?
- Ask participants about nips?
- Ask the participants what type of rolling calender are used in fractioning?

Explain



Explain to the participants about different steps of calendering process, such as:

1. Rolling of rubber mix
2. Coating of rubber mix onto the substrate
3. Frictioning of rubber mix on the substrate
4. Embossing
5. Profile calendering

1.2.11: Calendering Operation

Ask



- Ask the participants how the calendering process are carried out?
- Ask the participants what is the full form of TCU and why it is used in rubber calendering?

Explain

Explain to the participants about the sequence of calendering operation with the help of following process sequence:

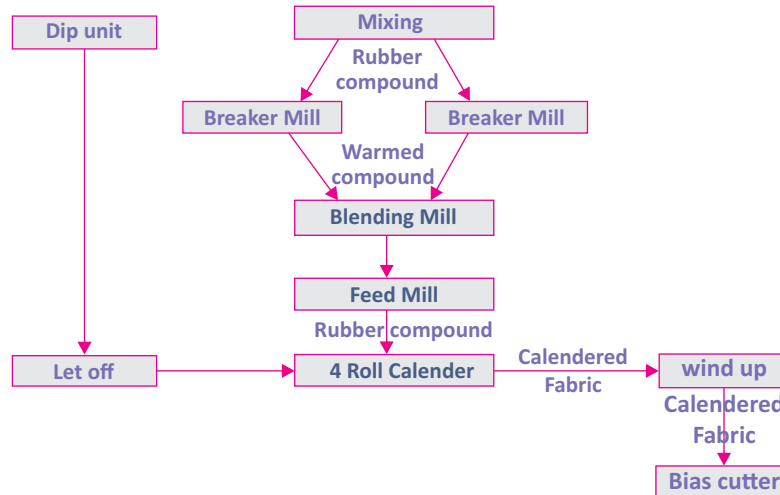


Fig. 1.2.1. Calendering operation

Demonstrate

- Show the participants the working of equipment mentioned in above diagram for carrying out calendering operation with the help of a video.

Say

We will now conduct an activity session for identifying rubber raw material and product made of rubber.

Activity-1

Objective: Demonstrate the elastic property of the rubber.

Procedure:

- Arrange to display elasticity property with the help of tensile testing machine.
- The facilitator will cut the dumbbells from the rubber sheet and show the elasticity by elongating it with the help of tensile testing machine.
- The facilitator will showcase different samples with low and high elasticity.

Activity Outcome:

- The participants will be able to understand the elasticity property with the help of practical demonstration.
- Participant will be keen to know more about rubber material.

Activity	Time	Resources
Rubber elasticity property demonstration	6 Hours	White board & markers, facilitator notes, laptop/ slides + projector, dumbbell cutting machine, rubber sheet with low and high elasticity, tensile testing machine.

Table 1.2.2

Activity-2

Objective: Demonstrate the hardness testing of a rubber sample.

Procedure:

- Arrange to display hardness testing of a rubber sample with the help of a shore-A hardness tester.
- The facilitator will cut the test button from the test rubber sheet and show the hardness with the help of Shore-A hardness tester.
- The facilitator will showcase different samples with low and high hardness.

Activity Outcome:

- The participants will be able to understand the concept of rubber hardness, with the help of practical demonstration.
- Participant will be keen to know more about rubber material.

Activity	Time	Resources
Rubber hardness testing demonstration	6 Hours	White board & markers, facilitator notes, laptop/ slides + projector, test button cutting machine, rubber sheet with low and high elasticity, Shore-A hardness tester.

Table 1.2.3

Activity-3

Objective: Identify raw materials used in rubber calendering process.

Procedure:

- Arrange a display of raw materials and products used in rubber calendering process.
- The participants need to identify the name of the raw materials and write their answer in their note pad.
- The participants need to submit the answers to the facilitator.
- The facilitator will declare the real identity of rubber raw material and products, once all the participants complete the identification process.

Activity Outcome:

- You will be able to test the knowledge of participants.
- Participant will be keen to know more about the rubber calendering.

Activity	Time	Resources
Rubber calendering raw material identification	6 Hours	White board & markers, facilitator notes, laptop/ slides + projector, rubber calendering raw material, such as: various rubber compound, fabric, PVC cords, metal cords.

Table 1.2.4

Activity-4

Objective: Identify rubber calenders from the images and models.

Procedure:

- Arrange a display of images and models of different rubber calenders.
- The participants need to identify the type of the rubber calender and write their answers in their note pad.
- The participants need to submit the answers to the facilitator.
- The facilitator will declare the real name of the rubber calender, once all the participants complete the identification process.
- The facilitator will make them understand the difference of their operation and usage.

Activity Outcome:

- You will be able to test the knowledge of participants.
- Participant will be keen to know more about the rubber calendaring.

Activity	Time	Resources
Identify rubber calenders from the images and models.	6 Hours	White board & markers, facilitator notes, laptop/ slides + projector, images and models of rubber calenders

Table 1.2.5

Activity-5

Objective: Identify the parts of the given rubber calender

Procedure:

- Arrange the display of a rubber calender with open body.
- Flag the rubber calender parts with letters A, B, C.....
- The participants need to identify the parts of the rubber calender and write their answers in their note pad.
- The participants need to submit the answers to the facilitator.
- The facilitator will declare the correct name of the rubber calender parts, once all the participants complete the identification process.

Activity Outcome:

- You will be able to test the knowledge of participants about rubber calender parts.
- Participant will be keen to know more about the rubber calender.

Activity	Time	Resources
Identify the parts of the given rubber calender	6 Hours	White board & markers, facilitator notes, laptop/ slides + projector, open body of rubber calender with flagged parts.

Table 1.2.6

Activity-6

Objective: Identify the ancillary equipment used with rubber calender.

Procedure:

- Arrange the display of a ancillary equipment used with rubber calender.
- The participants need to identify and note the name and the function of the of ancillary equipment in rubber calendering, in their note pad.
- The participants need to submit the answers to the facilitator.
- The facilitator will declare the correct name and function of the equipment, once all the participants complete the identification process.

Activity Outcome:

- You will be able to test the knowledge of participants about rubber calendering ancillary equipment.
- Participant will be keen to know more about the rubber calendering.

Activity	Time	Resources
Identify the Ancillary equipment used with rubber calender	4 Hours	White board & markers, facilitator notes, laptop/ slides + projector, ancillary equipment used with rubber calender

Table 1.2.7

Do

- Conduct the activity in a controlled manner.
- Share your feedback and ask participant to talk freely.
- Ensure participation of all the participants.
- Get feedback from participants for making activity session more effective.

Answers

Q.1. What is frictioning?

In frictioning, the two rollers rotate at different surface speeds or the roller is of different diameters. Thus, the rubber is “frictioned” into the fabric.

Q.2. What is embossing?

It is carried out by pressing a heavy engraved roll against a hot rubber compound so that the engraved design is transferred to the rubber compound.

Q.3. What is profile calendering?

Profile calendering is to produce profiled treads or patterned sheets with the help of pattern rolls. It is used to produce tread sections of cycle tyres and hand building of certain types of footwear.

Q.4. Write 5 different rubber parts being made by calendering process:

Product made through rubber calendering process:

- Rubber sheets
- Conveyor belting
- Expansion joints
- Brake lining
- Rolled roofing

Notes



UNIT 1.3: Process of Rubber Calendering

Unit Objectives

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

1. Explain the construction of a rubber calender.
2. Explain the equipment used in calendering process.
3. Describe the use and working of various equipment used in calendering process.

Resources to be Used

- Laptop/ Slides + projector
- White Board
- Marker
- Notes
- Videos
- images/ model of a rubber calender with different part details

Do

- Greet the participants for the day.
- Give summary of previous session.
- Ask for any doubts in previous session.
- Acknowledge for their doubt-raising, if any. Clear the doubts.
- Give details of today's session and what they are going to learn.
- Encourage them to share their thoughts and doubts now and during process of this course.

1.3.1 Equipment used in rubber calendering

Ask

- Ask the participants what are different equipment used in rubber calendaring operations?
- Ask the participants the use of different equipment used in rubber calendering?

Explain



Explain to the participants about the equipment used in rubber calendaring and their functionality:

- **Before rubber calender:**
 1. Compound mixer / Bunbury mixer
 2. Mixing mill (1 and 2 for preparing rubber compound)
 3. Dipping tank (for processing synthetic fabric thru special dip solution for better adhesion with the compound)
- **After rubber calendaring:**
 1. Cutting / resizing / building machine
 2. Curing / sizing machine

Demonstrate



- Show the participants different auxiliary equipment used in rubber calendaring with the help of videos.

1.3.2: Compound mixer / banbury mixer

Ask



- Ask the participants which are the equipment used for making rubber compound?
- Ask participants which are the ingredients used for making a rubber compound?
- Ask participants the difference between banbury mixer and internal mixer?

Explain



Explain to the participants about the working process compound mixer / banbury mixer with following sequence:

- In compound mixer all ingredient of the rubber compound is mixed and the compound is made.
- Following are the common ingredients used for making rubber compound, such as: rubber - natural / synthetic, carbon black, zinc oxide, stearic acid, accelerator, oil, etc.

Demonstrate



- Show the participants the ingredients used for making rubber compound.
- Show the participants how the compound mixer works with the help of some videos.

1.3.3: Mixing Mill

Ask



- Ask the participants what is mixing mill?
- Ask the participants what is a vulcanizing agent and why it is used in a rubber compound?

Explain



Explain the following points to the participants about mixing mill:

- The purpose of using mixing mill.
- The process of mixing compound in a mixing mill.

Demonstrate



- Demonstrate the finished compound after the mixing process.

1.3.4: Dip Tank

Ask



- Ask the participants why dip tank is used in rubber calendering process?
- Ask the participants the purpose of dipping..

Explain



Explain the following points about dipping process to the participants:

- The material to be used to coat in dipping process.
- The purpose of carrying out dipping process.
- The working process of dipping.

Demonstrate



- Demonstrate the process of dipping to the participants.
- Show the finished product after dipping.

Answers

Q.1. Write main steps of rubber calendering:

We can divide the calendering process in to following steps:

1. Rubber compound feeding to the calender
2. Dipping of fabric (in case of fabric calendering)
3. Frictioning of rubber mix on the substrate
4. Winding of calendered material on bobbins
5. Storage of bobbins

Q.2. Write main ingredient of rubber compound:

Following are the common ingredients used for making rubber compound –

1. Rubber - natural / synthetic
2. Carbon black
3. Zinc oxide
4. Stearic acid
5. Accelerator
6. Oil

Q.3. Write names of machines used in rubber calendering process:

Before rubber calender:

1. Compound Mixer / Bunbury Mixer
2. Mixing Mill (1 and 2 for preparing rubber compound)
3. Dipping tank (for processing synthetic fabric thru special dip solution for beer adhesion with the compound)

After rubber calendering:

4. Cutting / resizing / building machine
5. Curing / Sizing machine

Notes



UNIT 1.4: Job Role of a Rubber Calendering Operator

Unit Objectives

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

1. Explain the Job role of a rubber calendering operator

Resources to be Used

- Laptop/ Slides + projector
- White Board
- Marker
- Notes
- Videos

Do

- Greet the participants for the day.
- Give summary of previous session.
- Ask for any doubts in previous session.
- Acknowledge for their doubt-raising, if any. Clear the doubts.
- Give details of today's session and what they are going to learn.
- Encourage them to share their thoughts and doubts now and during process of this course.

1.4.1: Job role of a rubber calendering operator

Ask

- Ask the participants the importance of the Job role of a rubber calender operator in the rubber manufacturing industry

Elaborate

Elaborate to the participants the responsibilities of a rubber calendering operator as per following:

1. The person needs to prepare the rubber calender.
2. The individual needs to verify that the correct roller is loaded on calender.
3. The individual needs to clean the rollers by using proper tools.
4. The person needs to set machine parameters before starting the operations.
5. The individual needs to warm the calender.
6. The person needs to ensure that all the work is being done as per procedure defined and work instruction set for the process.

7. The person needs to ensure that the process is being carried out in defined cycle time and there is no delay in any activity which may lead to quality issues.
8. The individual needs to ensure that the speed of the machine is maintained as per specifications.
9. The person needs to ensure that all equipment and measuring instruments to be used in the process are calibrated as per their due dates.
10. The person needs to ensure that batch code on the calendered part is correct and properly attached.
11. The individual needs to check the calendered part for any quality issues.
12. The person needs to ensure housekeeping of machine and nearby areas.
13. The individual needs to ensure proper use of PPEs while working in the company.
14. The person needs to ensure that all the procedures related to health and safety are compiled with as per company regulations.
15. The individual needs to safely handle the calendered part after winding on a roll.
16. The person needs to suggest/advise any improvement in the process based on experience and knowledge gained while working on the machine.
17. The individual needs to analyze the quality issues and resolve the problems to ensure that those should not occur again.
18. The person needs to escalate the issues which are beyond his / her control, to ensure no damage to production and company property.
19. The individual need to collect the sample at various intervals for checking the gauge and the gum distribution for effective uniform coating and assuring the quality of the coating.

Answers

Q.1. Write 3 main roles of Rubber calendering operator:

1. The individual needs to prepare the rubber calender.
2. The person needs to verify that correct roller is loaded on calender.
3. The individual needs to clean the rollers by using proper tools.

Q.2. Multiple Choice Questions

I. b II. d III. c IV. d V. a VI. d VII. d VIII. d IX. b X. a

Notes



Notes



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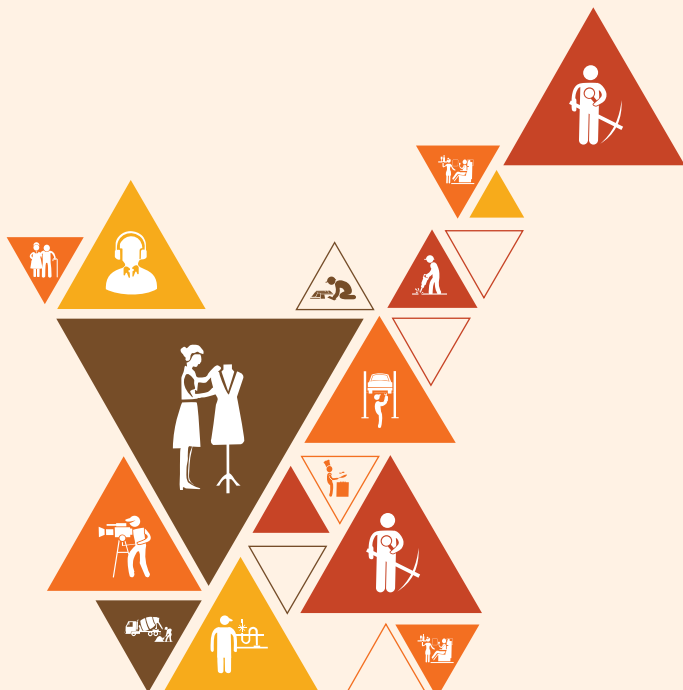
Transforming the skill landscape



2. Preparing Rubber Calender

Unit 2.1 – Rubber Calender and Ancillary Equipment

Unit 2.2 – Rubber Calender Preparation for Operation



RSC/N2704

Key Learning Outcomes

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

1. Explain construction of rubber calender.
2. Describe the details of rubber calender parts.
3. Prepare equipment for rubber calendering.
4. Demonstrate the cleaning process of rubber calender.
5. Demonstrate the setting of nip gap in a rubber calender.
6. Demonstrate the roller cleaning before start of rubber calendering.
7. Describe the process of arranging compound for rubber calendering.

UNIT 2.1: Rubber Calender and Ancillary Equipment

Unit Objectives

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

1. Explain construction of a rubber calender.
2. Describe the details of parts of a rubber calender.

Resources to be Used

- White board & marker.
- Notes
- Laptop/ Slides + projector
- Videos
- Images/ model/ sample of a rubber calender with different part details

Do

- Greet the participants for the day.
- Give summary of previous session.
- Ask for any doubts in previous session.
- Acknowledge for their doubt-raising, if any. Clear the doubts.
- Give details of today's session and what they are going to learn.
- Encourage them to share their thoughts and doubts now and during process of this course

Say

In the previous session we had discussed about the job role of a rubber calendering operator. Today we will learn about different parts of a rubber calender and their working.

Ask

Ask following questions from the participants:

- What are the different parts of calender known to them?
- Which types of iron used for making calender parts?
- What are the types of rollers used in a calender?
- What is purpose of controlling roller temperature?
- What is the role of roller adjustment unit?

Elaborate

In this session we will discuss the following calender parts:

- Roller
- Roller temperature control unit
- Calender frame
- Roller adjustment unit
- Calender roller cross axis unit
- Calender drive
- Emergency stop control
- Material guide cheeks
- Edge strip separator
- Thickness gauging system
- Feeding device
- Pre-warmer extruder
- Sheet let-off stands
- Splicing unit
- Web accumulator
- Creel
- Pick breaker
- Cooling unit
- Cross cutter unit
- Centering winder
- Dipping tank
- Wet hold back stand
- Vacuum extractor
- Dryer
- Heat set oven
- Normalizing oven
- Wind up accumulator
- Flexibilizer
- Pull roll unit
- Thickness control unit

Answers

Q.1. Write the names of main parts of rubber calender:

Main parts of a calender are:

1. Roller
2. Calender frame
3. Roller adjustment unit
4. Calender drive
5. Material guide cheeks
6. Feeding device
7. Sheet let of stand

Q.2. Write the purpose of feeding device

Generally, an internal mixer is used online with the calender where the last mixing step is done, and the rubber fed to a cutting mill and then fed to the calender through feeding device, which is a conveyor like device.

Notes



UNIT 2.2: Rubber Calender Preparation for Operation

Unit Objectives

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

1. Identify and arrange input material for rubber calendering
2. Prepare rubber calender for rubber calendering.
2. Demonstrate the cleaning process of rubber calender.
3. Demonstrate the correct nip gap in a rubber calender.
4. Demonstrate the roller cleaning before rubber calendering.
5. Describe the process of arranging required input material for rubber calendering.

Resources to be Used

- White board & markers
- Notes
- Laptop/ Slides + projector
- Videos
- Rubber calender
- cleaning aids
- Calender set up specification sheet

Do

- Greet the participants for the day.
- Give summary of previous session.
- Ask for any doubts in previous session.
- Acknowledge for their doubt-raising, if any. Clear the doubts.
- Give details of today's session and what they are going to learn.
- Encourage them to share their thoughts and doubts now and during process of this course.

Say

Material used in rubber calendering is depends on uses of final product, such as:

1. Rubber compound
2. Fabric (Nylon, Polyester)
3. Metal cord
4. Dipping solution

Ask



- Ask the participants as per them, which are the rubber compound used for rubber calendaring?

Explain



Explain the use of following rubber polymers in rubber calendaring:

- Neoprene
- SBR
- Natural
- Hypalon
- Urethane
- EPDM
- Viton
- Fluoro elastomer
- Butyl
- Nitrile
- Silicone

Ask



- Ask the participants what is their understanding of textile fabric used for rubber calendaring?
- Ask the participants what is the use of textile fabric in a calendered rubber?

Explain



Explain to the participants about textile fabric used in a rubber as per following:

- Use of fabric in calendered product.
- Evolvement in use of fabric, from earlier days of calendaring to now.
- What is called a cord?
- What is key parameters of fabric cord quality?
- What is the benefit of using synthetic fibers and twisted steel cords?
- What are common fibers used nowadays?
- Which are the fiber used in the tread area of a tyre to provide high-speed performance and reduce centerline buckling under low inflation.
- Synthetic fibers are available in which form.

Demonstrate



- Demonstrate the fabric materials used for rubber calendaring, such as: rayon cotton, polyester blends, monofilament blends, kevlar, fiberglass, nylon, square woven cotton, polyester, fiberglass, Nomex, hybrid fabric (Fabric cord with 2 types of fabric, such as: nylon polyester, nylon aramid, etc.)
- Demonstrate sample of calendered products made of textile fabric to the participants.
- Show videos of textile fabric rubber calendaring.

Ask



- Ask the participants what they know about metal cord?
- Ask the participants for which end application, metal cord is used in rubber calendering?

Explain



Explain to the participants about metal cord:

- What is the purpose of beads in a tyre?
- What is the core material of a metal cord?
- How the metal cord is prepared?
- What is the difference in the steel cord used in the multiply tyre and the belted tyre?
- Why brass coating is done on a metal cord.
- What is the appropriate way of storing the metal cords for rubber calendering.

Demonstrate



- Show the participants the difference between multi – ply tyre and the belted tyre.
- Show the participants brass coated steel cords.

Explain



Explain to the participants about dipping solution used in rubber calendering as per below details:

- How dipping solutions are used as adhesion promoters?
- How reinforcing materials such as rayon, nylon, polyester, aramid, steel, and fiberglass cords are all bonded to rubber?

Demonstrate



- Show the participants some of the chemicals used in the dipping solution.
- Demonstrate the rubber after dipping in the solution.

Ask



- Ask the participants why setting input material acceptable criteria is important in rubber calendering.
- Ask the participants some of the test done on input fabric.

Demonstrate



- Demonstrate to participants some of the test conducted on input fabric.

Explain



Explain the tests to be conducted on the compound, such as:

- Rapid rheo properties
- Specific gravity
- Mooney viscosity
- Mooney scorch

Elaborate



Elaborate the steps for rubber calender preparation to the participants:

- Rubber calender cleaning
- Nip gap setting
- Roller cleaning
- Rubber compound batch arrangement
- Control panel set up

Say



We will now conduct an activity session for setting up rubber calender for calendering process.

Activity-1



Objective: Explain the purpose and function of different parts of the given rubber calender.

Procedure:

- Arrange the display of a rubber calender with open body.
- Flag the rubber calender parts with letters A, B, C.....
- The participants need to tell function of the parts of the given rubber calender and write their answers in their note pad.
- The participants need to submit the answers to the facilitator.
- The facilitator will tell the correct function of the rubber calender parts, once all the participants submit their answers.

Activity Outcome:

- You will be able to test the knowledge of participants about rubber calender parts.
- Participant will be keen to know more about the rubber calender.

Activity	Time	Resources
Explain the purpose and function of different parts of the given rubber calender.	8 Hours	White board & markers, facilitator notes, laptop/ slides + projector, open body of rubber calender with flagged parts

Table 2.2.1

Activity-2

Objective: Identify and arrange raw material used for rubber calendering as per the given specification sheet.

Procedure:

- Demonstrate the process of choosing raw material for rubber calendering from the given set of material as per the specification sheet.
- The participants need to understand the working process identifying the raw material and weighing it as per specification sheet requirement and then need to demonstrate the process.
- The facilitator should explain the key points to remember during arranging raw material, such as: FIFO, ensuring correct identification and batch code, etc.

Activity Outcome:

- The participants will learn the process of arranging raw material for rubber calendering process.
- Participant will be keen to know more about the rubber calendering process.

Activity	Time	Resources
Identify and arrange raw material used for rubber calendering as per the given specification sheet.	6 Hours	White board & markers, facilitator notes, laptop/ slides + projector, specification sheet for rubber calendered products, such as: rubber sheet, belt, etc. raw material used in rubber calendering, such as: rubber compound, fabric, PVC cord, metal cord, etc. weighing scale, safety gloves, safety mask, safety shoes.

Table 2.2.2

Activity-3

Objective: Rubber calender cleaning process demonstration.

Procedure:

- Demonstrate the cleaning process of a rubber calender, to the participants.
- The participants need to understand the working process and then need to demonstrate the cleaning process on the machine.
- The facilitator should explain the key points of cleaning and its importance, during the process.

Activity Outcome:

- The participants will learn the cleaning process of a rubber calender.
- Participant will be keen to know more about the rubber calendering process.

Activity	Time	Resources
Rubber calender cleaning process demonstration.	4 Hours	White board & markers, facilitator notes, laptop/ slides + projector, rubber calender, cleaning solvent, cleaning brush, cleaning rags, safety gloves, safety mask, safety shoes.

Table 2.2.3

Activity-4

Objective: Rubber calender nip gap setting process demonstration.

Procedure:

- Demonstrate the nip gap setting process of a rubber calender, to the participants.
- The participants need to understand the working process and then need to demonstrate the nip gap setting on the given rubber calender.
- During the process, the facilitator should explain the key points of nip gap setting and its importance in maintaining the calendered product's thickness.

Activity Outcome:

- The participants will learn the nip gap setting process of a rubber calender.
- Participant will be keen to know more about the rubber calendering process.

Activity	Time	Resources
Rubber calender nip gap setting process demonstration.	4 Hours	White board & markers, facilitator notes, laptop/ slides + projector, rubber calender, key for nip gap setting (as per calender design, some calender may have wheel also), material for rubber calendering, safety gloves, safety mask, safety shoes.

Table 2.2.4

Activity-5

Objective: Rubber calender control panel setting process demonstration.

Procedure:

- Demonstrate the control panel setting process of a rubber calender, to the participants.
- The participants need to understand the working process and then need to demonstrate the control panel setting on the given rubber calender.
- During the process, the facilitator should explain the key points of control panel set up and its importance in maintaining the calendered product's output and quality.

Activity Outcome:

- The participants will learn the control panel setting process of a rubber calender.
- Participant will be keen to know more about the rubber calendering process.

Activity	Time	Resources
Rubber calender control panel setting process demonstration.	8 Hours	White board & markers, facilitator notes, laptop/ slides + projector, videos and images of rubber calendering process, rubber calender with control panel

Table 2.2.5

Do



- Conduct the activity in a controlled manner.
- Share your feedback and ask participant to talk freely.
- Ensure participation of all the participants.
- Get feedback from participants for making activity session more effective.

Answers

Q.1. Write steps of rubber calender preparation:

Below are steps for preparing the rubber calender:

1. Rubber calender cleaning
2. Setting nip gap in a rubber calender
3. Roller cleaning
4. Arranging batch of input material for calendaring
5. Setup of program in control panel

Q.2. Write why it is important to maintain right temperature during rubber calendering:

A lower temperature may make rubber compound hard to be calendered and higher temperature may cause rubber compound becoming sticky on the calender rolls, hence maintaining an optimum temperature during rubber calendering is very important.

Q.3. Write the purpose of roller cleaning:

It is very important to clean the roller before starting the process. Any foreign particle left in rollers, may get embedded with the calendered part and create quality problems later. Hence, before starting the machine operations, rollers should be properly cleaned with the help of a plastic scrapper, a piece of cloth, and pressurized air.

Q.4. Multiple Choice Questions

I. d II. a III. b IV. c V. a VI. d VII. c VIII. b IX. a X. a

Notes





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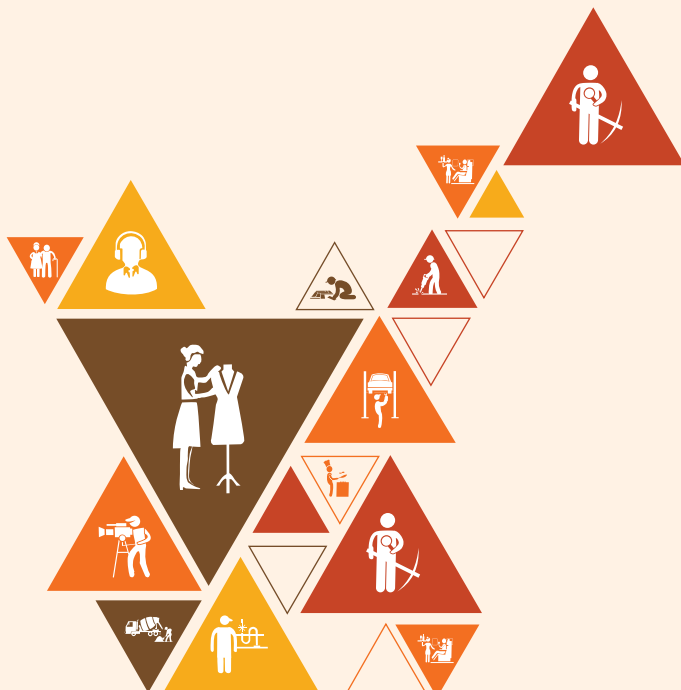
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3. Performing Rubber Calendering Operation

Unit 3.1 – Initial Checks for a Rubber Calender

Unit 3.2 – Operating a Rubber Calender



RSC/N2705

Key Learning Outcomes

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

1. Demonstrate machine checkup points before rubber calendering.
2. Demonstrate control panel checkup points before rubber calendering.
3. Demonstrate roller checkup points before rubber calendering.
4. Discuss importance of roller cleaning & maintenance.
5. Describe general operating instruction before rubber calendering.
6. Explain compound inspection.
7. Describe preparaon points before rubber calendering.
8. Demonstrate the steps for performing rubber calendering.
9. Describe the safety precautions to be taken during rubber calendering.
10. Discuss do's and don'ts for rubber calendering operaons.
11. Define responsibilities of rubber calendering operator.

UNIT 3.1: Initial Checks for a Rubber Calender

Unit Objectives

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

1. Demonstrate machine checkup points before rubber calendering.
2. Demonstrate control panel checkup points before rubber calendering.
3. Demonstrate roller checkup points before rubber calendering.
4. Discuss importance of roller cleaning & maintenance.
5. Describe general operating instructions before rubber calendering.
6. Explain input material inspection process.
7. Describe preparation points before rubber calendering.

Resources to be Used

- White board & markers
- Notes
- Laptop/ Slides + projector, videos
- Rubber calender, cooling tower/ heat exchanger
- Raw material used in rubber calendering such as: rubber compound, metal cord, fabric, dipping solution, etc.

Do

- Greet the participants for the day.
- Give summary of previous session.
- Ask for any doubts in previous session.
- Acknowledge for their doubt-raising, if any. Clear the doubts.
- Give details of today's session and what they are going to learn.
- Encourage them to share their thoughts and doubts now and during process of this course

Ask

- Ask participants what they know about a checkup?
- Ask participants according to them what kind of checkups should be done?
- Ask participants about roller?
- Ask participants the advantages of roller cleaning & maintenance?
- Ask participants some initial checkup instructions known to them?
- Ask participants what input material are used in rubber calendering?

Explain



Explain the participants about startup checks before starting the operations of rubber calendering:

- Machine checkup
- Control panel checkup
- Roller checkup

Elaborate



Elaborate following points to the participants:

- Benefits of roller cleaning & maintenance
- General instruction for operating a rubber calender
- Inspection methods of calendering input material
- Need of support manpower
- Importance of preparation before starting calendering operation

Say



We will now conduct an activity session for setting up rubber calender for calendering process.

Activity-1



Objective: Demonstration of operating a 2-roll Rubber calender.

Procedure:

- Demonstrate the operating process of a 2-roll rubber calender, to the participants.
- The participants need to understand the complete working process and then need to demonstrate the operations of the given 2-roll rubber calender.
- During the process, the facilitator should explain the key points of operating a 2-roll rubber calender and their importance in maintaining the calendered product's output and quality.

Activity Outcome:

- The participants will learn the process of operating a 2-roll rubber calender.
- Participant will be keen to have a hands on experience of the rubber calendering process.

Activity	Time	Resources
Demonstration of operating a 2-roll Rubber calender.	6 Hours	White board & markers, facilitator notes, laptop/ slides + projector, specification sheet for rubber calendered products, such as: rubber sheet, belt, etc. raw material used in rubber calendering, such as: rubber compound, fabric, PVC cord, metal cord, etc. 2-roll rubber calender, cleaning aids, material handling devices, bobbins for storing finished rubber calendered material, safety gloves, safety mask, safety shoes.

Table 3.1.1

Do



- Conduct the activity in a controlled manner.
- Share your feedback and ask participant to talk freely.
- Ensure participation of all the participants.
- Get feedback from participants for making activity session more effective.

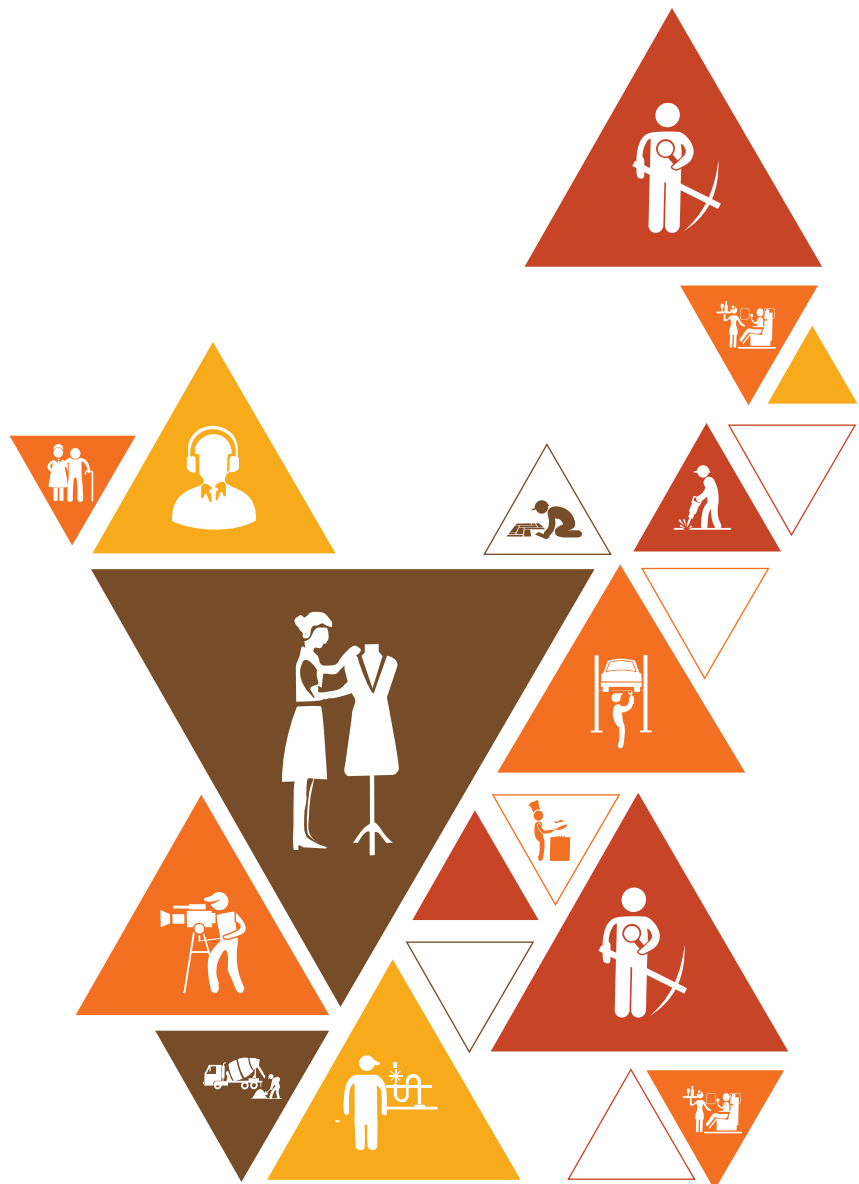
Answers

Q.1. Write five machine check points:

1. Ensure that all parts, like - feeder unit, rollers, let off and water connections, all are in physically ok condition.
2. Ensure that the machine is cleaned before running the production cycle.
3. Check electric power is available in the control panel and the machine is on.
4. Check the set temperature at the control panel against specification.
5. Check water pressure against specification

Notes





UNIT 3.2: Operating a Rubber Calender

Unit Objectives

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

1. Demonstrate the steps for performing rubber calender.
2. Describe the safety precautions to be taken during rubber calendering.
3. Discuss Do's and Don'ts for rubber calendering operations.
4. Define responsibilities of rubber calendering operator.

Resources to be Used

- White board & markers
- Notes
- Laptop/ Slides + projector
- Videos, Rubber calender
- Cooling tower/ Heat Exchanger
- Raw material used in rubber calendering such as: rubber compound, metal cord, fabric, dipping solution, etc.

Do

- Greet the participants for the day.
- Give summary of previous session.
- Ask for any doubts in previous session.
- Acknowledge for their doubt-raising, if any. Clear the doubts.
- Give details of today's session and what they are going to learn.
- Encourage them to share their thoughts and doubts now and during process of this course.

Ask

- Ask participants what are the responsibilities of a rubber calendering operator?

Explain



Explain the following responsibilities of a rubber calendering operator to the participants:

1. The person should not leave the machine unattended, while calendering is under way, and should not let any unauthorized person run the machine.
2. The individual should always run the machine with all safety measures.
3. Immediately stop the machine if any problem is noticed in the machine.
4. Always inform the supervisor without any delay of any abnormality or expected production loss.
5. Always inform the supervisor the identified quality problem, without any delay.
6. Never bypass any safety control in the machine.
7. Always check input material specification before loading it into the machine.
8. Always check the inspection status of the input material. Only ok material to use for calendering.
9. Immediately inform the supervisor in case of any emergency.
10. Always fill production details in the job sheet or any other documentation accurately.

Demonstrate



- Demonstrate to the participants the steps of rubber calendering operation.

Ask



- Ask participants the importance to keep a safe environment during rubber calendering.
- Ask participants what safety precautions should be taken during rubber calendaring?

Explain



Explain to the participants the safety precautions to be taken during rubber calendaring and their importance:

1. Importance of wearing safety shoes.
2. Importance of wearing safety gloves.
3. Take care of hot surfaces.
4. Importance of using suitable lifting devices for moving heavy parts.
5. Importance of using mask, while working with chemicals.

Demonstrate



- Demonstrate some of the safety equipment used in the rubber industry.

Ask



- Ask participants according to them what issues can occur during calendering?
- Ask participants about gauge variation problem.
- Ask participants the purpose of using axis crossing.

Explain



Explain to the participants about following calendering issues and their remedies:

- Roll crowning
- Axis crossing
- Roll bending

Ask



- Ask participants what kind of motors are used in calendering?
- Ask participants what are calender drives?

Explain



Explain to the participants about the use of motors in calendering and related issues:

- Which type of motors used in rubber calender and how it is possible to use AC motor now-a-days in rubber calenders.
- What is the mechanism used for emergency condition stops in a rubber calender.
- What is concept of load sharing in rubber calender motor drive.

Say



We will now conduct an activity session for operating 2-roll rubber calender.

Activity-1



Objective: Demonstration of operating a 2-roll Rubber calender.

Procedure:

- Demonstrate the operating process of a 2-roll rubber calender, to the participants.
- The participants need to understand the complete working process and then need to demonstrate the operations of the given 2-roll rubber calender.
- During the process, the facilitator should explain the key points of operating a 2-roll rubber calender and their importance in maintaining the calendered product's output and quality.

Activity Outcome:

- The participants will learn the process of operating a 2-roll rubber calender.
- Participant will be keen to have a hands on experience of the rubber calendering process.

Activity	Time	Resources
Demonstration of operating a 2-roll Rubber calender.	6 Hours	White board & markers, facilitator notes, laptop/ slides + projector, specification sheet for rubber calendered products, such as: rubber sheet, belt, etc. raw material used in rubber calendering, such as: rubber compound, fabric, PVC cord, metal cord, etc. 2-roll rubber calender, cleaning aids, material handling devices, bobbins for storing finished rubber calendered material, safety gloves, safety mask, safety shoes.

Table 3.2.1

Activity-2

Objective: Demonstration of operating a 3-roll Rubber calender.

Procedure:

- Demonstrate the operating process of a 3-roll rubber calender, to the participants.
- The participants need to understand the complete working process and then need to demonstrate the operations of the given 3-roll rubber calender.
- During the process, the facilitator should explain the key points of operating a 3-roll rubber calender and their importance in maintaining the calendered product's output and quality.

Activity Outcome:

- The participants will learn the process of operating a 3-roll rubber calender.
- Participant will be keen to have a hands on experience of the rubber calendering process.

Activity	Time	Resources
Demonstration of operating a 3-roll Rubber calender.	8 Hours	White board & markers, facilitator notes, laptop/ slides + projector, specification sheet for rubber calendered products, such as: rubber sheet, belt, etc. raw material used in rubber calendering, such as: rubber compound, fabric, PVC cord, metal cord, etc. 3-roll rubber calender, cleaning aids, material handling devices, bobbins for storing finished rubber calendered material, safety gloves, safety mask, safety shoes.

Table 3.2.2

Activity-3

Objective: Demonstration of operating a 4-roll - 'I' shaped Rubber calender.

Procedure:

- Demonstrate the operating process of a 4-roll - 'I' shaped rubber calender, to the participants.
- The participants need to understand the complete working process and then need to demonstrate the operations of the given 4-roll - 'I' shaped rubber calender.
- During the process, the facilitator should explain the key points of operating a 4-roll - 'I' shaped rubber calender and their importance in maintaining the calendered product's output and quality.

Activity Outcome:

- The participants will learn the process of operating a 4-roll - 'I' shaped rubber calender.
- Participant will be keen to have a hands on experience of the rubber calendering process.

Activity	Time	Resources
Demonstration of operating a 4-roll - 'I' shaped Rubber calender.	8 Hours	White board & markers, facilitator notes, laptop/ slides + projector, specification sheet for rubber calendered products, such as: rubber sheet, belt, etc. raw material used in rubber calendering, such as: rubber compound, fabric, PVC cord, metal cord, etc. 4-roll - 'I' shaped rubber calender, cleaning aids, material handling devices, bobbins for storing finished rubber calendered material, safety gloves, safety mask, safety shoes.

Table 3.2.3

Activity-4

Objective: Demonstration of operating a 4-roll - 'L' shaped Rubber calender.

Procedure:

- Demonstrate the operating process of a 4-roll - 'L' shaped rubber calender, to the participants.
- The participants need to understand the complete working process and then need to demonstrate the operations of the given 4-roll - 'L' shaped rubber calender.
- During the process, the facilitator should explain the key points of operating a 4-roll - 'L' shaped rubber calender and their importance in maintaining the calendered product's output and quality.

Activity Outcome:

- The participants will learn the process of operating a 4-roll - 'L' shaped rubber calender.
- Participant will be keen to have a hands on experience of the rubber calendering process.

Activity	Time	Resources
Demonstration of operating a 4-roll - 'L' shaped Rubber calender.	8 Hours	White board & markers, facilitator notes, laptop/ slides + projector, specification sheet for rubber calendered products, such as: rubber sheet, belt, etc. raw material used in rubber calendering, such as: rubber compound, fabric, PVC cord, metal cord, etc. 4-roll - 'L' shaped rubber calender, cleaning aids, material handling devices, bobbins for storing finished rubber calendered material, safety gloves, safety mask, safety shoes.

Table 3.2.4

Activity-5

Objective: Demonstration of operating a 4-roll - 'Z' shaped Rubber calender.

Procedure:

- Demonstrate the operating process of a 4-roll - 'Z' shaped rubber calender, to the participants.
- The participants need to understand the complete working process and then need to demonstrate the operations of the given 4-roll - 'Z' shaped rubber calender.
- During the process, the facilitator should explain the key points of operating a 4-roll - 'Z' shaped rubber calender and their importance in maintaining the calendered product's output and quality.

Activity Outcome:

- The participants will learn the process of operating a 4-roll - 'Z' shaped rubber calender.
- Participant will be keen to have a hands on experience of the rubber calendering process.

Activity	Time	Resources
Demonstration of operating a 4-roll - 'Z' shaped Rubber calender.	8 Hours	White board & markers, facilitator notes, laptop/ slides + projector, specification sheet for rubber calendered products, such as: rubber sheet, belt, etc. raw material used in rubber calendering, such as: rubber compound, fabric, PVC cord, metal cord, etc. 4-roll - 'Z' shaped rubber calender, cleaning aids, material handling devices, bobbins for storing finished rubber calendered material, safety gloves, safety mask, safety shoes.

Table 3.2.5

Activity-6

Objective: Demonstration of operating a 4-roll - 'S' shaped Rubber calender.

Procedure:

- Demonstrate the operating process of a 4-roll - 'S' shaped rubber calender, to the participants.
- The participants need to understand the complete working process and then need to demonstrate the operations of the given 4-roll - 'S' shaped rubber calender.
- During the process, the facilitator should explain the key points of operating a 4-roll - 'S' shaped rubber calender and their importance in maintaining the calendered product's output and quality.

Activity Outcome:

- The participants will learn the process of operating a 4-roll - 'S' shaped rubber calender.
- Participant will be keen to have a hands on experience of the rubber calendering process.

Activity	Time	Resources
Demonstration of operating a 4-roll - 'S' shaped Rubber calender.	8 Hours	White board & markers, facilitator notes, laptop/ slides + projector, specification sheet for rubber calendered products, such as: rubber sheet, belt, etc. raw material used in rubber calendering, such as: rubber compound, fabric, PVC cord, metal cord, etc. 4-roll - 'S' shaped rubber calender, cleaning aids, material handling devices, bobbins for storing finished rubber calendered material, safety gloves, safety mask, safety shoes.

Table 3.2.6

Do

- Conduct the activity in a controlled manner.
- Share your feedback and ask participant to talk freely.
- Ensure participation of all the participants.
- Get feedback from participants for making activity session more effective.

Answers

Q.1. Write five Important startup checks of a rubber calender:

1. Feeder unit, rollers and all other main parts are in ok and working condition.
2. The calender is cleaned before starting the calendering.
3. The calender is connected to power and power is available in the control panel.
4. Calender parameters are set in the control panel against the specification.
5. Roller temperature and water pressure is correct as per the specification.



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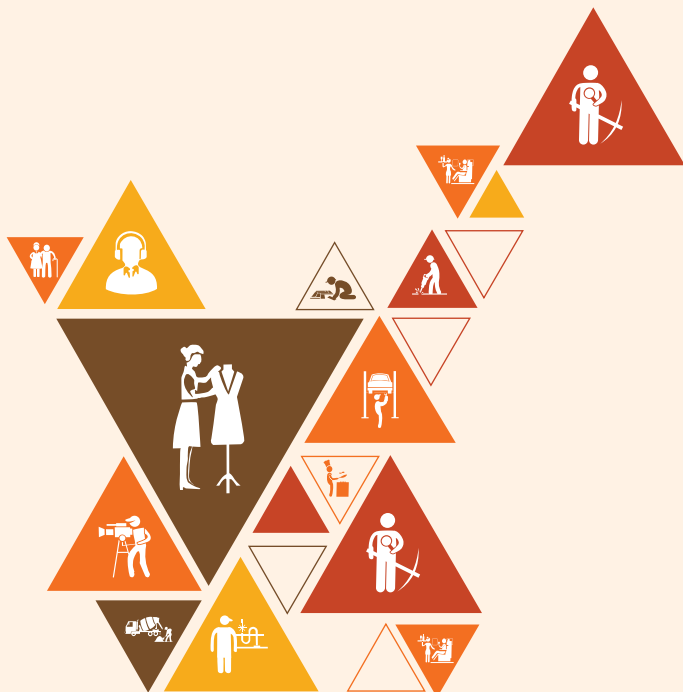
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4. Performing Post Rubber Calendering Activities

Unit 4.1 – Post Calendering Activities

Unit 4.2 – Disposal of Rubber Calendering Waste



RSC/N2706

Key Learning Outcomes

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

1. Explain post- rubber calendering activities.
2. Describe the quality issues in rubber calendering operation.
3. Explain challenges in rubber waste disposal.
4. Describe rubber waste recycling.
5. Describe the uses of recycled rubber.

UNIT 4.1: Post Calendering Activities

Unit Objectives

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

1. Explain Post- calendering activities.
2. Describe the quality issues in rubber calendering.
3. Define the countermeasures to be taken on quality issues related to rubber calendering.

Resources to be Used

- White board & markers
- Notes
- Laptop/ Slides + projector
- Videos
- Rubber calender, rubber calendering waste, material handling equipment, cleaning equipment

Do

- Greet the participants for the day.
- Give summary of previous session.
- Ask for any doubts in previous session.
- Acknowledge for their doubt-raising, if any. Clear the doubts.
- Give details of today's session and what they are going to learn.
- Encourage them to share their thoughts and doubts now and during process of this course

Say

In the previous session we learned how to operate a rubber calender. Today we will learn about post rubber calendering activities.

Ask

- Ask the participants what they know about post calendering activities?
- Ask the participants to name some of the post-calendering activities?

Explain

Explain to the participants about post-calendering activities which are to be conducted after calendering process is completed.

Ask

- Ask participants the purpose of calendered material inspection.

Explain

Explain to the participants about the calendered material inspection:

- Width
- Thickness
- Visual defects
- Gum distribution

Demonstrate

- Demonstrate to participants how calender materials are inspected.

Ask

- Ask participants to name some of the defects which may occur in calendered material.
- Ask participants to name parameters which may cause these defects.

Explain

Explain to the participants about following rubber calenderd products defects:

1. Gauge variation
2. Holes in the sheet
3. Lumpy material
4. Crushed fabric
5. Loose coating
6. Crow's feet
7. Calender grain
8. Gum distribution

Demonstrate

- Demonstrate to participants the defects found in calendered products.

Say

- This is the final step in manufacturing. Material is packed as per specification for in-house consumption or for shipping to customers. We will now conduct an activity for packing rubber calendered material.

Activity-1

Objective: Demonstration of packing rubber calendered products.

Procedure:

- Demonstrate the packing process of rubber calendered products on a bobbin or a roll, to the participants.
- The participants need to understand the complete packing process and then need to demonstrate the packing process.
- During the process, the facilitator should explain the key points of packing rubber calendered products and their importance in maintaining the quality of packed calendered product.

Activity Outcome:

- The participants will learn the process of packing rubber calendered products.
- Participant will be keen to have a hands on experience of packing the rubber calendered products.

Activity	Time	Resources
Demonstration of packing Rubber calendered products.	6 Hours	White board & markers, facilitator notes, laptop/ slides + projector, rubber calendered products, bobbins for storing finished rubber calendered material, material handling devices, cleaning aids, safety gloves, safety mask, safety shoes.

Table 4.1.1

Do

- Conduct the activity in a controlled manner.
- Share your feedback and ask participant to talk freely.
- Ensure participation of all the participants.
- Get feedback from participants for making activity session more effective.

Answers

Q.1. Write five main post rubber calendering activities:

Following are the activities to be conducted after calendering is completed:

1. Take out the calendered material from the rubber calender.
2. Dip the calendered material in anti tac solution.
3. Wind up the calendered material on a reel or bobbin.
4. Use a poly film or woven liners as a separator for winding up.
5. Once one winding on the bobbin is completed, then move the calendered material to storage area.

UNIT 4.2: Disposal of Rubber Calendering Waste

Unit Objectives

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

1. Explain what is rubber waste disposal.
2. Describe harms, if rubber waste is not disposed properly.
3. Describe the ways of rubber recycling.

Resources to be Used

- White board & markers
- Notes
- Laptop/ Slides + projector
- Videos
- Rubber calendering waste, material handling equipment, cleaning equipment

Do

- Greet the participants for the day.
- Give summary of previous session.
- Ask for any doubts in previous session.
- Acknowledge for their doubt-raising, if any. Clear the doubts.
- Give details of today's session and what they are going to learn.
- Encourage them to share their thoughts and doubts now and during process of this course

Notes

This session of the programme gives the trainees a basic idea of rubber calendering waste disposal.

Ask

- Ask participants about rubber waste.
- Ask participants about the types of rubber waste generated in a rubber industry.
- Ask participants how we can dispose rubber waste?

Explain



Explain to the participants about implications of improper rubber waste disposal:

1. Land pollution.
2. Occupation of usable land.
3. Breeding ground for mosquitoes.
4. Air pollution due to fire in rubber dumping grounds.

Demonstrate



- Demonstrate to the participants what damage a rubber can cause to the environment when not disposed of properly with the help of some videos.

Ask



- Ask participants the purpose of recycling the rubber waste.
- Ask participants the importance of recycling the rubber waste for saving environment.

Explain



Explain to the participants about rubber recycling as per below given details:

- Recycling helps to reduce the rubber waste in storage.
- Shredded rubber parts are now being used in landfills, replacing other construction materials, for a lightweight back-fill in gas venting systems, leachate collection systems, and operational liners.
- Shredded rubber material may also be used to cap, close, or daily cover landfill sites.
- Use of scrap rubber as a back-fill and cover material is also more cost-effective since rubber can be shredded on-site instead of hauling in other fill materials.
- Big companies have their own in-house plants for rubber recycling and small organizations out source this activity.

Field Visit



- Take the participants for a field visit to the rubber recycling plant.

Notes for facilitation



Check List to for Field visit

Activities to be done, one day before the field visit

1. Get confirmation from the management of the organisation to which team is going to visit.
2. Take contact details of the person to be met of the organisation to be visited.
3. Create check list for participants for the things to be observed during visit.
4. Arrange transport for traveling to the place to be visited.
5. Instructions for all participant about field visit, such as:
 - Organisation to be visited during the field visit.
 - Objectives of the field visit.
 - Do's and don'ts during the field visit.
 - Time to report at the meeting place.
 - Things to carry for the field visit.
 - Duration of the field visit.
6. Any other specific arrangement to be made for the field visit.

Activities to be done on the day of the field visit

1. Ensure all participant are gathered before moving for the field visit.
2. Repeat information given to all the participants the previous day, for clarity.
3. Inform your expected time of arrival to the organisation to be visited.
4. Ensure to arrive on time to the place to be visited.
5. Ensure all the objectives planned out for the field visit, are met.
6. Encourage participants to ask questions during the field visit for their better understanding.
7. Answer satisfactorily for all the queries raised by the participants during the field visit.

Activities to be done on the next day of the field visit

1. Ask participants for their experience of field visit and their learnings.
2. Answer satisfactorily for any queries raised by the participants during the discussion.

Answers

Q.1. Write challenges in rubber disposal:

Main challenges in rubber waste disposal are:

1. Land Pollution.
2. Occupation of usable land.
3. Breeding ground for mosquitoes.
4. Air pollution due to fire in rubber dumping grounds.

Q.2. Multiple Choice Questions

I. d II. d III. a IV. a V. c VI. d VII.a



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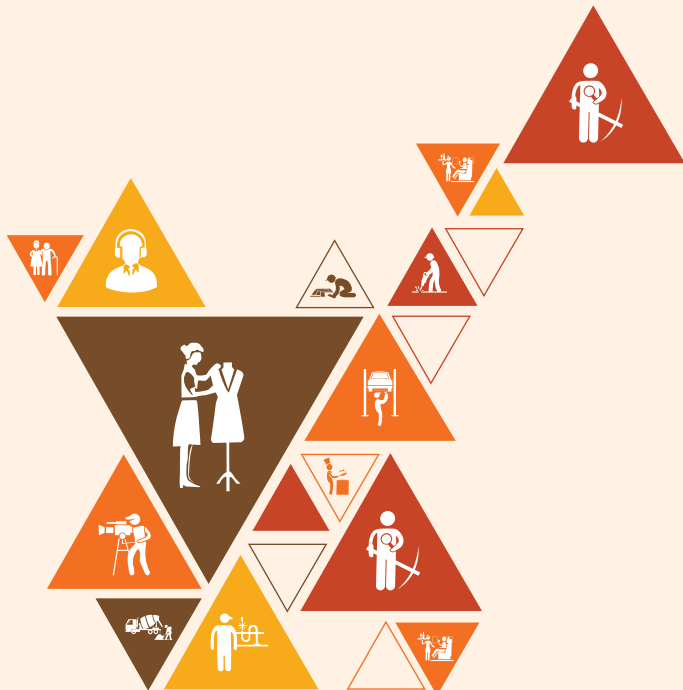
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5. Housekeeping

Unit 5.1 – Need and Benefits of Housekeeping

Unit 5.2 – '5S' Methodology of Housekeeping



RSC/N5001

Key Learning Outcomes

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

1. Explain what is housekeeping.
2. Define importance of housekeeping.
3. Describe purpose of housekeeping.
4. Explain benefits of housekeeping.
5. Explain what is '5S'.
6. Define each 'S' and its meaning.

UNIT 5.1: Need and Benefits of Housekeeping

Unit Objectives

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

1. Explain what is housekeeping.
2. Define importance of housekeeping.
3. Describe purpose of housekeeping.
4. Explain benefits of housekeeping.
5. Identify equipment used for housekeeping.

Resources to be Used

- White board & markers
- Notes
- Laptop/ Slides + projector
- Videos
- Cleaning equipment and aids

Do

- Greet the participants for the day.
- Give summary of previous session.
- Ask for any doubts in previous session.
- Acknowledge for their doubt-raising, if any. Clear the doubts.
- Give details of today's session and what they are going to learn.
- Encourage them to share their thoughts and doubts now and during process of this course.

Notes

This session of the programme gives the trainees a basic idea of housekeeping of a manufacturing shop floor.

Ask

- Ask students what is housekeeping?

Say

Housekeeping is to keep all things in place at work place and keep the area clean and tidy. Housekeeping is responsibility of each and every employee of the organization.

Ask

- Ask students what is the importance of housekeeping?
- Ask students what are the benefits of housekeeping?

Elaborate

Elaborate the following:

- Importance of housekeeping
- Purpose of housekeeping
- Benefits of housekeeping

Demonstrate

- Demonstrate process of doing housekeeping in rubber industry.
- Demonstrate different housekeeping tools.
- Demonstrate the difference between good and bad housekeeping and benefits of good housekeeping.
- Demonstrate the use of check list for housekeeping.

Ask

- Ask participants to name some of the equipment used for housekeeping

Demonstrate

Demonstrate the working process of the following cleaning equipment:

- Broom
- Cleaning brush
- Vacuum cleaner
- Industrial floor cleaning machine

Say

We will now conduct an activity session for cleaning the rubber calendering work place.

Activity-1

Objective: Practice of workplace cleaning.

Procedure:

- Demonstrate the process of workplace cleaning using cleaning aids, such as: broom, cleaning brush, cleaning solvents, etc.
- The participants need to practice the process and then need to demonstrate the workplace cleaning.
- The facilitator should guide them during the process.

Activity Outcome:

- The participants will learn the workplace cleaning.
- Participants will build confidence by doing hands on experience.

Activity	Time	Resources
Practice of workplace cleaning	8 Hours	White board & markers, facilitator notes, laptop/ slides + projector, videos of workplace cleaning, cleaning aids: cleaning rags, cleaning solvents, broom, cleaning brush, etc., PPEs.

Table 5.1.1

Do

- Conduct the activity in a controlled manner.
- Share your feedback and ask participant to talk freely.
- Ensure participation of all the participants.
- Get feedback from participants for making activity session more effective.

Answers

Q.1. Write five benefits of housekeeping:

Effective housekeeping results in:

1. Reduced handling to ease the flow of materials
2. Fewer tripping and slipping accidents in clutter-free and spill-free work areas
3. Decreased fire hazards
4. Lower worker exposures to hazardous substances (e.g., dusts, vapours)
5. Control of tools and materials, including inventory and supplies

Q.2. Write 5 Do's and 5 Don'ts of Housekeeping:

Following are the Do's and Don'ts for Housekeeping –

DO's

1. Minimize fire hazards by keeping workplace free of accumulated combustible materials and waste.
2. Ensure that exits and aisles are clear of obstructions to allow easy evacuation of the building.
3. Place all trash and scrap in proper containers.

UNIT 5.2: '5S' Methodology of Housekeeping

Unit Objectives

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

1. Explain what is '5S'
2. Define each 'S' and its meaning

Resources to be Used

- White board & markers
- Notes
- Laptop/ Slides + projector
- Videos
- Cleaning equipment and aids, 5S check sheet

Do

- Greet the participants for the day.
- Give summary of previous session.
- Ask for any doubts in previous session.
- Acknowledge for their doubt-raising, if any. Clear the doubts.
- Give details of today's session and what they are going to learn.
- Encourage them to share their thoughts and doubts now and during process of this course.

Notes

This session of the programme gives the trainees a basic idea of 5S methodologies used in industry.

Say

In the previous session we had discussed the importance and ways to clean the work place. Today we will learn the methodologies used for maintaining housekeeping at the work place.

Ask

- Ask students what are the 5S for housekeeping?
- Ask students, in which country 5S methodology originated?

Explain

Explain the following terminologies to participants with examples:

- 1S - Seiri – Sorting
- 2S – Seiton – Set in order
- 3S - Seiso – Shine
- 4S - Seiketsu - Standardize
- 5S - Shitsuke - Sustain

Demonstrate

- Demonstrate process of doing 5S.
- Demonstrate importance of each 'S' in housekeeping.
- Demonstrate benefits of good housekeeping.

Say

We will now conduct an activity session for practising the 5S method of maintaining housekeeping.

Activity-1

Objective: Practice of 1S (from 5S philosophy) activities in a rubber calendering shop floor.

Procedure:

- Demonstrate the process of 1S activities.
- The participants need to practice the process and then need to demonstrate the 1S activities.
- The facilitator should guide them during the process.

Activity Outcome:

- The participants will learn to carry out the 1S activities.
- Participants will build confidence by doing hands on experience.

Activity	Time	Resources
Practice of 1S (from 5S philosophy) activities in a rubber calendering shop floor.	4 Hours	White board & markers, facilitator notes, laptop/ slides + projector, videos of 1S activities, PPEs.

Table 5.2.1

Activity-2

Objective: Practice of 2S (from 5S philosophy) activities in a rubber calendering shop floor.

Procedure:

- Demonstrate the process of 2S activities.
- The participants needs to practice the process and then need to demonstrate the 2S activities.
- The facilitator should guide them during the process.

Activity Outcome:

- The participants will learn to carry out the 2S activities.
- Participants will build confidence by doing hands on experience.

Activity	Time	Resources
Practice of 2S (from 5S philosophy) activities in a rubber calendering shop floor.	4 Hours	White board & markers, facilitator notes, laptop/ slides + projector, videos of 2S activities, PPEs.

Table 5.2.2

Do

- Conduct the activity in a controlled manner.
- Share your feedback and ask participant to talk freely.
- Ensure participation of all the participants.
- Get feedback from participants for making activity session more effective.

Answers

Q.1. Write name of all 5S and their meanings:

1. 1S - Seiri (Sorting) - Sorting of the required and not required object from the workplace.
2. 2S - Seiton (Set in Order) - Visualization of the objects required at the workplace.
3. 3S - Seiso (Shine) - Regular cleaning of the workplace and equipment used.
4. 4S – Seiketsu (Standardize) - Implement standards in the form of procedures and instructions which helps to keep order at workplaces.
5. 5S - Shitsuke (Sustain) – To bring regularity in cleaning and sorting.

Q.2. Multiple Choice Questions

I. c II. a III. a IV. d V. d VI. d VII. b VIII. a IX. c X. d



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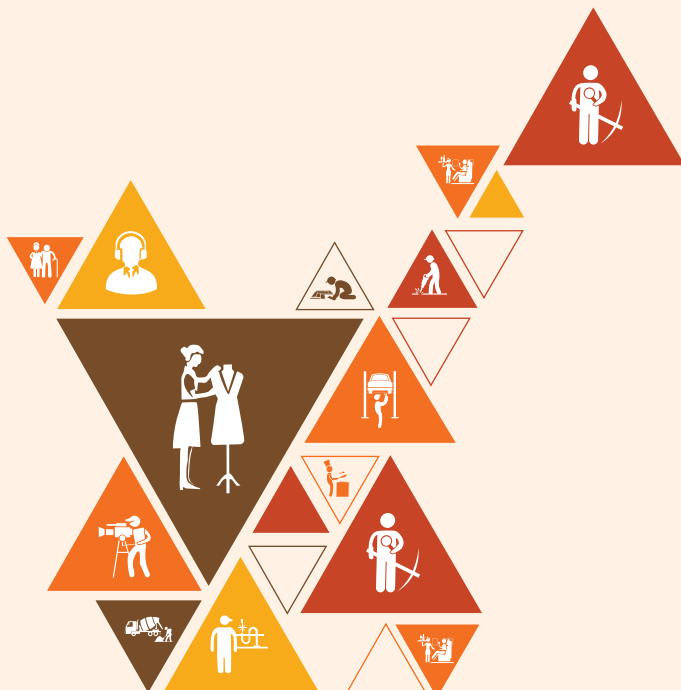


6. Carry out Reporting and Documentation

Unit 6.1 – Day to Day Activities Documentation

Unit 6.2 – Organizational Procedure for Reporting and Documentation

Unit 6.3 – Communication in an Organization



RSC/N5002

Key Learning Outcomes

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

1. Explain what is documentation.
2. Describe the importance of documentation.
3. Explain types of documentation.
4. Describe common documentation used in rubber industry.
5. Explain what is reporting.
6. Describe importance of reporting.
7. Explain about government act and bylaws.
8. Describe about rules
9. Define meaning of policies and guidelines.
10. Describe meaning of procedure.
11. Describe communication process.
12. Explain what is work instruction.
13. Define what is communication.
14. Explain problems in communication.
15. Explain how to resolve conflict with team member.
16. Decide priority of work required to be done.

UNIT 6.1: Day to Day Activities Documentation

Unit Objectives

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

1. Explain what is documentation.
2. Describe the importance of documentation.
3. Define purpose of documentation.
4. Explain types of documentation.
5. Describe common documentation used in a rubber industry.
6. Explain what is reporting.

Resources to be Used

- White board & markers
- Notes
- Laptop/ Slides + projector
- Videos
- Sample of documentation
- Sample of reports,
- Sample of procedure
- Sample of work instructions

Do

- Greet the participants for the day.
- Give summary of previous session.
- Ask for any doubts in previous session.
- Acknowledge for their doubt-raising, if any. Clear the doubts.
- Give details of today's session and what they are going to learn.
- Encourage them to share their thoughts and doubts, now and during process of this course.

Notes

This session of the programme gives the trainees a basic idea of day to day documentation in a rubber industry.

Say

In the previous session, we had discussed the methodologies used for maintaining housekeeping at the work place. Today we will learn the day to day documentation carried out in a rubber industry.

Ask

- Ask students what is documentation?
- Ask students, as per them what activities in rubber calendering should be documented?

Explain

Explain the following for documentation in a rubber industry:

- Importance of documentation
- Purpose of documentation
- Types of documentation
- Common documentation formats used in a rubber industry

Ask

- Ask students what is reporting?
- Ask students, as per them what activities should be reported to the supervisor and when?

Elaborate

Elaborate the importance of reporting and provide some example of reports, such as:

- Test report
- Production report
- Manpower deployment report

Demonstrate

- Demonstrate different types of documents being used in industry.
- Demonstrate filling up of documents under responsibility of rubber calendering operator.

Say

We will now conduct an activity session for making report related to rubber calendering.

Activity-1

Objective: Practice of rubber calendering production report making.

Procedure:

- Demonstrate the process of rubber calendering production report making.
- The participants need to practice the process and then need to demonstrate the production report making.
- The facilitator should guide them during the process.

Activity Outcome:

- The participants will learn to make rubber calendering output production report.
- Participants will build confidence by doing hands on experience.

Activity	Time	Resources
Practice of Rubber calendering production report making.	3 Hours	White board & markers, facilitator notes, laptop/ slides + projector, videos of production information recording, production report formats.

Table 6.1.1

Do

- Conduct the activity in a controlled manner.
- Share your feedback and ask participant to talk freely.
- Ensure participation of all the participants.
- Get feedback from participants for making activity session more effective.

Answers

Q.1. Describe Importance and purpose of documentation:

Documentation helps in reviewing the activities later on. Other purposes are:

1. Production recording: to review production performance; to find out consumption of material; to report production quantity to the finance department; to take orders against produced quantity.
2. Inspection report: to verify that all the dimensions are ok or not; to report quality data to supervisor; to keep record, in case later on, if any issue is reported in part; to get deviation from supervisor, if dimensional variation is minor.

Q.2. Write name of 5 reports used in rubber industry:

1. Machine production report
2. Machine preventive inspection report
3. Gauge calibration report
4. Material quality testing report
5. Production downtime report

UNIT 6.2: Organisation Procedure for Reporting and Documentation

Unit Objectives

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

1. Explain about government act and Bylaws.
2. Describe about rules.
3. Define meaning of policies and guidelines.
4. Describe meaning of procedure.
5. Explain what is work instruction.
6. Discuss organisational procedures for reporting and documentation.

Resources to be Used

- White board & markers
- Notes, laptop/ slides + projector
- Videos, sample of documentation, sample of reports
- Sample of procedure, sample of work instructions

Do

- Greet the participants for the day.
- Give summary of previous session.
- Ask for any doubts in previous session.
- Acknowledge for their doubt-raising, if any. Clear the doubts.
- Give details of today's session and what they are going to learn.
- Encourage them to share their thoughts and doubts now and during process of this course.

Notes

This session of the programme gives the trainees a basic idea of procedure for reporting and documentation in a rubber industry.

Say

In the previous session, we had discussed the methodologies used for maintaining housekeeping at the work place. Today we will learn the day to day documentation carried out in a rubber industry.

Ask

- Ask students their understanding of law, rule, policy, procedure and work instruction?
- Ask students, why it is important to have procedure and work instructions in an organisation?

Explain

Explain the meaning and purpose of following:

- Government rules and bylaws
- Rules
- Policies and guidelines
- Procedures
- Work Instruction

Demonstrate

- Demonstrate hierarchy of rubber industry and position of rubber calendering operator.
- Demonstrate reporting process in different situations of rubber calendering operation.

Say

We will now conduct an activity session for interpreting a work instruction for rubber calendering.

Activity-1

Objective: Practice of interpretation and use of work instructions for rubber calendering process.

Procedure:

- Demonstrate the participants how to read and infer the instructions from a work instruction
- Provide them an activity related to rubber calendering, equipment, raw material and work instruction.
- Ask them to demonstrate the use of given work instruction for different activities such as: cleaning of rubber calender, rubber calender set up, etc.
- The facilitator should guide them during the process.

Activity Outcome:

- The participants will learn to use the work instructions for rubber calendering.
- Participants will build confidence by doing hands on experience.

Activity	Time	Resources
Practice of interpretation and use of work instructions for rubber calendering process.	3 Hours	White board & markers, facilitator notes, laptop/ slides + projector, videos related to work instruction, rubber calendering equipment, cleaning aids, PPEs.

Table 6.2.1

Do



- Conduct the activity in a controlled manner.
- Share your feedback and ask participant to talk freely.
- Ensure participation of all the participants.
- Get feedback from participants for making activity session more effective.

Answers

Q.1. Describe difference between procedures and work instructions

Procedures: Procedure is a broad guideline for carrying out any activity. In order to eliminate ambiguity in carrying out regular activities all organizations make procedures for all day-to-day activities.

Work Instruction: Work Instructions are detailed form of procedure. It has step-by-step details of method for carrying out that activity.

Notes



UNIT 6.3: Communication in an Organization

Unit Objectives

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

1. Define what is communication.
2. Describe communication process.
3. Explain problems in communication.
4. Describe various communication barriers.
5. Explain traits of active listening.
6. Discuss points of good writing skill.
7. Explain how to resolve conflict with team member.
8. Describe importance of reporting

Resources to be Used

- White board & markers
- Notes
- Laptop/ Slides + projector
- Videos

Do

- Greet the participants for the day.
- Give summary of previous session.
- Ask for any doubts in previous session.
- Acknowledge for their doubt-raising, if any. Clear the doubts.
- Give details of today's session and what they are going to learn.
- Encourage them to share their thoughts and doubts now and during process of this course.

Notes

This session of the programme gives the trainees a basic idea of communication process in an organisation.

Say

In the previous session, we had discussed the procedures used for documentation and reporting. Today we will learn the communication practices used in an industry.

Ask

- Ask students their understanding of communication.
- Ask students, what are the implications of poor communication?

Explain

Explain the following to the participant:

- Types of communication.
- General problems in communication.
- Common barriers in communication.
- What is active listening and traits of active listening?
- Traits of good writing skill.
- How to resolve conflict?

Demonstrate

- Demonstrate skills of good communication.
- Demonstrate barriers of communication.
- Demonstrate skills of good writing.
- Demonstrate how to resolve conflict between fellow workers.

Say

We will now conduct a role play session for learning communication skills.

Role play -1

Objective: Communication skill role play demonstration.

Procedure:

- Demonstrate the participants various traits of correct communication.
- Ask the participants to make a pair of 2 participants.
- Provide them a scenario for communicating with each other.
- Ask them to demonstrate the use of various communication skill taught in the class, such as: listening other person without interruption, maintaining a positive body language, keeping an positive eye contact while communicating, etc.

Activity Outcome:

- You will be able to test the skill of participants for communication.
- Participants will get opportunity to practice the communication skill learned in the class.

Activity	Time	Resources
Interpretation and use of work instructions for operating internal mixer machine	8 Hours	White board & markers, facilitator notes, laptop/ slides + projector, videos related to communication skill, various communication scenario

Table 6.3.1

Ask



- Ask students what is the importance of planning?
- Ask students, why it is important to do work management?

Explain



Explain the work management techniques with some examples. Emphasize on the benefits of work prioritization.

Demonstrate



- Demonstrate how to manage activities involved in rubber calendering.
- Demonstrate how to prioritize activities related to rubber calendering.
- Demonstrate implications of not planning your activities.

Say



We will now conduct an activity session for learning work prioritization.

Activity-1



Objective: Work prioritization activity demonstration.

Procedure:

- Demonstrate the participants how to prioritize the work from the pending tasks.
- Provide them a list of various tasks.
- Ask them to demonstrate the prioritization of tasks, such as: machine cleaning, production reporting to supervisor, machine preventive maintenance, etc.

Activity Outcome:

- Participant will be able to learn prioritization of activities through practical application of rules taught in the class.
- Participants will get opportunity to understand real work pressure during job.

Activity	Time	Resources
Work prioritization activity demonstration	6 Hours	White board & markers, facilitator notes, laptop/ slides + projector.

Table 6.3.2

Do



- Conduct the activity in a controlled manner.
- Share your feedback and ask participant to talk freely.
- Ensure participation of all the participants.
- Get feedback from participants for making activity session more effective.

Answers

Q.1. Write five barriers for communication:

Following are the barriers of Communication –

1. Assumption
2. Use of Jargons
3. Incomplete Sentences
4. Psychological Barriers
5. Language Difference

Q.2. Write name of all four categories of work planning:

Following is the 4 categories of work planning:

1. Important and necessary
2. Not important but necessary
3. Important but not necessary
4. Not important and not necessary

Q.3. Multiple Choice Questions

I. d II. b III. d IV. d V. d VI. b VII. d VIII. d IX. c X. a

Notes





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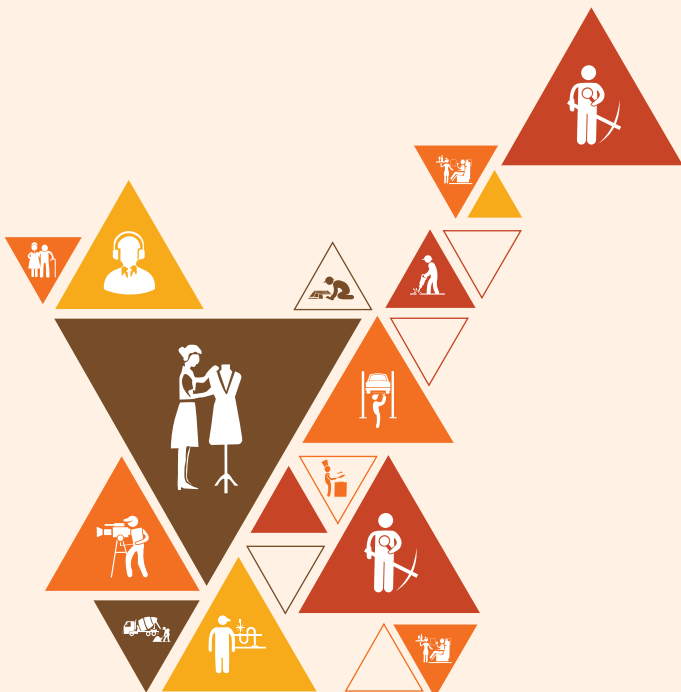
Transforming the skill landscape



7. Carrying Out Quality Checks

Unit 7.1 – Inspection Equipment for Rubber
Calendered Parts Inspection

Unit 7.2 – Defects in Calendering and Solving Quality
Problems



RSC/N5003

Key Learning Outcomes

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

1. Define need of quality control in rubber calendering.
2. Identify and discuss measuring equipment for rubber calendering.
3. Discuss methodology of problem solving.
4. Describe implication of rubber calendering defects.

UNIT 7.1: Inspection Equipment for Rubber Calendered Parts Inspection

Unit Objectives

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

1. Define need of quality control in rubber calendering.
2. Identify and discuss inspection technique for rubber calendered products.
3. Describe measuring equipment for rubber calendered products.

Resources to be Used

- White board & markers
- Notes
- Laptop/ Slides + projector
- Videos
- Vernier caliper, steel ruler, measuring tape, hardness tester, tensile testing machine.

Do

- Greet the participants for the day.
- Give summary of previous session.
- Ask for any doubts in previous session.
- Acknowledge for their doubt-raising, if any. Clear the doubts.
- Give details of today's session and what they are going to learn.
- Encourage them to share their thoughts and doubts now and during process of this course.

Notes

This session of the programme gives the trainees a basic idea of inspection equipment used in rubber calendering.

Say

In the previous session, we had discussed the work management process. Today we will learn about the inspection instrument used in rubber calendering.

Ask

- Ask participants the importance of quality control in rubber calendering.

Explain



Explain the following to the participants:

- Importance of the quality control procedures from customer satisfaction point of view.
- Routine quality control checks on rubber calendering samples.
- Quality plan of rubber calendered products.
- Benefit of inprocess quality checks.
- General quality characteristic of rubber calendered products.

Demonstrate



- Demonstrate the quality control process in rubber calendering.

Ask



- Ask participants the meaning of inspection.
- Ask participants the inspection techniques used in rubber calendering.

Explain



Explain the methods of the following for rubber calendered products:

- Visual inspection for appearance and to spot obvious defects
- Dimensional measurement of thickness and width etc.
- Performance parameter, such as - hardness, density etc.

Elaborate



Elaborate to participants on inspection and measuring instruments used for measurement of rubber calendered parts:

- a. Vernier caliper,
- b. Steel rule
- c. measuring tape
- d. Hardness tester
- e. Tensile testing machine

Demonstrate



- Demonstrate the use of above quality instruments to checking quality level of rubber calendered products..

Answers

Q.1. Write name of measuring instruments commonly used for rubber calendered parts inspection:

Following instruments are used for measurement of rubber calendered parts –

- a. Vernier caliper,
- b. Steel rule
- c. measuring tape
- d. Hardness tester
- e. Tensile testing machine

Q.2. Describe activities included in rubber calendered parts inspection:

Inspection of rubber calendering includes the following:

- Visual inspection for appearance and to spot obvious defects.
- Dimensional measurement of thickness and width etc.
- Performance parameter, such as - hardness, density etc.

Notes



UNIT 7.2: Defects in Calendering and Solving Quality Problems

Unit Objectives

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

1. Define various Quality defects of Rubber calendered products.
2. Demonstrate problem solving techniques.
3. Discuss Implication of Quality defects on Rubber calendered products.

Resources to be Used

- White board & markers
- Notes
- Laptop/ Slides + projector
- Videos
- Vernier caliper, steel ruler, measuring tape, hardness tester, tensile testing machine.
- Calendered samples with defects

Do

- Greet the participants for the day.
- Give summary of previous Session.
- Ask for any doubts in previous Session.
- Acknowledge for their doubt-raising, if any. Clear the doubts.
- Give details of today's session and what they are going to learn.
- Encourage them to share their thoughts and doubts now and during process of this course.

Notes

This session of the programme gives the trainees a basic idea of defects generated in rubber calendered products during manufacturing.

Say

In the previous session, we had discussed the inspection methods and instruments used in rubber calendering. Today we will learn about the defects generated in rubber calendered products during manufacturing.

Ask

- Ask participants what types of quality defects have they seen in rubber calendered products?

Elaborate

Elaborate to participants about following rubber calendered products defects and their remedies:

1. Gauge variation
2. Holes in the sheet
3. Lumpy material
4. Crushed fabric
5. Loose coating
6. Crow's feet
7. Calender grain
8. Gum distribution variation

Ask

- Ask participants do they know any systematic way of root cause analysis if any problem?

Explain

Explain the following root cause analysis techniques:

- Fish - bone diagram
- Why - why analysis

Say

We will now conduct an activity session for defect identification or rubber calendered products.

Activity-1

Objective: Practice of defect identification of rubber calendered material.

Procedure:

- Demonstrate the participants the process of defect identification of rubber calendered material.
- Provide them pre-inspected and pre-identified rubber calendered products for defect identification.
- Ask them to demonstrate the inspection of rubber calendered product.
- The facilitator should guide them during the process.

Activity Outcome:

- The participants will learn to carry out inspection of rubber calendered products.
- Participants will build confidence by doing hands on experience.

Activity	Time	Resources
Practice of defect identification of rubber calendered material.	8 Hours	White board & markers, facilitator notes, laptop/ slides + projector, videos of retreaded tyre inspection, pre-inspected and pre-identified rubber calendered products, PPEs.

Table 7.2.1

Team Activity-2

Objective: Demonstration of problem solving skill: why-why analysis.

Procedure:

- Demonstrate the participants how to create a why-why analysis for any problem.
- Ask the participants to make a pair of 2 participants.
- Provide them an problem for which they have some deep knowledge.
- Ask them to create a why-why analysis for the given problem.

Activity Outcome:

- You will be able to test the skill of participants for why-why analysis.
- Participants will get opportunity to create a why-why analysis for a real scenario.

Activity	Time	Resources
Demonstration of problem solving skill: why-why analysis	4 Hours	White board & markers, facilitator notes, laptop/ slides + projector, flip charts

Table 7.2.2

Do

- Conduct the activity in a controlled manner.
- Share your feedback and ask participant to talk freely.
- Ensure participation of all the participants.
- Get feedback from participants for making activity session more effective.

Answers

Q.1. Multiple Choice Questions

I. a II. b III. c IV. c V. a VI. c VII. d VIII. a IX. c X. b

Notes



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Transforming the skill landscape

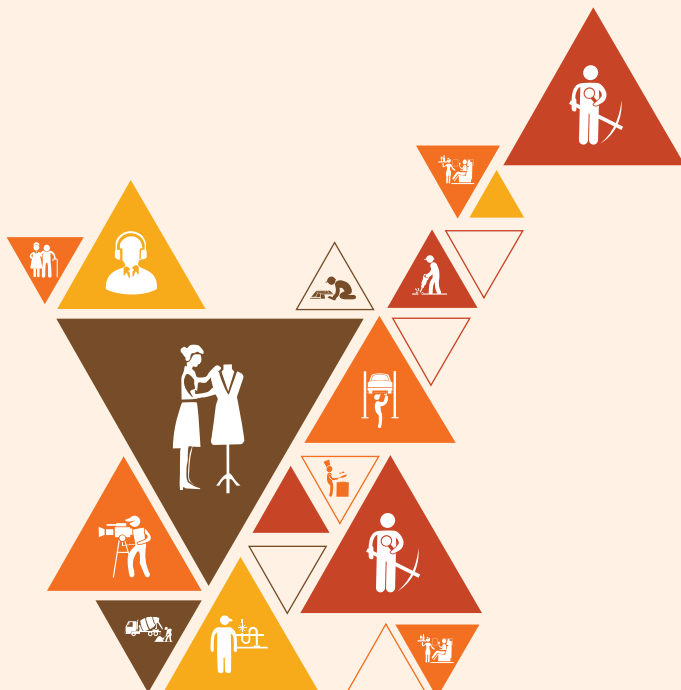


8. Health & Safety

Unit 8.1 – Hazards in Rubber industry

Unit 8.2 – Safety Equipment used during Rubber
Calendering Operation

Unit 8.3 – Handling Fire Hazard and Other Emergencies



RSC/N5007

Key Learning Outcomes

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

1. Describe the hazards
2. Identify hazard in rubber industry
3. Describe chemical hazard
4. Describe physical hazard
5. Describe ergonomic hazard
6. Explain the health and safety requirements for rubber industry
7. Discuss health and safety procedure of organisation
8. Explain what is PPEs
9. Discuss requirement of PPE
10. Identify different types of PPEs used in rubber industry
11. Describe the purpose of various PPEs used in rubber industry
12. Demonstrate the use of different PPEs.
13. Define what is emergency
14. Describe various emergency situations in industry
15. Describe common injuries in industry
16. Describe First aid box and its constituents
17. Demonstrate how to handle Fire emergencies
18. Demonstrate how to use a multi purpose fire extinguisher
19. Describe type and class of fires
20. Describe suitable fire extinguisher as per fire type and class

UNIT 8.1: Hazards in Rubber Industry

Unit Objectives

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

1. Explain what is hazard.
2. Identify hazard in rubber industry.
3. Describe chemical hazard.
4. Describe physical hazard.
5. Describe ergonomic hazard.

Resources to be Used

- White board & markers
- Notes
- Laptop/ Slides + projector
- Videos

Do

- Greet the participants for the day.
- Give summary of previous session.
- Ask for any doubts in previous session.
- Acknowledge for their doubt-raising, if any. Clear the doubts.
- Give details of today's session and what they are going to learn.
- Encourage them to share their thoughts and doubts now and during process of this course.

Notes

This session of the programme gives the trainees a basic idea of safety hazards present in a rubber industry.

Say

In the previous session, we had discussed the root cause analysis processes in industry. Today we will learn about the safety hazards present in a rubber industry.

Ask

- Ask participants what kind of safety hazards are present in a rubber industry?

Explain



Explain to the participant about the following:

- What is called a hazard?
- What are the common hazards in an industry?
- What are the special hazards in a rubber industry?

Ask



- Ask participants what should be the safety precautions to safeguard yourself from the hazards?

Demonstrate



- Demonstrate different safety and health hazards during rubber processing.
- Demonstrate implications of safety and health hazards on the operator.

Say



We will now conduct an activity session for creating safety risk identification skill.

Activity-1



Objective: Creating safety risks identification skill

Procedure:

- Demonstrate the participants the process of safety risk identification at a workplace.
- Provide them workplace scenario for safety risk identification.
- Ask the participants to make a pair of 2 participants
- Participants will have to demonstrate safety risks identification skill by identifying the evident safety hazards in the given workplace scenario.
- The facilitator should guide them during the process.

Activity Outcome:

- The participants will learn safety risks identification skill.
- Participants will build confidence by doing hands on experience.

Activity	Time	Resources
Creating safety risks identification skill	6 Hours	White board & markers, facilitator notes, laptop/ slides + projector, videos of safety risk assessment of work areas, PPEs.

Table 8.1.1

Do



- Conduct the activity in a controlled manner.
- Share your feedback and ask participant to talk freely.
- Ensure participation of all the participants.
- Get feedback from participants for making activity session more effective.

Answers

Q.1. Write name of five hazards in industry:

- Manual Handling
- Accident by moving or falling objects
- Slips and Falls
- Rubber and Dust fumes
- Physical Hazards
- Chemical Hazard
- Ergonomic Hazard

Q.2. Describe in which ways chemical hazard can affect:

There are many chemicals that are used in rubber industry. prolonged exposure to these chemicals without using effective PPEs can affect human body adversely. There are 3 ways of affecting by chemicals.

1. Inhalation
2. Ingestion
3. Absorption

Q.3. Describe five guidelines given in safety procedure of any organization:

Following are the guidelines given in safety procedure of any organization:

1. General personal protective equipment to be used in the organization
2. Potential hazards of different processes
3. Different emergency situations and actions to be taken in those conditions
4. Use of different fire equipment in case of fire
5. Escalation procedure in emergency situations

Notes



UNIT 8.2: Safety Equipment used during Rubber Calendering Operation

Unit Objectives

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

1. Explain what is PPEs.
2. Discuss requirement of PPE.
3. Identify different types of PPEs used in rubber industry.
4. Describe the purpose of various PPEs used in rubber industry.
5. Demonstrate the use of different PPEs.

Resources to be Used

- White board & markers
- Notes
- Laptop/ Slides + projector
- Videos, First aid kit
- Sample of PPEs – safety goggle, safety shoes, safety gloves, mask, earmuff, fire extinguisher

Do

- Greet the participants for the day.
- Give summary of previous session.
- Ask for any doubts in previous session.
- Acknowledge for their doubt-raising, if any. Clear the doubts.
- Give details of today's session and what they are going to learn.
- Encourage them to share their thoughts and doubts now and during process of this course.

Notes

This session of the programme gives the trainees a basic idea of using personal protective equipment (PPE) for safety from various hazard present at the workplace.

Say

In the previous session, we had discussed the potential safety hazards available in an industry. Today we will learn about the use of personal protective equipment.

Ask

- Ask students what is PPE?
- Ask students what is the purpose of PPE?

Explain

Explain the following to the participants:

- Need of PPE
- PPE used for respiratory protection (RPE)
- PPE used for eye and face protection
- PPE used for head protection
- PPE used for foot and leg protection
- PPE used for hands and arm protection

Demonstrate

- Demonstrate different types of PPEs to be used during rubber calendering.
- Demonstrate implications of not using PPE on rubber calendering operator safety.

Say

We will now conduct an activity session for practising PPE use.

Activity-1

Objective: Practice PPE (Personal Protective Equipment) use.

Procedure:

- Demonstrate the participants how to use different PPEs required during rubber calendering activities.
- Provide them different types of PPEs.
- Ask them to demonstrate the use of PPEs, such as: safety shoes, safety goggle, mask, safety hat, safety gloves, etc.
- The facilitator should guide them during the process.

Activity Outcome:

- Participant will be able to learn how to use different PPEs required during rubber calendering activities.
- Participants will build confidence by doing hands on experience.

Activity	Time	Resources
Practice PPE (Personal Protective Equipment) use.	6 Hours	White board & markers, facilitator notes, laptop/ slides + projector, safety videos, safety shoes, safety goggle, mask, safety hat, safety gloves.

Table 8.2.1

Do



- Conduct the activity in a controlled manner.
- Share your feedback and ask participant to talk freely.
- Ensure participation of all the participants.
- Get feedback from participants for making activity session more effective.

Answers

Q.1. Describe need of the PPEs at workplace:

PPE is required to ensure the protection of employees working at the workplace. It helps in establishing and maintaining a safe and healthy work environment.

Q.2. Write name of five PPEs and their use:

1. Respiratory Protection Equipment (RPE): it is used to avoid inhalation of dust and harmful fumes.
2. Eye Protection Equipment: It is used to protect eyes from flying objects and particles, molten metal, liquid chemicals, etc.
3. Head Protection Equipment: it is used to protect from falling or flying objects, and hair entanglement, etc.
4. Safety shoes: It protect the user from: heavy objects which might roll onto or fall on the employee's feet, sharp objects such as nails or spikes that could pierce the soles or uppers of ordinary shoes, exposure to molten metal that might splash on feet, etc.
5. Safety gloves: It protects the user from: · Skin absorption of harmful substances, Chemical or thermal burns, Electrical shocks, and bruises, abrasions, cuts, puncture, etc.

Notes



UNIT 8.3: Handling Fire and Other Emergencies

Unit Objectives

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

1. Define what is emergency.
2. Describe various emergency situations in Industry.
3. Describe common injuries in industry.
4. Describe first aid box and its constituents.
5. Demonstrate how to handle fire emergencies.
6. Demonstrate how to use a multi purpose fire extinguisher.

Resources to be Used

- White board & markers
- Notes
- Laptop/ Slides + projector
- Videos, First aid kit,
- Sample of PPEs – safety goggles, safety shoes, safety gloves, mask, earmuff, fire extinguisher

Do

- Greet the participants for the day.
- Give summary of previous session.
- Ask for any doubts in previous session.
- Acknowledge for their doubt-raising, if any. Clear the doubts.
- Give details of today's session and what they are going to learn.
- Encourage them to share their thoughts and doubts now and during process of this course.

Notes

This session of the programme gives the trainees a basic idea of handling fire hazard and other emergency situations.

Say

In the previous session, we had discussed the use of PPE. Today we will learn about how to handle a fire hazard and other emergency situations.

Ask

- Ask students what are the probable emergency situations in a rubber industry?
- Ask students what are the implications of different emergency situations?

Explain



Explain to the participant the following points related to emergency situations in an industry:

1. Accident emergency
2. Electric shock emergency
3. Medical emergency
4. Natural disaster emergency – Flood, Earthquake, Tsunami, etc.
5. Fire emergency

Demonstrate



- Show videos of different types of emergency situations.
- Show videos of emergency situation handling.

Ask



- Ask students what they know about first aid?
- Ask students why first aid is crucial for saving someone life?

Explain



Explain to the participant following injuries and first aid to be given in that condition:

1. Abrasions and small cut
2. Splinters
3. Lacerations
4. Fracture
5. Amputation
6. Eye injury
7. Fumes and dust

Demonstrate



- Show videos of different types of first aids.
- Demonstrate the first on a volunteer.
- Demonstrate a first aid box and explain its basic medicines and medical equipment.

Ask



- Ask students why fire emergency is fatal?
- Ask students what are the different types of fires?

Explain

Explain to the participant following types of fires and suitable fire extinguisher to douse them:

1. Paper and wood fire
2. Electric fire
3. Flammable liquid (Petrol/ diesel) fire

Elaborate

Elaborate the following to the participant:

How to handle fire emergencies?

Method of using fire extinguisher.

Use of fire extinguisher chart.

Class and type of fires

How to respond in case of fire emergencies

Demonstrate

- Demonstrate types of fires and fire extinguisher for dosing each type of fire.
- Demonstrate how to use a fire extinguisher.
- Demonstrate how to read evacuation plan and exit safely from workplace in case of any emergency.

Say

We will now conduct an activity session for practising first aid and fire extinguisher use.

Activity-1

Objective: Demonstration of first aid activities.

Procedure:

- Demonstrate the participants how to provide general first aid to any person in the need.
- Provide the participants a first aid box.
- Ask them to demonstrate first aid techniques for common injuries, such as: abrasions and small cut, splinters, lacerations, fractures, eye injuries etc.

Activity Outcome:

- Participant will be able to learn how to provide common first aid in case of any accident.
- Facilitator will be able to judge the skill level acquired by the participants.

Activity	Time	Resources
Demonstration of fire extinguisher use	8 Hours	White board & markers, facilitator notes, laptop/ slides + projector, first aid videos, First Aid box.

Table 8.3.1

Activity-2

Objective: Demonstration of fire extinguisher use.

Procedure:

- Demonstrate the participants how to use different fire extinguishers on applicable fires.
- Provide the participants different types of fire extinguishers and create fire for demonstration.
- Ask them to demonstrate the use of fire extinguisher on different fires, such as: Class-A, Class-B, Class-C, etc.

Activity Outcome:

- Participant will be able to learn how to use different fire extinguishers in case of any fire incident.
- Facilitator will be able to judge the skill level acquired by the participants.

Activity	Time	Resources
Demonstration of fire extinguisher use	8 Hours	White board & markers, facilitator notes, laptop/ slides + projector, fire extinguishing videos, safety shoes, safety goggles, mask, safety gloves, fire extinguisher, fire source

Table 8.3.2

Do

- Conduct the activity in a controlled manner.
- Share your feedback and ask participant to talk freely.
- Ensure participation of all the participants.
- Get feedback from participants for making activity session more effective.

Answers

Q.1. Write name of 3 common injuries and their first aid procedure:

Following are common injuries and their First Aid instructions:

1. Fumes and Dust

If you feel dizzy or are having trouble breathing, leave the area, and go to fresh air. If normal breathing does not return in 15 minutes, go to the emergency room.

2. Abrasions and Small Cuts

Clean wound with soap and water. Apply antibiotic cream or Povidone-iodine solution. Bandage and check dressing daily. See your doctor if there are signs of infection: increased redness, pus or red lines running from wound.

3. Splinters

Remove with sharp, pointed tweezers. (They should be sharp enough to pick up a single hair.) If splinter is completely under the skin, expose splinter end with sewing needle doused in spirit, and then remove with tweezers.

Q.2. Write name of five medicines, which should be kept in First Aid Box:

1. An asthma inhaler;
2. Providone-iodine solution
3. eyewash and cup
4. elastic bandage for securing dressings
5. 4-inch by 4-inch gauze pads for bandaging

Q.3. Write Classes of Fire and suitable Fire Extinguishers for dosing these kinds of fires:

Class of Fire	Fire Extinguisher Type
A	Water
B or C	Carbon Dioxide (Dry) or Regular Dry Chemical
D	Dry Powder Special Compound

Q.4. Multiple Choice Questions

I. b II. a III. d IV. d V. a VI. a VII. c VIII. a IX. d X. a

Notes



Key Learning Outcomes

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

1. Explain what is problem.
2. Describe how to identify problem.
3. Define hierarchies.
4. Discuss hierarchy in industry.
5. Explain how to escalate problem.
6. Describe need for escalation.

UNIT 9.1: Problem Identification and Escalating to Supervisor

Unit Objectives

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

1. Explain what is problem.
2. Describe how to identify problem.
3. Define hierarchies.
4. Discuss hierarchy in tyre industry.
5. Explain how to escalate problem.
6. Describe need for escalation.

Resources to be used

- White board & markers
- Notes
- Laptop/ Slides + projector
- Videos

Do

- Greet the participants for the day.
- Give summary of previous session.
- Ask for any doubts in previous session.
- Acknowledge for their doubt-raising, if any. Clear the doubts.
- Give details of today's session and what they are going to learn.
- Encourage them to share their thoughts and doubts now and during process of this course

Notes

This session of the programme gives the trainees a basic idea of problem identification and how and when to escalate it to the supervisor.

Say

In the previous session, we had discussed handling of fire and other emergencies. Today we will learn about how to identify a problem at work place and how and when to escalate it to the supervisor.

Ask

- Ask students what situations are called problem?
- Ask students what are the implications if problem not solved on time?

Explain



Explain to the participants the following points:

- How to identify the problem
- Types of common problem in a rubber product manufacturing industry
- What is hierarchy?
- Use and importance of hierarchy in any organisation

Demonstrate



- Demonstrate the hierarchy for a rubber calendering operator.
- Demonstrate how to identify problems at workplace.
- Demonstrate how to decide which problem and when needs to be escalated to the supervisor.

Answers

Q.1. Write five problems of rubber calendering:

1. The machine is working fine as per specification.
2. The parameters needed for setting the rubber calender, are not available.
3. Raw material is not available for process.
4. Some abnormality observed in raw material to be used for the production.
5. Parts produced are rejected as per the specification.

Q.2. Multiple Choice Questions

I. b II. b III. c IV. d V. b VI. a VII. a VIII. c IX. d X. a

Notes





Skill India
कौशल भारत - कुशल भारत



सत्यमेव जयते
GOVERNMENT OF INDIA
MINISTRY OF SKILL DEVELOPMENT
& ENTREPRENEURSHIP



N · S · D · C
National
Skill Development
Corporation

Transforming the skill landscape



10. Employability & Entrepreneurship Skills

Unit 10.1 – Personal Strengths & Value Systems

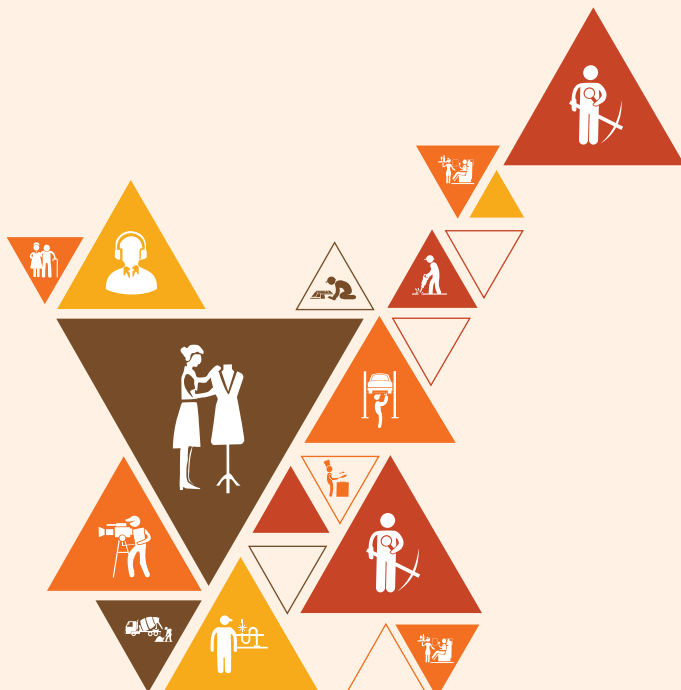
Unit 10.2 – Digital Literacy: A Recap

Unit 10.3 – Money Matters

Unit 10.4 – Preparing for Employment & Self Employment

Unit 10.5 – Understanding Entrepreneurship

Unit 10.6 – Preparing to be an Entrepreneur



Key Learning Outcomes

After the completion of this module, the participant 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 Swachh Bharat Abhiyan
6. Explain the meaning of habit
7. Discuss ways to set up a safe work environment
8. Discuss critical safety habits to be followed by employees
9. Explain the importance of self-analysis
10. 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 the functions of basic computer keys
36. Discuss the main applications of MS Office
37. Discuss the benefits of Microsoft Outlook
38. Discuss the different types of e-commerce
39. List the benefits of e-commerce for retailers and customers
40. Discuss how the Digital India campaign will help boost e-commerce in India
41. Explain how you will sell a product or service on an e-commerce platform
42. Discuss the importance of saving money
43. Discuss the benefits of saving money
44. Discuss the main types of bank accounts
45. Describe the process of opening a bank account
46. Differentiate between fixed and variable costs
47. Describe the main types of investment options
48. Describe the different types of insurance products
49. Describe the different types of taxes

50. Discuss the uses of online banking
51. Discuss the main types of electronic funds transfers
52. Discuss the steps to prepare for an interview
53. Discuss the steps to create an effective Resume
54. Discuss the most frequently asked interview questions
55. Discuss how to answer the most frequently asked interview questions
56. Discuss basic workplace terminology
57. Discuss the concept of entrepreneurship
58. Discuss the importance of entrepreneurship
59. Describe the characteristics of an entrepreneur
60. Describe the different types of enterprises
61. List the qualities of an effective leader
62. Discuss the benefits of effective leadership
63. List the traits of an effective team
64. Discuss the importance of listening effectively
65. Discuss how to listen effectively
66. Discuss the importance of speaking effectively
67. Discuss how to speak effectively
68. Discuss how to solve problems
69. List important problem-solving traits
70. Discuss ways to assess problem solving skills
71. Discuss the importance of negotiation
72. Discuss how to negotiate
73. Discuss how to identify new business opportunities
74. Discuss how to identify business opportunities within your business
75. Understand the meaning of entrepreneur
76. Describe the different types of entrepreneurs
77. List the characteristics of entrepreneurs
78. Recall entrepreneur success stories
79. Discuss the entrepreneurial process
80. Describe the entrepreneurship ecosystem
81. Discuss the government's role in the entrepreneurship ecosystem
82. Discuss the current entrepreneurship ecosystem in India
83. Understand the purpose of the Make in India campaign
84. Discuss the relationship between entrepreneurship and risk appetite
85. Discuss the relationship between entrepreneurship and resilience
86. Describe the characteristics of a resilient entrepreneur
87. Discuss how to deal with failure
88. Discuss how market research is carried out
89. Describe the 4 Ps of marketing
90. Discuss the importance of idea generation
91. Recall basic business terminology
92. Discuss the need for CRM
93. Discuss the benefits of CRM
94. Discuss the need for networking
95. Discuss the benefits of networking
96. Understand the importance of setting goals
97. Differentiate between short-term, medium-term and long-term goals
98. Discuss how to write a business plan
99. Explain the financial planning process
100. Discuss ways to manage your risk
101. Describe the procedure and formalities for applying for bank finance
102. Discuss how to manage your own enterprise
103. List important questions that every entrepreneur should ask before starting an enterprise

UNIT 10.1: Personal Strengths & Value Systems

Unit Objectives

After the completion of this unit, the participant will be able to:

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

10.1.1: Health, Habits, Hygiene: What is Health?

Resources to be Used

- Participant Handbook

Ask

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

Say

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

Ask

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

Say

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

Role Play

- Conduct a small skit with volunteers from the class. Consider one of the villagers has been appointed as a health representative of the village, what measures will you as a health representative suggest to the common villagers to prevent common health issues discussed.
- You will need at least 4 volunteers (Narrator, Health Representative, Head of the Village, Doctor).
- Explain the health concerns of the village to the Narrator. The Narrator will brief the class about the skit.
- Give the group of volunteers, 5 minutes to do discuss.
- At the end of 5 minutes, ask the group to present the skit to the class assuming them as the villagers.
- The class can ask questions to the group as a common villager.

Summarize

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

Say

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

Activity

- Health Standard Checklist from the Participant Handbook.

Ask 

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

Say 

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

Do 

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

Summarize 

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

Ask **Discuss:**

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

Say 

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

Activity 

- Health Standard Checklist: Hygiene

Say

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

Do

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

Ask

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

Summarize

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

Ask

- What is a habit?

Say

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

Summarize

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

10.1.2: Safety

Resources to be Used

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

Say

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

Team Activity

Safety Hazards

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

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

Table 10.1.2.1 Safety Hazards

Ask

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

Say

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

Do

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

Say

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

Do

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

Ask

De-briefing

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

Summarize

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

10.1.3: Self Analysis- Attitude, Achievement Motivation: What is Self Analysis?

Resources to be Used

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

Activity

- This is a paper pencil activity.

What are the three sentences that describe you the best?

What do you need to live happily?

What are your strengths and weaknesses?

Do

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

Say

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

Team Activity

Tower building

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

Do

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

Ask

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

Say 

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

Ask 

- Is your attitude positive or negative?

Say 

- Let me tell you a story :

It's Little Things that Make a Big Difference.

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

Ask 

- What did you learn from this story?

Activity **What Motivates You?**

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

Do 

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

Say 

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

Summarize 

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

10.1.4: Honesty & Work Ethics

Resources to be Used

- Participant Handbook

Ask

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

Say

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

Do

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

Team Activity

Case Study Analysis

Scenario 1

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

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

Scenario 2

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

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

Scenario 3

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

Scenario 4

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

Say

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

10.1.5: Creativity and Innovation

Resources to be Used

- Participant Handbook
- Chart papers
- Marker pens

Ask

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

Say

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

A.P.J. Abdul Kalam

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

Water filter/purifier at source

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

Inspiration behind the idea: Most people today prefer to use a water filter/purifier at their home.

Both the children have given idea to have filter/purifier at the source of water so that everyone has access to clean water without having to make an investment in purchasing a filter/purifier.

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

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

Solar seeder

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

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

Looms for physically challenged

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

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

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

Ask 

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

Say 

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

Team Activity 

- This is a group activity.

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

Activity De-brief

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

Do 

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

10.1.6: Time Management

Resources to be Used

- Participant Handbook

Ask

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

Example

- Let's look at these two examples:

Example 1:

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

Example 2:

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

Ask

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

Activity

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

Say 

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

Ask 

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

Say 

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

Activity 

Effective Time Management

- This activity has two parts:

**PART 1
TO-DO LIST**

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

**PART 2
URGENT-IMPORTANT GRID**

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

Category 2: Not Urgent/Important

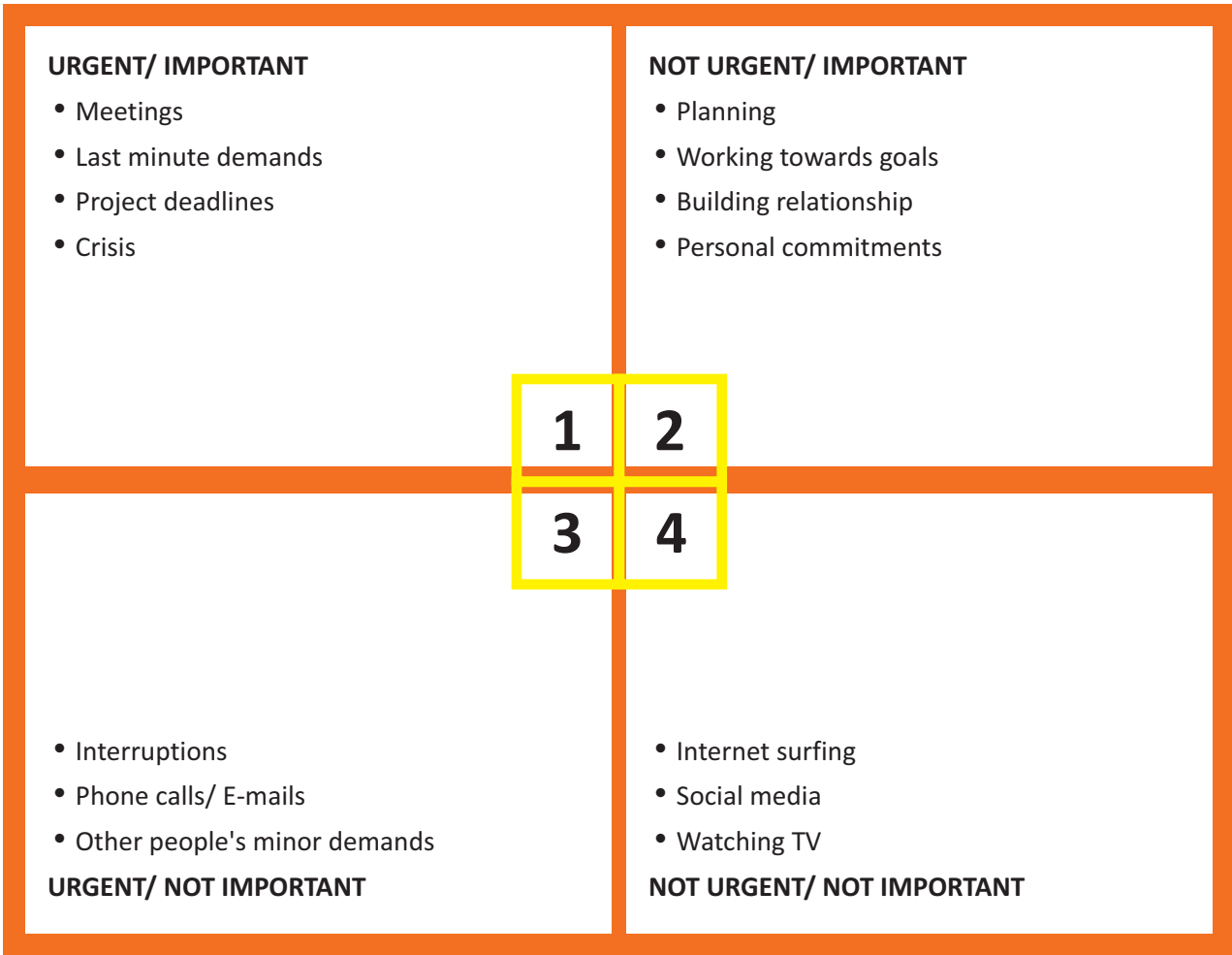
- This is where you want to spend most of your time.
- This category allows you to work on something important and have the time to do it properly.
- This will help you produce high quality work in an efficient manner.
- The tasks in this category are probably the most neglected ones, but also the most crucial ones for success.
- The tasks in this category can include strategic thinking, deciding on goals or general direction and planning – all vital parts of running a successful business.
- **Category 3: Urgent/Not Important**
 - This is where you are busy but not productive. These tasks are often mistaken to be important, when they're most often busywork.
 - Urgent but not important tasks are things that prevent you from achieving your goals.
 - However, some may be activities that other people want you to do.
- **Category 4: Not Important and Not Urgent**
 - This category doesn't really include tasks, but rather habits that provide comfort, and a refuge from being disciplined and rigorous with your time management.
 - Some may be activities that other people want you to do.
 - These might include unplanned leisure activities as well.

TO- DO list format

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

Table 10.1.6.1 TO-DO List Format

URGENT-IMPORTANT GRID



URGENT/ IMPORTANT GRID format

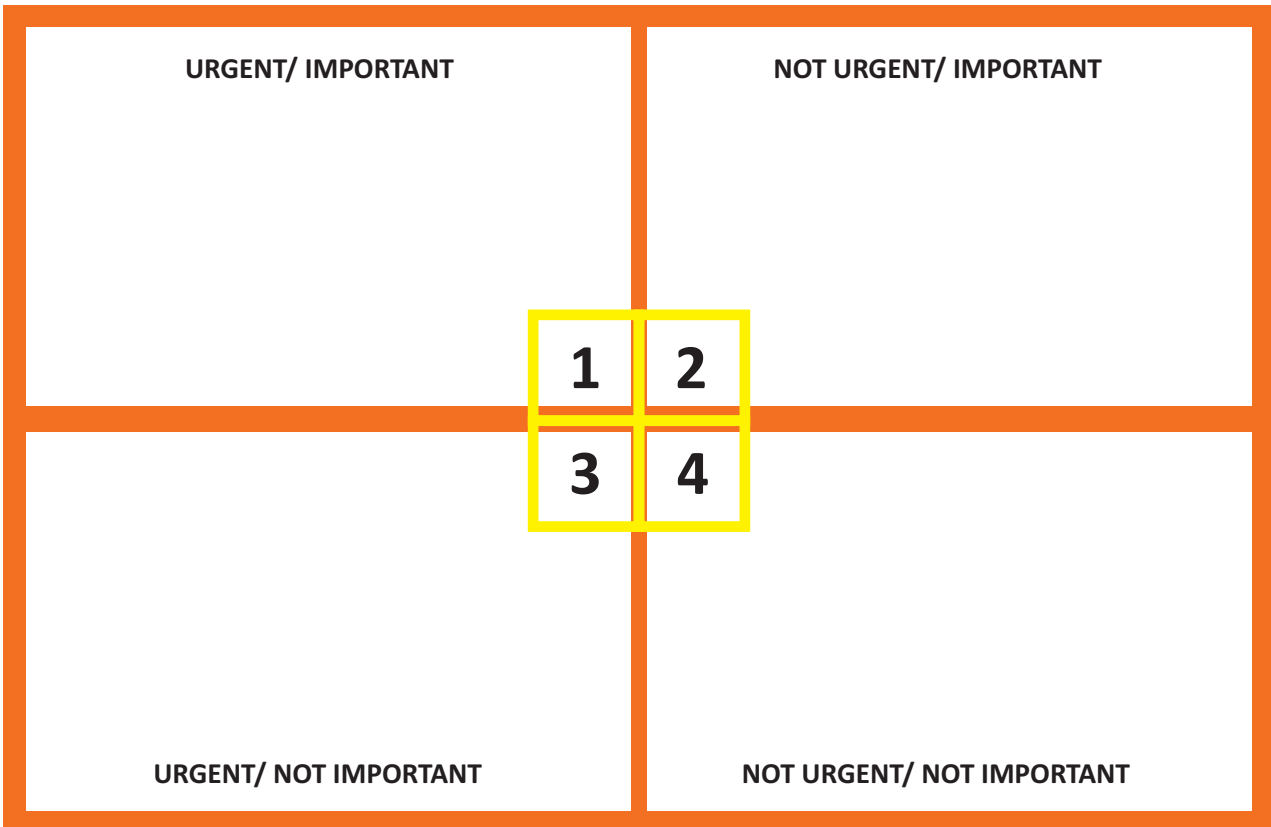


Fig 10.1.6.1. Time Management

Do

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

Say

Activity De-brief:

How can we balance tasks between the four categories?

How to manage time through this grid?

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

Summarize

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

Notes for Facilitation



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

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

10.1.7: Anger Management

Resources to be Used

- Participant Handbook

Ask

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

Say

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

Do

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

Activity

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

Ask

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

Say 

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

Do 

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

Activity 

Trigger points and Anger Management Techniques Activity

Anger Triggers

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

Say

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

Do

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

Ask

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

Summarize

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

Notes for Facilitation

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

10.1.8: Stress Management: What is stress?

Resources to be Used

- Participant Handbook

Ask

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

Say

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

Ask

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

Say

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

Do

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

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

Team Activity

Case Study Analysis

Scenario 1

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

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

Scenario 2

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

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

Scenario 3

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

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

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

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

Scenario 4

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

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

Ask**De-brief questions:**

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

Say

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

Do

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

Say

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

De-brief:**Scenario 1**

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

Scenario 2

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

Scenario 3

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

Scenario 4

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

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

Do 

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

Scenario 5

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

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

Say **De-brief:**

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

UNIT 10.2: Digital Literacy: A Recap

Unit Objectives

After the completion of this unit, the participant will be able to:

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

10.2.1: Computer and Internet Basics: Basic Parts of a Computer

Resources to be Used

- Participant Handbook
- Computer Systems with the required applications

Say

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

Explain

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

Ask

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

Say

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

Summarize

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

Practical

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

Do

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

10.2.2: MS Office and Email: About MS Office

Resources to be Used

- Participant Handbook
- Computer Systems with MS Office

Ask

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

Say

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

Explain

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

Ask

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

Say

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

Do

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

10.2.3: E-Commerce

Resources to be Used

- Computer System with internet connection
- Participant Handbook

Ask

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

Say

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

Ask

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

Say

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

Team Activity

E-commerce examples

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

Say

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

Do

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

Say

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

Explain

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

Say

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

Role Play

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

Ask

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

Say

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

Do

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

Ask

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

Say

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

Summarize

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

UNIT 10.3: Money Matters

Unit Objectives

After the completion of this unit, the participant will be able to:

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

10.3.1: Personal Finance – Why to Save?

Resources to be Used

- Participant Handbook

Ask

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

Example

- Let's look at these two examples:

Example 1:

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

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

Example 2:

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

Ask

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

Say

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

Ask

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

Say

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

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

Ask

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

Say

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

Team Activity

Personal Finance- Why to save

- This activity has two parts:

PART 1

WAYS TO SAVE MONEY

- You are earning 30,000/- per month. You have recently changed your job and have to move to a metropolitan city. You are now living as a paying guest paying 10,000/- per month. Your other estimated expenditures like travel, food, recreation would be around Rs. 17, 000 per month.
- Make a list of different ways to save money.

PART 2

HOW WILL YOU USE THE MONEY

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

Do

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

Activity De-brief

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

10.3.2: Types of Bank Accounts, Opening a Bank Account

Resources to be Used

- Account opening sample forms
- Participant Handbook

Ask

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

Example

- Let's look at the given example:

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

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

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

Ask

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

Say

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

Ask

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

Say

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

Team Activity

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

Activity De-brief

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

Say

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

Ask

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

Say

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

Team Activity

Opening a Bank Account

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

PART 1

FILLING A BANK ACCOUNT OPENING FORM

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

Activity De-brief

How did you design the form?

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

Do 

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

Summarize 

Note:

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

Sample Bank Account Opening form.

Photograph

XXX Bank

SAVING BANK ACCOUNT OPENING FORM

Account No.: _____ Date: _____

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

Applicant Details:

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

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

Table 10.3.2.1. Sample Bank Account Opening form

10.3.3: Costs: Fixed vs. Variables: What are Fixed and Variable Costs?

Resources to be Used

- Participant Handbook
- Blank sheets of paper
- Pens

Ask

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

Say

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

Team Activity

Identify the type of cost

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

Do

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

Say

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

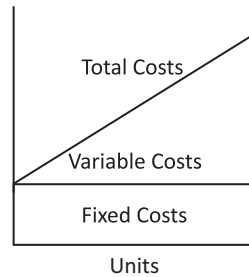


Fig 10.3.3.1. Graphical illustration of fixed vs. variable costs

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

Team Activity

Fixed vs. Variable Costs

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

Activity De-brief

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

Do

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

Summarize

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

Notes for Facilitation

- Answers for the activity - Identify the type of cost

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

Notes

10.3.4: Investments, Insurance and Taxes

Resources to be Used

- Participant Handbook

Ask

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

Example

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

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

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

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

Say

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

Ask

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

Say

- Let's learn the differences between the three by having an activity.
- We will have a quiz today.

Team Activity

- The activity is a quiz.

Do

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

Summarize

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

Notes for Facilitation

Questions for the quiz

1. What are bonds?
Bonds are instruments used by public and private companies to raise large sums of money.
2. Who issues the bonds?
Private and public companies issue the bonds.
3. Why are bonds issued?
To raise large amount of money as it cannot be borrowed from the bank.
4. Who is the buyer of stocks and equities?
The general public is the buyer.
5. What types of scheme is the Sukanya Samridhi Scheme?
Small Saving Scheme
6. What is the difference between mutual and hedge funds?
Mutual funds are professionally managed financial instruments that invest the money in different securities on behalf of investors. Hedge funds invest in both financial derivatives and/or publicly traded securities.
7. Why is a loan taken from the bank to purchase real estate?
To lease or sell to make profit on appreciated property price.
8. Name the two types of insurances?
Life Insurance and Non-life or general insurance
9. Which insurance product offers financial protection for 15-20 years?
Term Insurance
10. What is the benefit of taking an endowment policy?
It offers the dual benefit of investment and insurance.
11. Mr. Das gets monthly return on one of his insurance policies. Name the policy?
Money Back Life Insurance

10.3.5: Online Banking, NEFT, RTGS, etc.

Resources to be Used

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

Ask

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

Say

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

Do

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

Say 

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

Do 

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

Summarize 

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

Notes 

UNIT 10.4: Preparing for Employment & Self Employment

Unit Objectives

After the completion of this unit, the participant will be able to:

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

10.4.1: Interview Preparation: How to Prepare for an Interview?

Resources to be Used

- Participant Handbook

Ask

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

Say

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

Activity 1

- Introducing Yourself

Do

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

Ask

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

Say

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

Do

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

Activity 2

- Planning the right attire

Do

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

Summarize

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

10.4.2: Preparing an Effective Resume: How to Create an Effective Resume?

Resources to be Used

- Participant Handbook
- Blank papers
- Pens

Ask

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

Say

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

Do

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

Say

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

Activity

Case Study Analysis

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

Candidate Details

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

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

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

Job Posting

* Do you see yourself as a HOUSEKEEPING SUPERVISOR?

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

THE LOCATION:

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

Salary: Negotiable

Industry: Travel / Hotels / Restaurants / Airlines / Railways

Functional Area: Hotels, Restaurants

Role Category: Housekeeping

Role: Housekeeping Executive/Assistant.

Desired Candidate Profile

Friendly, pleasant personality, Service - oriented.

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

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

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

Education-

UG: Any Graduate/ Diploma holder

PG: Post Graduation Not Required

Say

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

Do

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

Summarize

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

Notes for Facilitation

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

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

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

Professional strengths:

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

UNIT 10.4.3: Interview FAQs

Resources to be Used

- Participant Handbook

Say

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

Do

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

Role Play

Conduct a role play for the situation given.

Situation 1

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

Say

De-brief:

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

Role Play

- Conduct a role play for the situation given.

Role Play – Situation 2

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

Say

De-brief:

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

Role Play

Conduct a role play for the situation given.

Role Play – Situation 3

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

Say

De-brief:

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

Role Play

Conduct a role play for the situation given.

Role Play – Situation 4

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

Say

De-brief:

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

Role Play

Conduct a role play for the situation given.

Role Play – Situation 5

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

Say

De-brief:

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

Role Play

Conduct a role play for the situation given.

Role Play – Situation 6

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

Say

De-brief:

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

Role Play

Conduct a role play for the situation given.

Role Play – Situation 7

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

Say

De-brief:

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

Explain

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

Do 

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

Activity 

Mock Interview Questions

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

Summarize 

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

10.4.4: Work Readiness – Terms and Terminology

Resources to be Used

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

Ask

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

Say

- Let's start this unit with an activity.

Team Activity

Workplace terminology

- This is a group activity conducted in three parts.

Part 1

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

Activity De-brief

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

Do

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

Say 

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

Ask 

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

Say 

- Let's now continue the activity.

Team Activity 

Terms and Terminology

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

Part 2

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

Activity De-brief

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

Do 

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

Say 

- Let's go ahead with the activity.

Team Activity 

Terms and Terminology

- The activity continues with the same group members.

Part 3

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

Activity De-brief

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

UNIT 10.5: Understanding Entrepreneurship

Unit Objectives

After the completion of this unit, the participant will be able to:

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

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

Resources to be Used

- Participant Handbook

Say

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

Team Activity

Quiz Questions

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

Do

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

Ask

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

10.5.2: Leadership and Teamwork

Resources to be Used

- Participant Handbook
- Blank sheets of paper
- Pens

Do

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

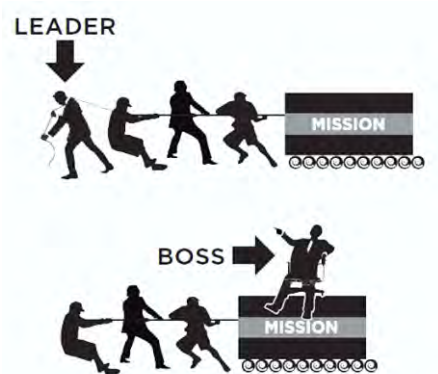


Fig 12.5.2.1. Leadership and Teamwork

Say

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

Say

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

Ask

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

Say

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

Ask

- Do you consider yourself a team player?

Team Activity

Long Chain

- This is a group activity.

Do

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

Say

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

Say

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

Summarize

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

10.5.3: Communication Skills: Listening & Speaking: The Importance of Listening Effectively

Resources to be Used

- Participant Handbook

Activity

Activity – Chinese Whisper

Step 1: Form a circle.

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

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

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

Compare them and have a great laugh!

Ask

De-brief questions:

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

Say

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

Say

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

Ask

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

Say

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

Do

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

Activity 2**Riddles:**

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

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

Do they have a 26th of January in England?

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

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

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

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

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

Answers:

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

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

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

First of all, you would light the match.

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

Every SINGLE person died, but those two were married.

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

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

Ask 

De-brief question:

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

Say 

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

Activity 3 

Elevator Pitch:

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

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

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

Do 

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

Notes for Facilitation

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

Example:

Here's how your pitch could come together:

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

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

Summarize

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

10.5.4: Problem Solving & Negotiation Skills

Resources to be Used

- Participant Handbook

Ask

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

Say

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

Ask

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

Say

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

Team Activity

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

Do 

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

Say **De-brief questions:**

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

Ask 

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

Say 

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

Ask 

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

Say 

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

Summarize 

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

Activity 

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

Do 

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

Ask 

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

Say 

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

Ask 

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

Say 

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

Say 

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

Role Play 

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

Do 

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

Problem solving Scenario 1

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

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

Problem solving Scenario 2

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

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

Another set of customers lodged complaint about the misconduct and rude behaviour of a particular staff member.

You often hear from your customers that the orders don't get delivered on time or wrong products get delivered.

You have already been struggling with shortage of staff and such complaints are a serious concern as it is hampering your brand image. What strategies will you adopt to solve this problem?

Negotiation Scenario 1

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

Negotiation Scenario 2

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

Notes for Facilitation

**Facilitating Role Plays****Preparing for the activity**

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

Conducting the activity

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

Summarize



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

10.5.5: Business Opportunity Identification: Entrepreneurs and Opportunities

Resources to be Used

- Participant Handbook
- Blank sheets of paper
- Pens

Ask

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

Say

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

Do

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

Activity

Do your SWOT analysis

Strength

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

Weakness

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

Opportunity

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

Threat

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

Do 

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

Ask 

De-brief questions:

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

Summarize 

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

Notes 

10.5.6: Entrepreneurship Support Eco-System

Resources to be Used

- Participant Handbook
- Chart papers
- Marker pens
- Pencils
- Colour pencils
- Scale
- Eraser
- Other requisite stationery material

Ask

- Do you think that entrepreneurs need support?
- What do you think is an eco-system?
- What do you think 'entrepreneurship support eco-system' means?

Say

- Let's learn what entrepreneurship support eco-system means.
- Discuss 'Entrepreneurship Support Eco-System' as given in the Participant Handbook.

Ask

- Can you define entrepreneurship support eco-system?
- What are the key domains of the support eco-system?

Say

- Let's learn more about these domains by conducting an activity.
- You have to make a poster showing the components of the six main domains of entrepreneurship support eco-system.

Team Activity

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

Do 

- Divide the class into groups of four or six.
- Hand out chart paper and coloured pens.
- Explain the purpose and duration of the activity.
- Go around checking the progress of each group.
- Set guidelines pertaining to discipline and expected tasks.

Activity De-brief

- Ask each group to display their poster and explain the key domains of entrepreneurship support eco-system.

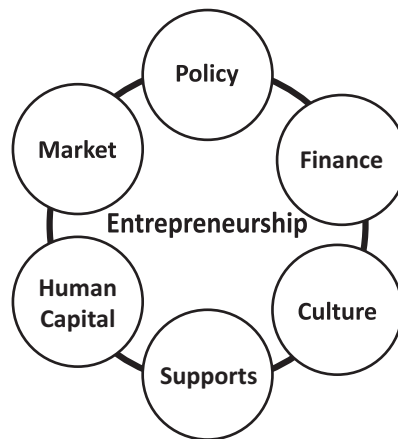


Fig 12.5.6.1. Entrepreneurship Support Eco-System

Ask 

- What kind of government support eco-system is available for entrepreneurs in India?

Say 

- Discuss 'Make in India' campaign as given in the Participant Handbook.

Team Activity 

- Presentation on key schemes to promote entrepreneurs

Do 

- Divide the class into pairs.
- Number each pair from 1-15.
- Assign a scheme, same as their group number, to each group.
- Ask them to read the scheme carefully and present it to the class.
- Explain the purpose and duration of the activity.
- Go around checking the progress of each group.
- Set guidelines pertaining to discipline and expected tasks.

Activity De-brief

- Ask each group to explain the scheme offered by government to promote entrepreneurs.

Summarize 

- Summarize the unit by discussing the key points and answering questions the participants may have.

10.5.7: Risk Appetite & Resilience

Resources to be Used

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

Ask

- Can you define risk or explain what constitutes a risk?
- What do you people mean when they say, “This may be a risky proposition”?
- What risks are they talking about?

Example

- Let's have a look at these two examples:

Rohit and his family were travelling by car from Delhi to Nainital. It was their second trip there. Rohit was familiar with the road. His friends told him that the highway after Rampur was in a bad condition. They advised him to take a shortcut and turn left from Moradabad and take the Kaladhungi road. This road is in a better condition.

Since he was going with his family, and did not want to take the risk of getting lost, he left early. He took the Kaladhungi road and reached Nainital well in time.

Suresh and his family too were travelling by car from Delhi to Nainital. It was their second trip there. His friends too advised him to take a shortcut and turn left from Moradabad and take the Kaladhungi road as this road was in a better condition.

Suresh too decided to take the Kaladhungi road but he left Delhi in the afternoon. It was dark by the time he reached Kaladhungi, and he was sure that he was taking the correct turn. As it was late, he could not find anyone to give him directions. He ended up being in an unknown place that was scarcely inhabited.

Say

- Let's see what type of risks Rohit and Suresh took.
- Discuss 'Risk Appetite and Resilience' with the participants as given in the Participant Handbook.

Say

- Let's learn more about risk appetite and resilience with the help of an activity.

Team Activity

Risk Appetite

- This is a group activity.
- In the previous unit, you read success stories of Mr Dhirubhai Ambani and Dr Karsanbhai Patel.
 - Mr Ambani left his job and started his company Reliance with just Rs. 50,000/-.
 - Dr Patel kept his job, went door-to-door to sell Nirma, and only when the brand started gaining popularity did he start his own company.
 - What types of risk did both of them take?
 - What risk factors, do you think, did they keep in mind before launching their company?
 - Write the Risk Appetite Statement of both the companies.

Activity De-brief

- Who took a greater risk?
- What are the differences between the Risk Appetite Statement of both the companies?

Do

- Instruct the participants that this is group work.
- Divide the class into small groups of 4.
- Give each group a chart paper.
- Tell the participants that they have to evaluate the risks taken by Mr Dhirubhai Ambani and Dr Karsanbhai Patel.
- Give the participants 15 minutes to discuss and write.
- Keep a check on time. Tell the group to wind up quickly if they go beyond the given time limit.

Ask

- Do you think all entrepreneurial ventures are successful?
- What happens if the first venture is not successful?
- Should the entrepreneur stop when faced with challenges or face them?

Example

- Let's have a look at the following example:

Vijay Shekhar Sharma is the founder of Paytm, which is a giant Indian e-commerce. He was born in a middle-class family in Uttar Pradesh. He started his first job at an MNC. He quit after six months and built a company One97 with his friends. As One97 grew bigger, it needed more money because it was running more servers, bigger teams, and had to pay royalty. At that time, the tech bubble popped and technology companies were running in losses. Finally, money ran out. So One97 took loans and then more loans at higher rates of interest, as high as 24 per cent, and became caught in a vicious cycle.

In 2014, Paytm was launched with online wallet services after which, the company enabled online payment transactions. The company got licenses from RBI in 2016 to launch India's first ever payment bank. Moreover, the main motive of Paytm was to transform India into a cashless economy.

After demonetization came into effect, Vijay Shekhar Sharma started promoting online and digital transactions to deal with the cash crunch. In fact, the service of the company's mobile wallet is accepted across India. The logo of Paytm is now popular almost everywhere from tea stalls to major companies.

Say

- Let's see what qualities made Vijay Shekhar Sharma a resilient entrepreneur.
- Discuss Entrepreneurship and Resilience with the participants as given in the Participant Handbook.

Say

- Let's learn more about entrepreneurship and resilience with the help of an activity.

Team Activity

Entrepreneurship and Resilience

- This is a group activity.
- Think of some entrepreneurship ventures that faced challenging times, but later resulted in success stories.
 - Who is the founder of that company?
 - What challenging times did it face?
 - How did it overcome those challenges?
 - List the resilient characteristics of the entrepreneur.

Activity De-brief

- Each group to give their presentation.
- Why did you choose this company?
- What is the success story of the company?

Do

- Instruct the participants that this is group work.
- Divide the class into small groups of 4.
- Give each group a chart paper.
- Tell the participants that they have to think of an entrepreneur who faced challenging times, but eventually succeeded.
- Give the participants 15 minutes to discuss and write.
- Keep a check on time. Tell the group to wind up quickly if they go beyond the given time limit.

Summarize

- You can summarize the key points of the unit.
- Ask the participants what they learned from the activities.
- Clarify any questions or doubts they might have.

10.5.8: Success and Failures

Resources to be Used

- Participant Handbook

Ask

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

Example

- Let's have a look at this example.

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

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

Say

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

Ask

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

Say

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

Team Activity

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

Notes for Facilitation

Facilitating Role Plays

Preparing for the activity

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

Conducting the activity

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

Summarize

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

UNIT 10.6: Preparing to be an Entrepreneur

Unit Objectives

After the completion of this unit, the participant will be able to:

1. Discuss how market research is carried out
2. Describe the 4 Ps of marketing
3. Discuss the importance of idea generation
4. Recall basic business terminology
5. Discuss the need for CRM
6. Discuss the benefits of CRM
7. Discuss the need for networking
8. Discuss the benefits of networking
9. Discuss the importance of setting goals
10. Differentiate between short-term, medium-term and long-term goals
11. Discuss how to write a business plan
12. Explain the financial planning process
13. Discuss ways to manage your risk
14. Describe the procedure and formalities for applying for bank finance
15. Discuss how to manage their own enterprise
16. List the important questions that every entrepreneur should ask before starting an enterprise

10.6.1: Market Study/ The 4Ps of Marketing/ Importance of an IDEA: Understanding Market Research

Resources to be Used

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

Ask

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

Example

- Let's have a look at this example.

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

Say

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

Team Activity

Market Study

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

Activity De-brief

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

Do 

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

Say 

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

Ask 

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

Say 

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

Say 

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

Team Activity **4 Ps of Marketing**

- This is a group activity.
- You have to sell a pen to four different segments:
 - 1. Rural villagers
 - 2. Rural middle class
 - 3. Urban middle class
 - 4. Upper end rich people (Niche market)
- Keeping the 4Ps of Marketing in mind, what marketing strategy will you design to sell the pen?

Activity De-brief

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

Do 

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

10.6.2: Business Entity Concepts

Resources to be Used



- Participant Handbook

Say



- Let's recall some basic business terminology.
- Discuss the Business Entity Concepts as given in the Participant Handbook.
- Let's learn some basic business terminology by having an activity.
- We will have a quiz today.

Activity



- The activity is a quiz.

Do



- Divide the class in two groups and give a name to each group.
- Explain the rules of the quiz. For each correct answer the group gets 1 mark.
- If the group is unable to answer the question is passed to the next group.
- Explain the purpose and duration of the activity.
- Ask the questions of the quiz.
- Keep a score of the groups.
- Set guidelines pertaining to discipline and expected tasks.

Summarize



- Summarize the unit by discussing the key points.

Notes for Facilitation



QUESTIONS FOR THE QUIZ

1. What does B2B mean?
Business to business
2. What is a financial report?
A comprehensive account of a business' transactions and expenses
3. Who is a sales prospect?
A potential customer
4. How is working capital calculated?
Current assets minus current liabilities

5. What is an estimation of the overall worth of a business called?

Valuation

6. You are buying a house. What type of transaction is it?

Complex transaction

7. How will you calculate the net income?

Revenue minus expenses

8. How is Return on Investment expressed?

As percentage

9. How will you calculate the cost of goods sold?

Cost of materials minus cost of outputs

10. What is revenue?

Total amount of income before expenses are subtracted.

11. What is a Break-Even Point?

This is the point at which the company will not make a profit or a loss. The total cost and total revenues are equal.

12. What is the formula used to calculate simple interest?

*$A = P(1 + rt)$; $R = r * 100$*

13. What are the three types of business transactions?

Simple, Complex and Ongoing Transactions

14. The degrading value of an asset over time is known as

Depreciation

15. What are the two main types of capital?

Debt and Equity

Notes



10.6.3: CRM & Networking

Resources to be Used

- Participant Handbook

Ask

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

Say

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

Do

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

Team Activity

Case Study Analysis

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

Scenario 2

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

Scenario 3

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

Scenario 4

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

Say

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

Do 

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

Say 

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

Activity 

Group Discussion

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

Summarize 

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

Notes 

10.6.4: Business Plan: Why Set Goals?

Resources to be Used

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

Ask

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

Say

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

Ask

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

Do

- Ask few participants to share their business ideas.

Ask

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

Say

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

Team Activity

Writing a business Plan

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

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

Say

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

Say 

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

Do 

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

Say 

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

Summarize 

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

Notes for Facilitation 

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

Notes 

10.6.5: Procedures and Formalities for Bank Finance

Resources to be Used

- Participant Handbook
- Bank loan/finance form sample

Ask

- While preparing a business plan in the last session, we discussed financial planning to arrange financial resources for your start-up. Therefore, how will you collect funds to start your business?

Say

- While most entrepreneurs think 'product' is the most difficult thing to decide for a business, start-up capital poses an even a bigger obstacle. Though there are various ways of funding the business, to convince investors to invest money is the most challenging.
- Some of the funding options available in India are:
 - **Bootstrapping:** Also called self-financing is the easiest way of financing
 - **Crowd funding:** Funds are collected by consumers pre-ordering or donating for starting the business.
 - **Angel investors:** Individual or group of investors investing in the company
 - **Venture capitalists:** Venture capitals are professionally managed funds who invest in companies that have huge potential. They usually invest in a business against equity.
 - **Bank loans:** The most popular method in India.
 - **Microfinance Providers or NBFCs**
 - **Government programmes**
- Let us know discuss the most popular method i.e. bank finance in detail here.

Do

- Discuss the list of documents that are required to apply for a loan like letter of introduction, business brochure, references of other banks, and financial statements.
- Explain the details to be filled in a loan application form.
- Divide the class into groups. Give each group a loan application form.
- Ask the groups to discuss and fill the form.

Summarize

- Close the discussion by summarizing the important documents needed for bank loan.
- Ask the participants if they have any questions related to what they have talked about so far.

Notes for Facilitation



- Checklist of documents is provided as resources for the session.
- You can make some copies and distribute it during the group activity.
- Download sample loan application forms from any nationalised bank's website. Print sufficient copies to circulate it amongst the groups.

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

10.6.6: Enterprise Management – An Overview: How to Manage Your Enterprise?

Resources to be Used

- Participant Handbook

Ask

- Having set-up a business, do you think it is possible to do everything on your own?
- Does one require trained persons for help?
- What does management mean?

Say

- Let's have a look at this example:
 - Kapil had a small business that was beginning to pick up pace. He wanted to expand his business, and therefore employed few more people. One day, as he was walking past Ramesh, one of his new employees, he overheard Ramesh talking rudely to a customer on the phone. This set him thinking. Kapil realised that he should have regular team meetings to motivate his employees and speak with them about any problems they might be facing during work. He should also conduct training sessions on new practices, soft skills, and technology, and develop work ethics manual for managing his enterprise.

Say

- Was Kapil correct in his approach or he should have scolded Ramesh instantly in front of his other employees?
- Discuss “Enterprise Management – An Overview” with the participants as given in the Participant Handbook.

Say

- Let's learn how to effectively manage an enterprise or business through an activity.

Team Activity

Enterprise Management

- This is a group activity.
- Design a matrix listing the topics and key words that are needed to run an enterprise effectively and smoothly.

Activity De-brief

- Have each group present their matrix.
- Encourage participants of the other groups to ask question about each other's presentation.

10.6.7: 20 Questions to Ask Yourself before Considering Entrepreneurship

Resources to be Used

- Participant Handbook
- Blank sheets of paper
- Pens

Ask

- Why do you want to become an entrepreneur?

Say

- It is very important to know why you want to become an entrepreneur. Your personal goals for becoming an entrepreneur play a key role in the success of your business. Your goals should be clear well before you start your business.
- Apart from the goals, the other aspects of business that you need to bear in mind are the potential problems that you may face to set-up, your areas of interest, and all the other dimensions of the business.
- Let's understand it better with the help of some questions that every entrepreneur should ask before starting their own business.
- Open the Participant Handbook section named '20 Questions to Ask Yourself Before Considering Entrepreneurship'. You have to answer the questions individually.
- Then, we will have a class discussion on all the questions.

Do

- Read out the questions one by one in front of all the participants.
- Participants have to answer all the one by one questions.
- Give the class 10-15 minutes to note down their answers.
- At the end of 15 minutes, open the discussion for all the questions.
- Moderate the discussion by focusing on the relevant points.
- Keep a check on time and don't let the discussion get sabotaged or lose track of time. Ensure all the questions are covered and discussed.

Summarize

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



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MINISTRY OF SKILL DEVELOPMENT
& ENTREPRENEURSHIP



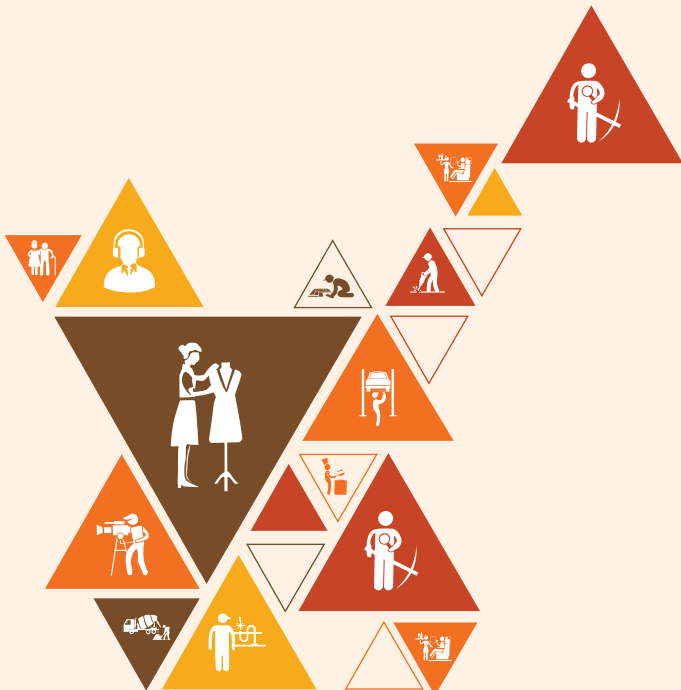
N · S · D · C
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Skill Development
Corporation

Transforming the skill landscape



11. Annexures

Annexure I: Training Delivery Plan
Annexure II: Assessment Criteria



Annexure I

Training Delivery Plan

Training Delivery Plan			
Program Name:	Rubber Calendering Operator		
Qualification Pack Name & Ref. ID	Rubber Calendering Operator - RSC/Q2701		
Version No.	1.0	Version Update Date	23/08/2021
Pre-requisites to Training (if any)	Class VIII th passed		
Training Outcomes	<p>By the end of this program, the participants will be able to:</p> <ol style="list-style-type: none"> 1- Perform Pre Rubber Calendering Activities 2- Perform Calendering operation using 3 roll/ 4 roll calender 3- Perform post rubber calendering activities 4- Carry out housekeeping in rubber product manufacturing 5- Carry out reporting and documentation. 6- Carry out quality checks. 7- Carry out problem identification and escalation. 8- Carry out health and safety. 		

Sl. No	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Aids	Duration
							HH:MM
1.	Introduction to Calendering	Introduction to Rubber Industry	<ul style="list-style-type: none"> • Discuss the rubber and rubber industry. • Define types of rubber. • Explain about rubber manufacturing processes. • Explain different uses of rubber. • Discuss various rubber bodies and associations in India. 	NA	<ul style="list-style-type: none"> • Facilitator led discussions • Question & answer sessions • Videos • Demonstrations • Practical activities 	<ul style="list-style-type: none"> • White board & markers • facilitator notes • laptop/ slides + projector • Rubber raw material from different sources • product made of different type of rubber • plastic and metal. 	Theory (T): 6:00 Practical (P): 2:00

Sl. No	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Aids	Duration
							HH:MM
2.	Introduction to Calendering	Introduction to Rubber Industry	<ul style="list-style-type: none"> Identify rubber raw material type and products made of rubber 	NA	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers facilitator notes laptop/ slides + projector Rubber raw material from different sources product made of different type of rubber plastic and metal. 	T: 4:00 P: 4:00
3.	Introduction to Calendering	Rubber calendaring basics	<ul style="list-style-type: none"> Describe common terminology used in the rubber industry. 	NA	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers facilitator notes laptop/ slides + projector dumbbell cutting machine rubber sheet with low and high elasticity tensile testing machine. 	T: 2:00 P: 6:00

Sl. No	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Aids	Duration
							HH:MM
4.	Introduction to Calendering	Rubber Calendering basics	<ul style="list-style-type: none"> Describe common terminology used in rubber industry. 	NA	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers facilitator notes laptop/ slides + projector test button cutting machine rubber sheet with low and high elasticity Shore-A hardness tester. 	T: 2:00 P: 6:00
5.	Introduction to Calendering	Rubber Calendering basics	<ul style="list-style-type: none"> Explain what is calendering. Describe the constituent material of a calendered part. 	NA	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers facilitator notes laptop/ slides + projector rubber calendering raw material such as: various rubber compound, fabric, PVC cords, metal cords. 	T: 2:00 P: 6:00
6.	Introduction to Calendering	Rubber Calendering basics	<ul style="list-style-type: none"> Define the types of calendering. 	NA	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers facilitator notes laptop/ slides + projector images and models of rubber calenders 	T: 2:00 P: 6:00

Sl. No	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Aids	Duration
							HH:MM
7.	Introduction to Calendering	Process of Rubber Calendering	<ul style="list-style-type: none"> Explain the construction of a rubber calendered part. 	NA	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers facilitator notes laptop/ slides + projector open body of rubber calender with flagged parts 	T: 2:00 P: 6:00
8.	Introduction to Calendering	Process of Rubber Calendering	<ul style="list-style-type: none"> Explain the equipment used in calendering process. Describe the use and working of various equipment used in calendering process. 	NA	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers Notes Laptop/ Slides + projector Videos 	T: 8:00
9.	Introduction to Calendering	Process of Rubber Calendering	<ul style="list-style-type: none"> Describe the use and working of various equipment used in calendering process. 	NA	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers facilitator notes, laptop/ slides + projector ancillary equipment used with rubber calender 	P: 8:00

Sl. No	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Aids	Duration
							HH:MM
10.	Introduction to Calendering	Job Role of a Rubber Calendering Operator	<ul style="list-style-type: none"> Explain the Job role of a rubber calendering operator. 	NA	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers Notes Laptop/ Slides + projector Videos 	T: 4:00
11.	Preparing Rubber Calender	Rubber Calender and Ancillary Equipment	<ul style="list-style-type: none"> Explain construction of a rubber calender. Describe the details of parts of a rubber calender. 	RSC/N2704 PC1, PC2, KA1	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers Notes Laptop/ Slides + projector Videos 	T: 8:00
12.	Preparing Rubber Calender	Rubber Calender and Ancillary Equipment	<ul style="list-style-type: none"> Explain construction of a rubber calender. Describe the details of parts of a rubber calender. 	RSC/N2704 PC1, PC2, KA1	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers facilitator notes laptop/ slides + projector open body of rubber calender with flagged parts 	P: 8:00

Sl. No	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Aids	Duration
							HH:MM
13.	Preparing Rubber Calender	Rubber Calender and Ancillary Equipment	<ul style="list-style-type: none"> Identify and arrange input material for rubber calendering 	RSC/N2704 PC11, PC12, KA4,	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers Notes Laptop/ Slides + projector Videos 	T: 8:00
14.	Preparing Rubber Calender	Rubber Calender Preparation for Operation	<ul style="list-style-type: none"> Prepare rubber calender for rubber calendering. Demonstrate the cleaning process of rubber calender. Demonstrate the correct nip gap in a rubber calender. Demonstrate the roller cleaning before rubber calendering. 	RSC/N2704 PC1, PC2, PC3, PC4, PC5, PC6, PC7, PC8, PC9, PC10, PC13, KA1, KA2, KA3, KA5	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers facilitator notes laptop/ slides + projector specification sheet for rubber calendered products such as: rubber sheet, belt, etc. raw material used in rubber calendering such as: rubber compound, fabric, PVC cord, metal cord, etc. weighing scale, safety gloves, safety mask, safety shoes. 	T: 2:00 P: 6:00

Sl. No	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Aids	Duration
							HH:MM
15.	Preparing Rubber Calender	Rubber Calender Preparation for Operation	<ul style="list-style-type: none"> • Prepare rubber calender for rubber calendering. • Demonstrate the cleaning process of rubber calender. • Demonstrate the correct nip gap in a rubber calender. • Demonstrate the roller cleaning before rubber calendering. 	RSC/N2704 PC1, PC2, PC3, PC4, PC5, PC6, PC7, PC8, PC9, PC10, PC13, KA1, KA2, KA3, KA5	<ul style="list-style-type: none"> • Facilitator led discussions • Question & answer sessions • Videos • Demonstrations • Practical activities 	<ul style="list-style-type: none"> • White board & markers • facilitator notes • laptop/ slides + projector • rubber calender • key for nip gap setting (as per calender design, some calender may have wheel also) • material for rubber calendering • safety gloves • safety mask • safety shoes. 	P: 8:00
16.	Preparing Rubber Calender	Rubber Calender Preparation for Operation	<ul style="list-style-type: none"> • Demonstrate the process of setting up the rubber calender control panel 	RSC/N2704 PC1, PC2, PC3, PC4, PC5, PC6, PC7, PC8, PC9, PC10, PC13, KA1, KA2, KA3, KA5	<ul style="list-style-type: none"> • Facilitator led discussions • Question & answer sessions • Videos • Demonstrations • Practical activities 	<ul style="list-style-type: none"> • White board & markers • facilitator notes • laptop/ slides + projector • videos and images of rubber calendering process • rubber calender with control panel 	P: 8:00

Sl. No	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Aids	Duration
							HH:MM
17.	Performing Rubber Calendering Operation	Initial Checks for a Rubber Calender	<ul style="list-style-type: none"> Demonstrate machine checkup points before rubber calendering. Demonstrate control panel checkup points before rubber calendering. Demonstrate roller checkup points before rubber calendering. Discuss importance of roller cleaning & maintenance. Describe general operating instruction before rubber calendering. Explain input material inspection process. 	RSC/N2705 Pc1, PC2, PC3, PC4, PC5, PC6, KA1, KA2, KA3, KA5, KA6, KAB1, KB2, KB3, KB4, KB5, KB6, KB7, KB8, KB9, KB10, KB11, KB12, KB13, KB14, KB15, KB16, KB17, KB18,KB19	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers Notes Laptop/ Slides + projector Videos Rubber calender Cooling tower/ Heat Exchanger raw material used in rubber calendering such as: rubber compound, metal cord, fabric, dipping solution, etc. 	T: 4:00 P: 4:00
18.	Performing Rubber Calendering Operation	Operating a Rubber Calender	<ul style="list-style-type: none"> Describe the safety precautions to be taken during rubber calendering. Discuss Do's and Don'ts for rubber calendering operations. 	RSC/N2705 Pc1, PC2, PC3, PC4, PC5, PC6, KA1, KA2, KA3, KA5, KA6, KAB1, KB2, KB3, KB4, KB5, KB6, KB7, KB8, KB9, KB10, KB11, KB12, KB13,	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers facilitator notes laptop/ slides + projector specification sheet for rubber calendered products, such as: 	T: 2:00 P: 6:00

Sl. No	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Aids	Duration
							HH:MM
			<ul style="list-style-type: none"> Define responsibilities of rubber calendering operator. Demonstrate the steps for performing rubber calendering operations with 2-roll calender 	Kb14, KB15, KB16, KB17, KB18, KB19		rubber sheet, belt, etc. raw material used in rubber calendering, such as: rubber compound, fabric, PVC cord, metal cord, etc. 2-roll rubber calender, cleaning aids, material handling devices, bobbins for storing finished rubber calendered material, safety gloves, safety mask, safety shoes.	
19.	Performing Rubber Calendering Operation	Operating a Rubber Calender	<ul style="list-style-type: none"> Demonstrate the steps for performing rubber calendering operations with 3-roll calender 	RSC/N2705 PC1, PC2, PC3, PC4, PC5, PC6, KA1, KA2, KA3, KA5, KA6, KAB1, KB2, KB3, KB4, KB5, KB6, KB7, KB8, KB9, KB10, KB11, KB12, KB13, KB14, KB15, KB16, KB17, KB18, KB19	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers facilitator notes laptop/ slides + projector specification sheet for rubber calendered products such as: rubber sheet, belt, etc. raw material used in rubber calendering, such as: rubber compound, fabric, PVC cord, metal cord, etc. 3-roll rubber calender, cleaning aids, material handling devices 	P: 8:00

Sl. No	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Aids	Duration
							HH:MM
						bobbins for storing finished rubber calendered material, safety gloves, safety mask, safety shoes.	
20.	Performing Rubber Calendering Operation	Operating a Rubber Calender	<ul style="list-style-type: none"> Demonstrate the steps for performing rubber calendering operations with 4-roll calender - I shape 	RSC/N2705 PC1, PC2, PC3, PC4, PC5, PC6, KA1, KA2, KA3, KA5, KA6, KAB1, KB2, KB3, KB4, KB5, KB6, KB7, KB8, KB9, KB10, KB11, KB12, KB13, KB14, KB15, KB16, KB17, KB18, KB19	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers facilitator notes laptop/ slides + projector specification sheet for rubber calendered products such as: rubber sheet, belt, etc. raw material used in rubber calendering, such as: rubber compound, fabric, PVC cord, metal cord, etc. 4-roll - 'I' shaped rubber calender, cleaning aids, material handling devices, bobbins for storing finished rubber calendered material, safety gloves, safety mask, safety shoes. 	P: 8:00

Sl. No	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Aids	Duration
							HH:MM
21.	Performing Rubber Calendering Operation	Operating a Rubber Calender	<ul style="list-style-type: none"> Demonstrate the steps for performing rubber calendering operations with 4-roll calender - L shape 	RSC/N2705 PC1, PC2, PC3, PC4, PC5, PC6, KA1, KA2, KA3, KA5, KA6, KAB1, KB2, KB3, KB4, KB5, KB6, KB7, KB8, KB9, KB10, KB11, KB12, KB13, KB14, KB15, KB16, KB17, KB18, KB19	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers facilitator notes laptop/ slides + projector specification sheet for rubber calendered products such as: rubber sheet, belt, etc. raw material used in rubber calendering, such as: rubber compound, fabric, PVC cord, metal cord, etc. 4-roll - 'L' shaped rubber calender, cleaning aids, material handling devices, bobbins for storing finished rubber calendered material, safety gloves, safety mask, safety shoes. 	P: 8:00
22.	Performing Rubber Calendering Operation	Operating a Rubber Calender	<ul style="list-style-type: none"> Demonstrate the steps for performing rubber calendering operations with 4-roll calender - Z shape 	RSC/N2705 PC1, PC2, PC3, PC4, PC5, PC6, KA1, KA2, KA3, KA5, KA6, KAB1, KB2, KB3, KB4, KB5, KB6, KB7, KB8, KB9, KB10, KB11, KB12, KB13, KB14, KB15, KB16, KB17, KB18, KB19	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers facilitator notes laptop/ slides + projector specification sheet for rubber calendered products such as: rubber sheet, belt, etc. raw material used in rubber calendering, such as: rubber 	P: 8:00

Sl. No	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Aids	Duration
							HH:MM
						<ul style="list-style-type: none"> such as: rubber compound, fabric, PVC cord, metal cord, etc. 4-roll - 'Z' shaped rubber calender, cleaning aids, material handling devices, bobbins for storing finished rubber calendered material, safety gloves, safety mask, safety shoes. 	
23.	Performing Rubber Calendering Operation	Operating a Rubber Calender	<ul style="list-style-type: none"> Demonstrate the steps for performing rubber calendering operations with 4-roll calender - S shape 	RSC/N2705 PC1, PC2, PC3, PC4, PC5, PC6, KA1, KA2, KA3, KA5, KA6, KAB1, KB2, KB3, KB4, KB5, KB6, KB7, KB8, KB9, KB10, KB11, KB12, KB13, KB14, KB15, KB16, KB17, KB18, KB19	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers facilitator notes laptop/ slides + projector specification sheet for rubber calendered products, such as: rubber sheet, belt, etc. raw material used in rubber calendering, such as: rubber compound, fabric, PVC cord, metal cord, etc. 4-roll - 'S' shaped rubber calender, cleaning aids, material handling devices, 	T: 8:00

Sl. No	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Aids	Duration
							HH:MM
						bobbins for storing finished rubber calendered material, safety gloves, safety mask, safety shoes.	
24.	Performing Post Rubber Calendering Activities	Post Calendering Activities	<ul style="list-style-type: none"> Explain Post-calendering activities. Describe the quality issues in rubber calendering. 	RSC/N2706 PC1, PC2, PC3, PC4, PC5, PC6, PC7, PC8, PC9, PC10, KA1, KA2, KA3, KA4	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers Notes Laptop/ Slides + projector Videos Tyre buffing machine inspected tyres for buffing hoist material handling equipment cleaning equipment 	P: 8:00
25.	Performing Post Rubber Calendering Activities	Post Calendering Activities	<ul style="list-style-type: none"> Define the countermeasures to be taken on quality issues related to rubber calendering. Demonstrate packing of rubber calendered product 	RSC/N2706 PC1, PC2, PC3, PC4, PC5, PC6, PC7, PC8, PC9, PC10, KA1, KA2, KA3, KA4	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers facilitator notes laptop/ slides + projector rubber calendered products bobbins for storing finished rubber calendered material material handling devices cleaning aids, safety gloves, safety mask, safety shoes. 	T: 2:00 P: 6:00

Sl. No	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Aids	Duration
							HH:MM
26.	Performing Post Rubber Calendering Activities	Disposal of Rubber Calendering Waste	<ul style="list-style-type: none"> Explain what is rubber waste disposal. Describe harms, if rubber waste is not disposed properly. Describe the ways of rubber recycling. 	RSC/N2706 PC13, KB3	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers Notes Laptop/ Slides + projector Videos 	T: 2:00 P: 6:00
27.	House-keeping	Need and benefits of housekeeping	<ul style="list-style-type: none"> Explain what is housekeeping. Define importance of housekeeping. Describe purpose of housekeeping. Explain benefits of housekeeping. Identify equipment used for housekeeping. 	RSC/N5001 PC1, PC2, PC3, PC10, PC11, PC15, PC16, PC17, PC18, PC19, PC20	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers Notes Laptop/ Slides + projector Videos Cleaning equipment and aids 	T: 8:00
28.	House-keeping	Need and benefits of housekeeping	<ul style="list-style-type: none"> Demonstrate the workplace cleaning process 	RSC/N5001 PC1, PC2, PC3, PC10, PC11, PC15, PC16, PC17, PC18, PC19, PC20	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers facilitator notes laptop/ slides + projector videos of workplace cleaning cleaning aids: cleaning rags, cleaning solvents, broom, cleaning brush, etc., PPEs. 	P: 8:00

Sl. No	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Aids	Duration
							HH:MM
29.	House-keeping	5S' Methodology of housekeeping	<ul style="list-style-type: none"> Explain what is '5S'. Define each 'S' and its meaning. 	RSC/N5001	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers Notes Laptop/ Slides + projector Videos Cleaning equipment and aids 5S check sheet 	T: 8:00
30.	House-keeping	5S' Methodology of housekeeping	<ul style="list-style-type: none"> Demonstrate the 1S process at the workplace. Demonstrate the 2S process at the workplace. 	RSC/N5001	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers facilitator notes laptop/ slides + projector videos of 1S activities PPEs. videos of 2S activities, PPEs. 	P: 8:00
31.	Reporting and Documentation	Documentation of day to day activities	<ul style="list-style-type: none"> Explain what is documentation. Describe the importance of documentation. Define the purpose of a documentation. Explain types of documentation. Describe common documentation used in rubber industry. Explain what is reporting. Describe importance of reporting 	RSC/N5002 PC1, PC2, PC3	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers facilitator notes laptop/ slides + projector videos of production information recording production report formats. 	T: 1:00 P: 3:00

Sl. No	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Aids	Duration
							HH:MM
32.	Reporting and Documentation	Organization Procedure for Reporting and Documentation	<ul style="list-style-type: none"> • Explain about government acts and bylaws • Describe about rules. • Define meaning of policies and guidelines • Describe meaning of procedure • Explain what is work instruction • Discuss organizational Procedures for reporting and documentation • Describe the importance of reporting 	RSC/N5002 PC4, PC5, PC6, Pc7	<ul style="list-style-type: none"> • Facilitator led discussions • Question & answer sessions • Videos • Demonstrations • Practical activities 	<ul style="list-style-type: none"> • White board & markers • facilitator notes • laptop/ slides + projector • videos related to work instruction • rubber calendering equipment • cleaning aids, PPEs. 	T: 1:00 P: 3:00
33.	Reporting and Documentation	Communication in an Organization	<ul style="list-style-type: none"> • Define what is communication • Describe the communication process. • Explain problems in communication • Describe various communication barriers. • Explain traits of Active Listening. • Discuss points of good writing skill. 	RSC/N5002 SA10, SA11	<ul style="list-style-type: none"> • Facilitator led discussions • Question & answer sessions • Videos • Demonstrations • Practical activities 	<ul style="list-style-type: none"> • White board & markers • Notes • Laptop/ Slides + projector • Videos 	P: 8:00

Sl. No	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Aids	Duration
							HH:MM
34.	Reporting and Documentation	Communication in an Organization	<ul style="list-style-type: none"> Define what is communication Describe communication process. Explain problems in communication Describe various communication barriers. Explain traits of Active Listening. Discuss points of good writing skill. 	RSC/N5002 SA10, SA11	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers Notes Laptop/ Slides + projector Videos 	P: 8:00
35.	Reporting and Documentation	Communication in an Organization	<ul style="list-style-type: none"> Decide priority of work required to be done. Describe how to select work to do from pending work. 	RSC/N5002 Pc6, KA3	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers Notes Laptop/ Slides + projector Videos 	T: 2:00 P: 6:00

Sl. No	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Aids	Duration
							HH:MM
36.	Carrying out Quality Checks	Inspection Equipment for Rubber Calendered Parts Inspection	<ul style="list-style-type: none"> Define need of quality control in rubber calendering. Identify and discuss inspection technique for rubber calendered products. Describe measuring equipment for rubber calendered products. 	RSC/N5003 PC1, PC2, PC3, PC4, PC7	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers Notes Laptop/ Slides + projector Videos Vernier Caliper Steel ruler Measurement tape Hardness tester Tensile testing machine 	T: 8:00
37.	Carrying out Quality Checks	Defects in Calendering and Solving Quality Problems	<ul style="list-style-type: none"> Define various Quality defects of Rubber calendered products. Demonstrate problem solving techniques. Discuss Implication of Quality defects on Rubber calendered products. 	RSC/N5003 PC1	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers Notes Laptop/ Slides + projector Videos Vernier Caliper Steel ruler Measurement tape Hardness tester Tensile testing machine 	T: 8:00

Sl. No	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Aids	Duration
							HH:MM
38.	Carrying out Quality Checks	Defects in Calendering and Solving Quality Problems	<ul style="list-style-type: none"> Demonstrate the inspection process of calendered products. 	RSC/N5003 PC1	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers Notes Laptop/ Slides + projector Videos Vernier Caliper Steel ruler Measurement tape Hardness tester Tensile testing machine Calendered samples with defects 	P: 8:00
39.	Carrying out Quality Checks	Defects in Calendering and Solving Quality Problems	<ul style="list-style-type: none"> Demonstrate the creation of Fish-bone diagram. Demonstrate the creation of why-why analysis. 	RSC/N5003 PC4	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers facilitator notes/laptop/ slides + projector flip charts 	P: 8:00
40.	Health & Safety	Hazards In Rubber Industry	<ul style="list-style-type: none"> Explain what is hazard. Identify hazard in rubber industry. Describe chemical hazard. Describe physical hazard. Describe ergonomic hazard. 	RSC/N5007 PC1, PC2, PC3, PC4, PC5, PC6, PC7, PC8, PC9	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers facilitator notes laptop/ slides + projector videos of safety risk assessment of work areas PPEs. 	T: 2:00 P: 6:00

Sl. No	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Aids	Duration
							HH:MM
41.	Health & Safety	Safety Equipment used during Rubber Calendering Operation	<ul style="list-style-type: none"> Explain what is PPEs. Discuss requirement of PPE. Identify different types of PPEs used in rubber industry. Describe the purpose of various PPEs used in rubber industry. 	RSC/N5007 PC11, PC12, PC13, PC4, PC5, PC6, PC7, PC8, PC9	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers Notes Laptop/ Slides + projector Videos First aid kit, Sample of PPEs – safety goggle, safety shoes, safety gloves, mask, earmuff, Fire extinguisher 	T: 8:00
42.	Health & Safety	Safety Equipment used during Rubber Calendering Operation	<ul style="list-style-type: none"> Demonstrate the use of different PPEs. 	RSC/N5007 PC17, PC28, KB12	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers facilitator notes laptop/ slides + projector safety videos safety shoes safety goggle mask safety hat safety gloves. 	T: 2:00 P: 6:00
43.	Health & Safety	Handling Fire And Other Emergencies	<ul style="list-style-type: none"> Define what is emergency. Describe various emergency situations in Industry. Describe common injuries in industry. Describe first aid box and its constituents. Demonstrate how to use a multi purpose Fire Extinguisher. 	RSC/N5007 PC23, PC24, PC25	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers Notes Laptop/ Slides + projector Videos First aid kit, Sample of PPEs – safety goggle, safety shoes, safety gloves, mask, earmuff, Fire extinguisher 	T: 8:00

Sl. No	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Aids	Duration
							HH:MM
			<ul style="list-style-type: none"> Describe type and class of Fires. Describe suitable fire extinguisher as per fire type and class. 				
44.	Health & Safety	Handling Fire And Other Emergencies	<ul style="list-style-type: none"> Demonstrate the common first aid process 	RSC/N5007 PC23, PC24, PC25	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers facilitator notes laptop/ slides + projector first aid videos First Aid box. 	P: 8:00
45.	Health & Safety	Handling Fire And Other Emergencies	<ul style="list-style-type: none"> Demonstrate the fire extinguisher using process 	RSC/N5007 PC23, PC24, PC25	<ul style="list-style-type: none"> Facilitator led discussions Question & answer sessions Videos Demonstrations Practical activities 	<ul style="list-style-type: none"> White board & markers facilitator notes laptop/ slides + projector fire extinguishing videos safety shoes safety goggle mask safety gloves, fire extinguisher fire source 	T: 2:00 P: 6:00

Sl. No	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Aids	Duration
							HH:MM
46.	Problem Identification And Escalation	Problem Identification and Escalation to Supervisor	<ul style="list-style-type: none"> • Explain what is a problem. • Describe how to identify a problem. • Define hierarchies. • Discuss hierarchy in Industry. • Explain how to escalate problem. • Describe need for escalation. 	RSC/N5004 PC1, PC2, PC3, PC4, PC5, PC6, PC7, PC8, PC9, PC21, PC22, PC23, PC24	<ul style="list-style-type: none"> • Facilitator led discussions • Question & answer sessions • Videos • Demonstrations • Practical activities 	<ul style="list-style-type: none"> • White board & markers • Notes • Laptop/ Slides + projector • Videos 	T: 6:00

Annexure II

Assessment Criteria

CRITERIA FOR ASSESSMENT OF TRAINEES

Assessment Criteria for Rubber Calendering Operator	
Job Role	Rubber Calendering Operator
Qualification Pack	RSC/Q2701
Sector Skill Council	Rubber Skill Development Council

Sr No.	Guidelines for Assessment
1.	Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down the proportion of marks for Theory and Skills Practical for each PC.
2.	The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3.	Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4.	Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
5.	Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criterion.
6.	To pass the Qualification Pack, every trainee should score a minimum of 70% of aggregate marks to successfully clear the assessment.
7.	In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Assessable Outcomes	Assessment Criteria (PC)	Total Marks	Out of	Theory	Practical Skills
RSC/N2704 Perform Pre Rubber Calendering Activities	PC1.Ensure emergency safety feature of machine is working	100	3	0	3
	PC2.Ensure that the bowls/Rolls of the Calender and the heating and cooling cans/rolls are clean		6	3	3
	PC3.Set parameters for the upstream and downstream equipment as per SOP		7	5	2
	PC4. Check functioning of calendering temperature control unit (steam/ thermic fluid / cooling water flow circulation)		7	4	3
	PC5.Switch on the TCU for the system which heats up the rolls		8	5	3
	PC6.Check nip gaps and temperature are set as per requirement.		8	5	3
	PC7.Select the liner of appropriate width and length		8	5	3
	PC8.Ensure the liners are rerolled uniformly before starting the process		7	4	3
	PC9.Ensure there should not be any spillage of oil / grease on the bowls/rolls of the Calender and the surrounding area		7	4	3
	PC10.Check fabric tensioner/s are performing OK		6	4	2
	PC11.Ensure that rubber compound to be fed is approved by laboratory		6	4	2
	PC12.Check the compound, cord fabric/steel cord codes are as per specification issued by plant technical SOP and if it matches with the schedule provided by planning. Specification /sop is the one to be considered as OK.		7	5	2

	PC13.Ensure that the guards are provided where manual feeding is done on to the Calender rolls.		6	2	4
	PC14. Ensure loose gloves are not worn while feeding rubber to the Calender roll		6	4	2
	PC15. Adhere to all safety norms (like wearing protective gloves, shoes etc)		4	4	0
	PC16.Comply with health, safety, environment guidelines, regulations etc in accordance with international/national standards or organizational standards		4	4	0
		Total	100	60	40
RSC /N2705 Perform Calendering Operations Using 3 Rolls/ 4 Rolls Calender	PC1.Handle the rubber compound to avoid contamination	100	4	3	1
	PC2. Ensure that batch size of rubber compound is as per company's SOP		5	4	1
	PC3.Ensure the compound lab OK status before starting of the process		1	0	1
	PC4.Ensure use of appropriate liner		6	3	3
	PC5.Ensure the liners are re rolled uniformly before starting of the process		1	0	1
	PC6.Ensure the t liner which is free of contamination		1	0	1
	PC7.Select the correct compound		4	2	2
	PC8.Feed the correct quantity to the Calender rolls		4	2	2
	PC9.Ensure the film thickness as per specifications		4	2	2
	PC10. Visually inspect the rubber strip to make sure it is free from defects and meets required specifications for further processing.		3	1	2
	PC11.Organize compound at feed system (cracker mill/ warm up mill/ feed mill) through overhead conveyor to the nip of 1st & 2nd Rolls of the Calender.		3	1	2
	PC12.Pass the compound through 2nd nip of the rolls for compound sheet production		4	2	2
	PC13.Check circular samples from both edges (10 cm. from edge) for proper compound film thickness		3	1	2
	PC14.Produce product of correct width, thickness and texture		2	1	1
	PC15.Ensure the functioning of pricker rollers		2	0	2
	PC16.Ensure that the calendered sheet is free of contamination		2	0	2
	PC17.Plan batch sequence in shifts based on raw material (Compound and cord fabric) availability/rejection to maximize output		3	1	2
	PC18.Select the correct compound		4	1	3
	PC19.Set the feed strip for correct continuous feed to the Calender nip.		4	1	3
	PC20. Visually inspect the rubber compound to make sure it is free from contamination.		3	1	2
	PC21.Visually inspect the fabric to make sure it is free from defects & dry		3	1	2
	PC22. Maintain the temperature of all rolls and the line speed as per SOP		3	1	2

	PC23.Ensure that the direction of fabric has been changed for both sided coating (in two pass three roll Calender)		1	0	1
	PC24.Produce sheet of correct width, thickness Ensure that the calendered sheet is free from contamination		1	0	1
	PC25.Ensure that material wastage is within tolerance limits		1	0	1
	PC26.Ensure that no rework or rejection is generated.		4	2	2
	PC27. Match the quality of output to company's product requirements		3	2	1
	PC28.Meet production quantity targets set for the operation		2	1	1
	PC29.Follow work instructions as laid down by the company		2	1	1
	PC30.Maintain safe distance while machine is in operation		4	3	1
	PC31.Ensure housekeeping in Calendering area		4	3	1
	PC32.Ensure that the feed rolls are provided with a guard to protect hand/fingers going in between rolls		1	0	1
	PC33. Ensure the functioning of safety button / safety bar in all mills (Cracker/ Warming and feeding mill)		1	0	1
	PC34.Use the protective gloves to handle the hot rolls/compounds		4	3	1
	PC35. Adhere to all safety norms (like wearing protective gloves, mask, shoes, safety goggles etc)		3	3	0
	PC36.Comply with health, safety, environment guidelines, regulations etc in accordance with international/national standards or organizational SOP		3	3	0
		Total	100	50	50
RSC /N2706 Perform Post Rubber Calendering Calendering activities	PC1.Ensure that the correct liner is used and is clean and batched off on right size roll	100	5	2	3
	PC2.Ensure that the liners are ironed and rerolled before starting the process		5	2	3
	PC3.Roll the calendered sheet on the liner at the winding station		5	2	3
	PC4.Ensure that the wind up temperature of the calendered gum /coated fabric are as per SOP to avoid loss tack or stuck to libner problems		5	2	3
	PC5.Ensure the storage are free to load the processed fabric		5	2	3
	PC6.Pack the calendered roll properly and store it in the designated area		5	2	3
	PC7.Ensure the storage condition and FIFO while storage of the processed fabric		3	0	3
	PC8.Ensure the provision of proper identification system on the processed fabric rolls at storage		3	0	3
	PC9.Ensure the film thickness as per specifications		5	2	3
	PC10.Operate online marking(coated fabric identification) system for product identification		5	2	3
	PC11.Follow work instructions as laid down by the company		5	2	3
	PC12.Handover the equipment to the next operator in clean and good condition		5	2	3
	PC13.Dispose waste material in safe manner as per organizational SOP		6	4	2
	PC14.Carry out batch marking for the right product as per instructions laid down by the company (in terms of weight, length, colour etc).		5	4	1

	PC15. Make the samples as per the sampling frequency as per organizational SOP		5	3	2
	PC16. Send the Calendered fabric full width sample to lab for testing with proper identification like Calender roll #, Size code and production date with time.		5	3	2
	PC17. Identify the location in the sample like Panel board side, middle side and rotary joint side for better understanding and ensure the dispersion of the material in the product while testing		5	3	2
	PC18. Send the remaining material to the designated storage area		5	3	2
	PC19. Ensure housekeeping in Calendering area		3	2	1
	PC20. Ensure that the feed rolls are provided with a guard to protect hand/finger going in between rolls		3	2	1
	PC21. Ensure that the direct exposure of the calendered sheet to the skin is minimized		3	2	1
	PC22. Adhere to all safety norms (like wearing protective gloves, mask, shoes, safety goggles etc)		2	2	0
	PC23. Comply with health, safety, environment guidelines, regulations etc in accordance with international/national standards or organizational		2	2	0
		Total	100	50	50
RSC/N5001 Carry out housekeep-ing in rubber product manufact-uring	PC1. Inspect the area while taking into account various surfaces	100	4	2	2
	PC2. Ensure NO uncovered fabric is left on the unit		0	0	0
	PC3. Ensure the calenders and the mills are free of any compound.		0	0	0
	PC4. Ensure all rubber tailings on mills /mill guides/ Calender rolls are removed and placed at appropriate designated bins/skids/pallets		0	0	0
	PC5. Identify the material requirements for cleaning the areas inspected, by considering risk, time, efficiency and type of stain		5	2	3
	PC6. Ensure that the cleaning equipment is in proper working condition		4	2	2
	PC7. Select the suitable alternatives for cleaning the areas in case the appropriate equipment and materials are not available and inform the appropriate person		4	2	2
	PC8. Plan the sequence for cleaning the area to avoid re-soiling clean areas and surfaces		4	2	2
	PC9. Inform the affected people about the cleaning activity		2	0	2
	PC10. Display the appropriate sign age for the work being conducted		6	1	5
	PC11. Ensure that there is adequate ventilation for the work being carried out		1	1	0
	PC12. Wear the personal protective equipment required for the cleaning method and materials being used		4	2	2
	PC13. Use the correct cleaning method for the work area, type of soiling and surface		2	2	0
	PC14. Carry out cleaning activity without disturbing others		5	0	5
	PC15. Deal with accidental damage, if any, caused while carrying out the work		10	0	10
	PC16. Report to the appropriate person any difficulties in carrying out your work		2	2	0

	PC17. Identify and report to the appropriate person any additional cleaning required that is outside one's responsibility or skill		2	2	0
	PC18. Ensure that there is no oily substance on the floor to avoid slippage		7	2	5
	PC19. Ensure that no scrap material is lying around		7	2	5
	PC20. Maintain and store housekeeping equipment and supplies		7	2	5
	PC21. Follow workplace procedures to deal with any accidental damage caused during the cleaning process		4	2	2
	PC22. Ensure that, on completion of the work, the area is left clean and dry and meets requirements		4	2	2
	PC23. Return the equipment, materials and personal protective equipment that were used to the right places making sure they are clean, safe and securely stored		4	2	2
	PC24. Dispose the waste garnered from the activity in an appropriate manner		4	2	2
	PC25. Dispose of used and un-used solutions according to manufacturer's instructions, and clean the equipment thoroughly		4	2	2
	PC26. Maintain schedules and records for housekeeping duty		2	2	0
	PC27. Replenish any necessary supplies or consumables		2	2	0
		Total	100	40	60
RSC/N5002 Carry Out Reporting And Documentation	PC1. Report data/problems/incidents as applicable in a timely manner	100	15	5	10
	PC2. Report to the appropriate authority as laid down by the company		15	5	10
	PC3. Follow reporting procedures as prescribed by the company		15	5	10
	PC4. Identify documentation to be completed relating to one's role		10	5	5
	PC5. Record details accurately in an appropriate format		5	5	0
	PC6. Complete all documentation within stipulated time according to company procedure		15	5	10
	PC7. Ensure that the final document meets with the requirements of the persons who requested it or make any amendments accordingly		8	3	5
	PC8. Make sure documents are available to all appropriate authorities to inspect		2	2	0
	PC9. Respond to requests for information in an appropriate manner whilst following organizational procedures		10	5	5
	PC10. Inform the appropriate authority of requests for information received		5	0	5
		Total	100	40	60
RSC/N5003 Carry Out Quality Checks	PC1. Ensure that total range of checks are regularly and consistently performed		7	2	5
	PC2. Use appropriate measuring instruments, equipment, tools, accessories etc, as required		7	2	5
	PC3. Identify non-conformities to quality assurance standards		5	2	3
	PC4. Identify potential causes of non-conformities to quality assurance standards		15	5	10

	PC5. Identify impact on final product due to non-conformance to company standards	100	2	2	0
	PC6. Evaluating the need for action to ensure that problems do not recur		5	0	5
	PC7. Suggest corrective action to address problem		10	5	5
	PC8. Review effectiveness of corrective action		5	0	5
	PC9. Interpret the results of the quality check correctly		7	2	5
	PC10. Take up results of the findings with QC in charge/appropriate authority.		6	2	4
	PC11. Take up the results of the findings within stipulated time		6	2	4
	PC12. Record of results of action taken		4	2	2
	PC13. Record adjustments not covered by established procedures for future reference		2	2	0
	PC14. Review effectiveness of action taken		4	2	2
	PC15. Follow reporting procedures where the cause of defect cannot be identified		2	2	0
			Total	100	35
RSC/N5004 To Carry Out Problem Identification And Escalation	PC1. Identify defects/indicators of problems	100	3	1	2
	PC2. Identify any wrong practices that may lead to problems		3	1	2
	PC3. Identify practices that may impact the final product quality		3	1	2
	PC4. Identify if the problem has occurred before		1	1	0
	PC5. Identify other operations that might be impacted by the problem		7	2	5
	PC6. Ensure that no delays are caused as a result of failure to escalate problems		5	2	3
	PC7. Take appropriate materials and sample, conduct tests and evaluate results to establish reasons to confirm suspected reasons for non-conformance (where required)		6	2	4
	PC8. Consider possible reasons for identification of problems		6	3	3
	PC9. Consider applicable corrections and formulate corrective action		6	3	3
	PC10. Formulate action in a timely manner		6	3	3
	PC11. Communicate problem/remedial action to appropriate parties		3	3	0
	PC12. Take corrective action in a timely manner		5	3	2
	PC13. Take corrective action for problems identified according to the company procedures		6	3	3
	PC14. Report/document problem and corrective action in an appropriate manner		5	2	3
	PC15. Monitor corrective action		4	2	2
	PC16. Evaluate implementation of corrective action taken to determine if the problem has been resolved		3	1	2
	PC17. Ensure that corrective action selected is viable and practical		3	1	2
	PC18. Ensure that correct solution is identified to an identified problem		5	2	3
	PC19. Take corrective action for problems identified according to the company procedures		5	2	3

	PC20.Ensure that no delays are caused as a result of failure to take necessary action		6	3	3
	PC21.Escalate problem as per laid down escalation matrix .		2	1	1
	PC22.Escalate the problem within the stipulated time		2	1	1
	PC23.Escalate the problem in an appropriate manner		2	1	1
	PC24.Ensure that no delays are caused as a result of failure to escalate problems		3	1	2
		Total	100	45	55
RSC/ N5007 Carry out health and safety	PC1.Undertake basic safety checks before operation of all machinery and equipment and report hazards to the appropriate supervisor	100	4	4	2
	PC2.Work for which protective clothing or equipment is required is identified, and the appropriate protective clothing or equipment is used in performing these duties in accordance with workplace policy.		4	2	2
	PC3.Read and understand the hazards of use and contamination mentioned on the labels of chemicals, utilities, etc		2	0	2
	PC4.Prior to performing manual handling jobs, the risk is assessed, and work is carried out according to currently recommended safe practices.		4	2	2
	PC5.Use equipment and materials safely and correctly and return the same to designated storage when not in use		3	1	2
	PC6.Dispose off waste safely and correctly in a designated area		6	2	4
	PC7.Risks to bystanders are recognized, and action taken to reduce risk associated with jobs in the workplace		2	0	2
	PC8.Perform work in a manner which minimizes environmental damage		2	0	2
	PC9.All procedures and work instructions for controlling risk are followed closely.		1	0	1
	PC10.Report any accidents, incidents or problems without delay to an appropriate person and take immediate necessary action to reduce the further danger.		2	0	2
	PC11.Follow procedures for dealing with accidents, fires, and emergencies, including communicating location and directions to emergency.		6	2	4
	PC12.Follow emergency procedures as per company standards and workplace requirements.		6	2	4
	PC13.Use Emergency equipment in accordance with manufacturers' specifications and workplace requirements.		6	2	4
	PC14.Provide treatment appropriate to the patient's injuries in accordance with recognized first aid techniques.		1	0	1
	PC15.Recover (if practical), clean, inspect/test, refurbish, replace and store the first aid equipment as appropriate		2	0	2
	PC16.Dispose off medical waste in accordance with workplace requirements		1	0	1
	PC17.Report details of first aid administered in accordance with workplace procedures.		5	3	2

PC18. Comply with general safety procedures	6	2	4
PC19. Follow standard safety procedures while handling equipment, hazardous material or tool	2	0	2
PC20. Check parts of the workplace and take preventive actions like spraying and other steps to protect from leakages, water logging, pests, fire, pollution, etc.	6	2	4
PC21. Ensure no accidents and damages in the workplace, reporting of any breach of company safety procedure	1	0	1
PC22. Keep the workplace organized, swept, clean and hazard free	6	2	4
PC23. Attend fire drills and other safety-related workshops organized at the workplace	4	1	3
PC24. Be aware of first aid, evacuation and emergency procedures	4	1	3
PC25. Be alert to any events and do not be negligent to any safety procedures to be followed	2	0	2
PC26. Avoid accidents while using hazardous chemicals, machines, sharp tools and equipment	4	1	3
PC27. Use safety materials such as protective gear, goggles, caps, shoes, etc. (as applicable to the workplace)	4	2	2
PC28. Handle heavy and hazardous materials with care and using appropriate tools and handling equipment such as trolleys, ladders	4	1	3
Total	100	30	70



Skill India

कौशल भारत - कुशल भारत



सत्यमेव जयते
GOVERNMENT OF INDIA
MINISTRY OF SKILL DEVELOPMENT
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