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

Shri Narendra Modi
Prime Minister of India
Textile Sector Skill Council is expressing its grateful to Honorable Prime Minister of India Shri. Narendra Modi, for his continuous emphasizes on skill development initiative, which is a crucial and need of the hour requirement of our country.

TSC is grateful and deeply indebted to Honorable Minister of State Shri. Rajiv Pratap Rudy, for his tireless motivation and encouragement of all our Skill India stack holders which is the key factor behind this skill India project.

TSC expresses its gratitude to the ministry of Skill development and Entrepreneurship who had supported us continuously and being a catalyst in our journey towards our targets.

TSC express its respectable thanks to National Skill Development Corporation (NSDC) for their support in preparing our handbooks and developing standards.

TSC thanking all Sector Skill Councils (SSCs) for their parallel feed backs which helped us a lot in preparing this wonderful handbook.

TSC is grateful and deeply indebted to Indian Texpreneurs Federation (ITF), Coimbatore, for their dedicated support in the preparation of this handbook which is going to be the bible for Soft flow dyeing operators.

Also TSC Thanking industry association Like SIMA, SITRA & BTRA for their contribution in the development of our Indian Textile industry.

TSC wishes to express its heartfelt thanks to KPR Mills Limited, Coimbatore for their support in the entire handbook preparation by permitting for photo shoot, technical inputs, etc.
About this Guide

This Facilitator guide is designed to extend perfect training to new comers for the job roll of Speed Frame Machine Operator (Tenter & Doffer). This facilitator guide is prepared in line with respective Qualification Pack TSC/Q0106, NSQF Level 4.

This facilitator guide is developed by Indian Texpreneurs Federation (ITF), an association of the Indian textile industry as per the instruction from Textile Sector Skill Council (TSC). ITF membership represent the entire technical textile value chain from raw materials to finished goods producers, machinery manufacturers, consultants, centre of excellence and R&D Institutes. With the high experience of our technical team and vast experience of our member mills made this preparation more practical and aligned to respective NOS as well.

TSC is an approved Sector Skill Council – SSC by National Skill Development Corporation (NSDC) for the development of skill in spinning, weaving, processing and hand-loom sectors of the textile industry. TSC is a non-profit making organisation represented by Industry, government and academia to develop innovative skill solutions and to investment in skills and job creation for Textile Industry.

The key objective of TSC is to define the skill requirement of the industry and to create a deployable talent pool of workforce for the textile industry. TSC is developing a skilled work force for the textile industry through setting curriculum for training, facilitator guide, participant handbook, accreditation of trade competency, implementing various skill development schemes, assessment of trained candidates and certification of successful candidates.

The National Skill Development Corporation, (NSDC) is a one of its kind, Public Private Partnership in India, under the Ministry of Skill Development & Entrepreneurship (MoSDE). It aims to promote skill development by catalysing creation of large, quality, for-profit vocational institutions. NSDC is developing the skill landscape of India through various Sector Skill Councils (SSCs) and Various Skill development schemes.

Symbols Used

- Steps
- Time
- Tips
- Norms
- Objectives
- Do
- Ask
- Explain
- Elaborate
- Field Visit
- Practical
- Lab
- Demonstrate
- Practice
- Team Activity
- Facilitation Notes
- Learning Outcomes
- Say
- Resources
- Activity
- Summary
- Role Play
- Example
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1. Introduction

Unit 1.1 – The Textile industry and spinning sector in India
Unit 1.2 – Spinning
Unit 1.3 – Job Role of a Ring Frame Tenter
Key Learning Outcomes

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

1. Discuss the scenario of Indian textile industry and its sub-sectors
2. Discuss the process of ring spun yarn manufacturing
3. Define your roles and responsibilities
UNIT 1.1: The Textile Industry and Spinning Sector in India

Unit Objectives
At the end of this unit, students will be able to,
1. Know about contribution of textile industry in India
2. Learn about different segments in textile industry

Notes for Facilitation
- Explanation of importance of Textiles in Human Life
- Contribution of Indian Textile Industry in World level Textiles
- Different Segments of Textile Industry

Say
- Indian textile industry is more than 5000 years old, accounts 12% industry production, 14% earnings, 4% GDP and employ more than 500 million people across the nation particularly people below poverty line and women folk.
- In the pre-independence era, Indian Textile Industry was prevented from expanding by the British Rulers and they exported our human skills and began dominating in global textile trade.
- After independence, only the mechanized textile industry in the country started growing. The Industrial Liberalization policy helped the textile industry to increase the capacity rapidly. Now, the country is rich in both natural and man-made resources.
- Textile Industry consists of different segments namely cotton cultivation, man-made & synthetic fibres manufacturing, other natural fibres manufacturing, spinning, weaving, knitting, processing, garment, made-ups, technical textiles, etc.
UNIT 1.2: Spinning

Unit Objectives

At the end of this unit, students will be able to,
1. Become well versed with basic skills of communication
2. Understand the role of Ring frame terter
3. Perform tasks while handling overshift

Notes for Facilitation

- You could ask the students about the expectations from the course
- Invite students to participate. Instruct to write down the different segments of Textile Industry in whiteboard
- Ask different departments available in Spinning Industry

1.2.1: Process Flow in a Spinning Mill

Say

- Explain the different types of spun yarn manufactured from cotton/man-made/synthetic fibres
- Spinning sector consists of different processes namely mixing, blowroom, carding, combing, drawing, simplex, ring spinning, open-end spinning, winding, doubling and reeling

1.2.1.1: Mixing

Say

- Explain in which form the raw material comes and what we are going to do from that
- Briefly explain to students what will happen in the mixing department
1.2.1.2: Blowroom

**Say**

- Explain the major activity in blowroom and how the seed coats and other unwanted materials removed from fibre.
- Explain how the cleaned material goes to the next department.

1.2.1.3: Carding

**Say**

- Explain the major activity of a Carding machine to students and how it works and explain what are the feed and delivery material of a carding machine.
- Explain the major parts of a Carding machine and how it works.
1.2.1.4: Pre-Comber Drawing

Say

- Explain the major activity of a Pre-Comber Drawing machine to students and how it works and explain what are the feed and delivery material
- Explain the major parts of a Pre-Comber Drawing machine and how it works

1.2.1.5: Super Lap Former

Say

- Explain the major activity of a Super Lap Former machine to students and how it works and explain what are the feed and delivery material
- Explain the major parts of a Super Lap Former machine and how it works
1.2.1.6: Comber

Say

- Explain the major activity of a Comber machine to students and how it works and explain what are the feed and delivery material
- Explain the major parts of a Comber machine and how it works

1.2.1.7: Draw Frame

Say

- Explain the major activity of a Draw Frame machine to students and how it works and explain what are the feed and delivery material
- Explain the major parts of a Draw Frame machine and how it works
1.2.1.8: Speed Frame

Say

- Explain the major activity of a Speed Frame machine to students and how it works and explain what are the feed and delivery material
- Explain the major parts of a Speed Frame machine and how it works

1.2.1.9: Ring Frame

Say

- Explain the major activity of a Ring Frame machine to students and how it works and explain what are the feed and delivery material
- Explain the major parts of a Ring Frame machine and how it works
1.2.1.10: Cone Winding

Say

- Explain the major activity of a Cone Winding machine to students and how it works and explain what are the feed and delivery material.
- Explain the major parts of a Cone Winding machine and how it works.

1.2.1.11: Reeling

Say

- Explain the major activity of a Reeling machine to students and how it works and explain what are the feed and delivery material.
- Explain the major parts of a Reeling machine and how it works.
1.2.1.12: Open End Spinning

- Explain the major activity of an Open-End Spinning machine to students and how it works and explain what are the feed and delivery material
- Explain the major parts of an Open-End Spinning machine and how it works

1.2.1.13: Assembly Winding

- Explain the major activity of an Assembly Winding machine to students and how it works and explain what are the feed and delivery material
- Explain the major parts of an Assembly Winding machine and how it works
1.2.1.14: Doubling Frame

Say

- Explain the major activity of a Doubling Frame to students and how it works and explain what are the feed and delivery material
- Explain the major parts of a Doubling Frame and how it works

1.2.1.15: Two For One Twister

Say

- Explain the major activity of a Two For One Twister machine to students and how it works and explain what are the feed and delivery material
- Explain the major parts of a Two For One Twister and how it works
• Explain the process flow-chart for spun yarn manufacturing as given below.
UNIT 1.3: Job Role of a Ring Frame Tenter

Unit Objectives

- Brief about the nature of work of a Ring Frame Tenter
- Instruct to follow the safety rules and colour code procedures
- Responsibilities of a Ring Frame Tenter

Demonstrate

- How to wear PPEs
- Broken ends piecing and Ring Frame Tenter activities
2. Taking Charge of Shift and Handing over Shift

Unit 2.1 – Taking Charge of Shift from the Ring Frame Tenter
Unit 2.2 – Handing over Shift to the Ring Frame Tenter
At the end of this module, you will be able to,
1. Explain the general discipline
2. Ready to explain basic skill of communication
3. Teach the role of Ring Frame tenter
4. Demonstrate the tasks while taking charge of shift handing over the shift
5. Familiar to teach how to find out the faults
UNIT 2.1: Taking Charge of Shift from the Ring Frame Tenter

Unit Objectives

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

1. Learn general discipline
2. Become well versed with basic skills of communication
3. Understand the role of Ring frame tenter
4. Perform tasks while taking charge of shift
5. Become familiar in faults identification

2.1.1: Come at least 10-15 Minutes Earlier to the Work Spot

Notes for Facilitation

- Explain why we come before 10-15 minutes to the work spot
- Explain what they have to do before entering to the department

Say

- Timely work is very important to prevent accident
- Late coming cause inconvenience to our co-workers
- Late start the work emotionally disturbed and feel nervous because we know that we are behind and we cannot waste time

Fig 2.1.1: Late coming cause inconvenience

Demonstrate

- You should come before 10-15 minutes from the shift starting as a role model to all students
2.1.2: Bring Necessary Operational Tools to the Department

Demonstrate

- Give demo of using following tools in the proper manner

Fig 2.1.2.1: Cleaning Stick

Fig 2.1.2.1: Cleaning Brush

2.1.3: Meeting with Previous Shift Operator

Do

- Meet Previous Shift Operator and Discuss with him Regarding the Issues Faced by them with Respect to the Quality/Production, Spare, Safety or Any Other Specific Instruction, etc.

Fig 2.1.3: Meet previous shift operator and discuss with him regarding the issues faced by them with respect to the quality/production, spare, safety or any other specific instruction etc.
2.1.4: Understand the Process

Say

- Explain the Count Produced, Color Coding Followed in the Ring Frame for his Allocated Number of Machines.

Elaborate

- Explain detailiely about count and types of count and how it comes, how to measure count, how to differentiate count, etc.,
- Explain formula for find out the count (Ex. if there is 40 times 840 yards present in one pound is called 40s Count)
- Explain about colour code and its importance. Explain which and where colour codes are used in spinning industry

2.1.5: Ensure the Technical Details are Mentioned in the Display Board in the Ring Frame Machine

Do

- Explain about the count board and technical data display board checking method while entering to the machine.

Fig 2.1.5: Display/count board in R/F
2.1.6: Check the Availability of Spare Bobbins

Do ✅

- Instruct to check the availability of spare bobbins while entering to the machine

![Image](image_url)

Fig 2.1.6: Blue color holder represents reserve holder to keep the bobbins as reserve

2.1.7: Check the Availability of Bobbin Trolley with Technical Details Mentioned Regarding the Count being Produced

Do ✅

- Explain to check the bobbin count and colour regarding to the count being produced

![Image](image_url)

Fig 2.1.7: Bobbin stacking area
2.1.8: Check the Condition of Running Travellers

Demonstrate

- Instruct to check the traveler changed date, running traveler condition and fluff loading if any

2.1.9: Check the Roving Passage and Yarn Formation

Do

- Instruct to check the roving passage areas carefully to find out any malfunction is there or to find out any damage of machine

Fig 2.1.9: Passage of material in ring frame

1. Creel
2. Bobbin holder
3. Roving guide
4. Drafting zone
5. Pneumafil duct
6. Lappet hook
7. Abc ring
8. Separator plate
9. Ring
10. Ring rail

2.1.10: Check for the Runouts and Availability of Roving Bobbins

Do

- Instruct to check the bobbin runouts and availability of roving bobbins.
2.1.11: Ensure that All the Spindles are Running Properly. If Not, Should be Enquired for Reason for the Idle Spindle and Reported to the Superior.

**Say**
- Instruct to check the idle spindles if any or any stopped spindles with reason. That should be informed to superior and to be corrected then and there.

**STEP 1:** Cut running roving & wrap around guide rod
**STEP 2:** Remove broken tape & tie in safe guard.

2.1.12: Checking of Machine Cleanliness and Housekeeping

**Say**
- Instruct to students to get the shift from previous shift operator in neat manner.
- Machine should be clean during takeover of shift.
- Instruct to ask the previous shift operator for any deviation from normal and bring this to the superior of previous shift as well as current shift.
- Instruct to get the shift from previous shift operator without any roller lapping.
- Instruct to check the proper running of OHTC and proper air blowing.
- Instruct to check any unwanted material/spare parts/yarn cops/empties are thrown under the machine.

*Fig 2.1.10: Copy/empties dropped over floor.*
2.1.13: Checking of Machine Parts

Instruct to check the condition of following major spare parts:

<table>
<thead>
<tr>
<th>Bobbin holder</th>
<th>Roving guide</th>
<th>Condenser</th>
<th>Top arm</th>
<th>Top roll</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Bobbin holder" /></td>
<td><img src="image2" alt="Roving guide" /></td>
<td><img src="image3" alt="Condenser" /></td>
<td><img src="image4" alt="Top arm" /></td>
<td><img src="image5" alt="Top roll" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bottom roll</th>
<th>Top apron</th>
<th>Bottom apron</th>
<th>Top cradle</th>
<th>‘L’ cradle</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image6" alt="Bottom roll" /></td>
<td><img src="image7" alt="Top apron" /></td>
<td><img src="image8" alt="Bottom apron" /></td>
<td><img src="image9" alt="Top cradle" /></td>
<td><img src="image10" alt="‘L’ cradle" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spacer</th>
<th>Nose bar</th>
<th>Pneumafil tube</th>
<th>Roller stand</th>
<th>Lapperrallock</th>
</tr>
</thead>
<tbody>
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<td><img src="image12" alt="Nose bar" /></td>
<td><img src="image13" alt="Pneumafil tube" /></td>
<td><img src="image14" alt="Roller stand" /></td>
<td><img src="image15" alt="Lapperrallock" /></td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>ABC ring</th>
<th>Ring</th>
<th>Traveller</th>
<th>Spindle</th>
<th>Spindle brake</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image16" alt="ABC ring" /></td>
<td><img src="image17" alt="Ring" /></td>
<td><img src="image18" alt="Traveller" /></td>
<td><img src="image19" alt="Spindle" /></td>
<td><img src="image20" alt="Spindle brake" /></td>
</tr>
</tbody>
</table>
UNIT 2.2: Handing over Shift to the Ring Frame Tenter

Unit Objectives

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

1. Become well verse with basic skills of communication
2. Understand the role of Ring frame tenter

Say

- Instruct to ensure in providing the details regarding count produced, color coding followed in the ring frames for his allocated number of spindles or machines
- Instruct to provide all relevant information regarding the count produced, idle spindles, damaged machine parts if any
- Instruct to get clearance from the incoming counterpart before leaving the work spot
- Instruct to report to his shift supervisor as well as that of the incoming shift supervisor in case his counterpart doesn’t report for the incoming shift
- Instruct to ensure the shift has to be properly handed over to the incoming shift operator
- Instruct to report to his shift supervisor about the quality/production/safety issues/any other issue faced in his shift and should leave the department only after getting concurrence for the same from his supervisor
- Instruct to collect the wastes from waste collection bags weigh them and transport to storage area
- You can explain about Dos and Don’ts of Ring Frame Tenter
- Ensure the work spot is clean

Fig 2.2: Tidy work spot
3. Creeling the Roving Bobbin at Ring Frame

Unit 3.1 – Attending the Machine for Creeling
Unit 3.2 – Material Handling of the Roving
At the end of this module, you will be able to,

1. Teach knowledge on machine parts & its function related to the respective module
2. Guide to handling full and empty bobbins
3. Explain about changing roving bobbin
4. Explain handling bobbin trolley
5. Teach knowledge on color coding system
6. Explain identifying of roving waste
7. Explain control roving waste
8. Explain quality roving piecing
UNIT 3.1: Attending the Machine for Creeling

Unit Objectives

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

1. Familiar in identifying the count and color code system
2. Identify the bobbin exhaust
3. Handle bobbin trolley
4. Become well verse in bobbin creeling at machine
5. Know the passage of material

Do

- Instruct to bring the roving bobbin from storage area using bobbin trolley
- Instruct to ensure the correct Color Coded Bobbins are taken to the Ring Frame

Demonstrate

- Explain to identify the roving bobbin exhausts and removing the empty bobbin

1. Check the passage for roving first, if no roving found then check the bobbin
2. If the bobbin is found empty,
3. Remove the empty bobbin and place in reserve creel/trolley

Fig 3.1.1: Remove empty bobbin

Fig 3.1.2: Place the empty bobbin
Demonstrate

- Explain about replacing exhausted bobbin with suitable bobbin on the creel from the reserve holder/trolley

**STEP 1:** Take bobbin from reserve holder/trolley.

**STEP 2:** Creel full bobbin in bobbin holder.

Say

- Instruct to ensure that the colour coding of the Feed in the creel is correct

Demonstrate

- Give demo about creeling/guiding of roving end

**STEP 1:** Take end from bobbin & guide.

**STEP 2:** Trim tail end of roving.

**STEP 3:** Pass end in roving condenser guide.

**STEP 4:** Guide end in main drafting zone.
• Instruct to confirm the proper passage of roving
• Instruct to ensure that minimum time is taken for attending the machine for creeling
UNIT 3.2: Material Handling of Roving

**Unit Objectives**

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

1. Produce quality yarn
2. Handle roving and roving bobbin without affecting the quality

**Say**

- Inform to properly handle the roving and roving bobbin
- Inform to ensure roving surface don’t get damaged
- Explain about Dos and Don’ts of creeling the roving bobbin at Ring Frame
4. Piecing the Broken Yarn at Ring Frame

- Unit 4.1 – Identifying the yarn breakage
- Unit 4.2 – Piecing the broken yarn
- Unit 4.3 – Ensure proper material handling of yarn
- Unit 4.4 – Checking the quality of pieced yarn
At the end of this module, you will be able to,

1. Explain knowledge on machine parts & its function related to the respective module.
2. Explain knowledge on type of breaks
3. Got knowledge to give demo on handle running machine parts, cop, etc.
4. Explain about piecing the broken yarn
5. Explain to change traveller
6. Explain about patrol machine
7. Explain about identify pneumafil waste, bonda waste, yarn waste, etc.
8. Instruct about waste control activities
9. Explain about quality of piecing
UNIT 4.1: Identifying the Yarn Breakage

Unit Objectives

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

1. Find different types of breaks such as simple break, traveler fly, roving break and roller lapping break
2. To do two operations at a time (i.e., walk and check for ends down spindles)

Demonstrate

- Instruct to patrol around the ring frame machine and identify the yarn breakage

Fig 4.1.1: Simple break

Fig 4.1.2: Traveler fly (No traveller found in ring)

Fig 4.1.3: Roller Lapping

Say

- Explain to ensure the minimum time is taken for attending the yarn breakage
Demonstrate

- Give demo to check for yarn break, traveler fly, undraft & roller lapping

Fig. 4.1.4: Simple break  
Fig. 4.1.5: Traveler fly (No traveler found in ring)

Fig. 4.1.6: Roller Lapping

- Apply the Sindle Brake to Stop the Spindle
- Steps:

STEP 1: Apply brake using middle finger
STEP 2: Hold spindle using index finger
STEP 3: Release brake with middle finger
STEP 4: Hold spindle firmly by index & middle finger and place thumb on ring
UNIT 4.2: Piecing the Broken Yarn

Unit Objectives

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

1. Piece broken end without failure
2. Clean the traveler fluff/loading
3. Change traveler and piece broken end
4. Clean roller lapping and piece broken end
Demonstrate

- Give demo to take yarn from cop to feed lappet hook via ABC ring, insert in traveler and ut the yarn and to start piecing.
- Steps
  
  **STEP 1:** Take the yarn from cop
  
  **STEP 2:** Pass the yarn inside ABC ring
  
  **STEP 3:** Pass yarn inside lappet hook
  
  **STEP 4:** Position end in palm
  
  **STEP 5:** Get end in thumb & index finger
  
  **STEP 6:** Insert end in traveller
  
  **STEP 7:** Release left hand from spindle
  
  **STEP 8:** Cut the yarn
Demonstrate

- Give demo to piece the yarn
- Steps

**STEP 1:** Bring the yarn end near roller nip
**STEP 2:** Join the end with the drafted material & twist the yarn slightly

- Instruct to ensure proper seating of empties after piecing

*Fig. 4.2.1: Improper seating of top on spindle*

- Instruct to ensure proper traveller running

*Fig. 4.2.2: Clean traveller fluffs*
Say

- Instruct to ensure minimum time is taken for piecing the yarn
- Instruct to ensure proper material handling of ring cops
- Instruct to ensure the yarn should be pieced with minimum overlap

Demonstrate

- Instruct to ensure the yarn should be pieced with minimum overlap

Fig 4.2.3: Bad piecing
UNIT 4.3: Ensure Proper Material Handling of Yarn

Unit Objectives
At the end of this unit, students will be able to,
1. Handle cops/yarn without affecting the quality
2. Perform task with minimum waste of yarn
3. Learn the importance of using waist bag/apron/coat
4. Control the waste generation

Say
- Instruct to avoid piecing by stain or oily hands
- Ensure proper material handling of yarn and cops

Demonstrate
- Instruct to Put the Roving Ends and Roller Bonda Waste in the Bags/Pocket While Attending the End Breakages

Fig 4.3.1: Roving waste during bobbin change
Fig 4.3.2: Clean roller lapping waste
Fig 4.3.3: Put collected waste in the bag/pocket
UNIT 4.4: Checking the Quality of Pieced Yarn

Unit Objectives

At the end of this unit, students will be able to,
1. Familiar in identifying the defective piecing
2. Improving the quality of piecing

Say

- Instruct to ensure the quality of piecing is as per standard
- Instruct to ensure the tension of pieced yarn is proper
Demonstrate

- Instruct to ensure that the cop is perfectly fit in the spindle

![Image: Improper seating of cop in the spindle](image)

- Instruct to verify proper material passage from drafting zone till the yarn wound in cop

![Image: Material passage at drafting zone](image)

![Image: Delivery between O.Z to lappet hook](image)

- Ask questions about piecing method of broken ends
- Ask what are the Dos and Don’ts in piecing the broken yarn at Ring Frame

![Image: Passage at lappet & abc ring](image)

![Image: Proper winding of yarn](image)
5. Carryout Cleaning Activities at Ring Frame

Unit 5.1 – Carryout Cleaning Activities
Unit 5.2 – Other Tenting Responsibilities
At the end of this module, you will be able to,

1. Explain about the importance of cleaning activities
2. Explain about the responsible jobs for sider in ring frame in cleaning and maintenance
3. Explain the procedure and tools used for cleaning and maintenance
UNIT 5.1: Carryout Cleaning Activities

Unit Objectives

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

1. Know the importance of cleaning activities
2. Know the responsible jobs for sider in ring frame in cleaning and maintenance activities
3. Understand the procedure and tools used for cleaning and maintenance

Notes for Facilitation

- Instruct to take extra care to avoid damages to the machine, men and material
- Give notes on importance of cleaning activity of material passage areas
- Instruct to maintain the schedule or record for cleaning of machine

Demonstrate

- Explain how to ensure proper cleaning of drafting zone

Say

- Explain how to ensure proper cleaning of creel, roving guide, spacer, aprons, top roller lapping, bottom roller lapping, arbour, roving guide, top cleaner and bottom cleaner
- Instruct to ensure proper rotation of clearer rollers
Demonstrate

- Instruct to deposit the yarn waste in their pocket and finally deposit in the waste collection box.

![Yarn waste collected during piecing](image1)

*Fig 5.1.3: Yarn waste collected during piecing*

![Yarn waste](image2)

*Fig 5.1.4: Yarn waste*

- Explain how to check the pneumafil waste once in an hour and remove the wastes if required.

![Opening the door at m/c off end](image3)

*Fig 5.1.5: Open the door at m/c off end*

![Removing pneumafil from m/c](image4)

*Fig 5.1.6: Remove pneumafil from m/c*

Say

- Instruct to ensure the waste collected from different parts of machine are deposited in the respective bins.

![Instruct to ensure](image5)
Demonstrate

- Explain how to remove the roller lapping manually or with tools provided, without damaging the cots.

Fig 5.1.7: Top Roller lapping
Fig 5.1.8: Clean lapping using thumb finger

Fig 5.1.9: Bottom roller lapping
Fig 5.1.10: Cleaning lapping using index finger

Ask

- Ask students why we did not use tools for cleaning cots lapping.
- Ask how to clean the pneumatic waste from the machine.
UNIT 5.2: Other Tenting Responsibilities

Unit Objectives

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

1. Improve general awareness
2. Face problems with respect to the tenter responsibilities and handle shift without any tense

Say

- Instruct to remove the worn-out parts while found the worn-out
- Instruct to ensure proper seating of pneumatic suction tube
- Instruct to ensure correct size of traveler being used

Demonstrate

- Explain how to check the cross roving

![Image of cross roving](Fig 5.2.1: Cross roving)

- Give demo of lifting of top arm

![Image of LH & RH while lifting top arm](Fig 5.2.2: Position of LH & RH while lift top arm)

![Image of lifting and checking](Fig 5.2.3: Lift and check proper action)
Elaborate

- Clearly explain about contribution of the spacer, aprons, cots, traveller, ring condition and material condition
- Explain if the spacer is missed, there may be a chance for undrafted roving or thick and thin places in yarn
- Explain if the apron is damaged or missed, it will be disturbance to the sider by repeated breaks and undrafted roving, etc.
- Explain if the cots is got damage, the delivery yarn will be with cluster fault or with chain link fault
- Explain if the traveller number is different from standard, delivery yarn will be with poor quality and chances to repeated breaks
- Explain if the ring condition is poor, yarn will get repeated breaks
- Explain how to reuse the damaged bobbin with minimum waste
- Explain to remove the damaged portion only with minimum waste
- Then instruct to use the damaged bobbin in machine gear end or off end side to monitor continuously and easily
- After running of good portion, instruct to dispose the waste then and there. Instruct to use maximum level in regular running yarn

Say

- Instruct to check proper build of roving bobbin
- Instruct to report to the superior if the machine stopped for emergency or for any scheduled activity
- Instruct to ensure all the details related to production are provided to the next shift operator while relieving from shift
6. Maintain the Work Area, Tools and Machines

Unit 6.1 – Maintain the Work Area, Tools and Machines
Key Learning Outcomes

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

1. Give knowledge on Housekeeping system to students
2. Explain to identify the basic hand tools like cleaning hook, cleaning stick, bag, etc.,
3. Give training to Handle various equipment
4. Explain about maintenance activities for handling equipment
UNIT 6.1: Maintain Work area, Tools and Machines

Unit Objectives

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

1. Gain knowledge on Housekeeping system
2. Identify the basic hand tools like cleaning hook, cleaning stick, bag, etc.
3. Handle various equipment
4. Perform maintenance activities for handling equipment

Notes for Facilitation

- Explain why we need to maintain the work area, tools and machines
- Instruct to maintain a checklist for housekeeping
- Explain to follow the rules and regulations of the organization for better work atmosphere

Elaborate

- Explain how to handle materials, machinery, equipment and tools with care and use them in the correct way
- Instruct to use peg type trolley to handle/transport roving bobbins from one place to another place
- Instruct trolley should be pushed forward and not drag/pull the trolley to move
- Explain to take fallen materials/underneath the machine should be taken immediately and place in appropriate place
- Instruct collected wastes such as roving, borda waste, clearer waste, pneumafil waste and yarn waste should be deposited in the allocated bins/boxes and not to drop over floor at any cost
- Instruct to switch operations in machine should be pressed genuinely and avoid to pressing the switches till the damage
- Instruct to use the spindle brake to stop the spindle and strictly avoid the practice of taking cop from the spindle directly without applying the brake
- Instruct hand picker/cleaner cleaning gun should be handled genuinely and not to play with the gun
Demonstrate

- Instruct to use correct lift and handling procedure of materials

![Fig 6.1.1: Handling method of roving bobbins](image1)

- Explain to carry out running maintenance with agreed schedules

![Fig 6.1.2: Draft zone cleaning](image2)

Say

- Instruct to use correct materials to minimize the waste
- Instruct to maintain clean and hazard-free working area
- Instruct to maintain tools and equipment in good condition
- Advice to carry out cleaning, maintenance and count change activities within one’s responsibility for effectiveness
Demonstrate

- Instruct to ensure the machine guards are in correct place to avoid accidents and material damage.

Fig 6.1.4: Machine safe guard (indicated by red color arrow)

Do

- Explain how to use the cleaning equipment and methods appropriate for the work to be carried out.
- Instruct to use hand picker for cleaning creel, drafting zone, spindle bottom, jockey pulley and tin roller pulley.
- Instruct to clean top roller lapping manually and use ATIRA hook to clean bottom roller lapping if it is necessary.
- Instruct to clean top and bottom roller cleaner manually or use automatic cleaner cleaning machine if required.

Say

- About the qualities required to be a good team player like faith, involvement, patient etc.
- Co-ordinating with team members to achieve the target in time.
7. Working in a Team

Unit 7.1 – Commitment and Trust
Unit 7.2 – Communication
Unit 7.3 – Adaptability
Unit 7.4 – Creative Freedom
Key Learning Outcomes

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

1. Explain about the team work and its importance
2. Explain about the basic requirements for team working
UNIT 7.1: Commitment and Trust

Unit Objectives

At the end of this unit, students will be able to,
1. Taking responsibility to do own job
2. Working effectively and efficiently

Notes for Facilitation

- Explain about importance of team work in an organization
- Explain what will be our role in team work for a specified activity

Say

- Advice to be accountable to the own role in whole process
- Instruct to perform all roles with full responsibility
- Instruct to be effective and efficient at work place
UNIT 7.2: Communication

Unit Objectives

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

1. Improving communication on company polices
2. Report all problems faced during the shift
3. Improving the interacting skill with colleagues

Notes for Facilitation

- Explain various type of communication methods being used in organizations in different situations and in different places
- Explain which type of communication used for different places

Say

- Explain to properly communicate about company policies
- Instruct to report all the problems faced during the process
- Instruct to talk politely with team members and colleagues
- Instruct to submit daily report of own performance
UNIT 7.3: Adaptability

Unit Objectives

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

1. Gain skill to work/handle critical situations
2. Adapt our self to work in different circumstances

Notes for Facilitation

- Give instructions to students to adapt in different situations and in different work cultures
- Explain about decision making methods in critical methods by adapting themselves

Say

- Instruct to adjust in different work situations
- Instruct to give due importance to other’s point of view also
- Instruct to avoid conflicting situations
UNIT 7.4: Creative Freedom

Unit Objectives

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

1. Gain skill to work/handle critical situations
2. Adapt our self to work in different circumstances

Say

- Instruct to give more suggestions for ease the work methods
- Instruct to improve upon the existing techniques for improve process efficiency
- Advice to work freedom without any tension, with following organization rules
8. Maintain Health, Security and Safety Requirements at Work

Unit 8.1 – Comply with health, security & safety requirements at work
Unit 8.2 – Recognizing the hazards
Unit 8.3 – Planning the safety techniques
Unit 8.4 – Implementing the programmes
At the end of this module, you will be able to,

1. Explain about the safety rules to students
2. Explain about the importance of personal protective equipment like apron, cap, earplugs, nose mask etc. and their application under different working conditions
3. Give about knowledge on various health hazards relevant to workplace and basic first aid training
4. Explain how to identify and select right equipment such as fire extinguisher based on type of fire
5. Bring the students become good practice on first aid, firefighting, etc.
UNIT 8.1: Comply Health, Safety and Security Requirements at Work place

Unit Objectives

At the end of this unit, students will be able to,
1. Taking responsibility to do own job
2. Working effectively and efficiently

Notes for Facilitation

- Explain about importance of wearing PPE’s at work place
- Instruct how to maintain our own safety at work place

Demonstrate

- Give demo how to wear the PPE’s before entering to the work spot

Fig 8.1.1: Ear plug, nose mask & head cap
Fig 8.1.2: Hair fully covered with cap
Fig 8.1.3: Over coat with pockets
Fig 8.1.4: Canvas shoe/Cheppal
**Say**

- Instruct to carry out own activities in line with approved guidelines and procedures
- Instruct to maintain a healthy lifestyle and guard against dependency on intoxicants
- Advice to follow environment management system related procedures
- Instruct to identify and correct (if possible) malfunctions in machinery and equipment
- Instruct to report any service malfunctions that cannot be rectified

**Demonstrate**

- Give demo to store materials and equipment in line with organizational requirements

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*Fig 8.1.5: Stacking of bobbin trolleys*

*Fig 8.1.6: Stacking of cop crates*

*Fig 8.1.7: Stacking of empties crates*

*Fig 8.1.8: Storing of travellers*
- Instruct to safely handle and remove waste
- Instruct to minimize health and safety risks to self and others due to own actions
- Advice about seek clarifications, from supervisors or other authorized personnel in case of perceived risks
- Instruct to monitor the workplace and work processes for potential risks and threat
- Instruct to carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned
- Instruct to report hazards and potential risks/threats to supervisors or other authorized personnel
- Instruct to participate in mock drills / evacuation procedures organized at the workplace
- Explain to undertake first aid, fire-fighting and emergency response training, if asked to do so
- Instruct to action based on instructions in the event of fire, emergencies or accidents
Demonstrate

- Give demo to follow organization procedures for shutdown and evacuation when required.

Use the alarm switch to aware people working inside the mill about the circumstances. Alert all the fellow workers and guide them evacuate in case of emergency and major fire.

Fig 8.1.9: Emergency alarm switch

Use the emergency exit to get outside from the mill immediately when the conditions are going out of control.

Fig 8.1.10: Emergency exit

Some of the fire extinguishing equipments used in the spinning mills

Fig 8.1.11: Fire extinguisher

Fig 8.1.12: Waterhose

Fig 8.1.13: Water buckets

Fig 8.1.14: Sand buckets
UNIT 8.2: Recognizing the Hazards

Unit Objectives
At the end of this unit, students will be able to,
1. Develop ability to recognize the hazards
2. Knowing the different kind hazards will occur with respect to the machine & work place

Notes for Facilitation
- Explain what type of possible hazards in an organization
- Explain what are the possible securities in existing in the working place

Say
- Instruct to follow the safety rules and instructions being followed in organizations to avoid accidents
- Explain what type of possible hazards in your organizations
- Explain the security systems existing in your organization during emergency conditions
UNIT 8.3: Planning the Safety Techniques

Unit Objectives

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

1. Familiar in identifying the hazards
2. Knowing the measures to control the hazards

Elaborate

- Explain in detail to recognize different measures to curb the hazards. Explain about the following possible hazards:
- Electrical wiring problems – if any electrical wires are running near the pathway or unprotected form immediately take action to rid of it through electrical supervisor/engineer
- Fire smoke – if feel some fire smoke locate the exact place where it is arise and report to the concerned person/firefighter immediately to arrest it
- Abnormal noise and vibrations produced by machine – identify the root cause and report to the concerned person
- Damaged equipment, damaged floor surface & damaged exhaust grill
- Note down the exact area of floor where damaged and report to the superior and heal it through civil department
- Note down the damaged equipment/exhaust grill (mention trolley no. & kind of problem) and report to the superior and repair it through workshop department
- Work without safeguard provided by the mills – if colleagues were working without the safe guards, counsel them properly and worksafely
UNIT 8.4: Implementing the Programmes

Unit Objectives

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

1. Familiar to implement the steps or activities to avoid the accidents or hazards

Say

- Instruct to communicate the safety plans to everyone
- Explain to attach disciplinary rules with the implementation
9. Comply with Industry and Organizational Requirements

Unit 9.1 – Self-development
Unit 9.2 – Team Work
Unit 9.3 – Organizational Standards
Unit 9.4 – Industry Standards
At the end of this module, you will be able to,

1. Explain about organizational and industry standards
2. Explain about the requirements for self-development
UNIT 9.1: Self-development

Unit Objectives

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

1. Identifying our own strength and use wherever required
2. Develop thinking capability and try for new/best ideas

Notes for Facilitation

- Explain why we need self-development
- Instruct to take own responsibilities for their duties

Say

- Instruct to perform own duties effectively
- Instruct to take responsibility for own actions
- Advice to follow the punctuality in taking lunch breaks, use of canteens, use of toilets, taking charge and handing over the shift, leaving the work place, taking available leaves, taking weekly off, etc.
- Instruct to be accountable towards the job role and assigned duties
- Instruct to take initiative and innovate the existing methods
- Instruct to focus on self-learning and improvement
UNIT 9.2: Team Work

Unit Objectives

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

1. Developing team working skills
2. Handle co-workers/team members and achieving the goal without hurting them

Notes for Facilitation

- Explain advantages of team work in all places
- Explain what will be our role in team work
- Explain how to develop team work activities

Elaborate

- Advice how to co-ordinate with all the team members and colleagues
- Instruct to extend full cooperation whenever undertake some projects for making improvements in the ring spinning department relating to productivity, quality, safety, cost reduction, etc. Also, co-coordinate with the team members to make continual improvement. Have interaction and develop the knowledge of all the team members. Constantly motivate the team members and colleagues to making improvement, following safe work practices, eliminating wastes as per lean system, etc.
- Instruct to communicate politely
- Instruct to follow the company standing order procedures and report to the superiors whenever required. Constantly get instructions from the superiors regarding the change in the working and process conditions and follow correct work procedures. For example, at the time of count change, follow all the work instructions given by the superiors and make necessary changes in the machine process and settings. Follow proper identification system. Report about the daily production, waste generation, quality problem, machine performance condition, break down, etc., to the superiors and take appropriate instructions
- Advice to avoid conflicts and miscommunications
- Understand the work instructions and other communications properly and avoid conflicts and miscommunication
UNIT 9.3: Organisational Standards

Unit Objectives

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

1. Knowing the organizational standards

Notes for Facilitation

- Explain the organizational standards being followed in industry
- Instruct to motivate others also to follow the same

Say

- Instruct to know the organizational standards
- Instruct to implement them in their performance
- Instruct to motivate others also to follow the organizational standards

Ask

- Ask questions about organizational standards
- Ask why we have to follow the organizational standards
UNIT 9.4: Industry Standards

Unit Objectives

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

1. Know the organizational standards
2. Follow the standards

Elaborate

- Explain the industry standards as follows;
- Aware of the industry standard like quality and maintenance standards published by the Textile Research Associations, code conducts published by employers’ organizations, labour legislations of State and Central Government, safety standards of inspector of factories, fire precautions, firefighting, first aid, ISO standards, environment standards, National Occupations Standards, etc., and follow them properly
- Advice to align them with organization standards as follows:
- Understand all the industry standards stated under 8.4.1 and the relevant standards of the textile unit which might vary depending upon the location, machinery condition, material processed, working environment, etc. Align both the standards, understand them properly and follow them as per the instructions of the superiors
- Collect all the information relating to the organization, procedures, rules and regulations including the standing orders, job description, standard operating procedures, counts processed, process parameters, working conditions, etc., and understand them properly by constantly interacting with the superiors and colleagues
10. Employability and Entrepreneurship Skills

Unit 10.1 – Personal Strengths and Value System
Unit 10.2 – Digital Literacy: A Recap
Unit 10.3 – Money Matters
Unit 10.4 – Preparing for Employment and Self Employment
Unit 10.5 – Understanding Entrepreneurship
Unit 10.6 – Preparing to be an Entrepreneur
Key Learning Outcomes

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

1. Explain the meaning of health
2. List common health issues
3. Discuss tips to prevent common health issues
4. Explain the meaning of hygiene
5. Understand the purpose of Swacch Bharat Abhiyan
6. Explain the meaning of habit
7. Discuss ways to set up a safe work environment
8. Discuss critical safety habits to be followed by employees
9. Explain the importance of self-analysis
10. Understand motivation with the help of Maslow’s Hierarchy of Needs
11. Discuss the meaning of achievement motivation
12. List the characteristics of entrepreneurs with achievement motivation
13. List the different factors that motivate you
14. Discuss how to maintain a positive attitude
15. Discuss the role of attitude in self-analysis
16. List your strengths and weaknesses
17. Discuss the qualities of honest people
18. Describe the importance of honesty in entrepreneurs
19. Discuss the elements of a strong work ethic
20. Discuss how to foster a good work ethic
21. List the characteristics of highly creative people
22. List the characteristics of highly innovative people
23. Discuss the benefits of time management
24. List the traits of effective time managers
25. Describe effective time management techniques
26. Discuss the importance of anger management
27. Describe anger management strategies
28. Discuss tips for anger management
29. Discuss the causes of stress
30. Discuss the symptoms of stress
31. Discuss tips for stress management
32. Identify the basic parts of a computer
33. Identify the basic parts of a keyboard
34. Recall basic computer terminology
35. Recall basic computer terminology
36. Recall the functions of basic computer keys
37. Discuss the main applications of MS Office
38. Discuss the benefits of Microsoft Outlook
39. Discuss the different types of e-commerce
40. List the benefits of e-commerce for retailers and customers
41. Discuss how the Digital India campaign will help boost e-commerce in India
42. Explain how you will sell a product or service on an e-commerce platform
43. Discuss the importance of saving money
44. Discuss the benefits of saving money
45. Discuss the main types of bank accounts
46. Describe the process of opening a bank account
47. Differentiate between fixed and variable costs
48. Describe the main types of investment options
49. Describe the different types of insurance products
50. Describe the different types of taxes
51. Discuss the uses of online banking
52. Discuss the main types of electronic fund transfers
53. Discuss the steps to prepare for an interview
54. Discuss the steps to create an effective Resume
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. List the characteristics of entrepreneurs
74. Recall entrepreneur success stories
75. Discuss the entrepreneurial process
76. Describe the entrepreneurship ecosystem
77. Discuss the government’s role in the entrepreneurship ecosystem
78. Discuss the current entrepreneurship ecosystem in India
79. Understand the purpose of the Make in India campaign
80. Discuss the relationship between entrepreneurship and risk appetite
81. Discuss the relationship between entrepreneurship and resilience
82. Describe the characteristics of a resilient entrepreneur
83. Discuss how to deal with failure
84. Discuss how market research is carried out
85. Describe the 4 Ps of marketing
86. Discuss the importance of idea generation
87. Recall basic business terminology
88. Discuss the need for CRM
89. Discuss the benefits of CRM
90. Discuss the need for networking
91. Discuss the benefits of networking
92. Understand the importance of setting goals
93. Differentiate between short-term, medium-term and long-term goals
94. Discuss how to write a business plan
95. Explain the financial planning process
96. Discuss ways to manage your risk
97. Describe the procedure and formalities for applying for bank finance
98. Discuss how to manage your own enterprise
99. List important questions that every entrepreneur should ask before starting an enterprise
UNIT 10.1: Personal Strengths and Value Systems

Unit Objectives

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

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

Say

- Say that according to World Health Organization (WHO), the health means not merely absence of disease or infirmity but a state of complete physical, mental and social well-being
- Tell that the health does not mean of no physical ailment but you also need to think about whether you are feeling relaxed, calm and happy

Do

- Do know the common health diseases that are Allergies, Asthma, Skin disorders, Depression and Anxiety, Diabetes, Cough, Cold, Sore Throat, Difficulty sleeping and Obesity
- Do prevent ill health by eating healthy food and vegetables, avoiding alcohol, avoiding high sugar content items, avoiding smoking, doing exercise, drinking more water daily etc
- Do understand the hygiene that spell out the practice and condition to maintain health and to prevent the spreading of disease according to “WHO”
- Do know “Swachh Bharat Abhiyan” (Clean India Mission) launched by Prime Minister Modi to clean streets and roads of India and raise overall cleanliness
- Do understand the habits, that is, a repeated behavior frequently and avoid bad habits

10.1.2: Safety: Tips to Design a Safe Workplace

Say

- Tell that every employer is obliged to ensure the design of workplace with all safety standards
- Tell that the employer considers the points of workplace with the ergonomically designed, mechanical aid, protective equipment, emergency exits, safety health codes, expert advice on safety aspects etc
- Say that the employer also keeps in mind about the points like reporting the unsafe hazards to supervisor, recognizing the unsafe condition and reporting, wearing the protective equipment properly, taking rest during shift, taking off from work during the week etc
10.1.3: Self Analysis - Attitude, Achievement, Motivation:

Say

- Say that self-analysis means to understand your personality and to find the area where you can grow and develop further.
- Tell that motivation is the reason to behave and understand the motivation through Maslow’s Hierarchy of Needs that defined one’s need at various stages.
- Tell that certain people are motivated by achieving the great challenging accomplishment.
- Say that the entrepreneur with achievement motivation is unafraid, flexible and adaptive, future oriented etc.
- Tell that the attitude is your tendency to feel or think about something or someone.
- Tell to develop positive attitude like avoid negative people, delete negative phrase, concentrate what is good for you, imagine your succeeding and achieving the goal etc.
- Tell that the positive attitude builds the confidence in workplace.
- Tell that another way is to do self-analysis to know your weakness and strength.

10.1.4: Honest and Work Ethics: What is Honest?

Say

- Say that the honesty is the quality of being fair and truthful.
- Tell that the characteristic of honest people is forge the trustful, meaningful and healthy friendship, stand up for firm belief, now worry about what others think of them etc.
- Tell that when entrepreneurs are honest with their customers, it leads to stronger relationships, which in turn results in business growth and a stronger customer network.
- Say that being ethical in the workplace means displaying values like honesty, integrity and respect in all your decisions and communications.
- Tell that some elements of a strong work ethic are professionalism, respectfulness, dependability, dedication, determination, accountability and humility.
- Tell that display positive work ethics like honest, reliability, good attitude, good work habits, respect, initiative, trustworthiness, integrity and efficiency.
10.1.5: Creativity and Innovation: What is Creativity?

**Say**

- **Say that creativity means viewing things in new ways or from different perspectives, and then converting these ideas into reality.**
- **Tell that some characteristic of creativity people are imaginative, playful, see the issues from different angles, notice small details, very curious etc.**
- **Tell that innovation means turning an idea into a solution that adds value.**
- **Tell that some characteristics of highly innovative people are embrace doing things different, don’t believe in taking shortcuts, not afraid to be unconventional, highly proactive and persistent, organized, cautious and risk-averse.**

10.1.6: Time Management: What is Time Management?

**Say**

- **Say that time management is the process of organizing your time, and deciding how to allocate your time between different activities.**
- **Tell that time management can lead to huge benefits like higher productivity, higher efficiency, better professional reputation, higher chances for career advancement, reduced stress, greater opportunities to achieve goal.**
- **Tell that some traits of effective time managers are begin projects early, break tasks into steps, set daily objectives, modify plans if required, flexible and open minded, continually review long term goals, think of alternate solutions if required.**
- **Tell that certain time management techniques are plan out your day as well as plan for interruptions, close your mind to all distractions, delegate your work, stop procrastinating, prioritize and maintain a log book of your own activities.**
10.1.7: Anger Management: What is Anger Management?

- Say that Anger management is the process of learning to recognize the signs that you, or someone else, is becoming angry and taking the best course of action to calm down the situation in a positive way. Anger management does not mean suppressing anger.
- Tell that Anger is a perfectly normal human emotion.
- Tell that some strategies that can help you control your anger are relaxation, cognitive restructuring, better communication and changing environment.
- Tell that you keep your anger in check with take some time to collect your thoughts before you speak out in anger, express the reason for your anger in an assertive, do some form of physical exercise like running or walking briskly.

10.1.8: Stress Management: What is Stress?

- Say that anything which challenges or threatens our well-being can be defined as a stress.
- Tell that stress can be caused by internal and external factors.
- Tell that Stress can manifest itself in numerous ways.
- Tell that stress take a look at the cognitive, emotional, physical and behavioral symptoms of stress.
- Tell that you manage your stress better with the different ways in which you can handle the various sources of your stress.
- Tell that you cannot control everything, but you can control how you respond.
- Tell that discuss your feelings, opinions and beliefs rather than reacting angrily, defensively or passively.
- Tell that practice relaxation techniques like meditation, yoga or tai chi when you start feeling stressed.
- Tell that eat healthy foods like fruits and vegetables.
- Tell that schedule time to pursue your hobbies and interests.
- Tell that ensure you get at least 7-8 hours of sleep.
UNIT 10.2: Digital Literacy: A Recap

Unit Objectives

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

1. Identify the basic parts of a computer
2. Identify the basic parts of a keyboard
3. Recall basic computer terminology
4. Recall the functions of basic computer keys
5. Discuss the main applications of MS Office
6. Discuss the benefits of Microsoft Outlook
7. Discuss the different types of e-commerce
8. List the benefits of e-commerce for retailers and customers
9. Discuss how the 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:

Say

- Say to know the basic parts of computer that consist of central processing unit, monitor, hard drive, keyboard, desktop, mouse, printer, icon, mouse, taskbar, program menu, recycle bin, speaker and cursor

Fig 10.2.1: Basic parts of computer

- Tell to know the internet terms like World Wide Web, website, homepage, link/hyperlink, web address/URL, address box etc
- Tell to know basic computer keys like arrow keys, space bar, shift, cap lock, back space etc
10.2.2: MS Office and Email: About MS Office

Say

- Say to know that MS Office or Microsoft Office is a suite of computer programs developed by Microsoft
- Tell to know some of the most popular and universally used MS Office applications such as Microsoft Word, Microsoft Excel, and Microsoft PowerPoint, Microsoft Outlook, Microsoft Note, and Microsoft Access
- Tell that a popular email management choice especially in the workplace, Microsoft Outlook also includes an address book, notebook, web browser, and calendar

Do

- Do write emails offline and send them when you’re connected again

10.2.3: E-Commerce: What is E-Commerce?

Say

- Say to know that e-commerce called electronic commerce is the buying or selling of goods and services, or the transmitting of money or data, electronically on the internet
- Tell to know that some examples of e-commerce are Online shopping, Electronic payments, Online ticketing, Internet banking etc
- Say to know that the main types of e-commerce are business to business, business to consumer, consumer to consumer etc
- Tell to know that the e-commerce business provides some benefits for retailers and customers
- Say to know that Prime Minister Narendra Modi launched the Digital India campaign in 2015, with the objective of offering every citizen of India access to digital services, knowledge and information
- Tell to know that you can choose a product or service that you want to sell online
UNIT 10.3: Money Matters

Unit Objectives

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

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

10.3.1: Personal Finance - Why to Save:

Say

- Say to know that saving is important to meet the emergency requirement in future so as to give the peace of mind at present
- Tell to know that inculcating the habit of saving is giving financial independence, invest yourself in education, get of debt, meeting emergency expenses, affordable to huge expenses etc

Do

- Do have the habit of saving to meet out the expenses during retirement
10.3.2: Types of Bank Accounts, Opening a Bank Account: Type of Bank Accounts

Say
- Say to know that there are 4 types of bank accounts such as saving account, current account, recurring deposit account and fixed deposit account
- Tell that saving account can be opened with filling in the account opening form, affixing the photo, providing the Know Your Customer details and submit all documents

Notes for Facilitation
- Ensure that the valid document like passport or Voter's identity card or Adhaar card or PAN card or driving license is submitted for opening the account

10.3.3: Costs: Fixed Vs Variable: What are Fixed and Variable Costs?

Say
- Say to know that fixed cost does not vary with the volume of goods or services the company produced and variable cost increase or decrease with the volume of goods or services
- Tell to know that depreciation, tax, rent, salary, insurance comes under fixed cost whereas material consumed, wages, commission on sales, packing expenses etc. under variable cost

Ask
- Ask will the particular cost change if the company stopped its production activities?
10.3.4: Investment, Insurance and Taxes:

Say

- Say to know that investment means that money is spent today with the aim of reaping financial gains at a future time.
- Tell to know that the main types of investment options are bonds, stocks, small saving schemes, venture capital, mutual funds, private equity, hedge funds, fixed deposits and real estate.
- Tell to know that there are two types of insurances such as Life insurance or Non-life insurance or General Insurance.
- Tell to know that the main life insurance products are Term insurance, Endowment policy, Unit-linked insurance plan, Money back insurance policy and Whole life insurance.
- Tell to know that General insurance deals with all insurance covering assets like animals, agricultural crops, goods, factories, cars and so on.
- Tell to know that the main general insurance products are Motor insurance, Health insurance, Marine insurance, Home insurance and Travel insurance.
- Say to know that two types of taxes are Direct and Indirect taxes.
- Tell to know that Direct taxes are levied on a person or entity and they are income tax, securities transaction tax, capital gain tax, prerequistie tax and corporate tax.
- Tell to know that indirect taxes are levied on goods or services and they are sales tax, service tax, value added tax, custom duty & Octroi and Excise duty.

Notes for Facilitation

- Ensure that you are buying the right type of insurance policy for yourself.
- Remember, not paying taxes can result in penalties ranging from fines to imprisonment.

10.3.5: Online Banking, NEFT, RTGS etc.: What is Online Banking?

Say

- Say to know that Internet or online banking allows account holders to access their account.
Ask

- Ask to understand that Electronic funds transfer is a convenient way of transferring money from the comfort of one's own home, using integrated banking tools like internet and mobile banking.
- Ask to understand that NEFT stands for National Electronic Funds Transfer. This money transfer system allows you to electronically transfer funds from your respective bank accounts to any other account, either in the same bank or belonging to any other bank.
- Ask to understand that RTGS stands for Real Time Gross Settlement. This is a real-time fund transfer system which enables you to transfer funds from one bank to another, in real-time or on a gross basis.
- Ask to understand that IMPS stands for Immediate Payment Service. This is a real-time, inter-bank, electronic funds transfer system used to transfer money instantly within banks across India.

Notes for Facilitation

- Ensure that you never click on any links in any e-mail message to access your online banking website.
UNIT 10.4: Preparing for Employment and Self Employment

Unit Objectives

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

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

10.4.1: Interview Preparation: How to prepare for an Interview

Say

- Say to know that the success of your getting the job that you want depends largely on how well your interview for that job goes
- Tell to know that the steps to follow in order to be well prepared for an interview are research the organization, think about whether your skills and qualifications match the job requirements, go through the most typical interview questions asked, and prepare your responses, plan your attire for the interview etc

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

Say

- Say to know that a resume is a formal document that lists a candidate’s work experience, education and skills
- Tell to know that the steps to create an effective resume are write the address section, add the profile summary section, include your educational qualifications, list your technical, list your strengths, list your extracurricular activities and write your personal details
10.4.3: Interview FAQs:

Say

- Say to know that some of the most frequently asked interview questions are Can you tell me a little about yourself?, How did you hear about the position?, What do you know about the company?, Why do you want this job? Etc.

10.4.4: Work Readiness – Terms & Terminologies: Basic Workplace Terminology

Say

- Say to know that every employee should be well versed with the terms like annual leave, background check, benefits, breaks, compensation package, contract of employment, corporate culture, deduction, discrimination, employee, employee training, employment gaps, fixed term contract, holiday, letter of agreement, letter of acceptance, leave, layoff, maternity leave, mentor, minimum wage etc.

Ask

- Ask what is the maternity leave and lay off
UNIT 10.5: Understanding Entrepreneurship

Unit Objectives

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

1. Discuss the concept of entrepreneurship
2. Discuss the importance of entrepreneurship
3. Describe the characteristics of an entrepreneur
4. Describe the different types of enterprises
5. List the qualities of an effective leader
6. Discuss the benefits of effective leadership
7. List the traits of an effective team
8. Discuss the importance of listening effectively
9. Discuss how to listen effectively
10. Discuss the importance of speaking effectively
11. Discuss how to speak effectively
12. Discuss how to solve problems
13. List important problem solving traits
14. Discuss ways to assess problem solving skills
15. Discuss the importance of negotiation
16. Discuss how to negotiate
17. Discuss how to identify new business opportunities
18. Discuss how to identify business opportunities within your business
19. Understand the meaning of entrepreneur
20. Describe the different types of entrepreneurs
21. List the characteristics of entrepreneurs
22. Recall entrepreneur success stories
23. Discuss the entrepreneurial process
24. Describe the entrepreneurship ecosystem
25. Discuss the government’s role in the entrepreneurship ecosystem
26. Discuss the current entrepreneurship ecosystem in India
27. Understand the purpose of the Make in India campaign
28. Discuss the relationship between entrepreneurship and risk appetite
29. Discuss the relationship between entrepreneurship and resilience
30. Describe the characteristics of a resilient entrepreneur
31. Discuss how to deal with failure
10.5.1: Concept Introduction, (Characteristic of an Entrepreneur, types of firms / types of enterprises): Entrepreneurs and Entrepreneurship

Say

- Say to know that anyone who is determined to start the business with risk is an entrepreneur
- Tell to know that entrepreneurs aim is to create an enterprise with creativity, innovative and vast reserve of motivation to achieve the success
- Tell to know that the process of creating an enterprise is known as entrepreneurship
- Tell to know that importance of entrepreneur helps to develop the economy of a country
- Tell to know that characteristic of entrepreneur is decisive, motivated, visionaries, highly creative, open minded etc
- Tell to know that entrepreneurs have the tendency to have a high risk tolerance, thorough plan everything, manage the money wisely etc
- Say to know that types of enterprises are sole proprietorship, partnership, limited liability partnership

10.5.2: Leadership & Teamwork: Leadership and Leaders

Say

- Say to know that leaders believe in doing the right things and helping others to do the right things
- Say to know that an effective leader is someone who creates an inspiring vision of the future
- Tell that some critical leadership skills that every entrepreneur must have are pragmatism, humility, flexibility, authenticity, reinvention and awareness
- Say that great leadership leads to gaining the loyalty and commitment of the team members, building morale and instilling confidence in the team members etc
- Tell that teamwork is combination of all members efforts working for a common goal
- Say that an effective team is one which has unity of purpose, great communication skills, initiative, excellent organizational skill etc.
10.5.3: Communication Skills: Listening & Speaking: The Importance of Listening Effectively

**Say**
- Say to know that listening is the ability to receive and understand the message during the process of communication.
- Tell that one has to listen effectively by observing the activities of stop talking, stop interrupting, and focus stop interrupting completely on what is being said, open minded etc.
- Say that the effective speaking is with incorporating body language in your speech, making proper draft, feeling and emotion under control etc.

**Notes for Facilitation**
- Ensure that the flow of speech is logical and avoid irritating mannerism with a conscious.

10.5.4: Problem Solving & Negotiation skills: What is a Problem?

**Say**
- Say to know that all problems contain two elements such as goals and obstacles.
- Tell that the problem solving is to know the obstacles and eliminate it.
- Tell that some logical steps of solving the problem to follow are identify the problem, study it, possible solutions, select one solution, implement it and check the problem solved.
- Tell that some traits of solving the problem are being open minded, not panicking, being proactive, having positive attitude focusing on right problem etc.
- Tell that negotiation means to solve the difference between two parties with amicable settlement without any disputes.
- Tell that how to negotiate with the steps of preparing agreement, discuss the problems, clarify the objectives etc.

**Ask**
- Ask about how to assess the problem skills.
- Ask about why negotiation skills is necessary.
Notes for Facilitation

- Ensure that focus on building a relationship rather than winning.

10.5.5: Business Opportunities Identification: Entrepreneur and Opportunities

Say

- Say that the ability to identify the business opportunities is the essential characteristic of an entrepreneur.
- Tell that the opportunity is a good chance or favorable situation to do something offered by circumstance.
- Tell that an idea is an opportunity when it creates value for a customer and solves a significant problem, etc.
- Tell that factors such as economic trends, market trends, changes in funding, etc., are considered when looking for opportunities.

Ask

- Ask about the common questions faced by entrepreneurs.
- Ask about why negotiation skills are necessary.

Elaborate

- Explain the ways to identify the business opportunities within your business using SWOT analysis and opportunity analysis.
10.5.6: Entrepreneurship Support Eco-System: What is an Entrepreneur?

**Say**
- Say that an entrepreneur runs an enterprise, assumes all the risks and rewards of the enterprise.
- Tell that the characteristics of an entrepreneur are highly motivated, persuasive, creative, mentally prepared, excellent business skills, proactive etc.
- Tell that the policy makers in government consider the feasibility of an enterprise started up by an entrepreneur and do encouraging new ventures.
- Tell that Governments across the world are recognizing that new businesses flourish in distinctive types of supportive environments.
- Tell that Make in India Campaign launched by Prime minister Narendra Modi invites aspiring entrepreneurs to invest easily with supporting new idea for creating state of the art facilities for manufacturing goods in India.

**Ask**
- Ask what are four types of entrepreneurs.
- Ask two successful stories of entrepreneurs.

**Elaborate**
- Explain the entrepreneurial process with idea generation, germination or recognition, preparation, incubation, feasibility study, realization and verification.

**Notes for Facilitation**
- Ensure that identify the key features of your ecosystem and enrich them to ensure self-sustainability of your entrepreneurship support ecosystem.
10.5.7: Risk Appetite and Resilience: Entrepreneurship and Risks

Say

- Say that Entrepreneurship is synonymous with the ability to take risks. This ability, called risk appetite, is an entrepreneurial trait that is partly genetic and partly acquired.
- Tell that risk appetite is defined as the extent to which a company is equipped to take risk in order to achieve the objectives.
- Tell that risk resilience is the characteristic of an entrepreneur to manage his business and protect it against the changes in business environment.
- Tell that entrepreneurial resilience is the ability to overcome the setback in life and career aspiration.

Ask

- Ask about the various levels of categories in risk appetite.

Elaborate

- Explain the risk appetite statement with the nature of risk faced, the acceptable level of risk appetite categories, etc.

Notes for Facilitation

- Ensure that the characteristic of entrepreneur resilience is a strong internal sense of control and survival attitude.
10.5.8: Success and Failures: Understanding Success and Failures in Entrepreneurship

Say
- Say that not allowing the fear of failing to stop from going ahead with your plans
- Tell that focus on important tasks rather than small tasks to achieve success
- Tell that try an idea to make it work for success
- Tell that learn lessons and experience from each failure
- Tell that failure makes you stronger and control your ego

Ask
- Ask about Shyam’s reaction of first failure

Notes for Facilitation
- Ensure to identify your mission and purpose before starting an enterprise
UNIT 10.6: Preparing to be an Entrepreneur

Unit Objectives

At the end of this unit, students will be able to:
1. Discuss how market research is carried out
2. Describe the 4 Ps of marketing
3. Discuss the importance of idea generation
4. Recall basic business terminology
5. Discuss the need for CRM
6. Discuss the benefits of CRM
7. Discuss the need for networking
8. Discuss the benefits of networking
9. Understand the importance of setting goals
10. Differentiate between short-term, medium-term and long-term goals
11. Discuss how to write a business plan
12. Explain the financial planning process
13. Discuss ways to manage your risk
14. Describe the procedure and formalities for applying for bank finance
15. Discuss how to manage your own enterprise
16. List important questions that every entrepreneur should ask before starting an enterprise

10.6.1: Market Study / the 4Ps Marketing / Importance of an IDEA: Understanding Market

Say

- Say that market research enables to gather, analyze and interpret the market information on a product or service sold in the market
- Say that market research involves primary and secondary information
- Tell that primary information is obtained through interview and the secondary information is from public sources, commercial sources and educational institutes
- Say that the 4 Ps marketing are product, price, promotion and place

Do

- Do know the product such as tangible good and intangible service
- Do understand the factors such as profit margin, supply, demand and market strategy deciding the price
Ask

• Ask about the key elements of promotion of a product

Notes for Facilitation

• Ensure that discussing ideas loud with the interested people to add, views, opinion on your ideas


Say

• Say that every entrepreneur should be well versed in the basic business terms like accounting, account payable, account receivable, assets, balance sheet, capital, cash flow, depreciation, liabilities, revenue, expenses, working capital etc

Do

• Do know about financial report

Ask

• Ask about the difference between networth and net income

Notes for Facilitation

• Ensure that every entrepreneur should have good understanding of all business terms
10.6.3: CRM and Networking: What is CRM?

Say

- Say that Customer relationship management (CRM) helps to recognize the value of clients and enables to capitalize on improved customer improved relations
- Tell that networking is based on referrals or introductions or can take place via phone, email, social and business networking websites

Do

- Do understand the customer’s want by knowing the customer needs changing in relation to time and technology
- Do understand the need of networking

Ask

- Ask question on few benefits of CRM
- Ask question on few benefits of networking

Notes for Facilitation

- Ensure that when networking, ask open minded questions rather than yes/no questions

10.6.4: Business Plan: Why Set Goals?

Say

- Say that setting goals give long term vision and short term motivation
- Tell that goals are classified as short, medium and long term goals
- Tell that business plan is used to monitor progress, foster accountable and control the fate of business
Do

- Do understand what is executive summary under elements of business plan

Ask

- Ask about the business description
- Ask question on market analysis

Notes for Facilitation

- Ensure all the important elements are covered in your business plan

10.6.5: Procedure and Formalities for Bank Finance: The Need for Bank Finance

Say

- Say that banks are one of largest funders of startups
- Tell that entrepreneurs looking for funding from banks must provide banks with information relating to their general credentials, financial situation and guarantees or collaterals that can be offered

Do

- Do know the standard financial reports such as balance sheet, profit and loss account etc.
10.6.6: Enterprise Management – An Overview: How to Manage Your Enterprise

Say

- Say that enterprise management involves managing day to day activities and figures out how to handle the large scale events

Do

- Do know the steps of managing the enterprise such as use your leadership skills, divide works among others, hire right people for the job etc

Ask

- Ask to use all your skills and the skills of your employees to market your enterprise in an effective manner

Notes for Facilitation

- Ensure that train your people to handle the customer well
10.6.7: 20 Questions to Ask Yourself before Considering Entrepreneurship

Say

- Say that understand all 20 questions given below and ask yourself about the preparedness of entrepreneurship
- Why am I starting a business?
- What problem am I solving?
- Have others attempted to solve this problem before? Did they succeed or fail?
- Do I have a mentor or industry expert that I can call on?
- Who is my ideal customer?
- Who are my competitors?
- What makes my business idea different from other business ideas?
- What are the key features of my product or service?
- Have I done a SWOT analysis?
- What is the size of the market that will buy my product or service?
- What would it take to build a minimum viable product to test the market?
- How much money do I need to get started?
- Will I need to get a loan?
- How soon will my products or services be available?
- When will I break even or make a profit?
- How will those who invest in my idea make a profit?
- How should I set up the legal structure of my business?
- What taxes will I need to pay?
- What kind of insurance will I need?
- Have I reached out to potential customers for feedback?

Do

- Do know the investment to start your business

Ask

- Ask yourself whether the answers to 20 questions are correct in all respects

Notes for Facilitation

- Ensure that it is very important to validate your business ideas before you invest significant time, money and resources into it
11. Annexures

Annexure I: Training Delivery Plan
Annexure II: Assessment Criteria
### Training Delivery Plan

<table>
<thead>
<tr>
<th>Program Name</th>
<th>Ring frame Tenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualification Pack Name &amp; Ref.ID</td>
<td>Ring Frame Tenter – TSC/Q0201</td>
</tr>
<tr>
<td>Version No</td>
<td>1.0</td>
</tr>
<tr>
<td>Pre-requisites to Training (IF any)</td>
<td>Preferable class V / the ability to read/write and communicate effectively for the job role</td>
</tr>
</tbody>
</table>

**Training Outcomes**

By the end of this program, the participants will be able to:

- Explain the general discipline
- Teach the role of Ring Frame tenter
- Demonstrate the tasks while taking charge of shift handing over the shift
- Familiar to teach how to find out the faults
- Teach knowledge on machine parts & its function related to the respective module
- Guide to handling full and empty bobbins
- Explain about changing roving bobbin
- Explain handling bobbin trolley
- Teach knowledge on color coding system
- Explain identifying of roving waste
- Explain control roving waste
- Explain quality roving piecing
- Explain knowledge on machine parts & its function related to the respective module
- Explain knowledge on type of breaks
- Got knowledge to give demo on handle running machine parts, cop, etc.
- Explain about piecing the broken yarn
- Explain to change traveller
- Explain about patrol machine
- Explain about identify pneumatic waste, bonda waste, yarn waste, etc.
- Instruct about waste control activities
- Explain about the importance of cleaning activities
- Explain about the importance of Ring frame tenter’s activity in maintenance
- Explain the procedure and tools used for cleaning and maintenance
- Give knowledge on Housekeeping system to students
- Explain to identify the basic hand tools like cleaning hook, cleaning stick, bag, etc.,
- Give training to Handle various equipment
- Explain about maintenance activities for handling equipment
- Explain about the team work and its importance
- Explain about the basic requirements for team working
- Explain about the safety rules to students
- Explain about the importance of personal protective equipment like apron, cap, earplugs, nose mask etc. and their application under different working conditions
- Give about knowledge on various health hazards relevant to workplace and basic first aid training
- Explain how to identify and select right equipment such as fire extinguisher based on type of fire
- Bring the students become good practice on first aid, firefighting, etc.
- Explain about organizational and industry standards
- Explain about the requirements for self-development
<table>
<thead>
<tr>
<th>S. No</th>
<th>Module Name</th>
<th>Session Name</th>
<th>Session Objective</th>
<th>NOS Reference</th>
<th>Methodology</th>
<th>Training Tools/Alts</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction</td>
<td>Ice breaker</td>
<td>• Introduce each other</td>
<td>NA</td>
<td>Group Activity: Passing the Parcel</td>
<td>Available objects such as a book, pen, duster etc.</td>
<td>0.5 hr</td>
</tr>
</tbody>
</table>
| 2     | TSC/N0201 Taking charge of shift and handing over shift to operator | Taking Charge of Shift Day 1, 2, 3 & 4 | • Come at least 10 - 15 minutes earlier to the work spot  
• Bring the necessary operational tools to the department  
• Meet the previous shift operator and discuss with him/her regarding the issues faced by them with respect to the quality or production or spare or safety or any other specific instruction etc.  
• Understand the count produced, colour coding, followed in the ring frames for his allocated number of spindles or machines  
• Ensure the technical details are mentioned in the display board in the ring frame machine  
• Check for the availability of the spare roving bobbins  
• Check the availability of bobbin trolley with technical details mentioned regarding | PC 1 to PC 33 | Demonstration,  
Demonstration and make practical in field  
Group activity  
Demonstration and ask the trainees to read the count board  
Demonstration and Practical | Class room  
Class room Working tools  
Class room  
Class room Display board  
Roving bobbins  
Bobbin trolley | Theory Duration (hh:mm) 09:30  
Practical Duration (hh:mm) 18:00 |
<table>
<thead>
<tr>
<th>S. No</th>
<th>Module Name</th>
<th>Session Name</th>
<th>Session Objective</th>
<th>NOS Reference</th>
<th>Methodology</th>
<th>Training Tools/Aids</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>the count being produced</td>
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<td></td>
<td>Class room, Travelers</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Check the condition of running travellers</td>
<td></td>
<td>Demonstration and Practical</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Check the roving passage and yarn formation is proper</td>
<td></td>
<td>Demonstration and Practical</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Check for the run outs, availability of the roving bobbins</td>
<td></td>
<td>Demonstration and Practical</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Ensure all the spindles are running properly, if not should be enquired for the reason for idle spindle and report to the superiors regarding the same</td>
<td></td>
<td>Demonstration and Practical</td>
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<td></td>
<td></td>
<td></td>
<td>• Check the condition of different running cops</td>
<td></td>
<td>Demonstration and Practical</td>
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<td></td>
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<td></td>
<td>• Ensure proper functioning of ring frame machine parts and machine</td>
<td></td>
<td>Demonstration and Practical</td>
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<td></td>
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<td></td>
<td>• Ensure all allocated spindles are running with uniform length of yarn is wound on cop, variations if any should be discussed with operator and reported to superiors</td>
<td></td>
<td>Demonstration and Practical</td>
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<td></td>
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<td></td>
<td>• Check the condition of running spindles, damages if any should be reported</td>
<td></td>
<td>Demonstration and Practical</td>
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<tr>
<td>S. No</td>
<td>Module Name</td>
<td>Session Name</td>
<td>Session Objective</td>
<td>NOS Reference</td>
<td>Methodology</td>
<td>Training Tools/Aids</td>
<td>Duration</td>
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<td>• Check the cleanliness of the machines &amp; other work areas</td>
<td></td>
<td>Demonstration and Practical</td>
<td>Ring frame machine, Cleaning tools</td>
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<td></td>
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<td>• Check whether any spare/raw material/tool/yarn/any other material are thrown under the machines or in the other work areas.</td>
<td>Demonstration and Practical</td>
<td></td>
<td>Ring frame machine</td>
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<td>• Question the previous shift operator for any deviation in the above and should bring the same to the knowledge of his/her shift superior as well that of the previous shift as well</td>
<td>Demonstration and make the trainees to act</td>
<td></td>
<td>Class room</td>
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<td></td>
<td></td>
<td></td>
<td>• Ensure no roller lapping in ring frame</td>
<td>Demonstration and Practical</td>
<td></td>
<td>Ring frame machine</td>
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<td></td>
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<td>• Remove the roller lapping manually if any without damaging the cots</td>
<td>Demonstration and Practical</td>
<td></td>
<td>Ring frame machine, Lapping clearing tool</td>
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<td>• In case of burnt out travellers, ensure that only the correct size of traveller is used for replacement</td>
<td>Demonstration and Practical</td>
<td></td>
<td>Ring frame machine, traveller</td>
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<td></td>
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<td></td>
<td>• Ensure the wastes collection boxes are empty while taking charge of shift</td>
<td>Demonstration and Practical</td>
<td></td>
<td>Waste collection box</td>
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<td></td>
<td>• Ensure the OHTC is working properly</td>
<td>Demonstration and Practical</td>
<td></td>
<td>OHTC</td>
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<td>S. No</td>
<td>Module Name</td>
<td>Session Name</td>
<td>Session Objective</td>
<td>NOS Reference</td>
<td>Methodology</td>
<td>Training Tools/Alts</td>
<td>Duration</td>
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<td></td>
<td></td>
<td>Ensure the work spot is clean</td>
<td></td>
<td>Demonstration and take rounds</td>
<td>Ring Frame Machine</td>
<td></td>
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<tr>
<td>3</td>
<td></td>
<td>Handing over the shift Day 4 &amp; 5</td>
<td>Hand over the shift to the incoming ring frame tenter in a proper manner</td>
<td></td>
<td>Demonstration Pair activity</td>
<td>Class room</td>
<td>Theory Duration (hh:mm) 03:30 Practical Duration (hh:mm) 09:00</td>
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<td></td>
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<td></td>
<td>Ensure in providing the details regarding count produced, colour coding followed in the ring frames for his allocated number of spindles or machines</td>
<td></td>
<td>Demonstration Pair activity</td>
<td>Class room</td>
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<td></td>
<td>Provide all relevant information regarding the count produced, idle spindles, damaged machine parts if any</td>
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<td>Demonstration Pair activity</td>
<td>Class room</td>
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<td></td>
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<td></td>
<td>Get clearance from the incoming counterpart before leaving the work spot</td>
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<td>Demonstration</td>
<td>Class room</td>
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<td>Report to his/her shift superior as well as that of the incoming shift operator in case his/her Counterpart doesn’t report for the incoming shift</td>
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<td>Demonstration</td>
<td>Class room</td>
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<td></td>
<td>Ensure the work spot is clean</td>
<td></td>
<td>Demonstration and spot visit</td>
<td>Class room, Ring Frame</td>
<td></td>
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<tr>
<td>4</td>
<td>TSC/N0202 Creeling the roving bobbin</td>
<td>Attending the machine for creeling</td>
<td>Bring the roving bobbin from storage using bobbin trolley</td>
<td>PC 1 to PC B</td>
<td>Demonstration and Practical</td>
<td>Roving Bobbin and trolley</td>
<td>Theory Duration (hh:mm) 06:30</td>
</tr>
<tr>
<td>S. No</td>
<td>Module Name</td>
<td>Session Name</td>
<td>Session Objective</td>
<td>NOS Reference</td>
<td>Methodology</td>
<td>Training Tools/Alts</td>
<td>Duration (hh:mm)</td>
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<td></td>
<td>Ensure correct colour coded bobbins are taken to ring frame section</td>
<td></td>
<td>and Practical</td>
<td>Roving Bobbin and colour code chart</td>
<td>10:00</td>
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<td></td>
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<td></td>
<td>• Identify roving bobbin exhausts and removing the empty bobbin</td>
<td></td>
<td>Demonstration and Practical</td>
<td>Ring frame machine</td>
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<td></td>
<td>• Replace exhausted roving bobbin with suitable bobbins on the creel from the reserve holder / trolley</td>
<td></td>
<td>Demonstration and Practical</td>
<td>Ring frame machine, Spare bobbin holder, Trolley</td>
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<td>• Ensure colour coding of feed in the creel is correct</td>
<td></td>
<td>Demonstration and Practical</td>
<td>Ring frame machine, Colour code chart/display</td>
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<td>• Creel the full roving bobbin</td>
<td></td>
<td>Demonstration and Practical</td>
<td>Ring frame machine, Roving Bobbin</td>
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<td></td>
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<td></td>
<td>• Ensure proper passage of roving</td>
<td></td>
<td>Demonstration and Practical</td>
<td>Ring Frame machine</td>
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<td>• Ensure minimum time is taken for attending the roving breakage</td>
<td></td>
<td>Demonstration, practical and Take time study</td>
<td>Ring Frame machine, Stop watch, Study record</td>
<td></td>
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<tr>
<td>5</td>
<td>Placing the broken roving</td>
<td>Day 9 &amp; 10</td>
<td>Ensure that the roving passes through the creel/ling section without affecting the quality of roving</td>
<td>PC 9 to PC 15</td>
<td>Demonstration and Practical</td>
<td>Ring Frame machine</td>
<td>04:00</td>
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<tr>
<td>S. No</td>
<td>Module Name</td>
<td>Session Name</td>
<td>Session Objective</td>
<td>NOS Reference</td>
<td>Methodology</td>
<td>Training Tools/Alts</td>
<td>Duration</td>
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| 6     |             | Material handling of the roving Day 11 | • Properly handle the roving and roving bobbin  
• Ensure roving surface doesn’t get damaged | PC 16 & PC 17 | Demonstration and Practical | Ring Frame machine, Bobbin  
Roving Bobbin | Theory Duration (hh:mm) 01:30  
Practical Duration (hh:mm) 02:30 |
<table>
<thead>
<tr>
<th>S. No</th>
<th>Module Name</th>
<th>Session Name</th>
<th>Session Objective</th>
<th>NOS Reference</th>
<th>Methodology</th>
<th>Training Tools/Aids</th>
<th>Duration</th>
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</thead>
</table>
| 7     | Checking the quality of piecing Day 11 & 12 | • Verify the quality of piecing done in the roving  
• Ensure roving tension in the creeling section is appropriate  
• Ensure proper functioning of the machine | PC 18 to PC20 | Demonstration and Practical  
Demonstration and Practical  
Demonstration and Practical | Ring Frame machine  
Ring Frame machine  
Ring Frame machine | Theory Duration (hh:mm) 02:00  
Practical Duration (hh:mm) 03:30 |
| 8     | TSC/N0203 Piecing the broken yarn Day 12, 13 & 15 | • Patrol around the ring frame machine & identify the yarn breakage in ring frame  
• Ensure minimum time is taken for attending the yarn breakages  
• Check creel break, traveller fly/ loading, undraft & roller lapping  
• Apply the knee break to stop the spindle  
• Check the cop quality  
• Ensure proper seating of empties in the spindle after yarn piecing  
• Verify the quality of piecing done in the yarn | PC 1 to PCB | Demonstration and Practical at machine  
Demonstration and Practical  
Demonstration and Practical | Ring Frame machine  
Ring Frame machine  
Ring Frame machine  
Ring Frame machine  
Ring Frame machine  
Ring Frame machine  
Ring Frame machine | Theory Duration (hh:mm) 02:30  
Practical Duration (hh:mm) 08:00 |
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<tr>
<th>S. No</th>
<th>Module Name</th>
<th>Session Name</th>
<th>Session Objective</th>
<th>NOS Reference</th>
<th>Methodology</th>
<th>Training Tools/Aids</th>
<th>Duration</th>
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</thead>
</table>
| 9     |             | Placing the broken yarn Day 15, 16 & 17  | • Attend to the end breakage as and when they occur  
• Take yarn from cop to feed ABC Ring and insert traveller, lappet hook cut the yarn (10 mm) and to start piecing  
• Piece the yarn between lappet hook and drafting zone by following standard piecing techniques  
• Ensure proper seating of empties in the spindle after yarn piecing  
• Ensure proper traveller running  
• Ensure minimum time is taken for piecing the yarn  
• Ensure the yarn should be pieced with minimum overlapping | PC9 to PC15 | Demonstration with photo/video clippings and Practical  
Demonstration with photo/video clippings and Practical  
Demonstration and Practical. Take time study for piecing  
Demonstration and Practical | Class room, Ring frame, cop,  
Class room, Piecing Standard. Some good/bad piecing photos  
Class room  
Ring frame | Theory Duration (hh:mm) 03:30  
Practical Duration (hh:mm) 09:00 |
<table>
<thead>
<tr>
<th>S. No</th>
<th>Module Name</th>
<th>Session Name</th>
<th>Session Objective</th>
<th>NOS Reference</th>
<th>Methodology</th>
<th>Training Tools/Aids</th>
<th>Duration</th>
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</table>
| 10    | Ensure proper material handling of yarn | Day 18       | • Put the roving ends and roller bonda waste in the bags or pockets of coat/ apron while attending the end breakages.  
• Ensure proper material handling of yarn and cops | PC16, 17    | Demonstration and Practical | Class room Ring frame machine, apron/over cot/hip bag | Theory Duration (hh:mm) 01:30  
Practical Duration (hh:mm) 02:00 |
| 11    | Checking the quality of pieced yarn | Day 18 & 19  | • Ensure the quality of piecing is as per standard  
• Ensure the tension of the pieced yarn is proper  
• Ensure the cop is perfectly fitted in the spindle  
• Verify proper material passage from drafting zone till the yarn wound in cop  
• Remove the pneumatic waste and deposit in the respective waste collection bags  
• Ensure proper functioning of the machine | PC18, PC23  | Demonstration and Practical  
Demonstration and Practical  
Demonstration  
Demonstration and Practical  
Demonstration | Class room Ring frame machine Piecing standard, Some good/bad piecing photos  
Ring frame machine  
Ring frame machine  
Ring frame machine  
Ring frame machine Pneumafil waste bag  
Ring frame machine | Theory Duration (hh:mm) 04:30  
Practical Duration (hh:mm) 08:30 |
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<tr>
<th>S. No</th>
<th>Module Name</th>
<th>Session Name</th>
<th>Session Objective</th>
<th>NOS Reference</th>
<th>Methodology</th>
<th>Training Tools/Aids</th>
<th>Duration</th>
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</thead>
</table>
| 12    | TSC/N0204 Carryout cleaning activities                                      | Carry out cleaning activities      | • Ensure proper cleaning of drafting zone  
• Ensure proper cleaning of creel, guide rods, roving guide, spacer, aprons, top roller lapping, bottom roller lapping, arbor, roving guide, top clearer and bottom clearer  
• Ensure proper rotation of clearer rollers  
• Deposit the yarn waste in the waste collection pocket provided to each tenter and finally depositing in the waste collection box  
• Check the pneumafil waste collection once in an hour, or as per predefined scheduled and remove the wastes if required  
• Remove the roller lapping manually or with tools provided, without damaging the cots  
• Collect the wastes in the waste collection chamber and deposit in the waste collection box                                                  | PC1 to PC21. | Demonstration                   | Ring frame machine, Clearer rolls, Class room, Ring frame machine, apron/over cot/hip bag, waste collection box | Theory Duration (hh:mm) 26:30       
Practical Duration (hh:mm) 40:30
<table>
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<tr>
<th>S. No</th>
<th>Module Name</th>
<th>Session Name</th>
<th>Session Objective</th>
<th>NOS Reference</th>
<th>Methodology</th>
<th>Training Tools/Aids</th>
<th>Duration</th>
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<tr>
<td></td>
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<td>• Ensure the wastes collected from different parts of machine are deposited in the respective dustbins</td>
<td></td>
<td>Demonstration</td>
<td>Ring frame machine, waste collection box</td>
<td></td>
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<td>• Inform for removal of the worn out parts and ensure replacement with new parts in ring frame machine</td>
<td></td>
<td>Demonstration</td>
<td>Class room</td>
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<td></td>
<td></td>
<td></td>
<td>• Identify end brake for traveller fly</td>
<td></td>
<td>Demonstration</td>
<td>Ring frame machine</td>
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<td></td>
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<td></td>
<td>• Take traveller in traveller tray</td>
<td></td>
<td>Demonstration</td>
<td>Ring frame machine, traveler, traveler, traveler, Ring frame, traveler, Count display board</td>
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<td></td>
<td>• Check correct traveller and confirm the count board</td>
<td></td>
<td>Demonstration</td>
<td>Class room, Schedule</td>
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<td></td>
<td>• Replace traveller during count change and as per instructions of supervisor / maintenance in-charge</td>
<td></td>
<td>Demonstration</td>
<td>Ring frame machine, traveller</td>
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<td>• Ensure proper setting of pneuamafil pipe setting</td>
<td></td>
<td>Demonstration</td>
<td>Ring frame machine, Pneumafil pipe</td>
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<td>• Check cross roving</td>
<td></td>
<td>Demonstration and Practical</td>
<td>Ring frame machine</td>
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<td>S. No</td>
<td>Module Name</td>
<td>Session Name</td>
<td>Session Objective</td>
<td>NOS Referenc e</td>
<td>Methodology</td>
<td>Training Tools/Aids</td>
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<td>Check top arm lifting</td>
<td>Demonstration and Practical</td>
<td>Ring frame machine</td>
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<td>Check OHTC air blowing</td>
<td>Demonstration</td>
<td>Ring frame machine, OHTC</td>
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<td>Check bottom apron, top apron, spacer</td>
<td>Demonstration with photo/video</td>
<td>Ring frame machine</td>
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<td>Ensure that only the correct size of traveler is used for replacement</td>
<td>Demonstration</td>
<td>Class room</td>
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<td></td>
<td>Notice damaged bobbins and reuse</td>
<td>Demonstration and Practical</td>
<td>Class room, some defective bobbins</td>
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<td>If any quality affecting points noticed, report it to supervisors like missing spacers, spindle vibration damaged aprons, defective cots etc.</td>
<td>Demonstration and Practical</td>
<td>Class room</td>
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<tr>
<td>14</td>
<td>Other tenting (Ring frame Tenter) responsibilities</td>
<td></td>
<td>Verify the proper build of the roving bobbin</td>
<td>PC22 to PC29</td>
<td>Demonstration</td>
<td>Ring frame machine</td>
<td>Theory Duration (hh:mm) 10:00</td>
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<td></td>
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<td></td>
<td>Support the doffer while carrying out doffing activities</td>
<td>Demonstration</td>
<td>Class room</td>
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<td>Record the production details in the production report</td>
<td>Demonstration</td>
<td>Production Note</td>
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<td>Report to the supervisor in case of emergency stoppage of machine</td>
<td>Demonstration</td>
<td>Class room</td>
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<td>S. No</td>
<td>Module Name</td>
<td>Session Name</td>
<td>Session Objective</td>
<td>NOS Reference</td>
<td>Methodology</td>
<td>Training Tools/Alds</td>
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<td>15</td>
<td>TSC/N9001 Maintain work area tools and machines</td>
<td>Maintain the work area, tools and machines Day 33, 34 &amp; 36</td>
<td>• Handle materials, machinery, equipment and tools with care and use them in the correct way  • Use correct lifting and handling procedures  • Use materials to minimize waste  • Maintain a clean and hazard free working area  • Maintain tools and equipment  • Carry out running maintenance within agreed schedules</td>
<td>PC1 to PC14</td>
<td>Demonstration and Practical</td>
<td>Class room, Ring frame, spares</td>
<td>Theory Duration (hh:mm) 03:00 Practical Duration (hh:mm) 14:00</td>
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<tr>
<td>S. No</td>
<td>Module Name</td>
<td>Session Name</td>
<td>Session Objective</td>
<td>NOS Reference</td>
<td>Methodology</td>
<td>Training Tools/Aids</td>
<td>Duration</td>
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<td>• Carry out maintenance and/or cleaning within one's responsibility</td>
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<td>Demonstration</td>
<td>Class room</td>
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<td>• Report unsafe equipment and other dangerous occurrences</td>
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<td>Demonstration</td>
<td>Class room</td>
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<td>• Ensure that the correct machine guards are in place</td>
<td></td>
<td>Demonstration</td>
<td>Class room and Ring frame machine</td>
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<td>• Work in a comfortable position with the correct posture</td>
<td></td>
<td>Demonstration and Practical</td>
<td>Class room</td>
<td></td>
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<td></td>
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<td></td>
<td>• Use cleaning equipment and methods appropriate for the work to be carried out</td>
<td></td>
<td>Demonstration with photo/video</td>
<td>Class room</td>
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<td></td>
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<td></td>
<td>• Dispose of waste safely in the designated location</td>
<td></td>
<td>Demonstration with photo/video</td>
<td>Class room</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>• Store cleaning equipment safely after use</td>
<td></td>
<td>Demonstration</td>
<td>Class room</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>• Carry out cleaning according to schedules and limits of responsibility</td>
<td></td>
<td>Demonstration with photo/video</td>
<td>Class room and Schedule</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>TSC/N9002</td>
<td>Commitment and trust</td>
<td>• Be accountable to the own role in whole process</td>
<td>PC1 to PC3</td>
<td>Demonstration</td>
<td>Class room</td>
<td>Theory Duration (hh:mm) 01:00</td>
</tr>
<tr>
<td></td>
<td>Working in a</td>
<td>Day 36 &amp; 37</td>
<td>• Perform all roles with full responsibility</td>
<td></td>
<td>Demonstration</td>
<td>Class room</td>
<td>Practical Duration (hh:mm) 02:30</td>
</tr>
<tr>
<td></td>
<td>team</td>
<td></td>
<td>• Be effective and efficient at workplace</td>
<td></td>
<td>Demonstration</td>
<td>Class room</td>
<td></td>
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<tr>
<td>S. No</td>
<td>Module Name</td>
<td>Session Name</td>
<td>Session Objective</td>
<td>NOS Reference</td>
<td>Methodology</td>
<td>Training Tools/Aids</td>
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</table>
| 17    | Communication Day 37 | • Properly communicate about company policies  
• Report all problems faced during the process  
• Talk politely with other team members and colleagues  
• Submit daily report of own performance | PC4 to PC7 | Demonstration with company policy chart | Class room | Theory Duration (hh:mm) 01:00  
Practical Duration (hh:mm) 05:00 |
| 18    | Adaptability Day 38 | • Adjust in different work situations  
• Give due importance to others point of view  
• Avoid conflicting situations | PCB to PC10 | Demonstration | Class room | Theory Duration (hh:mm) 00:30  
Practical Duration (hh:mm) 03:30 |
| 19    | Creative freedom Day 38 | • Develop new ideas for work procedures  
• Improve upon the existing techniques to increase process efficiency | PC11 & 12 | Demonstration with photo/videos | Class room | Theory Duration (hh:mm) 00:30  
Practical Duration (hh:mm) 02:30 |
| 20    | TSC/N9003 Maintain health, safety and security at workplace | • Comply with health and safety related instructions applicable to the workplace  
• Use and maintain personal protective equipment such as “ear plug”, “nose mask”, “head cap” etc., as per protocol | PC1 to PC18 | Demonstration with photo/videos | Class room PPE | Theory Duration (hh:mm) 12:00  
Practical Duration (hh:mm) 19:00 |
<table>
<thead>
<tr>
<th>S. No</th>
<th>Module Name</th>
<th>Session Name</th>
<th>Session Objective</th>
<th>NOS Reference</th>
<th>Methodology</th>
<th>Training Tools/Aids</th>
<th>Duration</th>
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<tbody>
<tr>
<td></td>
<td>Day 39, 40, 41 &amp; 43</td>
<td></td>
<td>• Carry out own activities in line with approved guidelines and procedures</td>
<td></td>
<td>Demonstration with photo/videos</td>
<td>Class room and guideline</td>
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<td></td>
<td>• Maintain a healthy lifestyle and guard against dependency on intoxicants</td>
<td></td>
<td>Demonstration with photo/videos</td>
<td>Class room</td>
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<td></td>
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<td></td>
<td>• Follow environment management system related procedures</td>
<td></td>
<td>Demonstration with photo/videos</td>
<td>Class room</td>
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<td></td>
<td></td>
<td></td>
<td>• Identify and correct (if possible) malfunctions in machinery and equipment</td>
<td></td>
<td>Demonstration with photo/videos and practical</td>
<td>Class room and ring frame machine</td>
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<td></td>
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<td>• Report any service malfunctions that cannot be rectified</td>
<td></td>
<td>Demonstration</td>
<td>Class room</td>
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<td></td>
<td>• Store materials and equipment in line with organizational requirement</td>
<td></td>
<td>Demonstration with photo/videos and practical</td>
<td>Class room and ring frame machine</td>
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<td></td>
<td>• Safely handle and remove waste</td>
<td></td>
<td>Demonstration with photo/videos and practical</td>
<td>Class room and ring frame machine</td>
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<td></td>
<td>• Minimize health and safety risks to self and others due to own actions</td>
<td></td>
<td>Demonstration with photo/videos</td>
<td>Class room</td>
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<td></td>
<td>• Seek clarifications, from supervisors or other authorized personnel in case of perceived risks</td>
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<td>Demonstration with photo/videos</td>
<td>Class room</td>
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<td>S. No</td>
<td>Module Name</td>
<td>Session Name</td>
<td>Session Objective</td>
<td>NOS Reference</td>
<td>Methodology</td>
<td>Training Tools/Aids</td>
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<td></td>
<td></td>
<td>Monitor the workplace and work processes for potential risks and threat</td>
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<td>with photo/videos</td>
<td>Class room</td>
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<td></td>
<td>• Carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned</td>
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<td>Demonstration with photo/videos</td>
<td>Class room</td>
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<td></td>
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<td></td>
<td>• Report hazards and potential risks/threats to supervisors or other authorized personnel</td>
<td></td>
<td>Demonstration</td>
<td>Class room</td>
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<td></td>
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<td></td>
<td>• Participate in mock drills/evacuation procedures organized at the workplace</td>
<td></td>
<td>Demonstration with photo/videos and Practical</td>
<td>Class room</td>
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<td></td>
<td>• Undertake first aid, fire-fighting and emergency response training, if asked to do so</td>
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<td>Demonstration with photo/videos and Practical</td>
<td>Class room</td>
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<td>• Take action based on instructions in the event of fire, emergencies or accidents</td>
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<td>Demonstration</td>
<td>Class room</td>
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<td></td>
<td></td>
<td>• Follow organization procedures for shutdown and evacuation when required</td>
<td></td>
<td>Demonstration</td>
<td>Class room</td>
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<tr>
<td>22</td>
<td>Recognizing the hazards Day 43</td>
<td></td>
<td>Identify different kinds of possible hazards (environmental, personal, ergonomic, chemical) of the industry</td>
<td>PC19 &amp; 20</td>
<td>Demonstration with photo/videos</td>
<td>Class room</td>
<td>Theory Duration (hh:mm) 01:30</td>
</tr>
<tr>
<td>S. No</td>
<td>Module Name</td>
<td>Session Name</td>
<td>Session Objective</td>
<td>NOS Reference</td>
<td>Methodology</td>
<td>Training Tools/Aids</td>
<td>Duration</td>
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<td>23</td>
<td>Planning the safety techniques</td>
<td>Day 43</td>
<td>• Recognize other possible security issues existing in the workplace</td>
<td>PC 21</td>
<td>Demonstration with photo/videos</td>
<td>Class room</td>
<td>Practical Duration (hh:mm) 01:30</td>
</tr>
<tr>
<td>24</td>
<td>Implementing the programs</td>
<td>Day 44 &amp; 45</td>
<td>• Recognise different measures to curb the hazards</td>
<td>PC22 &amp; 23</td>
<td>Demonstration</td>
<td>Class room</td>
<td>Theory Duration (hh:mm) 00:30 \nPractical Duration (hh:mm) 00:30</td>
</tr>
<tr>
<td>25</td>
<td>TSC/N9004 Comply with industry and organizational requirements</td>
<td>Self development</td>
<td>Day 45</td>
<td>• Communicate the safety plan to everyone</td>
<td>PC1 to PC5</td>
<td>Demonstration</td>
<td>Class room</td>
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<td>26</td>
<td>Team work</td>
<td>Day 46</td>
<td>• Co-ordinate with all the team members and colleagues</td>
<td>PC 6 to PC 8</td>
<td>Demonstration with photo/videos</td>
<td>Class room</td>
<td>Theory Duration (hh:mm) 00:30</td>
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<tr>
<td>S. No</td>
<td>Module Name</td>
<td>Session Name</td>
<td>Session Objective</td>
<td>NOS Reference</td>
<td>Methodology</td>
<td>Training Tools/Aids</td>
<td>Duration</td>
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<td></td>
<td></td>
<td>• Communicate politely</td>
<td></td>
<td>Demonstration with photo/videos</td>
<td>Class room</td>
<td>Practical Duration (hh:mm) 03:30</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Avoid conflicts and miscommunication</td>
<td></td>
<td>Demonstration with photo/videos</td>
<td>Class room</td>
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<td></td>
<td></td>
<td></td>
<td>• Know the organizational standards</td>
<td>PC 9 to PC 11</td>
<td>Demonstration with photo/videos</td>
<td>Class room</td>
<td>Theory Duration (hh:mm) 00:30 Practical Duration (hh:mm) 03:00</td>
</tr>
<tr>
<td>27</td>
<td>Organizational</td>
<td>Day 46</td>
<td>• Implement them in your performance</td>
<td></td>
<td>Demonstration with photo/videos</td>
<td>Class room</td>
<td></td>
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<td></td>
<td>standards</td>
<td></td>
<td>• Motivate others to follow them</td>
<td></td>
<td>Demonstration with photo/videos</td>
<td>Class room</td>
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<td></td>
<td></td>
<td></td>
<td>• Know the industry standards</td>
<td>PC 12 &amp; PC 13</td>
<td>Demonstration with photo/videos</td>
<td>Class room</td>
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<td></td>
<td>Industry standards</td>
<td>Day 46</td>
<td>• Align them with organisation standards</td>
<td></td>
<td>Demonstration with photo/videos</td>
<td>Class room</td>
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<td>28</td>
<td></td>
<td></td>
<td>• Know the industry standards</td>
<td></td>
<td>Demonstration with photo/videos</td>
<td>Class room</td>
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**Total Duration:**

**Theory Duration** (hh:mm) 100:00

**Practical Duration** (hh:mm) 200:00

**Unique Equipment Required:**

Apron, head cap, nose mask, earplug, shoe, lapping cleaning hook, cleaning stick and hip bag

**Grand Total Course Duration:** 300 Hours, 0 Minutes
Annexure II
Assessment Criteria

Key Learning Outcomes

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

1) About the Assessment methodology
2) NOS wise Marks allotment
3) Assessment Method wise Mark Allocation
4) The Minimum Marks to Pass in the Assessment
5) How to face the assessment comfortably

Unit 11.1: Assessment Criteria

Unit Objectives

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

1) Face the assessment with confidence
2) Complete the assessment in time
3) Succeed in the assessment comfortably

11.1.1 Criteria for Assessment of Trainees

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Guidelines for Assessment</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Performance Criteria (PC) will be created by the Sector Skill Council.</td>
</tr>
<tr>
<td>2.</td>
<td>Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS</td>
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<tr>
<td>3.</td>
<td>SSC will also laydown proportion of marks for Theory, Viva and Skills Practical for each PC</td>
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<tr>
<td>4.</td>
<td>The assessment for the theory part will be based on knowledge bank of questions created by the SSC – Model Questions Given in this Chapter for Reference</td>
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<tr>
<td>5.</td>
<td>Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria given below)</td>
</tr>
<tr>
<td>6.</td>
<td>To pass the Qualification Pack, every trainee should score minimum 80% in individual NOS and overall.</td>
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<tr>
<td>7.</td>
<td>In case of successfully passing only in certain NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack</td>
</tr>
<tr>
<td>National Occupational Standards (NOS)</td>
<td>Performance Criteria (PC)</td>
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<tr>
<td></td>
<td>PC 1. Come at least 10 - 15 minutes earlier to the work spot</td>
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<td>PC 2. Bring the necessary operational tools to the department</td>
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<td>PC 3. Meet the previous shift operator and discuss with him/her regarding the issues faced by them with respect to the quality or production or spare or safety or any other specific instruction etc.</td>
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<tr>
<td></td>
<td>PC 4. Understand the count produced, colour coding, followed in the ring frames for his allocated number of spindles or machines</td>
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<td>PC 5. Ensure the technical details are mentioned in the display board in the ring frame machine</td>
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<td>PC 6. Check for the availability of the spare roving bobbins</td>
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<td></td>
<td>PC 7. Check the availability of bobbin trolley with technical details mentioned regarding the count being produced</td>
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<td>PC 8. Check the condition of running travellers</td>
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<td>PC 9. Check the roving passage and yarn formation is proper</td>
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<td>PC 10. Check for the run outs, availability of the roving bobbins</td>
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<td>PC 11. Ensure all the spindles are running properly, if not should be enquired for the reason for idle spindle and report to the superiors regarding the same</td>
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<td>PC 12. Check the condition of different running cops</td>
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<td>PC 13. Ensure proper functioning of ring frame machine parts and machine</td>
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<tr>
<td>PC 14. Ensure all allocated spindles are running with uniform length of yarn is wound on cop, variations if any should be discussed with operator and reported to superiors</td>
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<tr>
<td>PC 15. Check the condition of running spindles, damages if any should be reported</td>
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<tr>
<td>PC 16. Check the cleanliness of the machines &amp; other work areas</td>
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<tr>
<td>PC 17. Check whether any spare/raw material/tool/yarn/any other material are thrown under the machines or in the other work areas.</td>
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</tr>
<tr>
<td>PC 18. Question the previous shift operator for any deviation in the above and should bring the same to the knowledge of his/her shift superior as well that of the previous shift as well.</td>
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<tr>
<td>PC 19. Ensure no roller lapping in ring frame</td>
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<td>PC 20. Remove the roller lapping manually if any without damaging the cots</td>
<td>3</td>
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<tr>
<td>PC 21. In case of burnt out travellers, ensure that only the correct size of traveller is used for replacement</td>
<td>3</td>
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<tr>
<td>PC 22. Ensure the wastes collection boxes are empty while taking charge of shift</td>
<td>3</td>
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<tr>
<td>PC 23. Ensure the ohtc is working properly</td>
<td>3</td>
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<tr>
<td>PC 24. Ensure the work spot is clean</td>
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<tr>
<td>PC 25. Hand over the shift to the incoming ring frame tenter in a proper manner</td>
<td>3</td>
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<tr>
<td>PC 26. Ensure in providing the details regarding count produced, colour coding followed in the ring frames for his allocated number of spindles or machines</td>
<td>3</td>
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<tr>
<td>PC 27. Provide all relevant information regarding the count produced, idle spindles, damaged machine parts if any</td>
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<tr>
<td>PC 28. Get clearance from the incoming counterpart before leaving the work spot</td>
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### PC 29. Report to his/her shift superiors as well as that of the incoming shift operator in case his/her counterpart doesn’t report for the incoming shift

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### PC 30. Ensure the shift has to be properly handed over to the incoming shift operator

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### PC 31. Report to his/her shift superior about the quality / production / safety issues/ any other issue faced in his/her shift and should leave the department only after getting concurrence for the same from his/her superiors

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### PC 32. Collect the wastes from waste collection bags, weigh them and transport to storage area

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### PC 33. Ensure the work spot is clean

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**Total**

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<td>36</td>
<td>31</td>
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**Weightage %**

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<td>100%</td>
<td>33%</td>
<td>36%</td>
<td>31%</td>
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### 2. TSC/N1502 (Creeling the roving bobbin)

**PC 1.** Bring the roving bobbin from storage using bobbin trolley

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**PC 2.** Ensure correct colour coded bobbins are taken to ring frame section

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**PC 3.** Identify roving bobbin exhausts and removing the empty bobbin

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**PC 4.** Replace exhausted roving bobbin with suitable bobbins on the creel from the reserve holder/trolley

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**PC 5.** Ensure colour coding of feed in the creel is correct

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**PC 6.** Creel the full roving bobbin

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**PC 7.** Ensure proper passage of roving

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**PC 8.** Ensure minimum time is taken for attending the roving breakage

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**PC 9.** Ensure that the roving passes through the creeling section without affecting the quality of roving

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**PC 10.** Draw the roving end with minimum waste and then piece up the yarn

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**PC 11.** Ensure proper length of roving is available for piecing

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**PC 12.** Piece the broken roving together in the event of roving breakage at creel section

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<tr>
<td>PC 13. Ensure standard piecing procedure is adopted and quality and size of piecing is within the standards</td>
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<td>PC 14. Keep the roving waste in the waste collection pocket provided to each tenter and then put in the waste in waste collection box</td>
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<td>PC 15. Ensure minimum time is taken for piecing the roving</td>
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<td>PC 16. Properly handle the roving and roving bobbin</td>
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<td>PC 17. Ensure roving surface doesn’t gets damaged</td>
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<td>PC 18. Verify the quality of piecing done in the roving</td>
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<td>PC 19. Ensure roving tension in the creeling section is appropriate</td>
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<td>PC 20. Ensure proper functioning of the machine</td>
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| Weight | 100% | 35% | 48% | 17% |

| 3. TSC/N0203 (Piecing the broken yarn) | PC 1. Patrol around the ring frame machine & identify the yarn breakage in ring frame | 100 | 5 | 1 | 3 | 1 |
| PC 2. Ensure minimum time is taken for attending the yarn breakages | 4 | 1 | 2 | 1 |
| PC 3. Check creel break, traveller fly/ loading, undraft & roller lapping | 4 | 1 | 2 | 1 |
| PC 4. Apply the knee break to stop the spindle | 5 | 1 | 3 | 1 |
| PC 5. Check the cop quality | 4 | 1 | 2 | 1 |
| PC 6. Ensure proper seating of empties in the spindle after yarn piecing | 4 | 1 | 2 | 1 |
| PC 7. Take yarn from cop to feed ABC Ring and insert traveller, lappet hook cut the yarn (10mm) and to start piecing | 6 | 2 | 2 | 2 |
| PC 8. Piece the yarn between false twister and drafting zone by following standard piecing techniques | 4 | 1 | 2 | 1 |
| PC 9. Ensure proper seating of empties in the spindle after yarn piecing | 6 | 2 | 4 | 0 |
| PC 10. Ensure proper traveller running | 6 | 2 | 4 | 0 |
| PC 11. Ensure minimum time is taken for piecing the yarn | 5 | 1 | 3 | 1 |
| PC 12. Ensure proper material handling of ring cops | 5 | 1 | 3 | 1 |
| PC 13. Ensure the yarn should be pieced with minimum overlapping | 4 | 2 | 1 | 1 |
| PC 14. Put the roving ends and roller bonda waste in the bags or pockets of coat | 5 | 2 | 2 | 1 |
| PC 15. Ensure proper material handling of yarn and cops | 5 | 2 | 2 | 1 |
| PC 16. Ensure the quality of piecing is as per standard | 5 | 2 | 2 | 1 |
| PC 17. Ensure the tension of the pieced yarn is proper | 5 | 2 | 2 | 1 |
| PC 18. Ensure the cop is perfectly fitted in the spindle | 4 | 2 | 1 | 1 |
| PC 19. Verify proper material passage from drafting zone till the yarn wound in cop | 5 | 2 | 2 | 1 |
| PC 20. Remove the pneumafil waste and yarn waste and deposit in the respective waste collection bags | 4 | 1 | 2 | 1 |
| PC 21. Ensure proper functioning of the machine | 5 | 1 | 2 | 2 |
| Total | 100 | 31 | 48 | 21 |

| Weight age % | 100% | 31% | 48% | 21% |

<p>| 4. TSC/N0204 (Carryout cleaning activities) | PC 1. Ensure proper cleaning of drafting zone | 200 | 8 | 2 | 4 | 2 |
| PC 2. Ensure proper cleaning of creel, guide rods, roving guide, spacer, aprons, top roller lapping, bottom roller lapping, arbour, roving guide, top cleaner and bottom cleaner | 10 | 2 | 6 | 2 |
| PC 3. Ensure proper rotation of clearer rollers | 8 | 2 | 4 | 2 |
| PC 4. Deposit the yarn waste in the waste collection pocket provided to each tenter and finally depositing in the waste collection box | 8 | 2 | 6 | 0 |
| PC 5. Check the pneumafil waste collection once in an hour or as per predefined scheduled and remove the wastes if required | 8 | 2 | 5 | 1 |
| PC 6. Remove the roller lapping manually or with tools provided, without damaging the cots | 8 | 3 | 5 | 0 |
| PC 7. Collect the wastes in the waste collection chamber and depositing in the waste collection | 6 | 3 | 2 | 1 |
| PC 8. Ensure the wastes collected from different parts of machine are deposited in the respective dustbins | 6 | 3 | 2 | 1 |
| PC 9. Inform for removal of the worn-out parts and ensure replacement with new parts in ring frame machine | 6 | 3 | 2 | 1 |
| PC 10. Identify and brake for traveller fly | 6 | 1 | 3 | 2 |
| PC 11. Take traveller in traveller tray | 6 | 1 | 2 | 3 |
| PC 12. Check correct traveller and confirm the count board | 6 | 1 | 2 | 3 |
| PC 13. Replace traveller during count change and as per instructions of supervisor/maintenance incharge | 6 | 1 | 4 | 1 |
| PC 14. Ensure proper setting of pneumafil pipe setting | 6 | 1 | 4 | 1 |
| PC 15. Check cross roving | 4 | 1 | 2 | 1 |
| PC 16. Check top arm lifting | 4 | 1 | 2 | 1 |
| PC 17. Check OHTC air blowing | 4 | 1 | 2 | 1 |
| PC 18. Check bottom apron, top apron, spacer | 7 | 1 | 4 | 2 |
| PC 19. Ensure that only the correct size of traveller is used for replacement | 8 | 2 | 2 | 4 |
| PC 20. Notice damaged bobbins and reuse | 6 | 2 | 2 | 2 |
| PC 21. If any quality affecting points noticed, report it to supervisors like missing spacers, spindle vibration damaged aprons, defective cots etc. | 6 | 2 | 2 | 2 |
| PC 22. Verify the proper build of the roving bobbin | 10 | 2 | 2 | 6 |
| PC 23. Support the doffer while carrying out doffing activities | 5 | 2 | 2 | 1 |
| PC 24. Record the production details in the production report | 8 | 5 | 2 | 1 |
| PC 25. Report to the supervisor in case of emergency stoppage of machine | 8 | 2 | 4 | 2 |
| PC 26. Report to the supervisor and maintenance incharge if the operator was able to replace the worn-out machine part with a new one | 8 | 2 | 4 | 2 |
| PC 27. Support the maintenance team while machine is under maintenance | 8 | 1 | 4 | 3 |
| PC 28. Ensuring all details related to production are provided the next shift operator while relieving | 8 | 2 | 4 | 2 |
| PC 29. Ensure count wise storage of wound bobbin without damaging the roving | 8 | 3 | 4 | 1 |
| Total | | | | |
| Weight age % | 100% | 28% | 46.5% | 25.5% |</p>
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<td>PC 12. improve upon the existing techniques to increase process efficiency</td>
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<td><strong>7.TSC/N9003 (Comply with health, safety and security at work place)</strong></td>
<td><strong>PC 1. comply with health and safety related instructions applicable to the workplace</strong></td>
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<td><strong>PC 2. use and maintain personal protective equipment such as “ear plug” “nose mask”, “head cap” etc., as per protocol</strong></td>
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<td><strong>PC 3. carry out own activities in line with approved guidelines and procedures</strong></td>
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<td><strong>PC 4. maintain a healthy lifestyle and guard against dependency on intoxicants</strong></td>
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<td><strong>PC 5. follow environment management system related procedures</strong></td>
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<td><strong>PC 6. identify and correct (if possible) malfunctions in machinery and equipment</strong></td>
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<td><strong>PC 7. report any service malfunctions that cannot be rectified</strong></td>
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<td><strong>PC 8. store materials and equipment in line with organisational requirements</strong></td>
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<td><strong>PC 9. safely handle and remove waste</strong></td>
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<td><strong>PC 10. minimize health and safety risks to self and others due to own actions</strong></td>
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<td><strong>PC 11. seek clarifications, from supervisors or other authorized personnel in case of perceived risks</strong></td>
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<td><strong>PC 12. monitor the workplace and work processes for potential risks and threat</strong></td>
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<td><strong>PC 13. carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned</strong></td>
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<td><strong>PC 14. report hazards and potential risks/ threats to supervisors or other authorized personnel</strong></td>
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<td><strong>PC 15. participate in mock drills/ evacuation procedures organized at the workplace</strong></td>
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<td><strong>PC 16. undertake first aid, fire-fighting and emergency response training, if asked to do so</strong></td>
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<td><strong>PC 17. take action based on instructions in the event of fire, emergencies or accidents</strong></td>
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<td><strong>PC 18. follow organisation procedures for shutdown and evacuation when required</strong></td>
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<td>PC 19. Identify different kinds of possible hazards (environmental, personal, ergonomic, chemical) of the industry</td>
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<td>PC 20. Recognise other possible security issues existing in the workplace</td>
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<td>PC 21. Recognise different measures to curb the hazards</td>
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<td>PC 22. Communicate the safety plan to everyone</td>
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<td>PC 23. Attach disciplinary rules with the implementation</td>
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| PC 1. Perform own duties effectively | 4 | 1 | 2 | 1 |
| PC 2. Take responsibility for own actions | 4 | 1 | 2 | 1 |
| PC 3. Be accountable towards the job role and assigned duties | 4 | 2 | 1 | 1 |
| PC 4. Take initiative and innovate the existing methods | 3 | 1 | 1 | 1 |
| PC 5. Focus on self-learning and improvement | 4 | 1 | 2 | 1 |
| PC 6. Coordinate with all the team members and colleagues | 4 | 1 | 2 | 1 |
| PC 7. Communicate politely | 4 | 1 | 1 | 2 |
| PC 8. Avoid conflicts and miscommunication | 4 | 1 | 2 | 1 |
| PC 9. Know the organisational standards | 4 | 2 | 1 | 1 |
| PC 10. Implement them in your performance | 4 | 1 | 2 | 1 |
| PC 11. Motivate others to follow them | 3 | 1 | 1 | 1 |
| PC 12. Know the industry standards | 4 | 3 | 1 | 0 |
| PC 13. Align them with organisation standards | 4 | 2 | 1 | 1 |
| **Total** | 50 | 18 | 19 | 13 |
| Weight % | 100% | 36% | 38% | 26% |

**Grand Total** 750