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GOVERNMENT OF INDIA
MINISTRY OF SKILL DEVELOPMENT
& ENTREPRENEURSHIP



Facilitator Guide



Sector
Apparel

Sub-Sector
Apparel

Occupation
Machine Embroidery Operation

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Embroidery Machine Operator

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Address: Flat No. A-312 to A-323, 3rd Floor, Somdatt Chamber-1,
Bhikaji Cama Place, Africa Avenue, New Delhi-110066

Email: info@sscamh.com

Website: www.sscamh.com

Phone: (+91) 011 - 40160600

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Shri Narendra Modi
Prime Minister of India

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Skill development of the new generation is a national need and is the foundation of Aatmnirbhar Bharat

”

Acknowledgements

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The preparation of this facilitator guide would not have been possible without the Apparel Industry’s support. Industry feedback has been extremely encouraging from inception to conclusion and it is with their input that we have tried to bridge the skill gaps existing today in the industry.

This facilitator guide is dedicated to the aspiring youth who desire to achieve special skills which will be a lifelong asset for their future endeavours.

About this Guide

This Facilitator Guide is designed for providing skill training and /or upgrading the knowledge level of the Participants to take up the job of an “Embroidery Machine Operator” in the Management and Entrepreneurship Sector.

This Facilitator Guide is designed based on the Qualification Pack (QP) under the National Skill Qualification framework (NSQF) and it comprises of the following National Occupational Standards (NOS)/topics and additional topics.

1. AMH/N0801: Carry out different types of embroidery stitches using an embroidery machine
2. AMH/N0802: Embroider decorative designs using embroidery machine
3. AMH/N1003: Contribute to achieve quality in embroidery work and Greening of Job Roles
4. AMH/N0102: Maintain work area, tools and machines
5. AMH/N0103: Maintain health, safety and security requirement at work place with Gender and PwD Sensitization
6. DGT/VSQ/N0101: Employability Skills (30 Hours)

Symbols Used



Ask



Explain



Elaborate



Notes



Objectives



Do



Demonstrate



Activity



Team Activity



Facilitation Notes



Practical



Say



Resources



Example



Summary



Role Play



Learning Outcomes



Exercise

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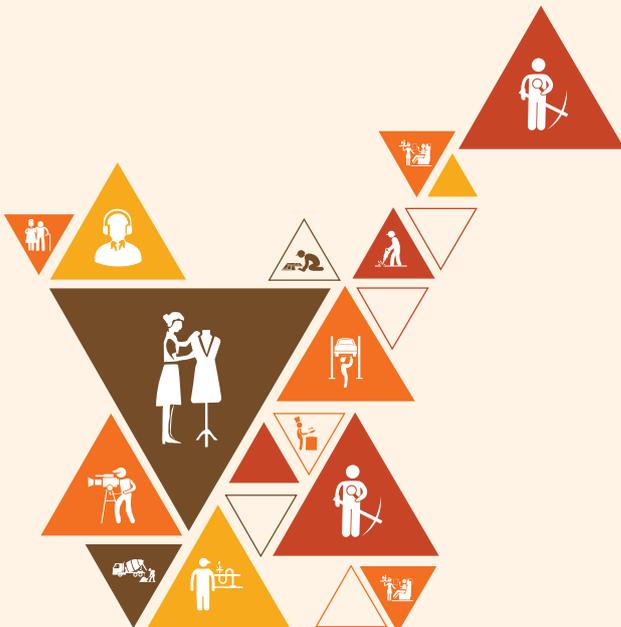


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1. Introduction and Orientation to Embroidery Machine Operator

Unit 1.1 - Introduction to the role of Embroidery Machine Operator



Bridge Module

Key Learning Outcomes



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

1. Explain the roles and responsibilities of an 'Embroidery Machine Operator'.
2. Explain the relation between the work role and the overall manufacturing process.
3. Describe various employment opportunities in the apparel industry for an 'Embroidery Machine Operator.'
4. Describe the production process and the specific work activities that relate to the whole process.

Unit 1.1: Introduction to the role of Embroidery Machine Operator

Unit Objectives

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

1. Give a detailed brief of the Apparel, Made-Ups and Home Furnishing sector in India.
2. Explain what embroidery is and its types.
3. Describe the garment production process and outline the specific tasks performed by an Embroidery Machine Operator within that process.
4. List the roles and responsibilities of an 'Embroidery Machine Operator'.
5. Explore various employment opportunities in the apparel industry for an Embroidery Machine Operator.
6. Enlist the technical terms commonly used in embroidery work.

Resources to be Used

Participant handbook, notepad, pen, whiteboard, markers, presentation slides, embroidery sample swatches, overhead projector or large screen, computer/laptop with internet connection.

Do

- Greet participants warmly, introduce yourself, and share your professional experience in the apparel and embroidery field to build credibility.
- State the unit objectives clearly so that participants understand the knowledge and skills they will gain during the session.
- Encourage participants to collect their handbook, notepad, and pen before starting so they are ready for note-taking.
- Check all training materials including sample swatches, projector, and laptop to ensure smooth facilitation.
- Arrange the classroom seating in a way that participants can view the screen and interact with each other during discussions.
- Invite participants to introduce themselves and share any prior knowledge or experience related to garments or embroidery.
- Create a positive and interactive learning environment by highlighting that questions, discussions, and activities will be part of the session.
- Move systematically through the agenda and keep the pace balanced for clarity and comprehension.
- Provide real-life industry examples wherever possible to make the learning more practical and relatable.
- Conclude with a recap of key learnings and encourage participants to reflect on how the role of an embroidery machine operator fits into the apparel sector.

Say

- Welcome to today's session on the introduction to the role of an Embroidery Machine Operator which is an important part of the apparel and furnishing sector.
- By the end of this session you will understand the apparel and home furnishing industry in India, the basics of embroidery, and the specific role of an embroidery machine operator.
- We will discuss the garment production process and where embroidery work fits into the flow of production.
- The role of an embroidery machine operator requires precision, attention to detail, and understanding of technical terms which we will go through today.
- This session will also highlight employment opportunities available in this sector and help you see the scope for growth in this profession.

Ask

- Can anyone describe what comes to mind when you hear the word embroidery and where it is used in garments or home furnishings?
- What do you think are some of the steps involved in garment production before and after embroidery is done?
- What responsibilities do you think an embroidery machine operator may have on the production floor?
- What types of embroidery have you seen on clothes or home furnishing products in your daily life?
- What kind of job opportunities do you think are available for someone skilled in embroidery machine operation?

Activity

1. **Name of the Activity:** Threads of Memory
2. **Objective:** To help participants introduce themselves and connect with the concept of embroidery by sharing personal stories or experiences related to embroidered clothes or home furnishing items.
3. **Type of activity:** Group activity
4. **Resources:** Participant handbook, notepad, pen, embroidery sample swatches or images (optional), name tags, whiteboard, markers, overhead projector or large screen.
5. **Duration of the activity:** 15 minutes
6. **Instructions:**
 - Ask each participant to introduce themselves by stating their name, background, and any prior exposure or interest in embroidery or garment work.
 - Invite participants to share a personal memory of an embroidered garment or home item they have seen, owned, or admired such as a saree border, kurta design, or cushion cover.
 - Encourage them to describe what made that embroidery special such as colour combination, intricate design, cultural meaning, or emotional attachment.

- If embroidery swatches or images are available, ask participants to point out or compare similarities with their stories.
 - After all introductions, summarise by linking participants' stories to the importance of embroidery in adding beauty, value, and identity to garments and home furnishing products, highlighting the role of embroidery machine operators in bringing such designs to life.
7. **Outcome:** Participants will feel more comfortable, develop a personal connection with embroidery, and begin to appreciate the relevance of their future role in the apparel and home furnishing industry.

Elaborate

- The apparel, made-ups, and home furnishing sector in India is one of the largest employers providing millions of jobs across urban and rural areas.
- Embroidery is a decorative form of stitching done either by hand or machine to enhance the look and value of a garment or furnishing item.
- There are several types of embroidery such as surface embroidery, counted thread embroidery, and machine embroidery that are used in different contexts.
- The garment production process involves stages like designing, cutting, stitching, embroidery, finishing, and packaging before reaching the customer.
- An embroidery machine operator plays a key role in ensuring that decorative designs are correctly stitched as per the requirement on fabrics.
- The roles of an embroidery machine operator include setting up the machine, loading the design, monitoring the stitching, and ensuring quality output.
- Responsibilities also extend to routine machine maintenance, proper handling of materials, and following safety guidelines.
- Employment opportunities for embroidery machine operators exist in garment factories, export houses, small boutiques, and home furnishing units.
- Understanding embroidery-related technical terms like hooping, bobbin, thread tension, and digitising is essential to communicate effectively in the workplace.
- This role requires continuous learning and adaptability as embroidery designs and technologies keep evolving in the fashion and furnishing industries.

Explain

- The apparel and home furnishing industry in India supplies both domestic and international markets making it a strong base for employment.
- Embroidery is not only a decorative element but also a value addition that increases the appeal and price of the product.
- Machine embroidery allows mass production of designs with accuracy and consistency compared to hand embroidery.
- In garment production embroidery is usually done after the fabric panels are cut but before final stitching and finishing.
- The embroidery machine operator ensures that the correct design is used, threads are managed properly, and quality standards are maintained.

- Operators must carefully monitor the machine for thread breaks, skipped stitches, or design misalignment to avoid wastage.
- Maintenance tasks include cleaning the machine, oiling, and checking needles to ensure smooth operations.
- Technical language in embroidery includes terms like stitch density, hooping, digitised design, underlay, and tension adjustment which help in precise communication.
- Employment can start at an entry-level operator role but with experience workers may advance to become supervisors or entrepreneurs running their own embroidery units.
- The embroidery machine operator is therefore both a technical and creative role, combining skill with craftsmanship to meet industry demands.

Demonstrate

Participants will use embroidery sample swatches with pre-drawn designs to simulate how an embroidery machine operator prepares fabric, loads a design, and monitors the embroidery process ensuring correct placement and neat stitching which will help them visualise the real working steps involved.

Role Play

1. **Name of the Roleplay:** Garment Production Process Mapping
2. **Objective of the Roleplay:** To help participants understand where embroidery fits into the garment production process.
3. **Resources:** Participant handbook, pen, notepad, whiteboard, markers, projector, embroidery sample images.
4. **Time Duration:** 20 minutes
5. **Instructions:**
 - Divide participants into groups and assign each group one stage of garment production such as design, cutting, embroidery, stitching, or finishing.
 - Ask each group to role-play their stage explaining what happens and how it connects to the next stage.
 - Highlight the specific tasks and importance of embroidery in the flow of garment production.
 - Facilitate group sharing where each stage is linked together to complete the production cycle.
 - Summarise by emphasising how embroidery adds value and why the operator's role is essential.
6. **Outcome:** Participants will understand the sequence of garment production and the placement of embroidery work in the process.

Role Play

1. **Name of the Roleplay:** Responsibilities of an Embroidery Machine Operator
2. **Objective of the Roleplay:** To identify and discuss the daily responsibilities and challenges of an embroidery machine operator.
3. **Resources:** Participant handbook, pen, notepad, embroidery tools or images of machines, projector.
4. **Time Duration:** 20 minutes
5. **Instructions:**
 - Assign roles to participants such as embroidery operator, supervisor, quality checker, and helper.
 - Ask them to act out a typical day at work where the operator sets the machine, runs embroidery, and addresses issues like thread breaks or wrong design loading.
 - Encourage the group to discuss what went well and what challenges arose in the role-play.
 - Facilitate a conversation about how each responsibility affects production quality and efficiency.
 - Conclude by linking the exercise to real-world industry expectations.
6. **Outcome:** Participants will gain practical awareness of the responsibilities and importance of their role in maintaining smooth embroidery operations.

Notes for Facilitation

- Use practical embroidery samples and visuals to make concepts easy to understand.
- Encourage participants to share their own experiences with garments or embroidery to make the session interactive.
- Maintain an engaging pace and adapt explanations to suit participants' levels of understanding.
- Keep the environment collaborative by inviting questions and clarifying doubts in real-time.
- Summarise each session segment with simple takeaways to reinforce learning.

Answers to Exercises for PHB

Answer the following questions by choosing the correct option:

1. c. Operating and monitoring embroidery machines
2. d. Job sheet
3. b. Check and prepare the work area
4. d. Supervisor or line manager
5. c. To ensure accurate embroidery output

Answer the following questions briefly.

1. Refer to Unit 1.1: Introduction to the role of Embroidery Machine Operator
Topic 1.1.4 Roles and Responsibilities of an Embroidery Machine Operator
2. Refer to Unit 1.1: Introduction to the role of Embroidery Machine Operator
Topic 1.1.3 Garment Production Process
3. Refer to Unit 1.1: Introduction to the role of Embroidery Machine Operator
Topic 1.1.4 Roles and Responsibilities of an Embroidery Machine Operator
4. Refer to Unit 1.1: Introduction to the role of Embroidery Machine Operator
Topic 1.1.4 Roles and Responsibilities of an Embroidery Machine Operator
5. Refer to Unit 1.1: Introduction to the role of Embroidery Machine Operator
Topic 1.1.3 Garment Production Process



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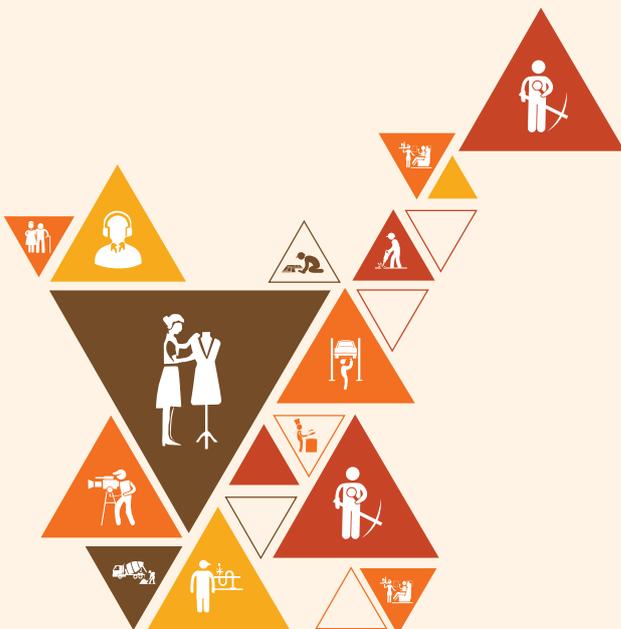
2. Carry out Different Types of Embroidery Stitches Using an Embroidery Machine

Unit 2.1 - Basics of Embroidery Materials and Tools

Unit 2.2 - Operating the Embroidery Machine

Unit 2.3 - Basic Maintenance and Troubleshooting of Embroidery Machine

Unit 2.4 - Waste Management in Embroidery Works



AMH/N0801

Key Learning Outcomes



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

1. Identify different types of embroidery stitches.
2. Discuss different types of fabric.
3. Demonstrate the use of different types of tools in the embroidery process.
4. Use various types of thread varying in thickness and shade for embroidery stitches.
5. Operate the embroidery machine safely.
6. Create various types of embroidery designs and stitches using the embroidery machine.
7. Identify different types of defects in the embroidered product.
8. Perform basic maintenance and troubleshooting of the embroidery machine.
9. Explain how to minimise and dispose of the waste materials in the approved manner.
10. Respond appropriately if the embroidery does not meet product specifications and take corrective action.

Unit 2.1: Basics of Embroidery Materials and Tools

Unit Objectives

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

1. List various types of fabrics, materials, and accessories used in embroidery.
2. Identify various trims, threads, and needle types used in machine embroidery.
3. Differentiate between thread types based on thickness, shade, and size.
4. Identify the different parts of a needle and their specific uses in embroidery.
5. Explain the relationship between thread, needle, and cloth for achieving quality embroidery.
6. List the problems encountered when working on different types of materials.
7. Identify various types of embroidery.
8. Explain different types of embroidery techniques and the associated stitch types.
9. List common factors affecting stitching and embroidery.
10. Explain how to select the appropriate tools and materials as per the given embroidery design specifications.

Resources to be Used

Participant handbook, notepad, pen, whiteboard, markers, presentation slides, embroidery sample swatches, overhead projector or large screen, embroidery needles, threads, small fabric samples.

Do

- Greet the participants warmly and create a friendly atmosphere to set a positive tone for the session.
- Clearly state the unit objectives and explain what participants will achieve by the end of the lesson.
- Provide an overview of the agenda and highlight the key topics to give participants a clear roadmap of the session.
- Check that all participants have their participant handbook, notepad, pen, and any provided fabric swatches ready.
- Ensure that the whiteboard, markers, projector, and sample materials like threads and needles are arranged and functional.
- Invite participants to briefly introduce themselves and share any prior exposure to embroidery work.
- Explain the interactive nature of the session and encourage participants to ask questions and share experiences.
- Arrange seating in a way that all participants have a clear view of the demonstration table and presentation screen.
- Keep the pace balanced so participants can absorb the material while staying engaged with hands-on elements.
- Conclude the session by summarising the key learning points and linking them to the role of embroidery machine operators.

Say

- Welcome to today's session on the basics of embroidery materials and tools which are essential for achieving quality results in machine embroidery.
- By the end of this session you will have a clear understanding of fabrics, threads, trims, and needles and their correct use in embroidery.
- We will also explore the relationship between needle, thread, and fabric and how this impacts the overall embroidery quality.
- Different embroidery techniques and stitch types will be discussed so you can appreciate how designs come to life.
- We will also address common challenges faced with materials and how to select the right tools for different embroidery specifications.

Ask

- Can anyone share the type of embroidered garment or fabric they have seen or used and describe the materials used in it.
- What challenges do you think might occur when using very delicate fabrics such as silk for embroidery?
- How do you think using the wrong needle or thread size might affect the quality of embroidery?
- Which embroidery techniques do you think require specific thread or fabric choices for the best effect?
- Why do you think it is important for embroidery machine operators to have knowledge of different trims and accessories?

Elaborate

- Embroidery uses a wide variety of fabrics such as cotton, silk, polyester, denim, and organza each with unique characteristics.
- Different types of threads such as rayon, polyester, silk, and metallic threads create different finishes and textures.
- Trims such as sequins, beads, lace, and ribbons are commonly used to enhance embroidery designs.
- Needles vary in size and point type with sharp needles for woven fabrics and ballpoint needles for knits.
- Thread thickness, shade, and finish affect both the durability and visual appeal of embroidery.
- A balanced relationship between thread, needle, and fabric is critical to avoiding breakages and distortions in designs.
- Common embroidery techniques include satin stitch, chain stitch, cross stitch, and appliqué each requiring specific materials.
- Problems such as puckering, skipped stitches, and thread breakage occur if wrong combinations of tools and fabrics are used.
- External factors such as fabric tension, needle condition, and thread quality also influence embroidery results.
- Correct material and tool selection ensures high-quality embroidery that meets design specifications and customer expectations.

Explain

- Fabrics form the foundation of embroidery and their weight, stretch, and weave affect how designs appear and hold.
- Threads serve as the main medium for embroidery and are available in multiple fibres, textures, and thicknesses.
- Accessories and trims add decorative value and uniqueness to embroidery pieces enhancing their market appeal.
- Needles are specialised for embroidery and each part such as eye, shaft, and point serves a specific purpose.
- The size and type of needle must be matched to the thread and fabric to prevent damage or poor stitch quality.
- Using the wrong thread or needle can result in frequent breakage, poor finishing, or design distortion.
- Machine operators must understand how embroidery techniques demand particular stitch settings and materials.
- Proper care of tools such as replacing dull needles and storing threads correctly is essential for quality results.
- Identifying fabric-related problems like stretching, fraying, or puckering helps in applying corrective measures quickly.
- Knowledge of materials and tools is essential for producing consistent, durable, and aesthetically pleasing embroidery.

Demonstrate

Participants will use embroidery sample swatches along with different types of needles and threads to practice identifying fabric types, matching the correct thread and needle combinations, and simulating embroidery stitching on small fabric pieces to understand how material choice affects the quality of embroidery.

Activity

1. **Name of the Activity:** Matching Materials to Embroidery Needs.
2. **Objective of the activity:** To help participants understand how to select the correct thread, needle, and fabric combination for a given embroidery design.
3. **Resources:** Participant handbook, pen, notepad, sample threads, needles, fabric swatches, whiteboard, markers, projector.
4. **Time Duration:** 20 minutes
5. **Instructions:**
 - Provide participants with sets of fabric swatches, needles, and threads of different types.
 - Display a set of embroidery design specifications on the screen.
 - Ask participants to work in pairs to match the correct needle, thread, and fabric to each specification.

- Have each pair explain their choice and reasoning to the group.
 - Facilitate a discussion on how different choices would impact the embroidery quality.
6. **Outcome:** Participants will understand how correct material and tool selection ensures high-quality embroidery output.

Notes for Facilitation

- Keep the session interactive by asking participants to handle real materials and share their observations.
- Use simple examples and visual demonstrations to explain complex relationships between tools and fabrics.
- Adjust the session pace depending on the group's familiarity with embroidery materials.
- Encourage questions and discussions to maintain engagement and deepen understanding.
- Conclude each section with a recap of key takeaways to reinforce learning.

Unit 2.2: Operating the Embroidery Machine

Unit Objectives

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

1. Identify the various attachments used in embroidery machines and their corresponding functions.
2. Demonstrate how to set up the embroidery machine correctly according to the given design requirements.
3. Operate the embroidery machine to create various embroidery designs and patterns.
4. Perform basic decorative stitch techniques using the embroidery machine.
5. Perform basic decorative stitch techniques (dotted stitch, round stitch) using the embroidery machine.
6. Create round leaf designs using the appropriate embroidery technique.
7. Carry out specialised embroidery techniques such as cut work and appliqué using an embroidery machine.
8. Perform embellishment-based embroidery, such as mirror work and Dori work, with precision.
9. Identify and apply suitable colour combinations as per the design.
10. List the elements of zig-zag machine embroidery.
11. Demonstrate how to adjust the top tension in the embroidery machine.
12. Detect common defects or errors in the embroidered product and take corrective actions.
13. Conduct operations at a rate that maintains workflow continuity.
14. Identify if the embroidery does not meet product specifications and take corrective action.

Resources to be Used

Participant handbook, embroidery machine, embroidery attachments, sample fabrics, colour threads, notepad, pen, whiteboard, markers, presentation slides, overhead projector or large screen.

Do

- Greet the participants warmly and establish a friendly learning environment by showing enthusiasm for embroidery skills.
- Clearly state the objectives of the unit and explain how these skills are essential for working as an embroidery machine operator.
- Provide a quick orientation about the tools and attachments that will be demonstrated during the session.
- Ensure every participant has access to their handbook, notepad, and pen for taking notes and sketching designs.
- Confirm that the embroidery machine, attachments, threads, and fabrics are available and ready for practice.
- Display the presentation slides with visual images of different machine attachments and embroidery techniques.

- Allow participants to share their prior experiences or knowledge about embroidery machines to build engagement.
- Divide participants into small groups to make learning activities interactive and collaborative.
- Move step by step through demonstrations while pausing to answer questions and clarify doubts.
- Conclude the session by summarising the main learning points and encouraging participants to practice on their own.

Say

- Welcome to today's session on operating the embroidery machine where we will explore its functions and techniques to create beautiful designs.
- By the end of this session you will know how to set up the embroidery machine, identify attachments, and operate it with precision for various designs.
- We will learn how to perform basic stitches like dotted and round stitches and move on to advanced techniques such as cut work, appliqué, and mirror work.
- Colour selection plays a big role in embroidery so we will also discuss how to choose the right colour combinations to enhance the final product.
- This session is practical and interactive so I encourage you to observe, ask questions, and actively participate in activities and group work.

Ask

- Can anyone describe what type of stitches you have seen commonly used in machine embroidery?
- What challenges have you faced in setting up or operating an embroidery machine before?
- How do you think colour combinations can change the look of an embroidered design?
- What errors do you think occur most often in embroidery work and how might we correct them?
- Why do you think adjusting machine tension is important for creating neat embroidery stitches?

Elaborate

- An embroidery machine consists of multiple attachments such as hoops, pressure feet, and needles each of which has a specific function to support design creation.
- Proper setup of the machine is important because even small misalignments can cause thread breakage, uneven stitches, or design errors.
- Decorative stitches like dotted stitch and round stitch are basic techniques that help in creating texture and variety in designs.
- Creating motifs like round leaves requires precision in stitch control and proper hoop alignment for clean and accurate results.
- Specialised techniques such as appliqué and cut work bring uniqueness to products and are often used for high-value embroidery designs.
- Embellishment methods like mirror work and Dori work enhance the aesthetic appeal and make the designs more attractive and marketable.

- Selecting the right thread colours requires an understanding of design balance and how colours complement or contrast with each other.
- Zig-zag machine embroidery involves specific settings that help in creating broader and decorative stitch lines for stylish finishes.
- Adjusting the top tension ensures smooth thread flow which prevents looping and helps maintain consistent stitch quality.
- Workflow continuity is maintained when the operator can quickly identify defects correct them and continue production without major interruptions.

Explain



- The embroidery machine uses a combination of needle movement, thread tension, and fabric placement to create consistent designs.
- Attachments such as hoops hold the fabric tightly in place ensuring that designs are embroidered neatly without fabric shifting.
- Machine tension must be balanced because too tight tension breaks the thread while loose tension causes loops on the fabric surface.
- Decorative stitches are created by selecting the appropriate machine settings and guiding the fabric correctly during stitching.
- Embellishment techniques often require special tools like cords or mirrors which need to be placed carefully and stitched securely.
- Appliqué embroidery involves placing a piece of fabric on another base fabric and stitching around it to create layered designs.
- Cut work is performed by stitching an outline and then carefully cutting away sections of fabric to give a lace-like effect.
- Colour choices must align with design themes such as festive, traditional, or formal wear to appeal to customer preferences.
- Common defects include skipped stitches, thread breakage, or misaligned designs which can be corrected by adjusting tension or re-hooping fabric.
- Operators must learn to maintain speed without compromising accuracy to meet production demands while ensuring high quality.

Demonstrate



Participants will use sample fabric swatches and embroidery machine attachments to practice setting up the embroidery machine performing basic stitches like dotted and round stitch creating round leaf patterns and experimenting with appliqué and embellishment techniques in a guided step-by-step simulation to reinforce learning.

Role Play

1. **Name of the Roleplay:** Colour Combination and Design Selection
2. **Objective of the Roleplay:** To help participants apply suitable colour choices in embroidery work.
3. **Resources:** Thread colour chart, sample designs, fabric swatches, notepad.
4. **Time Duration:** 20 minutes
5. **Instructions:**
 - Divide participants into groups and assign each a design sample.
 - Ask them to choose thread colours that best enhance the given design.
 - Groups present their choices explaining the reason for selection.
 - Conduct a peer review where others give feedback on the colour choices.
 - Summarise by discussing how colour psychology and design needs influence embroidery work.
6. **Outcome:** Participants will develop practical skills in colour selection and its impact on embroidery aesthetics.

Role Play

1. **Name of the Roleplay:** Identifying and Correcting Machine Errors
2. **Objective of the Roleplay:** To train participants to identify embroidery defects and take corrective measures in real-time.
3. **Resources:** Embroidery machine, sample fabric with intentional defects, participant handbook, pen, whiteboard.
4. **Time Duration:** 20 minutes
5. **Instructions:**
 - Present samples of embroidery work with visible errors like thread breakage or misalignment.
 - Ask participants to role-play as machine operators who must detect the defects.
 - Another participant will act as a supervisor and guide them on corrective steps.
 - Switch roles so all participants experience both perspectives.
 - Summarise by reinforcing the importance of quick error detection for workflow continuity.
6. **Outcome:** Participants will learn how to practically identify and correct common embroidery errors.

Notes for Facilitation

- Keep the session practical by linking every explanation to a machine-based demonstration.
- Use simple visuals and actual embroidery samples to explain different techniques.
- Adjust the teaching pace to allow participants enough time for hands-on practice.
- Encourage peer learning by allowing participants to review and discuss each other's embroidery work.
- Conclude each segment with a short recap highlighting the key skills learned.

Unit 2.3: Basic Maintenance and Troubleshooting of Embroidery Machine

Unit Objectives

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

1. Describe the procedure to follow when a needle breaks.
2. Identify various faults with the embroidery machine and discuss their remedies.
3. List the logical sequence of events to follow if a machine ceases to function correctly.
4. Describe the elements of care and maintenance of an embroidery machine.
5. Apply safe working practices while working with the embroidery machine.

Resources to be Used

Participant handbook, embroidery machine, needles, screwdrivers, oiling kit, cleaning brushes, sample fabrics, notepad, pen, whiteboard, markers, presentation slides, overhead projector or large screen.

Do

- Welcome participants and begin by highlighting the importance of machine maintenance in ensuring quality embroidery and long machine life.
- Clearly state the unit objectives and explain how proper maintenance directly reduces errors and production delays.
- Ensure all safety measures are in place before beginning any machine demonstration.
- Provide participants with their handbooks and ask them to keep notes of maintenance steps.
- Demonstrate the needle replacement process in case of breakage step by step.
- Show common embroidery machine faults and explain how to identify them.
- Use the whiteboard and slides to explain the sequence of troubleshooting steps.
- Provide actual maintenance tools such as brushes and oiling kits for participants to observe.
- Encourage questions after each demonstration to ensure clarity.
- Wrap up with a summary of safe working practices and their role in preventing machine damage.

Say

- Welcome to today's session on basic maintenance and troubleshooting of embroidery machines which is essential for every operator.
- By the end of this session you will know how to safely handle machine faults and keep the machine in good working condition.
- We will focus on real problems like needle breakage thread snapping and machine stoppages and learn how to deal with them.

- Maintenance is not only about fixing faults but also about taking preventive care to avoid bigger problems.
- This session is highly practical so I encourage you to pay attention and practice the steps whenever possible.

Ask

- What do you think is the first action to take when a needle breaks during stitching?
- Can anyone share a machine problem they have faced before and how it was solved?
- Why do you think following a logical sequence is important while troubleshooting a machine fault?
- What are some basic care practices you already know for keeping an embroidery machine in good condition?
- How can safe working practices protect both the operator and the machine?

Elaborate

- When a needle breaks the operator must immediately stop the machine switch off the power and carefully remove the broken parts before inserting a new needle.
- Common faults in embroidery machines include thread breakage uneven stitches needle bending and fabric puckering which all have specific remedies.
- Following a logical sequence in troubleshooting ensures problems are solved step by step without causing further damage.
- Machine care includes cleaning lint from moving parts oiling joints regularly and ensuring all screws and attachments are tightened.
- Proper maintenance extends machine life and improves design accuracy reducing downtime in production.
- Preventive maintenance is always better than reactive maintenance because it reduces unexpected breakdowns.
- Keeping spare parts such as needles and bobbins readily available ensures quick fixes when problems occur.
- Regular checking of machine tension prevents thread-related problems and ensures smooth stitching.
- Safe practices like switching off power before repairs wearing protective gear and avoiding loose clothing are essential.
- Operators must always report recurring problems to supervisors to avoid long-term damage to the machine.

Explain

- A broken needle must be handled with care to prevent damage to fabric and injury to the operator.
- Thread snapping can often be corrected by rethreading the machine checking tension and ensuring the thread path is clear.
- If a machine stops functioning the operator should first check for power supply then needle positioning and finally look for mechanical issues.
- Cleaning the machine with brushes helps remove lint and dust which can block smooth operation.
- Oiling machine parts at recommended points ensures smooth movement of gears and prevents wear and tear.
- Faults like skipped stitches are often linked to incorrect needle types or dull needles that must be replaced.
- Loose screws or attachments can cause vibrations and noise so regular inspection is needed.
- Electrical problems should only be checked by qualified personnel to ensure operator safety.
- Operators should never attempt major repairs on their own and must follow organisational safety protocols.
- Maintaining a logbook of maintenance activities helps track recurring issues and schedule timely servicing.

Demonstrate

Participants will use embroidery machines along with maintenance tools like screwdrivers brushes and oiling kits to practice needle replacement cleaning procedures and tension adjustments in a guided simulation to understand step-by-step troubleshooting and preventive maintenance.

Activity

1. **Name of the activity:** Troubleshooting Practice Session
2. **Objective of the activity:** To help participants identify common embroidery machine faults and practice correct troubleshooting steps.
3. **Resources:** Embroidery machine, spare needles, threads, oiling kit, cleaning brushes, sample fabrics, participant handbook, whiteboard.
4. **Time Duration:** 25 minutes
5. **Instructions:**
 - Divide participants into small groups and assign each a machine fault scenario such as needle breakage or thread snapping.
 - Ask each group to perform the correct troubleshooting steps using the machine and tools provided.
 - Encourage them to note down each step in their handbook for future reference.
 - Rotate scenarios so that all groups get to practice different faults.
 - Conclude with a group discussion to review the correct remedies for each fault.
6. **Outcome:** Participants will be able to detect machine faults confidently and apply appropriate corrective measures following safe practices.

Notes for Facilitation

- Keep demonstrations slow and clear so that participants can follow every step.
- Emphasise safety at each stage of machine maintenance and troubleshooting.
- Allow participants to handle the tools themselves under supervision for better retention.
- Use real fault scenarios so participants relate the practice to actual workplace challenges.
- Reinforce learning by summarising the key troubleshooting steps at the end of the activity.
- Invite participants to ask questions freely and remind them that no question is too small when learning new tools.
- Highlight how these operational skills contribute directly to job performance and collaboration in the fashion production cycle.
- Encourage note-taking and reflection after each activity to help participants internalise new concepts.

Unit 2.4: Waste Management in Embroidery Works

Unit Objectives

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

1. Follow the correct guidelines for the storage and disposal of waste materials.
2. Demonstrate ways to minimise material wastage during embroidery operations.

Resources to be Used

Participant handbook, embroidery machine, sample fabrics, thread cones, waste bins for segregation, fabric scraps, notepad, pen, whiteboard, markers, presentation slides, overhead projector or large screen.

Do

- Welcome participants and introduce the importance of waste management in embroidery operations for both efficiency and environmental responsibility.
- Clearly explain the unit objectives and how they contribute to better workplace practices.
- Show the different categories of waste produced in embroidery such as fabric scraps, threads, and packaging materials.
- Provide participants with handbooks and ask them to note important disposal methods.
- Demonstrate proper storage of reusable scraps and disposal of non-reusable waste.
- Highlight how careless handling of fabric and thread leads to increased wastage.
- Arrange waste bins for participants to practice segregating different types of waste.
- Use the whiteboard and slides to illustrate correct waste management guidelines.
- Encourage participants to share experiences of waste handling from their workplace.
- Summarise the importance of reducing waste and recycling wherever possible.

Say

- Welcome to today's session on waste management in embroidery works which is an important part of maintaining efficiency and cleanliness.
- By the end of this session you will understand how to properly store and dispose of waste materials generated during embroidery.
- We will also learn about methods to minimise wastage of threads fabrics and other resources during daily operations.
- Waste management not only saves cost but also makes the workplace safer and more sustainable.
- I encourage you to actively participate in demonstrations and activities to understand how to apply these practices in real work situations.

Ask

- What types of waste do you think are generated most frequently during embroidery operations?
- How do you currently handle fabric scraps and unused threads in your workplace?
- Why do you think segregation of waste is important in embroidery works?
- What are some simple steps we can take to minimise thread or fabric wastage?
- How does proper waste management contribute to both cost savings and safety?

Elaborate

- Waste materials in embroidery mainly include fabric cuttings loose threads and empty cones which must be disposed of properly.
- Storing reusable scraps neatly allows them to be used later for patchwork sampling or small accessories.
- Disposal guidelines usually require separating biodegradable waste like cotton from non-biodegradable waste like polyester threads.
- Reusing leftover thread cones or storing partial spools helps reduce unnecessary wastage.
- Avoiding over-trimming of fabric and careful measurement before cutting reduces fabric waste.
- Using the right machine settings ensures smooth stitching and prevents unnecessary thread breakage.
- Proper storage of materials in dry clean spaces prevents damage and wastage due to moisture or dust.
- Collecting waste separately in labelled bins makes recycling easier and safer for workers.
- Waste reduction directly improves cost efficiency as less raw material is consumed for the same output.
- Practicing disciplined waste management develops a sense of responsibility and professionalism in the workplace.

Explain

- Waste management means following systematic steps to handle embroidery waste materials safely and efficiently.
- Fabric scraps should be sorted into reusable and non-reusable categories to decide whether they can be stored or disposed of.
- Threads left on cones should not be thrown away but stored separately for later use in small jobs.
- Machine operators should handle fabric carefully to avoid cutting or trimming beyond the required design.
- Proper tension and needle settings prevent repeated stitching which leads to thread wastage.
- Empty thread cones and packaging materials should be collected for recycling wherever facilities are available.
- Waste bins must be placed near machines for easy segregation during operations.
- Safe disposal of sharp objects like broken needles is critical to avoid workplace injuries.
- Following waste management guidelines keeps the workplace cleaner and improves worker productivity.
- Regular checks and training ensure that all workers follow the same waste management practices consistently.

Demonstrate

Participants will use fabric scraps thread cones and waste bins to practice sorting reusable and non-reusable materials and demonstrate step-by-step methods of reducing thread and fabric wastage during embroidery operations under guided supervision.

Activity

1. **Name of the activity:** Waste Sorting and Reduction Practice
2. **Objective of the activity:** To train participants in identifying types of embroidery waste and applying correct disposal and minimisation methods.
3. **Resources:** Embroidery machine, fabric scraps, thread cones, waste bins with labels, participant handbook, notepad, markers.
4. **Time Duration:** 20 minutes
5. **Instructions:**
 - Provide participants with a mix of embroidery waste items such as fabric scraps, broken threads, and empty cones.
 - Ask them to sort the items into bins labelled reusable, recyclable, and non-recyclable.
 - Demonstrate how to minimise waste by reusing small scraps or partial threads.
 - Groups share their approach to minimising waste in embroidery work.
 - Summarise by reinforcing how systematic waste management improves efficiency and reduces costs.
6. **Outcome:** Participants will be able to segregate embroidery waste correctly and demonstrate practical ways to minimise wastage.

Notes for Facilitation

- Emphasise the connection between waste management and cost savings for the company.
- Keep the activity practical with hands-on waste sorting exercises.
- Use real examples of embroidery waste from production to make the session relevant.
- Encourage participants to share best practices they already use in waste handling.
- Reinforce positive behaviour by acknowledging correct waste management practices during the session.

Answers to Exercises for PHB

Answer the following questions by choosing the correct option:

1. a. Running stitch
2. c. Regular gaps between small stitches
3. b. Scissors
4. c. Eye
5. c. To keep fabric firm during stitching

Answer the following questions briefly.

1. Refer to Unit 2.2: Operating the Embroidery Machine
Topic 2.2.6 Carry Out Round Stitch Embroidery
2. Refer to Unit 2.1: Basics of Embroidery Materials and Tools
Topic 2.1.10 Types of Embroidery Techniques and their Stitch Types
3. Refer to Unit 2.1: Basics of Embroidery Materials and Tools
Topic 2.1.5 Stabilisers
4. Refer to Unit 2.1: Basics of Embroidery Materials and Tools
Topic 2.1.4 Embroidery Needles
5. Refer to Unit 2.2: Basics of Embroidery Materials and Tools
Topic 2.1.2 Threads



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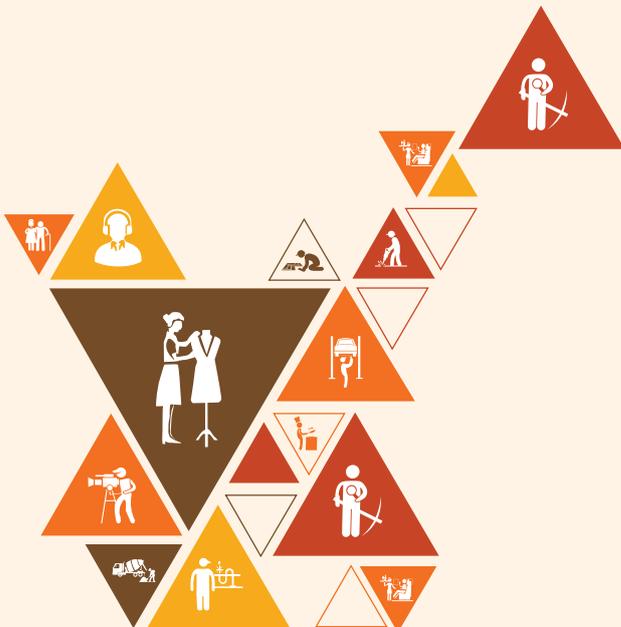
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3. Embroider Decorative Designs Using Embroidery Machine

Unit 3.1 - Preparation for Embroidery Operations

Unit 3.2 - Performing High Quality Embroidery Work



AMH/N0802

Key Learning Outcomes



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

1. Identify the job roles, responsibilities, and scope of work relevant to operating embroidery machines.
2. Prepare the workspace by ensuring cleanliness, safety, and readiness for embroidery tasks.
3. Obtain and interpret work instructions and design specifications accurately before starting the task.
4. Select and prepare materials as per design requirements, ensuring they are defect-free and suitable.
5. Operate the embroidery machine efficiently, following operational guidelines and safety protocols.
6. Follow the design instructions to execute the embroidery work accurately according to the given specifications.
7. Perform embroidery operations using appropriate techniques and machine settings to meet design standards.
8. Inspect completed embroidery work against quality standards and design specifications.
9. Apply quality control procedures and take corrective action for common defects in embroidery products.
10. Document and report work activities, faults, and quality issues as per organisational reporting protocols.

Unit 3.1: Preparation for Embroidery Operations

Unit Objectives

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

1. Analyse the job card/sheet to identify one's job role and responsibilities.
2. Review work targets and check for special instructions on the job card/sheet.
3. Identify work targets and review mechanisms based on interactions with supervisors.
4. Select the correct components/fabric/material based on the design requirement.
5. Verify that materials are free from defects and meet the artwork specifications.
6. Verify that the fabric/component is marked and cut according to the required specifications.
7. Check that tools/machines are safe and ready for use.
8. Ensure the work area is free from hazards.
9. Report any defective tools and machines that affect work and identify risks/problems likely to impact services to the relevant person promptly and accurately.

Resources to be Used

Participant handbook, notepad, pen, embroidery samples, job card copies, fabric swatches, whiteboard, markers, presentation slides, overhead projector or large screen, computer/laptop.

Do

- Greet participants warmly and introduce yourself with your background in embroidery operations.
- Clearly explain the unit objectives and highlight what participants will achieve by the end of this session.
- Distribute job card copies, fabric swatches and embroidery samples to participants for practical reference.
- Ensure all participants have their participant handbook, notepad and pen ready for use.
- Check that the whiteboard, projector and computer are functional for smooth session delivery.
- Arrange the seating so participants can view the screen clearly and engage in group discussions.
- Encourage participants to introduce themselves and share prior knowledge of embroidery work preparation.
- Inform them that the session will include interactive discussions, role plays and demonstration-based learning.
- Move at a pace that balances explanation, participant engagement and practice opportunities.
- Conclude by summarising the session's key points and encouraging participants to reflect on how preparation impacts embroidery quality.

Say

- Welcome to today's session on preparation for embroidery operations which is the most important step before actual stitching begins.
- By the end of this session you will understand how to review job cards, check materials, prepare fabrics and set up tools for safe and effective embroidery.
- We will discuss how preparation directly impacts design accuracy, speed and quality in embroidery work.
- Careful preparation ensures that embroidery defects are minimised and designs meet client specifications.
- I look forward to your active participation as we explore how preparation builds the foundation for successful embroidery outcomes.

Ask

- What information do you usually find on a job card that guides embroidery operations?
- Why do you think it is important to check materials for defects before starting embroidery work?
- How can interactions with supervisors help in clarifying work targets and avoiding mistakes.
- What risks may arise if machines are not checked for safety before starting operations.
- How can maintaining a hazard free work area improve both productivity and safety?

Elaborate

- Job cards provide details about the design, fabric type, colour scheme and timelines which guide every step of the embroidery process.
- Reviewing work targets ensures that embroidery operators stay aligned with delivery schedules and client expectations.
- Interaction with supervisors allows operators to clarify doubts and receive instructions for special techniques or urgent orders.
- Selecting the right fabric and material is essential because the texture and quality of fabric directly affect the look of embroidery.
- Materials must be inspected carefully for stains, tears or unevenness which can spoil the embroidery outcome.
- Marking and cutting fabric to specifications ensures that the embroidery design fits perfectly without distortion.
- Checking tools and machines before work prevents accidents and ensures smooth operation during embroidery.
- A clean and organised work area helps operators handle fabrics efficiently and reduces the risk of errors.
- Reporting defective tools or risks immediately ensures timely action and prevents disruption in production.
- Proper preparation builds confidence and ensures consistent quality in embroidery operations.

Explain

- Preparation for embroidery is the first and most critical stage that sets the tone for the entire operation.
- Operators must carefully analyse the job card to understand the design requirements and their role in the task.
- Work targets need to be reviewed thoroughly to match timelines and ensure quality standards are met.
- Materials and fabrics must be cross checked against artwork to ensure colour, texture and durability match the design.
- Operators must verify fabric cutting and markings to ensure precision in placing embroidery patterns.
- Machines should be inspected for needle sharpness, tension adjustment and smooth functioning.
- Tools such as scissors, rulers and frames must be kept ready to avoid interruptions during embroidery.
- A hazard free environment prevents accidents such as slips, trips or machine entanglements.
- Reporting issues quickly to supervisors allows for corrective action and smooth continuation of work.
- When preparation is done correctly, embroidery operators can focus on creativity and execution without disruptions.

Demonstrate

Participants will use sample job cards, fabric swatches and embroidery design sheets to simulate preparation for embroidery operations by identifying job requirements, checking fabric quality, verifying markings and arranging tools while practicing a step by step process of preparing the workstation to match real workplace conditions.

Activity

1. **Name of the Activity:** Interpreting a Job Card
2. **Objective of the Activity:** To practice reading and analysing a job card to identify responsibilities and special instructions.
3. **Resources:** Job card copies, fabric swatches, participant handbook, whiteboard, projector.
4. **Time Duration:** 20 minutes
5. **Instructions:**
 - Divide participants into small groups and give each group a job card and fabric swatches.
 - Ask each group to identify the instructions given in the job card and decide the operator's responsibilities.
 - Encourage them to discuss possible challenges in meeting the instructions.
 - Have groups present their findings to the class.
 - Conclude with facilitator feedback on correct interpretation of job cards.
6. **Outcome:** Participants will learn how to analyse job cards accurately and link them to their role in embroidery preparation.

Activity

1. **Name of the Activity:** Preparing the Work Area and Tools
2. **Objective of the Activity:** To practice checking machines, tools and workstations for safety and readiness.
3. **Resources:** Embroidery machine, scissors, needles, frames, participant handbook, markers.
4. **Time Duration:** 20 minutes
5. **Instructions:**
 - Ask participants to role-play as embroidery operators preparing their workstation.
 - Each participant checks tools, machines and work area for safety hazards.
 - They demonstrate how to report a defective machine or unsafe condition to a supervisor.
 - Participants present how they would arrange materials for smooth operation.
 - Conclude with a group reflection on why preparation improves embroidery quality.
6. **Outcome:** Participants will develop awareness of machine readiness, tool safety and hazard free preparation for embroidery operations.

Notes for Facilitation

- Encourage participants to share personal experiences of preparing for embroidery operations.
- Use simple language and practical examples that connect directly with their workplace.
- Monitor group activities and provide guidance where participants struggle to analyse or prepare.
- Reinforce learning by linking preparation tasks with quality and safety outcomes.
- Summarise key points at the end of each role play or demonstration to ensure clarity and retention.

Unit 3.2: Performing High Quality Embroidery Work

Unit Objectives

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

1. Operate the embroidery machine skilfully and according to the guidelines.
2. Optimise the layout and positioning of materials for smooth flow.
3. Carry out test sews.
4. Identify elements of the embroidery artwork.
5. Identify the key elements of quality control in embroidery work.
6. Follow design specifications and instructions accurately.
7. Produce embroidery designs that accurately match artwork specifications and design samples.
8. Perform all embroidery operations with precision and attention to detail.
9. Inspect embroidered products against design and quality specifications.
10. Discuss the importance of leaving the work area safe and secure after completing work.

Resources to be Used

Participant handbook, notepad, pen, embroidery machine, sample artwork, fabric swatches, embroidery frames, presentation slides, whiteboard, markers, overhead projector or large screen, computer/laptop.

Do

- Begin by welcoming the participants and sharing your background in embroidery work.
- State the unit objectives clearly and explain what participants will learn in this session.
- Provide each participant with sample embroidery artwork and fabric swatches for reference.
- Ensure the embroidery machine, frames and tools are functional and ready for demonstration.
- Arrange the seating so participants can observe the demonstration and actively engage in discussions.
- Invite participants to share their prior experience in embroidery machine operations.
- Highlight the interactive nature of the session including role plays, demonstrations and Q&A.
- Move through the content at a steady pace ensuring participants have time to observe and practice.
- Encourage participants to ask questions while practicing embroidery operations.
- Summarise the session's main learning points and connect them to real workplace applications.

Say

- Welcome to today's session on performing high quality embroidery work which focuses on skill, precision and attention to detail.
- By the end of this session you will understand how to operate the embroidery machine, follow artwork specifications and maintain quality in embroidery work.

- We will discuss how quality control, test sews and layout preparation ensure embroidery matches the client's requirements.
- Producing embroidery that meets design standards requires discipline, accuracy and continuous checking.
- I encourage you to actively participate as we practice the techniques that make embroidery professional and high quality.

Ask

- What steps should you take before starting embroidery to ensure designs come out correctly?
- Why is it important to carry out a test sew before beginning the actual embroidery?
- What do you think are the key quality checks needed to ensure embroidery matches specifications?
- How does the layout and positioning of fabric affect the smooth flow of embroidery operations?
- Why do you think it is important to leave the work area safe and secure after completing embroidery.

Elaborate

- Operating the embroidery machine skilfully means setting the right speed, thread tension and needle type for each design.
- Layout optimisation ensures fabric is positioned correctly in the frame so that the design comes out aligned and symmetrical.
- Test sews help identify any issues in thread tension, colour sequence or design placement before final work begins.
- Identifying embroidery artwork elements such as motifs, borders and fills allows operators to follow specifications correctly.
- Quality control includes checking for skipped stitches, thread breakage, colour mismatches and proper alignment.
- Following specifications ensures that embroidery matches the approved artwork and maintains client satisfaction.
- Producing designs with accuracy and precision improves product appeal and reduces rework.
- Inspecting finished embroidery against quality standards ensures only defect free items move to the next stage.
- Performing embroidery operations with focus and care maintains consistency across multiple pieces.
- Leaving the work area clean and safe ensures tools and machines are ready for the next operation and reduces workplace hazards.

Explain

- High quality embroidery begins with proper machine handling and setting adjustments for each fabric type.
- Positioning and layout of fabric is crucial as uneven placement can cause distorted or misaligned designs.
- Test sews are a practical way to ensure that colours, threads and patterns run smoothly before full production.
- Artwork elements must be carefully matched with thread types and colours for faithful reproduction of designs.
- Quality control is not a onetime check but a continuous process carried out before, during and after embroidery.
- Operators must follow instructions exactly to maintain consistency across different batches.
- Precision and attention to detail in every stitch ensures the design looks sharp and professional.
- Inspection of completed embroidery prevents defective products from reaching the client.
- Clean and secure work areas promote safety and efficiency for future operations.
- Mastering these practices allows embroidery operators to deliver work that consistently meets professional standards.

Demonstrate

Participants will use embroidery machines, sample artwork and fabric swatches to practice carrying out test sews, adjusting machine settings, positioning fabric in frames and producing embroidery designs while inspecting the output step by step to ensure precision and quality matching real work conditions.

Activity

1. **Name of the Activity:** Conducting a Test Sew and Quality Check
2. **Objective of the Activity:** To practice running a test sew and identifying quality issues before full embroidery production.
3. **Resources:** Embroidery machine, fabric swatches, threads, sample artwork, participant handbook.
4. **Time Duration:** 20 minutes
5. **Instructions:**
 - Divide participants into small groups and assign each group a fabric swatch and sample design.
 - Ask each group to perform a test sew on the embroidery machine.
 - Have them check the test sew for defects such as skipped stitches or colour mismatch.
 - Each group presents their findings and suggests corrective measures.
 - Conclude with facilitator feedback on the importance of test sews in quality assurance.
6. **Outcome:** Participants will learn how to identify and correct errors before actual embroidery production begins.

Activity

1. **Name of the Activity:** Inspecting and Finishing Embroidery Work
2. **Objective of the Activity:** To practice inspecting finished embroidery and preparing the work area after use.
3. **Resources:** Finished embroidery samples, checklist of quality standards, embroidery tools, participant handbook.
4. **Time Duration:** 20 minutes
5. **Instructions:**
 - Provide participants with finished embroidery samples of varying quality.
 - Ask them to inspect the samples against a quality checklist.
 - Participants identify whether the sample meets specifications and highlight defects.
 - They role play reporting issues to a supervisor and securing the work area.
 - Conclude with facilitator input on proper finishing and workplace safety practices.
6. **Outcome:** Participants will learn to inspect embroidery, maintain quality standards and secure the work area after completing work.

Notes for Facilitation

- Use real embroidery samples to make the session more practical and relatable.
- Encourage participants to share their experiences with embroidery mistakes and how they solved them.
- Support groups during role plays by guiding them on how to perform checks systematically.
- Reinforce the link between careful preparation, machine handling and high quality output.
- Conclude with key takeaways highlighting the value of precision and quality in embroidery operations.

Answers to Exercises for PHB

Answer the following questions by choosing the correct option:

1. d. That fabric is correctly hooped
2. a. Appliqué
3. d. To ensure proper placement
4. c. Proper tension and speed
5. b. Monitor the stitching for errors

Answer the following questions briefly.

1. Refer to Unit 3.1: Preparation for Embroidery Operations
3.1.3 Selecting the Correct Components, Fabric, and Material Based on Design Requirements
2. Refer to Unit 3.2: Performing High Quality Embroidery Work
Topic 3.2.4 Understanding and Following Embroidery Artwork and Design Specifications
3. Refer to Unit 3.2: Performing High Quality Embroidery Work
Topic 3.2.1 Operating Embroidery Machine Skilfully
4. Refer to Unit 3.2: Performing High Quality Embroidery Work
Topic 3.2.7 Inspecting Embroidered Products against Design and Quality Specifications
5. Refer to Unit 3.1: Preparation for Embroidery Operations
Topic 3.1.5 Importance of Verifying Fabric is Marked and Cut According to the Required Specifications



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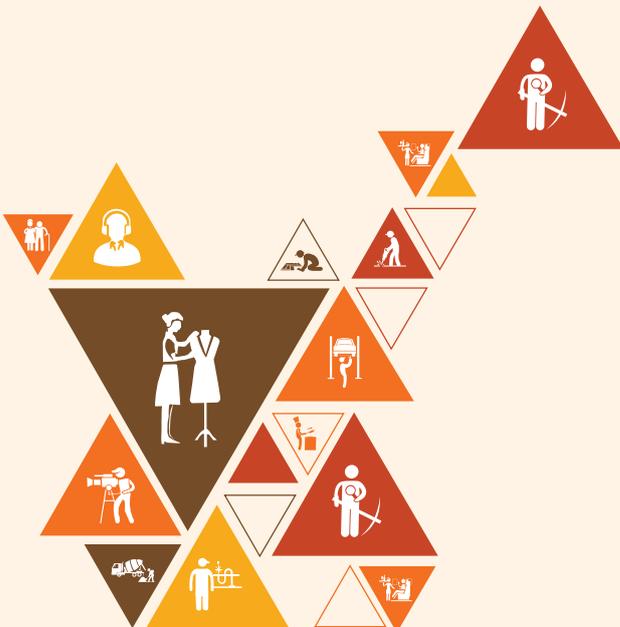
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4. Contribute to Achieving Quality in Embroidery Work

Unit 4.1 - Maintain Quality Standards in Embroidery Production

Unit 4.2 - Inspect, Rectify and Report to Ensure Product Quality



AMH/N1003

Key Learning Outcomes



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

1. Follow organisational procedures and guidelines related to embroidery operations, quality systems, equipment handling, and safety protocols.
2. Identify different types of embroidery faults and defects, understand their causes, and apply appropriate methods to detect, rectify, and report them.
3. Use the correct tools, materials, and embroidery components as specified in the job, while maintaining tolerance levels and preventing contamination.
4. Perform in-process quality checks, sort and track materials, and inspect completed embroidery products against design and quality standards.
5. Make timely adjustments to embroidery machine settings to correct identified faults and ensure design specifications are met.
6. Mark, segregate, and report faulty or rejected materials and products in accordance with the organisation's quality procedures.
7. Maintain workflow and productivity while adhering to safe working practices and personal responsibility limits.
8. Document inspection findings, quality checks, workflow disruptions, and improvement suggestions as per organisational formats.

Unit 4.1: Maintain Quality Standards in Embroidery Production

Unit Objectives

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

1. Follow organisational procedures and guidelines related to quality and safety.
2. Identify and apply the quality systems and embroidery processes practised within the organisation.
3. Discuss the importance of operating embroidery machines as per manufacturer's instructions and standard operating procedures.
4. Discuss how to work safely and at an efficient rate to maintain consistent workflow and productivity.
5. Recognise the impact of incorrect machine settings and apply methods to avoid contamination of stitched/embroidered products.
6. Apply allowed tolerances in embroidery processes to maintain quality.
7. Identify various types of faults in the embroidery work, understand their causes, and describe suitable corrective methods.
8. List types of problems with quality and how to report them to appropriate people.
9. Present ideas for improvement to the supervisor or line manager.

Resources to be Used

Participant handbook, notepad, pen, embroidery machine samples, quality defect samples, whiteboard, markers, presentation slides, overhead projector or large screen, computer or laptop.

Do

- Welcome participants warmly and introduce yourself while establishing credibility with your embroidery industry background.
- Present the objectives of the unit and outline the session structure so that participants understand what to expect.
- Ensure all participants are equipped with their handbook, pens, and notepads for active engagement.
- Confirm that all machines, slides, and technical resources are working and ready for use.
- Set up seating to allow clear sight of demonstrations and free space for group interaction.
- Encourage participants to introduce themselves and share their prior embroidery experience.
- Establish the interactive nature of the session by stressing the inclusion of activities, group learning, and discussions.
- Maintain a steady pace and explain concepts clearly with examples of real-life embroidery production.
- Summarise each section of learning with practical applications related to embroidery quality control.
- Close the session by revisiting the objectives and encouraging participants to reflect on how these skills apply to their daily production work.

Say

- Welcome to today's session on maintaining quality standards in embroidery production which is a core part of producing market-ready designs.
- By the end of this session you will be able to identify, manage, and control quality aspects that directly affect the embroidery process.
- Today we will explore organisational procedures, correct machine operation, and how to prevent errors that compromise quality.
- We will discuss how safety, efficiency, and precision work hand in hand to produce consistent results in embroidery.
- The session will help you understand your role in quality management and how your actions impact the overall reputation of the organisation.

Ask

- What are some of the organisational procedures you already follow in embroidery production?
- Have you experienced poor machine settings leading to embroidery faults and how were they corrected?
- Why do you think following the manufacturer's operating instructions is crucial to maintaining embroidery quality?
- What are some examples of embroidery defects you have observed and what corrective measures were taken?
- How can workers contribute improvement ideas to management regarding embroidery production quality?

Elaborate

- Organisational guidelines ensure that all embroidery processes are standardised and consistent across production lines.
- Following safety procedures protects not only the operator but also the product from avoidable damage or contamination.
- Proper use of embroidery machines as per the manufacturer's instructions ensures durability and reduces breakdowns.
- Maintaining a steady production flow at a safe and efficient pace prevents bottlenecks and enhances productivity.
- Incorrect machine settings can cause defects like thread breaks, misaligned stitches, or fabric puckering.
- Tolerances in embroidery are the acceptable limits within which minor variations are allowed without compromising quality.
- Recognising embroidery faults early allows quick corrections that prevent larger production losses.
- Reporting problems promptly to supervisors ensures accountability and faster solutions to recurring quality issues.
- Presenting improvement ideas contributes to continuous learning and the growth of the embroidery department.
- Quality control in embroidery safeguards customer satisfaction and maintains the reputation of the brand in the market.

Explain

- Quality standards in embroidery act as benchmarks that determine whether the finished product meets customer expectations.
- Every organisation develops its own quality system to align with industry requirements and market demands.
- Quality issues often arise from poor machine maintenance, improper handling, or lack of operator attention to detail.
- Following manufacturer guidelines for embroidery machines avoids misuse and extends the life of the equipment.
- Operating at a consistent pace ensures productivity targets are achieved without compromising accuracy.
- Machine contamination such as dust or oil stains can ruin an entire embroidery batch if not controlled.
- Allowed tolerances enable a realistic balance between perfection and production efficiency.
- Identifying embroidery faults like skipped stitches, uneven tension, or colour mismatch requires sharp observation.
- Reporting systems within the organisation ensure that quality problems are addressed systematically and not ignored.
- Worker contributions in terms of new ideas or observations play a vital role in continuous improvement of embroidery production.

Demonstrate

Participants will use embroidery defect sample kits to simulate identifying common quality faults such as skipped stitches or puckering and then practice applying corrective actions by adjusting machine settings and documenting the issues in a sample quality control log to experience a real-life quality assurance simulation.

Activity

1. **Name of the Activity:** Quality Fault Identification and Correction
2. **Objective of the Activity:** To help participants learn to identify embroidery defects and apply corrective methods.
3. **Resources:** Participant handbook, embroidery defect samples, machine settings reference sheet, notepad, pen, whiteboard, projector.
4. **Time Duration:** 20 minutes
5. **Instructions:**
 - Display samples of embroidery faults and explain their possible causes.
 - Divide participants into groups and provide each group with a sample fault and machine settings sheet.
 - Ask participants to diagnose the cause of the fault and suggest a corrective method.

- Groups present their findings to the class for discussion and comparison.
 - Summarise the activity by linking the faults to quality standards and corrective techniques.
6. **Outcome:** Participants will be able to recognise embroidery faults, understand their causes, and recommend corrective actions confidently.

Activity

1. **Name of the Activity:** Quality Improvement Suggestions
2. **Objective of the Activity:** To encourage participants to think critically about continuous improvement in embroidery quality.
3. **Resources:** Participant handbook, notepad, pen, flip chart, markers.
4. **Time Duration:** 20 minutes
5. **Instructions:**
 - Ask participants to brainstorm common challenges in maintaining quality during embroidery production.
 - Groups record their suggestions for improvement on flip charts.
 - Each group presents their suggestions and discusses how these ideas can be applied in real workplace settings.
 - Facilitate a class-wide discussion on practical improvements that can be realistically implemented.
 - Conclude the activity by highlighting the importance of workers' involvement in quality enhancement.
6. **Outcome:** Participants will be able to contribute practical improvement ideas and understand their role in enhancing embroidery production quality.

Notes for Facilitation

- Keep the session interactive by relating each concept to real-life embroidery production cases.
- Use visual aids such as defect samples and diagrams to make abstract concepts concrete.
- Ensure each participant has the opportunity to contribute during discussions.
- Monitor group dynamics during activities to encourage equal participation.
- Reinforce key learning points with summaries and connect them back to the unit objectives.

Unit 4.2: Inspect, Rectify and Report to Ensure Product Quality

Unit Objectives

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

1. Discuss suitable rectification measures for faults in materials or components such as creasing, staining, damage, or incorrect assembly.
2. Test, sort, track feed, and examine work in progress for deviations.
3. Apply suitable inspection methods and techniques to accurately detect faults.
4. Identify modifiable defects and rework them to meet the desired standard.
5. Take corrective action when materials fail to meet the required standards.
6. Mark, segregate, and place rejected items/materials in designated locations.
7. Report quality issues, rejected materials, and faulty components to the responsible person promptly.
8. Report disruptions caused by other production areas to maintain workflow continuity and ensure uninterrupted production.
9. Complete and maintain required documentation and records.

Resources to be Used

Participant handbook, notepad, pen, whiteboard, markers, presentation slides, overhead projector or large screen, embroidery samples with faults, inspection checklists, computer or laptop.

Do

- Greet the participants warmly and introduce the topic with examples of why inspection and rectification are essential in embroidery operations.
- Present the unit objectives clearly and outline the structure of the session to help participants understand the flow of learning.
- Ensure that all participants have their handbook, notepad, and pen ready for taking notes and actively engaging in activities.
- Prepare and display embroidery samples with visible faults to illustrate real-life quality issues.
- Arrange the seating in a way that supports both group discussions and demonstrations of inspection methods.
- Emphasise the importance of active participation by inviting participants to share experiences with quality challenges.
- Maintain a professional yet interactive environment by encouraging dialogue and clarifying concepts as they arise.
- Guide participants through the session at a steady pace to allow reflection and application of key quality concepts.
- Use visual aids such as checklists and flow diagrams to make inspection and reporting processes easier to grasp.
- Conclude the session by summarising the main points and reinforcing how inspection and reporting maintain product quality.

Say

- Welcome to this session on Pattern and Grading Essentials which will introduce you to the foundation of designing and adjusting garment patterns.
- By the end of today's session, you will be confident in identifying various types of patterns and understand how grading tools and size charts work.
- We will explore what basic blocks are, how they serve as templates, and the role grading plays in offering different sizes from a single pattern.
- Understanding how to use grading tools and charts accurately is key to creating consistent, well-fitted garments in a production setting.
- I am looking forward to guiding you through both theory and practical exercises so you can see how essential pattern grading is in the apparel industry.

Ask

- Can anyone share an experience of discovering a fault in an embroidered product and how it was handled?
- What do you think are the most common defects that occur during embroidery production?
- How do inspection checklists help in maintaining consistency during quality checks?
- Why is timely reporting of faults and disruptions important for the production process?
- What steps would you take if a defect can be reworked instead of rejecting the product outright?

Elaborate

- Inspection is the first line of defence against defective products reaching customers, ensuring consistency in embroidery quality.
- Rectification involves applying corrective measures like restitching, removing stains, or adjusting alignment to salvage faulty products.
- Segregating defective items helps maintain workflow efficiency by ensuring only approved materials move forward in production.
- Reporting is a critical process as it provides feedback to supervisors and helps in improving upstream processes.
- Faults like thread breakage, misalignment, or hoop marks are common in embroidery and need systematic inspection methods.
- Documentation ensures traceability of faults and corrective actions, helping in audits and continuous improvement.
- Inspection methods can include visual checks, using magnifiers, or conducting test runs before bulk production.
- Sorting and tracking materials allow supervisors to identify patterns in defects and take preventive measures.
- Effective communication with other production areas ensures that disruptions are minimised and quality is maintained.
- Reworking defective products saves resources and reduces waste while ensuring compliance with customer specifications.

Explain

- Inspecting embroidery products involves checking alignment, thread tension, stitch density, and overall finishing.
- Rectifying faults may include re-hooping the fabric, correcting colour mismatches, or adjusting machine settings.
- Segregating rejected items prevents faulty products from mixing with approved ones and maintains clear production flow.
- Reporting requires clear documentation of the defect type, quantity affected, and corrective measures taken.
- Effective inspection and reporting processes ensure that final products meet customer expectations and organisational standards.
- Tracking defects over time helps identify recurring issues and improves overall production efficiency.
- Inspectors must maintain objectivity and accuracy to ensure that all quality checks are consistent and reliable.
- Proper placement of rejected materials in designated areas ensures safety and orderliness in the production space.
- Corrective action may involve not just fixing the defect but also addressing machine calibration or operator errors.
- Regular practice of inspection, rectification, and reporting builds a culture of quality and accountability in embroidery operations.

Demonstrate

Participants will use embroidery defect samples and inspection checklists to practice identifying, categorising, and recording faults, then demonstrate how to segregate faulty materials, apply suitable rectification measures, and complete reporting documentation to ensure product quality and workflow continuity.

Activity

1. **Name of the Activity:** Fault Detection Practice
2. **Objective of the Activity:** To enable participants to identify, categorise, and document embroidery faults effectively.
3. **Resources:** Embroidery samples with faults, inspection checklist, participant handbook, whiteboard, and projector.
4. **Time Duration:** 20 minutes
5. **Instructions:**
 - Divide participants into small groups and provide each group with embroidery samples containing different faults.
 - Ask groups to use the inspection checklist to identify and categorise the faults.
 - Have participants document their findings using a standard fault reporting format.

- Facilitate a discussion on the importance of categorising faults correctly.
 - Summarise the activity by highlighting the link between accurate inspections and maintaining quality standards.
6. **Outcome:** Participants will be able to identify defects accurately, use inspection tools effectively, and report findings in a structured format.

Activity

1. **Name of the Activity:** Corrective Action Simulation
2. **Objective of the Activity:** To practice rectifying embroidery defects and completing reporting documentation.
3. **Resources:** Embroidery machines, faulty samples, rectification guidelines, reporting forms.
4. **Time Duration:** 25 minutes
5. **Instructions:**
 - Provide faulty embroidery samples requiring rectification such as thread trimming, re-stitching, or fabric adjustment.
 - Ask participants to perform the rectification tasks using provided guidelines.
 - Once rectification is complete, have participants fill out reporting forms detailing the fault and corrective action taken.
 - Facilitate group discussion on challenges faced during rectification.
 - Conclude by linking the exercise to real workplace practices of inspection and reporting.
6. **Outcome:** Participants will gain hands-on experience in applying corrective measures and completing accurate reports to maintain product quality.

Notes for Facilitation

- Use real embroidery samples to make the learning process practical and relatable.
- Encourage participants to work collaboratively during inspection and rectification exercises.
- Emphasise the importance of accuracy in documentation and reporting throughout the session.
- Provide timely feedback during activities to correct mistakes and reinforce best practices.
- Summarise activities with key lessons to ensure participants connect practice with workplace application.

Answers to Exercises for PHB

Answer the following questions by choosing the correct option:

1. d. To shape fabric pieces
2. b. Draping
3. c. Adjusting pattern sizes
4. c. Tailor's chalk
5. c. To ensure fit and drape

Answer the following questions briefly.

1. Refer to Unit 4.2: Inspect, Rectify and Report to Ensure Product Quality
Topic 4.2.3 Inspection Methods and Techniques to Detect Faults
2. Refer to Unit 4.2: Inspect, Rectify and Report to Ensure Product Quality
Topic 4.2.4 Identifying Modifiable Defects and Reworking on Them
3. Refer to Unit 4.1: Maintain Quality Standards in Embroidery Production
Topic 4.1.7 Applying Tolerances in Quality Management
4. Refer to Unit 4.1: Maintain Quality Standards in Embroidery Production
Topic 4.1.8 Faults in Embroidery Work
5. Refer to Unit 4.1: Maintain Quality Standards in Embroidery Production
Topic 4.1.2 Understanding and Using Quality Systems in Embroidery Work



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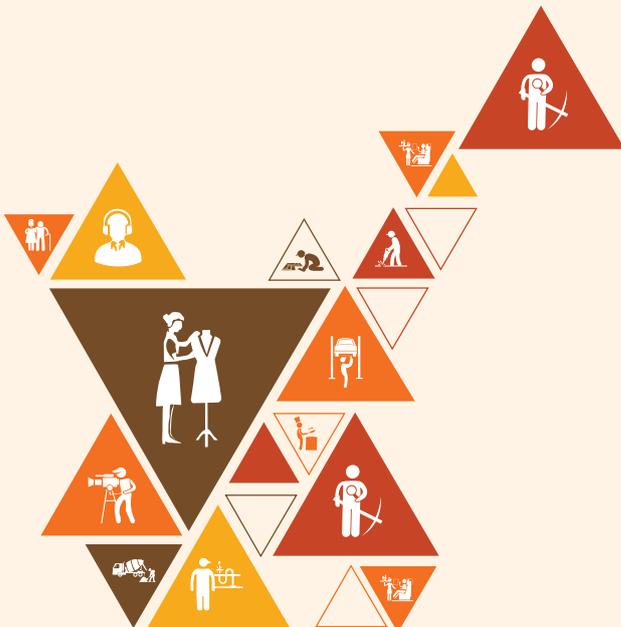


5. Maintain Work Area, Tools and Machines and Greening of Job Roles

Unit 5.1 - Effective Communication and Team Work

Unit 5.2 - Safe Handling of Tools, Equipment and Cleaning Work Area

Unit 5.3 - Operation and Maintenance of Machines and Tools



AMH/N0102

Key Learning Outcomes



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

1. Maintain clean and safe work environment.
2. Identify and use tools, machines, and cleaning equipment appropriately.
3. Carry out basic maintenance of equipment.
4. Follow organisational procedures for communication and record-keeping.
5. Minimise waste and ensure proper disposal.
6. Adopt greening practices and conserve resources.

Unit 5.1: Effective Communication and Team Work

Unit Objectives

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

1. Explain the importance of effective communication with colleagues and supervisors.
2. Describe ways of resolving problems within the work organisational area.
3. Describe the lines of communication, authority and reporting procedures.
4. Discuss the importance of teamwork in the apparel industry.

Resources to be Used

Participant handbook, notepad, pen, whiteboard, markers, presentation slides, overhead projector or large screen, computer or laptop with internet connection.

Do

- Welcome participants warmly and introduce yourself, highlighting your background and experience in the apparel industry.
- Share the unit objectives clearly and explain how they will be useful in daily workplace situations.
- Confirm all participants have their handbook, notepad, and pen ready for participation and note taking.
- Check that the projector, slides, and whiteboard are functional before starting the session.
- Create an inclusive atmosphere by asking each participant to introduce themselves and their work experience.
- Use the whiteboard to map out today's agenda and keep referring to it during the session to ensure clarity.
- Remind participants that the session is interactive and that their input during discussions is valued.
- Encourage active engagement by pausing regularly to take short questions.
- Ensure the seating allows for clear visibility of the screen and ease for group interactions.
- Conclude the session with a recap and encourage participants to reflect on how better communication and teamwork can improve their job roles.

Say

- Welcome to today's session on effective communication and teamwork which are essential skills for embroidery machine operators.
- By the end of this session, you will understand how proper communication can prevent errors and improve coordination with your colleagues.
- We will also discuss how problems can be solved smoothly in a work area when communication is open and respectful.

- You will learn about the formal lines of authority and reporting which make it easier to know who to approach for guidance or problem solving.
- Finally, we will see how teamwork in the apparel industry ensures efficiency, quality and timely completion of tasks.

Ask

- Can anyone share an example of a situation where clear communication avoided a workplace problem?
- How do you usually resolve misunderstandings or mistakes with colleagues on the production floor?
- Why is it important to know the reporting procedures and communication lines in a workplace?
- What qualities make a person a good team member in the apparel industry?
- How do you think teamwork contributes to meeting production targets and ensuring product quality?

Elaborate

- Effective communication means exchanging information clearly and respectfully which prevents errors in embroidery tasks.
- Miscommunication often leads to mistakes such as wrong designs or delays so it is important to be clear and precise.
- Supervisors and colleagues rely on timely updates which makes reporting procedures important for smooth workflow.
- Communication lines ensure that instructions are passed properly and accountability is maintained.
- Problem solving becomes easier when workers share ideas and listen actively to each other.
- Teamwork is vital in the apparel industry because large orders require many people working together efficiently.
- A strong team supports each other in meeting deadlines especially when unexpected problems occur.
- Respectful communication improves trust among workers which increases job satisfaction and reduces conflicts.
- Good communication also helps in maintaining safety standards as instructions are followed correctly.
- The success of an embroidery unit depends on effective teamwork and the willingness of each member to cooperate.

Explain

- Communication at the workplace involves both verbal and non-verbal methods such as speaking, writing, and body language.
- Supervisors provide directions which must be followed accurately to ensure product quality.
- Workers should clarify doubts immediately instead of making assumptions which may cause mistakes.
- Feedback is an important part of communication as it helps improve performance.
- Reporting lines specify who gives instructions and to whom workers should report which avoids confusion.

- Respecting authority and following hierarchy ensures smooth coordination across departments.
- Problem resolution involves listening patiently, identifying the cause, and working out a solution collectively.
- Teamwork divides tasks among members so that work is completed faster and more effectively.
- Each team member has unique skills which when combined create better results than individual work.
- In the apparel industry, teamwork and communication are the foundation for quality production and timely delivery.

Demonstrate

Participants will use a simple workplace communication chart showing lines of authority and reporting procedures to simulate communication flows in an embroidery production unit by practicing how to pass instructions, report problems, and seek clarifications in a structured manner.

Activity

1. **Name of the Activity:** Communication Flow Mapping
2. **Objective of the activity:** To help participants understand the lines of authority and proper reporting procedures in a workplace.
3. **Resources:** Participant handbook, pen, notepad, whiteboard, markers, presentation slides, projector, computer or laptop with internet.
4. **Time Duration:** 20 minutes
5. **Instructions:**
 - Display a sample communication chart of a production unit.
 - Ask participants to work in groups and identify who they would approach for different problems such as machine breakdown or fabric damage.
 - Have each group map the communication flow on paper.
 - Discuss why following this structure avoids confusion and delays.
 - Summarise the learning by stressing the importance of clarity in reporting.
6. **Outcome:** Participants will understand how communication lines support efficiency and problem resolution.

Activity

1. **Name of the Activity:** Teamwork in Production Simulation
2. **Objective of the activity:** To highlight the importance of teamwork in completing embroidery tasks effectively.
3. **Resources:** Participant handbook, pen, notepad, whiteboard, markers, presentation slides, projector, computer or laptop with internet.
4. **Time Duration:** 20 minutes

5. Instructions:

- Divide participants into small groups and assign each group a task such as design tracing, hooping, or checking quality.
- Give them a limited time to complete the steps together as a team.
- Observe how groups divide roles, communicate, and coordinate tasks.
- Ask each group to reflect on challenges faced while working together.
- Discuss as a class how cooperation made the task faster and more effective.

6. Outcome: Participants will recognise how teamwork ensures smooth workflow and better results in embroidery operations.

Notes for Facilitation

- Use simple and practical examples from embroidery units to explain communication and teamwork.
- Keep sessions interactive by allowing participants to share personal workplace experiences.
- Maintain an engaging pace by combining discussions with short activities.
- Encourage quieter participants to speak by creating a supportive environment.
- End each section with a quick summary to reinforce learning outcomes.

Unit 5.2: Safe Handling of Tools, Equipment and Cleaning Work Area

Unit Objectives

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

1. Demonstrate the procedure of handling materials, machinery, equipment and tools safely and correctly to maintain a clean and hazard-free working area.
2. Display correct lifting and handling procedures.
3. Ensure that the correct machine guards are in place.
4. Discuss the significance of maintaining a comfortable position with correct posture while working.
5. Report any unsafe or damaged equipment and other dangerous occurrences to the authorised personnel.
6. Use cleaning equipment and methods appropriate for the work to be carried out.
7. Explain the importance of storing cleaning equipment safely at the designated place after use.
8. Discussed the importance of switching off the machine when not in use.

Resources to be Used

Participant handbook, notepad, pen, whiteboard, markers, presentation slides, overhead projector or large screen, computer or laptop with internet connection.

Do

- Greet participants and introduce today's session on operation and maintenance of machines and tools.
- Share the unit objectives and explain how they connect with safe and efficient workplace practices.
- Ensure participants have their handbooks and writing materials ready for notes.
- Check that projector, slides, and other training equipment are working properly.
- Display visuals of different machines to make identification easier.
- Encourage participants to share their prior knowledge of cutting, layering, or spreading machines.
- Provide demonstrations of simple maintenance activities such as oiling or cleaning tools.
- Engage participants in group discussions about energy saving practices in their workplaces.
- Ensure the pace of the session allows learners to absorb both operational and environmental aspects.
- Wrap up with a summary linking machine efficiency, maintenance, and sustainable practices.

Say

- Welcome to this session on operation and maintenance of machines and tools which are the backbone of apparel production.
- By the end of this session, you will be able to identify various machines and understand their uses in cutting, layering, and spreading.
- You will also learn the procedures for maintaining equipment and preventing faults.
- We will discuss how to minimise material wastage, conserve energy, and adopt green practices.
- This knowledge will help you become more efficient, safe, and environmentally responsible at work.

Ask

- Can anyone name different types of cutting machines they have seen or used in the workplace?
- How do you think regular maintenance of tools and machines benefits both workers and production?
- What are some common machine faults you have observed and how were they fixed.
- Why is it important to minimise wastage and dispose of fabric waste properly.
- What simple steps can we take to conserve energy in an apparel production unit?

Elaborate

- Scissors, straight knives, band knives, and laser cutters are all used for specific cutting needs depending on fabric type and design.
- Machines for spreading and layering ensure accuracy and efficiency in preparing fabric before cutting.
- Maintenance procedures include cleaning, oiling, checking machine guards, and ensuring sharp blades.
- Common faults such as blade dullness, machine jamming, or loose belts can be rectified with timely checks.
- Material efficiency is crucial because wastage increases production costs and harms the environment.
- Waste should always be disposed of in the designated place to maintain safety and cleanliness.
- Energy can be conserved by switching off machines when idle and using energy efficient lighting.
- Greening solutions include reducing fabric waste, recycling scraps, and using eco-friendly cleaning methods.
- Regulations and policies exist to promote safe and sustainable production in the apparel industry.
- Combining proper operation, regular maintenance, and eco practices leads to higher quality and sustainability.

Explain

- Each type of cutting machine is designed for a different purpose such as scissors for small tasks and laser machines for precision.
- Layering and spreading machines reduce manual errors and improve cutting accuracy.
- Regular maintenance prevents breakdowns and extends the life of equipment.

- Fault identification involves observing unusual sounds, irregular cuts, or reduced speed.
- Rectification may involve blade sharpening, belt replacement, or cleaning dust build-up.
- Efficient material use means planning cuts properly and reusing fabric scraps when possible.
- Safe waste disposal prevents accidents like slips and keeps the workplace organised.
- Energy conservation lowers costs and reduces environmental impact.
- Green practices help companies follow national and international sustainability regulations.
- A worker who follows maintenance and green policies contributes to both productivity and environmental care.

Demonstrate

Participants will use sample cutting machine diagrams, maintenance checklists, and waste disposal charts to practice identifying machines, simulating maintenance procedures, and demonstrating correct methods of minimising waste and conserving energy in a structured workplace scenario.

Activity

1. **Name of the Activity:** Machine Identification and Fault Spotting
2. **Objective of the activity:** To help participants identify different machines, their uses, and common faults.
3. **Resources:** Participant handbook, pen, notepad, projector, diagrams of machines, sample maintenance checklist.
4. **Time Duration:** 20 minutes
5. **Instructions:**
 - Display pictures of cutting, layering, and spreading machines.
 - Ask participants to name the machines and state their uses.
 - Provide fault scenarios such as dull blades or machine jams and ask how they would fix them.
 - Facilitate a group discussion on why these faults occur and how to prevent them.
 - Summarise by linking machine knowledge with improved efficiency.
6. **Outcome:** Participants will gain the ability to identify machines and understand fault prevention and rectification.

Activity

1. **Name of the Activity:** Green and Efficient Practices Exercise
2. **Objective of the activity:** To highlight the importance of material efficiency, waste disposal, and energy conservation.
3. **Resources:** Participant handbook, pen, notepad, projector, sample waste bins, energy conservation posters.
4. **Time Duration:** 20 minutes

5. Instructions:

- Divide participants into groups and give them a scenario involving fabric cutting and waste disposal.
- Ask them to plan how they would minimise waste, dispose of scraps, and conserve energy during the process.
- Each group presents their solution and explains the green practices they used.
- Facilitate a discussion on how these practices benefit both the workplace and the environment.
- Summarise by connecting safe operations with sustainability.

6. **Outcome:** Participants will understand how to combine machine operation with environmental responsibility.

Notes for Facilitation

- Use real workplace examples of machine faults and repairs to make content relatable.
- Encourage hands on participation in identifying and solving fault scenarios.
- Stress the link between efficiency, safety, and sustainability throughout the session.
- Use posters and visual aids to reinforce energy conservation and green practices.
- Recap key points regularly and link them to learners' own workplace experiences.

Unit 5.3: Operation and Maintenance of Machines and Tools

Unit Objectives

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

1. Identify different types of cutting machines, such as scissors, straight knives, band knives, and laser cutting machines.
2. Identify various machines used for layering and spreading processes.
3. Define procedures to conduct maintenance of tools and equipment.
4. Identify common faults with equipment and the methods to rectify them.
5. Use materials efficiently to minimise wastage and dispose of waste safely at the designated location.
6. Evaluate the different ways to conserve energy in the apparel sector.
7. Explain the importance of greening solutions, procedures, policies, legislation and regulations.

Resources to be Used

Participant handbook, notepad, pen, whiteboard, markers, presentation slides, overhead projector or large screen, computer or laptop with internet connection.

Do

- Greet the participants and introduce yourself by highlighting your background in machine operation and maintenance to establish credibility.
- Clearly state the unit objectives and explain how these skills will improve safety, efficiency, and sustainability in their work.
- Ensure all participants have their participant handbook, notepad, and pen ready for active learning.
- Check the functionality of whiteboard, markers, and the laptop connected to the projector before starting.
- Display presentation slides with diagrams of cutting, layering, and spreading machines to aid visual understanding.
- Encourage participants to share their prior experience with operating machines and maintaining them to build context.
- Inform participants that the session will include demonstrations, discussions, and role-play to make the learning practical.
- Arrange the seating to allow group interaction and clear visibility of the screen and demonstration area.
- Keep the session interactive by asking frequent questions and encouraging learners to connect theory with workplace practice.
- Summarise at the end by revisiting each objective and highlighting its relevance to embroidery machine operators.

Say

- Welcome to today's session on the operation and maintenance of machines and tools which are crucial for ensuring productivity and safety in the apparel sector.
- By the end of this session, you will understand the different types of cutting and spreading machines, proper maintenance procedures, and how to address common faults.
- We will also discuss efficient use of materials, energy conservation, and the importance of adopting greening practices in machine operations.
- This session will help you apply practical methods that reduce waste, prevent accidents, and extend the lifespan of your machines.
- I encourage you to actively participate and share your workplace experiences as we go through the unit together.

Ask

- Can anyone name a type of cutting machine you have used and explain how it functions?
- What are some problems you have faced while handling machines and how did you resolve them?
- How can material wastage be reduced during the cutting and spreading process?
- In what ways can energy consumption be reduced when operating machines in the apparel sector?
- Why is it important to follow greening solutions and workplace regulations when operating machines?

Elaborate

- Cutting machines such as scissors, straight knives, band knives, and laser cutters each serve specific purposes in precision and scale of cutting.
- Spreading and layering machines ensure fabric is laid evenly and efficiently, which is critical for accurate cutting and minimal wastage.
- Regular maintenance like cleaning, oiling, tightening bolts, and calibrating machines improves their efficiency and prevents breakdowns.
- Identifying faults such as blunt blades, motor overheating, or misalignment helps in quick corrective actions and reduces downtime.
- Efficient use of materials involves careful planning, accurate measurements, and reusing fabric scraps where possible.
- Proper disposal of waste at designated points reduces workplace hazards and promotes cleanliness.
- Energy conservation can be achieved by turning off idle machines, using energy-efficient equipment, and monitoring power usage.
- Greening solutions in the apparel industry include recycling, reducing chemical usage, and adopting eco-friendly production methods.
- Compliance with workplace policies, legislation, and safety regulations ensures both worker protection and environmental responsibility.
- Operators who practice sustainability and maintenance improve both workplace safety and overall production quality.

Explain

- Different cutting machines are used depending on fabric type and production scale, making it essential for operators to identify and select the right one.
- Layering and spreading machines increase efficiency by automating fabric arrangement, reducing manual errors and fabric wastage.
- Maintenance procedures such as lubrication, cleaning filters, and checking guards are critical to keeping machines in safe working condition.
- Common faults like needle breakage, loose belts, or electrical malfunctions should be reported immediately and repaired by qualified personnel.
- Using materials efficiently requires planning layouts carefully and maintaining cutting accuracy to reduce scraps.
- Waste should never be left scattered on the floor but disposed of in designated collection bins to prevent accidents.
- Energy conservation is part of responsible machine operation and contributes to cost savings in production facilities.
- Greening solutions include not only safe disposal of waste but also integrating renewable energy sources where possible.
- Following policies and regulations ensures that production processes align with both safety standards and environmental laws.
- A disciplined operator who follows these practices contributes to both individual safety and the overall success of the factory.

Demonstrate

Participants will use machine diagrams and sample maintenance checklists to simulate identifying machine types, recognising faults, and planning daily maintenance tasks while practicing how to record maintenance activities in a structured and systematic way to reinforce real-world machine handling skills.

Activity

1. **Name of the Activity:** Identifying Machine Faults
2. **Objective of the activity:** To help participants practice detecting and reporting common machine faults.
3. **Resources:** Participant handbook, machine diagram charts, sample fault cards, whiteboard, markers, projector.
4. **Time Duration:** 20 minutes
5. **Instructions:**
 - Distribute fault cards describing common issues such as broken needles, overheating, or blade dullness.
 - Ask participants in pairs to act as operator and supervisor.
 - Operator describes the fault while supervisor advises on safe steps for reporting and rectifying.

- Groups present their dialogue to the class.
 - Facilitate discussion on best practices for fault identification and reporting.
6. **Outcome:** Participants will develop confidence in identifying machine faults and communicating them effectively.

Activity

1. **Name of the Activity:** Practicing Maintenance Procedures
2. **Objective of the activity:** To demonstrate correct procedures for maintaining machines.
3. **Resources:** Participant handbook, maintenance checklist, whiteboard, markers, projector.
4. **Time Duration:** 20 minutes
5. **Instructions:**
 - Provide participants with a blank maintenance checklist.
 - Ask small groups to role-play as maintenance team members preparing a daily checklist.
 - Groups must include tasks like cleaning, oiling, blade inspection, and safety guard checks.
 - One participant acts as supervisor reviewing the checklist and ensuring compliance.
 - Groups present their final checklist and reasoning to the class.
6. **Outcome:** Participants will learn how to systematically plan and follow daily machine maintenance procedures.

Notes for Facilitation

- Keep the session interactive by asking participants to link theory with their own work experiences.
- Use diagrams, charts, and real-life examples of machines to simplify technical explanations.
- Monitor group discussions and encourage quieter participants to contribute.
- Adjust the pace according to learners' grasp of technical content ensuring clarity before moving ahead.
- End each session with a recap of key takeaways that tie directly to the unit objectives.

Answers to Exercises for PHB

Answer the following questions by choosing the correct option:

1. c. Laying the pattern sheet on the table
2. b. Notches and grain lines
3. c. The extra fabric added around pattern pieces for stitching
4. c. Tech packs and draping
5. c. Computer applications

Answer the following questions briefly.

1. Refer to Unit 5.2: Safe Handling of Tools, Equipment and Cleaning Work Area
Topic 5.2.6 Using and Storing Cleaning Equipment in Apparel Industry
2. Refer to Unit 5.3: Operation and Maintenance of Machines and Tools
Topic 5.3.7 Importance of Greening Solutions, Procedures, Policies, Legislation, and Regulations
3. Refer to Unit 5.3: Operation and Maintenance of Machines and Tools
Topic 5.3.7 Importance of Greening Solutions, Procedures, Policies, Legislation, and Regulations
4. Refer to Unit 5.3: Operation and Maintenance of Machines and Tools
Topic 5.2.3 Machine Guards in the Apparel Industry
5. Refer to Unit 5.3: Operation and Maintenance of Machines and Tools
Topic 5.3.3 Maintenance of Common Tools and Equipment in Apparel Industry



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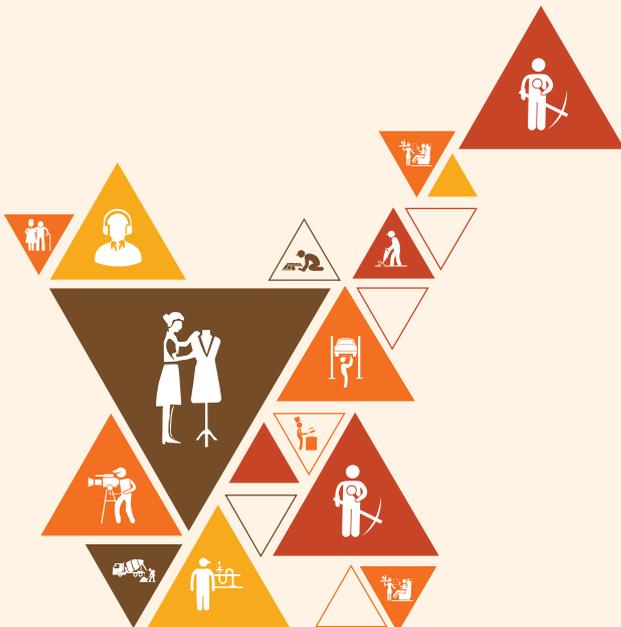
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6. Maintain Health, Safety and Secure Workplace with Gender and PwD Sensitisation

Unit 6.1 - Health, Safety, Emergency Preparedness and Workplace Hygiene

Unit 6.2 - Gender Sensitisation and Inclusion of Persons with Disabilities (PwD)



AMH/N0103

Key Learning Outcomes



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

1. Identify and report health and safety hazards at the workplace.
2. Follow emergency response procedures, including evacuation, fire safety and first aid.
3. Show how to store and handle materials, chemicals, and equipment safely as per manufacturer and workplace norms.
4. Maintain personal health, hygiene and lifestyle practices to promote workplace safety.
5. Comply with organisational safety, shutdown, and environmental procedures.
6. Discuss about gender equality and PwD inclusion in the workplace.

Unit 6.1: Health, Safety, Emergency Preparedness and Workplace Hygiene

Unit Objectives

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

1. Report unsafe equipment and dangerous occurrences to concerned personnel.
2. Identify malfunctions in machinery and equipment, and take the necessary actions or report them if unrectifiable.
3. Identify, handle, and store machine oil, chemicals, or ink used in embroidery processes.
4. List various health and safety-related practices applicable at the workplace.
5. Describe layout of the plant and details of emergency exits, escape routes, emergency equipment and assembly points.
6. Identify signage related to health and safety and their meaning.
7. Describe actions to take in the event of an evacuation procedures or actual accident, emergency or fire.
8. Perform basic first aid and CPR when required.
9. State the importance of sound health, hygiene and good habits.
10. Describe ill-effects of alcohol, tobacco and drugs.

Resources to be Used

Participant handbook, notepad, pen, whiteboard, markers, presentation slides, overhead projector or large screen, first aid kit, CPR dummy or mannequin, safety signage charts, workplace layout diagram.

Do

- Greet participants warmly, introduce yourself, and highlight your experience in workplace safety and training.
- Clearly state the unit's objectives and explain what learners will gain by the end of the session.
- Provide a brief overview of the agenda, listing the safety, hygiene, and emergency topics to be covered.
- Ensure all participants have their participant handbook, notepad, and pen for active note-taking.
- Check that the whiteboard, projector, and presentation slides are ready for use.
- Confirm that the first aid kit, safety signage charts, and CPR mannequin are available for demonstrations.
- Ask participants to briefly introduce themselves and share any workplace safety experience they have had.
- Inform the group that the session will include discussions, practical exercises, and safety drills.
- Arrange the seating so all participants can view the presentation clearly and participate in group activities.
- Wrap up the session by summarising key learning points and linking them to practical application at work.

Say

- Welcome to today's session on Health, Safety, Emergency Preparedness and Workplace Hygiene, an essential part of your role as an embroidery machine operator.
- By the end of this session you will understand how to identify hazards, follow safe practices, and respond effectively during emergencies.
- We will explore how to report unsafe equipment, handle chemicals safely, and respond to emergencies like fire or accidents.
- Maintaining personal hygiene and avoiding harmful substances is also a critical part of being a responsible and productive worker.
- I encourage you to think about how today's learning applies directly to your workplace and your personal well-being.

Ask

- What types of unsafe equipment or hazards have you noticed in workplaces before?
- How would you report a machine malfunction that you cannot fix yourself?
- Can anyone describe the meaning of a common safety sign they have seen at work?
- What steps should be taken if there is a fire or an accident in the workplace?
- Why do you think personal hygiene and healthy habits are important for workplace safety?

Elaborate

- Reporting unsafe equipment immediately helps prevent accidents and protects everyone in the workplace.
- Malfunctions in embroidery machines, if not addressed, can lead to serious injuries or production delays.
- Chemicals, oils, and inks must always be labelled, stored properly, and handled using protective equipment.
- Following health and safety practices such as wearing PPE and keeping work areas clean reduces risks.
- Understanding plant layout, exits, and emergency assembly points is critical in times of evacuation.
- Safety signage provides quick information that can save lives during emergencies.
- Evacuation procedures must be practiced so that workers can respond calmly in real emergencies.
- First aid and CPR knowledge equips workers to respond effectively before medical help arrives.
- Personal hygiene such as hand washing, clean clothing, and safe habits help prevent illness at work.
- Alcohol, tobacco, and drug use negatively affect concentration, judgment, and overall health, leading to accidents.

Explain

- Organisational adaptability involves documenting defects, communicating with suppliers, adjusting orders, and revising quality inspection protocols.
- Fabric weight refers to grams per square meter and thicker fabrics often require different needles, stitch types, or tension settings.
- Stretchable knits need special stitching methods like zigzag stitches or overlocking to maintain elasticity and seam stability.
- Fabric consumption per garment is calculated using garment size charts, marker layouts, fabric width, and shrinkage allowance.
- Sketching technique uses proportion templates and design annotations to represent darts, seams, finishes, and pattern details.
- Creating sewing samples includes cutting fabric, stitching seams, attaching trims, and evaluating first-fit garments.
- A sample specification sheet records fabric type, stitch type, seam allowance, thread, trims, and pressing instructions for consistency.
- Inspection should check for faults such as slubs, holes, uneven dye, tension issues, and print misalignment before production.
- Garment production processes rely on accurate fabric data and samples to ensure the final output matches design and quality standards.
- Feedback from inspection and sample stages must be integrated into production SOPs, training materials, and supplier guidelines.

Demonstrate

Participants will use a workplace layout diagram with clearly marked exits, assembly points, and equipment to simulate identifying emergency routes and locating safety equipment, practicing evacuation procedures and reporting hazards in a realistic learning exercise.

Activity

1. **Name of the Activity:** Hazard Spotting Exercise
2. **Objective of the Activity:** To enable participants to identify unsafe equipment and potential hazards in a simulated workplace setting.
3. **Resources:** Participant handbook, whiteboard, markers, presentation slides, safety signage charts.
4. **Time Duration:** 20 minutes
5. **Instructions:**
 - Display pictures of embroidery machines and workplace environments with hidden hazards.
 - Ask participants to work in small groups to identify unsafe conditions and record their findings.
 - Each group shares their observations with the class.
 - Facilitate a discussion on how these hazards can be prevented or reported.
 - Conclude by summarising the importance of hazard awareness and quick reporting.
6. **Outcome:** Participants will understand how to inspect fabric, estimate consumption, communicate design through sketches, and document sample specifications effectively.

Activity

1. **Name of the Activity:** Emergency Response Drill
2. **Objective of the Activity:** To prepare participants to respond effectively during fire, accident, or evacuation scenarios.
3. **Resources:** Participant handbook, workplace layout chart, fire extinguisher (for demonstration), first aid kit, CPR mannequin.
4. **Time Duration:** 25 minutes
5. **Instructions:**
 - Brief participants on evacuation procedures and emergency response steps.
 - Demonstrate the use of a fire extinguisher and CPR on the mannequin.
 - Divide participants into groups to practice evacuation routes based on the workplace layout.
 - Have each group simulate a quick response to an accident or fire scenario.
 - Facilitate group discussion on what went well and what could be improved.
6. **Outcome:** Participants will gain confidence in emergency response and practice life-saving skills like CPR.

Notes for Facilitation

- Encourage active participation by asking real-life examples of safety issues participants have faced.
- Use visual aids like signage and charts to reinforce safety messages.
- Monitor group dynamics during activities to ensure equal participation.
- Relate safety practices to embroidery operations specifically for better relevance.
- Adjust the pace of demonstrations based on participant familiarity with safety procedures.
- Keep the session interactive by combining explanation with practical exercises.
- Reinforce correct use of PPE during demonstrations and activities.
- Encourage questions and clarify misconceptions immediately.
- Summarise key points after each activity to reinforce learning.
- End with motivational advice linking safe practices to personal and team well-being.

Unit 6.2: Gender Sensitisation and Inclusion of Persons with Disabilities (PwD)

Unit Objectives

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

1. Explain why gender and PwD awareness is important at workplace.
2. Comply with gender and PwD-related instructions as per organisational policy.
3. Discuss how to accommodate employees with disabilities at the workplace.
4. State the environmental management system-related procedures to be followed at the workplace.
5. Respect diversity and contribute to creating a safe and inclusive workplace.

Resources to be Used

Participant handbook, notepad, pen, case scenarios, role-play scripts, inclusion posters, workplace policy handouts, whiteboard, markers, presentation slides, overhead projector or large screen, computer/laptop with internet connection.

Do

- Greet participants warmly and introduce yourself by sharing your background in workplace training, diversity awareness, or apparel sector experiences.
- Clearly state the unit objectives and explain how inclusivity directly improves workplace culture and productivity.
- Ensure each participant has access to the handbook, notepad, pen, and role-play/activity materials.
- Check that the whiteboard, markers, presentation slides, laptop, and projector are ready and functional.
- Encourage participants to share any experiences with gender bias or challenges faced by persons with disabilities at work.
- Provide a brief overview of the session flow including awareness, compliance with policies, accommodations, environmental procedures, and respect for diversity.
- Foster an interactive learning atmosphere by inviting questions and reflections during discussions.
- Arrange seating in a circle or clusters to support open dialogue and group participation.
- Move through each topic methodically, balancing explanation, discussion, and interactive practice.
- Conclude by summarising the session's key points and inviting participants to share one action they will apply in their workplace.

Say

- Welcome to today's session on Gender Sensitisation and Inclusion of Persons with Disabilities (PwD), where we focus on building safe, fair, and inclusive workplaces.
- By the end of today, you will understand why awareness of gender and PwD issues matters for productivity, harmony, and compliance.
- We will learn how to follow organisational policies, accommodate employees with disabilities, and respect workplace diversity.
- You will gain practical insights into inclusive practices, emergency/environmental considerations, and ways to support colleagues.
- Let's explore how inclusion benefits not just individuals, but the entire organisation.

Ask

- Why is it important to create an inclusive environment at work?
- Can you share examples of challenges faced by women or persons with disabilities in the workplace?
- What simple steps can we take to make our workplace more accessible to PwDs?
- How do company policies on diversity and inclusion help employees?
- Why is respecting diversity important for teamwork and productivity?

Elaborate

- Gender sensitisation helps remove stereotypes, ensures fair treatment, and promotes equal opportunities for all employees.
- PwD inclusion means adjusting workplaces (like ramps, ergonomic furniture, or flexible timings) so everyone can work effectively.
- Compliance with organisational policies is essential for legal, ethical, and professional standards.
- Environmental management procedures (safe disposal of waste, clean workspaces) benefit everyone, especially those with health sensitivities.
- Respecting diversity means appreciating differences in gender, ability, culture, and background — which improves collaboration.
- Inclusive practices reduce turnover, build loyalty, and improve overall efficiency.
- Supporting PwDs may involve job role adaptations, accessible technology, and training co-workers to assist respectfully.
- Gender sensitivity extends to fair promotions, safety, maternity/paternity leave, and equal pay.
- Diversity enriches problem-solving and creativity within teams.
- A truly inclusive workplace enhances the reputation of the organisation and attracts talent.

Explain

- Gender sensitisation involves challenging unconscious biases, avoiding discriminatory language, and ensuring equal opportunities.
- PwD inclusion is not charity — it is about providing equal chances by removing barriers.
- Organisational policies on inclusivity are based on law (like Equal Opportunity Acts) and company ethics.
- Workplace accommodations may include accessible restrooms, screen readers, adjustable desks, or sign language interpreters.
- Environmental management ensures that safety, hygiene, and eco-friendly practices are maintained for everyone.
- Respecting diversity means not only tolerance but celebrating differences.
- Inclusive behaviour includes listening, offering help without pity, and treating PwDs as capable colleagues.
- Diversity awareness workshops and sensitisation programs build empathy and reduce conflicts.
- Supporting inclusion also improves customer satisfaction when clients see fairness in action.
- Every individual has a role to play in ensuring a safe, respectful, and inclusive workplace.

Demonstrate

Participants will use visual aids such as posters and videos to understand and promote inclusivity. They will see posters and signage in both Bengali and English that advocate for gender equality and respect for Persons with Disabilities (PwDs). The session will conclude with a powerful real-world case study of a PwD employee from Kolkata, West Bengal, India, demonstrating the positive impact of workplace accommodations on a production team.

Activity

1. **Name of the Roleplay:** Inclusive Workplace Scenario
2. **Objective of the Roleplay:** Participants will practice responding to workplace scenarios involving gender sensitivity and PwD inclusion.
3. **Resources:** Role-play cards with scenarios, handbook, whiteboard, markers.
4. **Time Duration:** 25 minutes
5. **Instructions:**
 - Divide participants into small groups.
 - Provide each group with a role-play card (e.g., a female employee denied promotion, a PwD colleague struggling with inaccessible equipment).
 - Groups act out the scenario and propose an inclusive response.
 - Debrief with group reflections and facilitator feedback.
6. **Outcome:** Participants will learn practical responses to gender bias and PwD-related challenges.

Activity

1. **Name of the Roleplay:** Diversity Commitment Poster
2. **Objective of the Roleplay:** Participants will reflect on inclusivity and create a poster showing their commitment to building a safe, inclusive workplace.
3. **Resources:** Chart paper, markers, participant handbook, sample inclusivity posters.
4. **Time Duration:** 20 minutes
5. **Instructions:**
 - Divide participants into groups of 3–4.
 - Ask each group to create a poster with slogans, drawings, or bullet points showing how to promote gender equality and PwD inclusion.
 - Display posters on the wall for a gallery walk.
 - Each group presents their poster briefly.
6. **Outcome:** Participants will express inclusivity values creatively and take ownership of workplace diversity.

Notes for Facilitation

- Encourage respectful dialogue when participants share personal stories.
- Reinforce that inclusion is about equality, not charity.
- Highlight real workplace policies and examples wherever possible.
- Use group reflections to strengthen empathy and understanding.
- Conclude with a message: “Inclusivity is everyone’s responsibility — small actions make a big difference.”

Answers to Exercises for PHB

Answer the following questions by choosing the correct option:

1. c. Adjusting production based on inspection results
2. b. Elasticity
3. c. To minimise waste and cost
4. b. To explain design ideas clearly
5. c. Ensuring consistency in production

Answer the following questions briefly.

1. Refer to Unit 6.1: Health, Safety, Emergency Preparedness and Workplace Hygiene
Topic 6.1.4 Health and Safety-Related Practices Applicable at the Workplace
2. Refer to Unit 6.2: Gender Sensitisation and Inclusion of Persons with Disabilities (PwD)
Topic 6.2.4 Persons with Disabilities (PwD)
3. Refer to Unit 6.2: Gender Sensitisation and Inclusion of Persons with Disabilities (PwD)
Topic 6.2.6 Environmental Management System (EMS) Procedures
4. Refer to Unit 6.1: Health, Safety, Emergency Preparedness and Workplace Hygiene
Topic 6.1.6 Signage Related to Health and Safety
5. Refer to Unit 6.2: Gender Sensitisation and Inclusion of Persons with Disabilities (PwD)
Topic 6.2.1 Gender and PwD Awareness

Employability Skills is available at the following location



<https://www.skillindiadigital.gov.in/content/list>

Employability Skills



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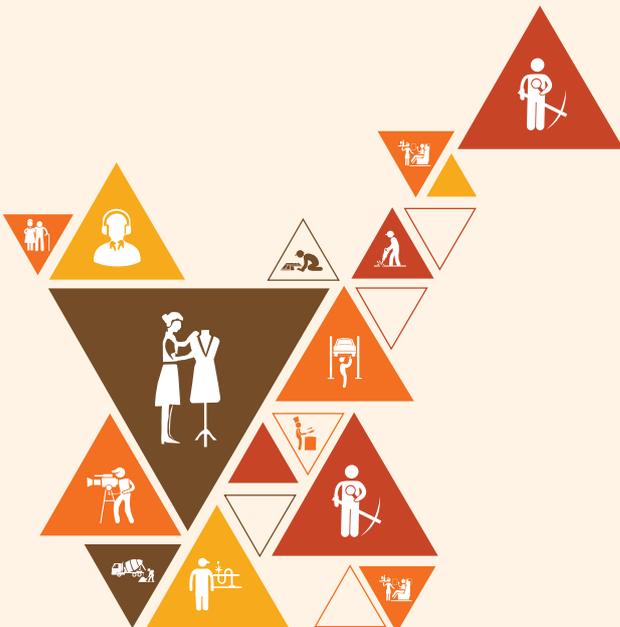


8. Annexures

Annexure I: Training Delivery Plan

Annexure II: Assessment Criteria

Annexure III: List of QR Codes Used in PHB



Annexure I

Training Delivery Plan

Training Delivery Plan			
Program Name:	Embroidery Machine Operator		
Qualification Pack Name & Ref. ID	Embroidery Machine Operator, AMH/Q0801		
Version No.	4.0	Version Update Date	18/02/2028
Pre-requisites to Training (if any)	Not Applicable		
Training Outcomes	<p>After completing this programme, participants will be able to:</p> <ol style="list-style-type: none"> 1. Perform various types of embroidery stitches and artwork. 2. Prepare for embroidery-related operations. 3. Operate the embroidery machine skillfully to achieve the required quality of embroidery work. 4. Contribute to maintaining product quality in embroidery work. 5. Maintain the work area and tools properly. 6. Maintain a healthy, safe, and secure working environment at the workplace. 7. Elaborate on greening and energy conservation activities as per the guidelines. 8. Elaborate on greening, and energy conservation activities as per the guidelines. 		

SL	Module Name	Session name	Session Objectives	NOS	Methodology	Training Tools/Aids	Duration (hours)
1.	Introduction and Orientation to Embroidery Machine Operator	Overview of Apparel Industry and Embroidery Machine Operator Job-Role	<ul style="list-style-type: none"> • Describe the roles and responsibilities of an embroidery machine operator. • Discuss the link between the operator's work and the overall manufacturing process. • Outline the employment opportunities and production activities related to this role. 	Bridge Module	Classroom lecture/ Power-Point Presentation/Question & Answer and Group Discussion	Whiteboard and markers, Chart paper and sketch pens, an LCD Projector and Laptop for presentations, PCs/ Laptops, and Internet with Wi-Fi (at Least 2 Mbps Dedicated).	3 Theory (03:00) Practical (00:00)

SL	Module Name	Session name	Session Objectives	NOS	Methodology	Training Tools/Aids	Duration (hours)
2	Carry out different types of embroidery stitches using an embroidery machine	Preparing for Zig Zag Machine Embroidery	<ul style="list-style-type: none"> Elaborate on how to analyse and interpret the design to be embroidered along with identifying the type of embroidery to be carried out. Describe the process of checking the required materials for embroidery and matching them with given specifications. Outline the steps to set up the embroidery machine correctly in line with the embroidery requirements. 	AMH/N0801 – PC1, PC2, PC3; KU9, KU10, KU11, KU12, KU13, KU14, KU15, KU16, KU17, KU18, KU19	Classroom lecture/ Power-Point Presentation/Question & Answer and Group Discussion	Whiteboard and markers, Chart paper and sketch pens, an LCD Projector and Laptop for presentations, PCs/ Laptops, and Internet with Wi-Fi (at Least 2 Mbps Dedicated).	8 Theory (02:00) Practical (06:00)
		Carrying Out Dotted Stitch	<ul style="list-style-type: none"> Illustrate the method of using the embroidery machine to carry out dotted stitches on the given fabric. Describe the materials and threads required to perform dotted stitch effectively. Outline the quality measures to be followed while executing dotted stitch embroidery. 	AMH/N0801 – PC4; KU20			8 Theory (02:00) Practical (06:00)
		Executing Design Patterns	<ul style="list-style-type: none"> Elaborate on how to operate the embroidery machine to embroider different designs as per the given artwork or pattern. Describe the role of correct thread, fabric, and needle selection in achieving accurate embroidery results. Outline the steps to ensure designs are consistent with product specifications. 	AMH/N0801 – PC5, PC6; KU10, KU11, KU12, KU13, KU14, KU15, KU16, KU17			8 Theory (02:00) Practical (06:00)

SL	Module Name	Session name	Session Objectives	NOS	Methodology	Training Tools/Aids	Duration (hours)
		Performing Specialised Embroidery Techniques	<ul style="list-style-type: none"> Illustrate the process of carrying out round stitch, applique, dori, mirror work, cut work and their variations using the embroidery machine. Outline the importance of following design specifications when applying specialised embroidery techniques. Describe the care to be taken while handling different types of fabrics and accessories during these techniques. 	AMH/N0801 – PC7; KU20			8 Theory (02:00) Practical (06:00)
		Ensuring Quality Standards	<ul style="list-style-type: none"> Outline the company's quality standards that must be followed while carrying out embroidery operations. Describe the role of self-checks and inspections in maintaining quality embroidery work. Elaborate on the procedures for reporting quality deviations and seeking guidance. 	AMH/N0801 – PC8, PC9; KU1, KU3, KU4, KU5, KU6, KU7			8 Theory (02:00) Practical (06:00)
		Managing Waste and Safety	<ul style="list-style-type: none"> Elaborate on the approved methods of minimising and disposing waste materials generated during embroidery. Describe the safe working practices that should be followed in embroidery operations. Outline how adherence to organisational procedures ensures a safe and clean working environment. 	AMH/N0801 – PC10; KU2			7 Theory (01:00) Practical (06:00)

SL	Module Name	Session name	Session Objectives	NOS	Methodology	Training Tools/Aids	Duration (hours)
		Main-taining Workflow Efficiency	<ul style="list-style-type: none"> Illustrate how to carry out embroidery operations at a rate that maintains workflow and meets targets. Describe the role of planning and organisation in maintaining production efficiency. Outline the link between steady workflow and timely delivery of embroidered products. 	AMH/N0801 – PC11; KU3, KU5			7 Theory (01:00) Practical (06:00)
		Responding to Defects	<ul style="list-style-type: none"> Elaborate on how to identify embroidery outputs that do not meet product specifications. Describe the corrective actions to be taken when embroidery errors are found. Outline the importance of reporting embroidery issues beyond one's authority to the appropriate person. 	AMH/N0801 – PC12; KU4, KU6, KU7			7 Theory (01:00) Practical (06:00)
		Under-standing Organizational Systems	<ul style="list-style-type: none"> Describe the organisation's policies, procedures, and guidelines relevant to embroidery production. Elaborate on the tools, templates, and processes used in embroidery-related operations. Outline the importance of compliance with organisational quality systems. 	AMH/N0801 – KU1, KU3, KU8			7 Theory (01:00) Practical (06:00)

SL	Module Name	Session name	Session Objectives	NOS	Methodology	Training Tools/Aids	Duration (hours)
		Mastering Machine and Material Relations	<ul style="list-style-type: none"> Outline the relation between thread, machine needle, and fabric for embroidery operations. Describe the remedies for common machine faults encountered during embroidery. Elaborate on the care and maintenance practices necessary for embroidery machines. 	AMH/N0801 – KU10, KU11, KU13, KU15, KU16, KU17			7 Theory (01:00) Practical (06:00)
		Applying Colour and Design Concepts	<ul style="list-style-type: none"> Elaborate on the use of colour combinations and thread usage in line with given design requirements. Describe the characteristics of embroidery materials and how they differ in application. Outline the technical terms associated with different embroidery works. 	AMH/N0801 – KU12, KU13, KU14, KU15			7 Theory (01:00) Practical (06:00)
		Exploring Stitches and Art-work	<ul style="list-style-type: none"> Illustrate the creation of embroidery stitches such as round leaves, dotted stitch, and pointed leaves. Describe the process of performing applique work, dori work, mirror work, and cut work using an embroidery machine. Outline how different stitch types and artworks contribute to variety in embroidery designs. 	AMH/N0801 – KU20			5 Theory (02:00) Practical (03:00)

SL	Module Name	Session name	Session Objectives	NOS	Methodology	Training Tools/Aids	Duration (hours)
3	Embroider decorative designs using embroidery machine	Workplace Safety and Preparation	<ul style="list-style-type: none"> Elaborate on the need to make sure the work area is free from hazards before beginning embroidery operations. Describe the importance of following instructions and design specifications carefully for embroidery tasks. Outline organisational policies, safety procedures, and environmental guidelines, including hazards associated with embroidery machines and precautions to be taken. 	AMH/N0802 – PC1, PC2, KU1, KU2, KU3, KU4	Classroom lecture/ Power-Point Presentation/Question & Answer and Group Discussion	Whiteboard and markers, Chart paper and sketch pens, an LCD Projector and Laptop for presentations, PCs/ Laptops, and Internet with Wi-Fi (at Least 2 Mbps Dedicated).	7 Theory (06:00) Practical (01:00)
		Clarifying Work and Targets	<ul style="list-style-type: none"> Describe how to ask questions when instructions are unclear to obtain more information on tasks. Elaborate on the process of reviewing and agreeing upon work targets with supervisors. Outline the protocol for work-related communication including feedback, reporting formats, and review mechanisms. 	AMH/N0802 – PC3, PC4, KU5, KU6, KU7, KU8, KU9, KU10, KU11			7 Theory (06:00) Practical (01:00)
		Material and Equipment Selection	<ul style="list-style-type: none"> Describe how to use correct component parts, fabrics, materials, tools and equipment for embroidery. Elaborate on the importance of checking that equipment is safe and set up in readiness for use. Outline the characteristics of embroidery materials, differences between them, and problems encountered when working on them. 	AMH/N0802 – PC5, PC6, KU15, KU16, KU25, KU26			7 Theory (06:00) Practical (01:00)

SL	Module Name	Session name	Session Objectives	NOS	Methodology	Training Tools/Aids	Duration (hours)
		Material Quality and Specification	<ul style="list-style-type: none"> Elaborate on how to check that the materials to be used are free from faults and match specifications with embroidery artwork or design samples. Describe types of defects found in embroidery materials and their rectification methods. Outline the importance of understanding design specification sheets and artwork. 	AMH/N0802 – PC7, KU14, KU27			7 Theory (06:00) Practical (01:00)
		Machine Operation and Test Runs	<ul style="list-style-type: none"> Elaborate on the method of carrying out test sews before production. Describe the importance of checking needles and threads regularly during operation. Outline the use of different types of needles, thread thickness, shades, and parts, and their effect on embroidery. 	AMH/N0802 – PC8, PC9, KU18, KU19, KU20, KU21			7 Theory (06:00) Practical (01:00)
		Fabric Preparation and Fault Reporting	<ul style="list-style-type: none"> Elaborate on how to check if fabric or components are correctly marked and cut as required. Describe the procedure for reporting faults in materials or damaged work to the responsible person. Outline the protocol for reporting defective tools, machines, and risks/problems likely to affect work. 	AMH/N0802 – PC10, PC11, KU6, KU8, KU10, KU23			7 Theory (06:00) Practical (01:00)

SL	Module Name	Session name	Session Objectives	NOS	Methodology	Training Tools/Aids	Duration (hours)
		Quality Standards and Reporting	<ul style="list-style-type: none"> Elaborate on how to conform to company quality standards in embroidery work. Describe company reporting procedures regarding defective tools, machines, and faulty materials. Outline the format and procedure for documentation and reporting in accordance with workplace standards. 	AMH/N0802 – PC12, PC13, KU1, KU8, KU10			8 Theory (01:00) Practical (07:00)
		Work Area Management	<ul style="list-style-type: none"> Describe how to leave the work area safe and secure when work is complete. Elaborate on methods to maintain a healthy and hazard-free workspace. Outline common hazards in the work area and workplace procedures for dealing with them. 	AMH/N0802 – PC14, KU2, KU4, KU24			8 Theory (01:00) Practical (07:00)
		Machine Operation with Accuracy	<ul style="list-style-type: none"> Elaborate on how to operate embroidery machines safely, with precision and accuracy, and in accordance with guidelines. Describe methods to optimise positioning and layout of materials for smooth and rapid throughput. Outline the actions to take when the machine ceases to function correctly or needs adjustment. 	AMH/N0802 – PC15, PC16, KU16, KU22, KU23, KU28, KU29			8 Theory (01:00) Practical (07:00)

SL	Module Name	Session name	Session Objectives	NOS	Methodology	Training Tools/Aids	Duration (hours)
		Equipment Check and Setup	<ul style="list-style-type: none"> Elaborate on how to check equipment prior to stitching including correct controls, attachments, needle and thread. Describe the importance of attachments used on embroidery machines and their functions. Outline maintenance, adjustment and replacement of worn parts required for different types of attachments. 	AMH/N0802 – PC17, KU18, KU20, KU21, KU22, KU29			8 Theory (01:00) Practical (07:00)
		Inspection and Product Conformance	<ul style="list-style-type: none"> Elaborate on methods to inspect embroidered products to ensure they conform to specifications. Describe common factors affecting stitching and embroidery quality. Outline different types of embroidery, stitches and styles suitable for different fabrics. 	AMH/N0802 – PC18, KU13, KU15, KU17			8 Theory (01:00) Practical (07:00)
		Teamwork and Communication	<ul style="list-style-type: none"> Elaborate on the importance of teamwork and harmonious working relationships in embroidery operations. Describe methods of obtaining or offering feedback related to performance. Outline the roles of supervisors and contact persons for resolving queries related to procedures, products or defective equipment. 	AMH/N0802 – KU5, KU6, KU7, KU11, KU12			8 Theory (01:00) Practical (07:00)

SL	Module Name	Session name	Session Objectives	NOS	Methodology	Training Tools/Aids	Duration (hours)
4	Contribute to achieve quality in embroidery work	Material Identification and Usage	<ul style="list-style-type: none"> Elaborate on how to identify and use materials required based on specifications. Describe safe working practices and organisational procedures for handling embroidery materials. Outline the organisation's procedures and guidelines related to selection and use of materials. 	AMH/N1003 – PC1, KU1, KU2	Classroom lecture/ Power-Point Presentation/Question & Answer and Group Discussion	Whiteboard and markers, Chart paper and sketch pens, an LCD Projector and Laptop for presentations, PCs/ Laptops, and Internet with Wi-Fi (at Least 2 Mbps Dedicated).	6 Theory (01:00) Practical (05:00)
		Material Quality and Replacement	<ul style="list-style-type: none"> Elaborate on the necessary actions when materials do not conform to quality standards. Describe how to report and replace faulty materials and component parts which do not meet specifications. Outline quality systems and embroidery processes practiced in the organisation. 	AMH/N1003 – PC2, PC3, KU3			6 Theory (01:00) Practical (05:00)
		Defects and Rework	<ul style="list-style-type: none"> Elaborate on how to identify modifiable defects and rework on them effectively. Describe different types of faults, their identification and methods of rectification. Outline techniques and methods used to detect faults in embroidery products. 	AMH/N1003 – PC4, KU10, KU11, KU14			6 Theory (01:00) Practical (05:00)

SL	Module Name	Session name	Session Objectives	NOS	Methodology	Training Tools/Aids	Duration (hours)
		Safe and Productive Work Practices	<ul style="list-style-type: none"> Elaborate on how to carry out embroidery work safely while maintaining workflow, productivity, and quality levels. Describe equipment operating procedures and manufacturer's instructions. Outline the importance of complying with written instructions at the workplace. 	AMH/N1003 – PC5, KU1, KU4, KU7			6 Theory (01:00) Practical (05:00)
		Workflow and Reporting	<ul style="list-style-type: none"> Elaborate on how to report to the responsible person when workflow disruptions from other production areas occur. Describe reporting procedures in case of faults during embroidery operations. Outline limits of personal responsibility when handling workflow issues. 	AMH/N1003 – PC6, KU8, KU9			6 Theory (01:00) Practical (05:00)
		Monitoring Work in Progress	<ul style="list-style-type: none"> Elaborate on methods to test, sort, track feed and examine work in progress. Describe techniques to ensure consistency during embroidery processes. Outline the importance of monitoring embroidery work at various stages to maintain quality. 	AMH/N1003 – PC7, KU3, KU11			6 Theory (01:00) Practical (05:00)
		Quality Check Intervals	<ul style="list-style-type: none"> Elaborate on how to carry out quality checks at specified intervals according to given instructions. Describe the importance of applying organisational quality systems during checks. Outline methods to ensure adherence to standard inspection processes. 	AMH/N1003 – PC8, KU3, KU17			6 Theory (01:00) Practical (05:00)

SL	Module Name	Session name	Session Objectives	NOS	Methodology	Training Tools/Aids	Duration (hours)
		Tolerance and Adjustments	<ul style="list-style-type: none"> Elaborate on how to apply the allowed tolerances in embroidery work. Describe how to make adjustments promptly to ensure the embroidery matches specifications. Outline the consequences of incorrect settings in the embroidery machine. 	AMH/N1003 – PC9, PC10, KU12, KU19, KU20			6 Theory (01:00) Practical (05:00)
		Material Faults and Rectification	<ul style="list-style-type: none"> Elaborate on how to identify creased, stained, damaged, or incorrectly made components. Describe procedures for reporting such faults to relevant personnel and taking corrective action. Outline acceptable solutions for particular faults and their rectification. 	AMH/N1003 – PC11, KU10, KU14, KU19			6 Theory (01:00) Practical (05:00)
		Documentation and Records	<ul style="list-style-type: none"> Elaborate on how to complete and maintain documentation for embroidery work. Describe reporting formats and procedures related to quality and production. Outline the importance of accurate documentation for tracking workflow and quality assurance. 	AMH/N1003 – PC12, KU2, KU9			6 Theory (01:00) Practical (05:00)
		Embroidery Techniques and Styles	<ul style="list-style-type: none"> Elaborate on different types of decorative stitches, embroidery styles, and techniques. Describe the application of embroidery methods for achieving quality outcomes. Outline the significance of choosing correct techniques for different design specifications. 	AMH/N1003 – KU13			6 Theory (01:00) Practical (05:00)

SL	Module Name	Session name	Session Objectives	NOS	Methodology	Training Tools/Aids	Duration (hours)
		Inspection and Rejects	<ul style="list-style-type: none"> Elaborate on how to inspect embroidered products using standard inspection methods. Describe how to identify, mark, and segregate rejects properly. Outline the importance of marking and placing rejects at designated locations to avoid contamination. 	AMH/N1003 – KU15, KU16, KU17, KU18			6 Theory (01:00) Practical (05:00)
		Problem Identification and Solutions	<ul style="list-style-type: none"> Elaborate on how to recognise types of faults likely to occur in embroidery work. Describe acceptable solutions for faults and methods for their rectification. Outline the consequences of not rectifying problems in embroidery production. 	AMH/N1003 – KU10, KU19, KU20			6 Theory (01:00) Practical (05:00)
		Continuous Improvement	<ul style="list-style-type: none"> Elaborate on methods to present ideas for improvement to the line manager. Describe the importance of innovation and suggestions in improving embroidery quality systems. Outline the role of workers in contributing to productivity and greening job roles. 	AMH/N1003 – KU6, KU21			6 Theory (01:00) Practical (05:00)
		Roles and Responsibilities	<ul style="list-style-type: none"> Elaborate on individual responsibilities during production in embroidery work. Describe the importance of following organisational procedures and written instructions. Outline the significance of adhering to defined responsibilities for quality and safety compliance. 	AMH/N1003 – KU2, KU7, KU21			6 Theory (01:00) Practical (05:00)

SL	Module Name	Session name	Session Objectives	NOS	Methodology	Training Tools/Aids	Duration (hours)
5	Maintain work area, tools and machines and Greening of Job Roles	Safe Handling and Work Area Maintenance	<ul style="list-style-type: none"> Elaborate on how to handle materials, machinery, equipment, and tools safely and correctly to maintain a clean and hazard-free working area. Describe the importance of good health, personal hygiene, safe working practices, code of conduct, and Social Accountability standards. Outline the limits of individual responsibility and the importance of duty of care while maintaining work areas. 	AMH/N0102 – PC1, KU1, KU2, KU3	Classroom lecture/ Power-Point Presentation/Question & Answer and Group Discussion	Whiteboard and markers, Chart paper and sketch pens, an LCD Projector and Laptop for presentations, PCs/ Laptops, and Internet with Wi-Fi (at Least 2 Mbps Dedicated).	6 Theory (03:00) Practical (03:00)
		Lifting, Waste Management and Efficiency	<ul style="list-style-type: none"> Elaborate on the use of correct lifting and handling procedures and their importance in daily operations. Describe how to use materials efficiently to minimise wastage and dispose of waste safely at the designated location. Outline different ways of minimising waste, proper disposal systems, and the effects of contamination on embroidered products. 	AMH/N0102 – PC2, PC3, KU13, KU15			6 Theory (03:00) Practical (03:00)
		Maintenance and Fault Reporting	<ul style="list-style-type: none"> Elaborate on how to carry out running maintenance and/or cleaning within one's responsibility and agreed schedules. Describe the procedure to report unsafe or damaged equipment and other dangerous occurrences to authorised personnel. Outline the importance of regular cleaning, common faults with equipment, and hazards during maintenance, and methods of rectification. 	AMH/N0102 – PC4, PC5, KU14, KU16, KU17, KU18			6 Theory (03:00) Practical (03:00)

SL	Module Name	Session name	Session Objectives	NOS	Methodology	Training Tools/Aids	Duration (hours)
		Machine Guards, Posture and Operating Instructions	<ul style="list-style-type: none"> Elaborate on how to ensure correct machine guards are in place before operation. Describe the importance of working in a comfortable position and maintaining correct posture for efficiency and safety. Outline equipment operating procedures, manufacturer's instructions, and their role in safe machine use. 	AMH/N0102 – PC6, PC7, KU4, KU8			6 Theory (03:00) Practical (03:00)
		Cleaning Methods and Communication	<ul style="list-style-type: none"> Elaborate on how to use cleaning equipment and methods appropriate for embroidery work. Describe different types of cleaning equipment, substances, and safe working practices for cleaning. Outline the role of communication with superiors and colleagues, work instructions, specifications, and their interpretation in maintaining work area standards. 	AMH/N0102 – PC8, KU5, KU6, KU7, KU9, KU10, KU11, KU12, KU19, KU20			6 Theory (03:00) Practical (03:00)
6	Maintain health, safety and secure work place with Gender and PwD Sensitisation	Compliance and Gender–PwD Sensitisation	<ul style="list-style-type: none"> Elaborate on how to comply with health, safety, gender and PwD related instructions applicable at the workplace. Describe the importance of gender equality policies, harassment reporting mechanisms, and etiquette in accommodating employees with disabilities. Outline communication methods, appropriate language, and workplace practices that promote a safe, accessible, and healthy workplace for all employees. 	AMH/N0103 – PC1, KU1, KU2, KU3, KU4	Classroom lecture/ Power-Point Presentation/Question & Answer and Group Discussion	Whiteboard and markers, Chart paper and sketch pens, an LCD Projector and Laptop for presentations, PCs/ Laptops, and Internet with Wi-Fi (at Least 2 Mbps Dedicated).	6 Theory (03:00) Practical (03:00)

SL	Module Name	Session name	Session Objectives	NOS	Methodology	Training Tools/Aids	Duration (hours)
		Safety Participation and Awareness	<ul style="list-style-type: none"> Elaborate on the importance of actively participating in mock drills, evacuation procedures, and group discussions related to workplace safety. Describe health and safety practices, potential hazards, and ways to minimise workplace risks. Outline the code of conduct, social accountability standards, and occupational health and safety methods including the use of personal protective equipment. 	AMH/N0103 – PC2, KU5, KU6, KU7, KU10			6 Theory (03:00) Practical (03:00)
		Training and Equipment Usage	<ul style="list-style-type: none"> Elaborate on the significance of attending training and sensitisation programs for gender and PwD awareness at the workplace. Describe how to use and maintain safety materials and equipment according to protocol. Outline identification, handling, and storage of hazardous substances along with the disposal of waste and by-products safely. 	AMH/N0103 – PC3, PC4, KU11, KU12			6 Theory (03:00) Practical (03:00)
		Emergency Response and Evacuation	<ul style="list-style-type: none"> Elaborate on how to perform first aid, firefighting, and emergency response procedures effectively. Describe the importance of following organisational procedures for shutdown and evacuation during emergencies. Outline the plant layout, emergency exits, escape routes, emergency equipment, assembly points, and the meaning of safety signage. 	AMH/N0103 – PC5, KU8, KU13			6 Theory (03:00) Practical (03:00)

SL	Module Name	Session name	Session Objectives	NOS	Methodology	Training Tools/Aids	Duration (hours)
		Risk Monitoring and Reporting	<ul style="list-style-type: none"> Elaborate on how to monitor the workplace and processes for potential risks or threats and report them to supervisors or authorised personnel. Describe the significance of ensuring gender equality and PwD security while addressing workplace risks. Outline reporting protocols, required documentation, importance of personal health, hygiene, and the ill effects of intoxicants such as alcohol, tobacco, and drugs. 	AMH/N0103 – PC6, KU9, KU14			6 Theory (03:00) Practical (03:00)
Total Duration							Theory: 108:00 Practical: 222:00
Employability Skills (DGT/VSQ/N0101) https://www.skillindiadigital.gov.in/content/list							30:00
OJT Duration (Mandatory)							30:00
Total							Theory + Practical + ES 390:00

Annexure II

Assessment Criteria

CRITERIA FOR ASSESSMENT OF TRAINEES

Assessment Criteria for Embroidery Machine Operator	
Job Role	Embroidery Machine Operator
Qualification Pack	AMH/Q0801, V4.0
Sector Skill Council	Apparel

S. No.	Guidelines for Assessment
1	Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2	The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3	Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below.)
4	Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.
5	To pass the Qualification Pack, every trainee should score a minimum of 70% in every NOS.
6	In case of successfully passing only certain number of NOSs, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.
7	In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Assessment Outcomes	Assessment Criteria for Outcomes	Marks Allocation		
		Theory	Practical	Viva
AMH/N0801: Carry out different types of embroidery stitches using an embroidery machine	Prepare for Zig Zag Machine Embroidery	6	11	3
	PC1. Analyse & interpret the design to be embroidered & the type of embroidery to be done	2	2	1
	PC2. Check the materials required for embroidery with the given specifications	2	4	1
	PC3. Setup the embroidery machine as per embroidery to be done	2	5	1
	Carry out different Types of Embroidery Stitches & Artwork	14	59	7
	PC4. Use the embroidery machine to carry out dotted stitch on given fabric / material	2	6	0.5
	PC5. Operate the embroidery machine to embroider different designs as per given pattern/art work	1	6	0.5
	PC6. Embroider any given pattern on fabric using the correct thread & materials, using the embroidery machine.	1	4	1
	PC7. Carry out round stitch, applique, dori, mirror and cut work; and its variation in machine embroidery as per specifications	5	35	3
	PC8. Conform to company quality standards	1	1	0.5
	PC9. Check with in charge /others when unsure of new product details	2	1	0.5
PC10. Minimise and dispose the waste materials in the approved manner	1	2	0.5	

	PC11. Carryout operations at a rate which maintains workflow	1	4	0.5
	PC12. Respond appropriately if the embroidery does not meet product specification & take corrective action	-	-	-
	NOS Total	20	70	10
AMH/N0802: Embroider decorative designs using embroidery machine	Prepare for embroidery related operations	7	12	4.5
	PC1. Make sure the work area is free from hazards	0.5	1	0.5
	PC2. Follow the instructions & design specifications given for the embroidery to be done	0.5	1	0.5
	PC3. Ask questions to obtain more information on tasks when the instructions you have are unclear	0.5	-	0.5
	PC4. Agree and review your agreed upon work targets with your supervisor and check for special instructions, if any	0.5	1	0.5
	PC5. Use the correct component parts/fabric/material; tools and equipment for embroidery	2	2	1
	PC6. Check that equipment is safe and set up in readiness for use	1	1	0.5
	PC7. Check that the materials to be used are free from faults and meet the specification matching. a. embroidery artwork b. design sample of the embroidered product	2	6	1
	Operate the embroidery machine skillfully to achieve the requisite quality of embroidery work	13	58	5.5
	PC8. Carry out test sews	-	8	-
	PC9. Check needles and threads regularly	1	1	0.5
	PC10. Check if fabric /component is correctly marked and pieces cut as required	1	3	0.5
	PC11. Report faults in the materials or damaged work to the responsible person	0.5	1	1
	PC12. Conform to company quality standards	1	4	0.5
	PC13. Follow company reporting procedures about defective tools and machines which affect work and report risks/problems likely to affect services to the relevant person promptly and accurately	0.5	1	0.5
	PC14. Leave work area safe and secure when work is complete	2	1	0.5
	PC15. Operate embroidery machines safely; with precision & accuracy and in accordance with guidelines	1	20	-
	PC16. Optimize the positioning and layout of materials to ensure a smooth and rapid throughput	1	6	0.5
PC17. Check the equipment prior to making the stitching, including correct controls, correct attachments, correct needle & thread	2	3	0.5	
PC18. Inspect and ensure all embroidered products conform to its specifications	3	10	1	
	NOS Total	20	70	10
AMH/N1003: Contribute to achieve quality in embroidery work and Greening of Job Roles	Achieving the product quality in embroidery work	18	63	9
	PC1. Identify and use materials required based on the specifications	1	3	1
	PC2. Take the necessary action when materials do not conform to quality standards	1	4	0.5
	PC3. Report and replace identified faulty materials and component parts which do not meet specification	2	4	0.5
	PC4. Identify modifiable defects and rework on them	1	7	1
	PC5. Carryout work safely and at a rate which maintains work flow, productivity and quality levels.	2	7	1

	PC6. Report to the responsible person when the workflow of other production areas disrupts work	1	3	0.5
	PC7. Test, sort, track feed and examine work in progress	1	5	1
	PC8. Carry out quality checks at specified intervals according to instructions	2	6	1
	PC9. Apply the allowed tolerances	1	4	0.5
	PC10. Make adjustments promptly to ensure the embroidery work matches the specification	-	3	0.5
	PC11. Identify materials and components for faults ,creased, stained, damage and in-correctly made up components; report these to relevant personnel and take appropriate action for rectification	5	12	1
	PC12. Complete and maintain documentation	1	5	0.5
	NOS Total	18	63	9
AMH/N0102: Maintain work area, tools and machines	Maintain the work area, handle tools and machines	14	49	7
	PC1. Handle materials, machinery, equipment and tools safely and correctly to maintain a clean and hazard free working area	3	10	1
	PC2. Use correct lifting and handling procedures	2	7	1
	PC3. Use materials efficiently to minimize wastage and dispose off waste safely at the designated location.	2	4	1
	PC4. Carry out running maintenance and/or cleaning within one's responsibility and agreed schedules	2	10	1
	PC5. Report any unsafe or damaged equipment and other dangerous occurrences to the authorized personnel	1	2	0.5
	PC6. Ensure that the correct machine guards are in place	2	2	0.5
	PC7. Work in a comfortable position and maintain correct posture	1	7	1
	PC8. Use cleaning equipment and methods appropriate for the work to be carried out	1	7	1
	NOS Total	14	49	7
AMH/N0103: Maintain health, safety and security requirement at work place with Gender and PwD Sensitization	Hazards and potential risks associated with the process, guidelines for medical emergencies and evacuation process; gender & PwD sensitization	22	12	6
	PC1. Comply with health, safety gender and PwD (People with disability) related instructions applicable to the workplace.	4	2	1
	PC2. Actively participate in mock drills/evacuation procedures and group discussions related to a safe and secure work place.	4	2	1
	PC3. Training sensitization programs for gender and PwD awareness organized at the workplace.	4	2	1
	PC4. Use and maintain materials and equipment as per protocol.	3	2	1
	PC5. Capable to perform first-aid, firefighting or any other emergency response procedures and follow organization procedures for shutdown and evacuation when required	4	2	1
	PC6. Monitor the work place and processes for potential risks/ threats to supervisors or other authorized personnel and ensure gender equality and PwD (People with disability) security.	3	2	1
	NOS Total	22	12	6

DGT/VSQ/N0101: Employability Skills (30 Hours)	Introduction to Employability Skills	1	1	-
	PC1. understand the significance of employability skills in meeting the job requirements	-	-	-
	Constitutional values – Citizenship	1	1	-
	PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices	-	-	-
	Becoming a Professional in the 21st Century	1	3	-
	PC3. explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.	-	-	-
	Basic English Skills	2	3	-
	PC4. speak with others using some basic English phrases or sentences	-	-	-
	Communication Skills	1	1	-
	PC5. follow good manners while communicating with others	-	-	-
	PC6. work with others in a team	-	-	-
	Diversity & Inclusion	1	1	-
	PC7. communicate and behave appropriately with all genders and PwD	-	-	-
	PC8. report any issues related to sexual harassment	-	-	-
	Financial and Legal Literacy	3	4	-
	PC9. use various financial products and services safely and securely	-	-	-
	PC10. calculate income, expenses, savings etc.	-	-	-
	PC11. approach the concerned authorities for any exploitation as per legal rights and laws	-	-	-
	Essential Digital Skills	4	6	-
	PC12. operate digital devices and use its features and applications securely and safely	-	-	-
	PC13. use internet and social media platforms securely and safely	-	-	-
Entrepreneurship	3	5	-	
PC14. identify and assess opportunities for potential business	-	-	-	
PC15. identify sources for arranging money and associated financial and legal challenges	-	-	-	
Customer Service	2	2	-	
PC16. identify different types of customers	-	-	-	
PC17. identify customer needs and address them appropriately	-	-	-	
PC18. follow appropriate hygiene and grooming standards	-	-	-	
Getting ready for apprenticeship & Jobs	1	3	-	
PC19. create a basic biodata	-	-	-	
PC20. search for suitable jobs and apply	-	-	-	
PC21. identify and register apprenticeship opportunities as per requirement	-	-	-	
NOS Total	20	30	-	

Annexure III

List of QR Codes Used in PHB

Module No.	Unit No.	Topic Name	Page No. in PHB	URL	QR Code (s)
Module 1: Introduction and Orientation to Embroidery Machine Operator	Unit 1.1: Introduction to the role of Embroidery Machine Operator	1.1.1 Apparel Manufacturing Sector	13	https://youtu.be/-ddisteV3tOo-?si=uF-DW4QKnItoOKknY	 Textile Sector in India
		1.1.2 Embroidery	13	https://youtu.be/_DkEQubrWf8-?si=1mxVo-QOyAqYov2e8	 The Story Behind Embroidery What is Embroidery?
		1.1.3 Garment Production Process	13	https://youtu.be/-QaS4sI0n-5Qg-?si=f49xb-wPLdagICvk	 Garments Full Production Process
		1.1.4 Roles and Responsibilities of an Embroidery Machine Operator	13	https://youtu.be/-6XMG1SfF-Cc8-?si=PvDmFX7iI5Es5EHk	 Embroidery computer machine

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Module 2: Carry out Different Types of Embroidery Stitches Using an Embroidery Machine	Unit 2.1: Ba-sics of Em-broidery Ma-terials and Tools	2.1.1 Types of Fabrics	98	https://www.youtube.com/watch?v=lbZA4mo-08g	 Types Of Fabric Names and Pictures
		2.1.2 Threads	98	https://youtu.be/-QOh2xECA63M-?si=rIVVM8QNN-Vqrhcsg	 Sewing Thread Used in Apparel Manufacturing
		2.1.3 Different Types of Trims	98	https://youtu.be/-OHmjUCO-QXUQ-?si=uhrmwZEWZFKL2n8K	 Types of Embroidery Needles
		2.1.4 Embroidery Needles	98	https://youtu.be/-46FzG-PACq4-?si=4b_rL9XIHc-INJq	 Trims And Accessories? Different Types Of Trimmings And Accessories Used In Apparel Industry

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		2.1.6 Other Accessories Used in Embroidery	98	https://youtu.be/-qK6HNIbec-QI?si=BNhCKZwhbn697SIP	 Traditional Embroideries of India
		2.1.9 Types of Embroidery	98	https://youtu.be/-Q1tb_q1i-6IA?si=TNm6qs2rGTj63xcA	 6 Basic Hand Embroidery Materials and Tools
		2.1.10 Types of Embroidery Techniques and their Stitch Types	98	https://youtu.be/-hVw-1WVacVZo?si=-ZQqrVDbfJ9X-gXwi	 20 Basic Hand Embroidery Stitches Sampler for Absolute Beginners
Module 3: Embroider Decorative Designs Using Embroidery Machine	Unit 3.1: Preparation for Embroidery Operations	3.1.1 Material Pre-Checks	122	https://youtu.be/-Btim8PV-vMIs?si=jFulXwtO5WJVMEct	 51 Major fabric faults and fabric inspection

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Module 4: Contribute to achieve quality in embroidery work and Green-ing of Job Roles	Unit 4.1: Maintain Quality Standards in Embroidery Production	4.1.8 Faults in Embroidery Work	143	https://youtu.be/-nSGVF4HHTNg?si=4RjORVfRRQEKQeZb	 Are You Making These Machine Embroidery Mistakes?
	Unit 5.1: Effective Communication and Team Work	5.1.1 Importance of Effective Communication with Colleagues and Supervisors	174	https://youtu.be/-KNS-iE4y5y4?si=67D-kfOzIqH7IFcE	 Effective Communication?
Module 5: Maintain Work Area, Tools and Machines	Unit 5.3: Operation and Maintenance of Machines and Tools	5.3.1 Different Types of Cutting Machines	174	https://youtu.be/-xfKChjTHXnA?si=YpoTJ5CM-Se29Uaj	 Machine Used in Garments Factory
	Unit 6.1: Health, Safety, Emergency Preparedness and Workplace Hygiene	6.1.4 Health and Safety-Related Practices Applicable at the Work-place	201	https://youtu.be/-Qyy0Svl1kZl?si=MVRhGK-sP9oUBfAUp	 PPE - Personal Protective Equipment
Module 6: Maintain Health, Safety And Secure Workplace with Gender and PwD Sensitisation	Unit 6.1: Health, Safety, Emergency Preparedness and Workplace Hygiene	6.1.9 CPR (Cardiopulmonary Resuscitation) Procedure	201	https://youtu.be/-Qyy0Svl1kZl?si=MVRhGK-sP9oUBfAUp	 What is CPR?



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**APPAREL MADE-UPS HOME FURNISHING
SECTOR SKILL COUNCIL**

Address: Apparel Made-ups & Home Furnishing Sector Skill Council

Flat No. A-312 to A-323, 3rd Floor, Somdatt Chamber-1,
Bhikaji Cama Place, Africa Avenue, New Delhi-110066

Email: info@sscammh.com

Web: www.sscammh.com