

# Model Curriculum

## Embroidery Machine Operator (Zigzag Machine)

**SECTOR:** APPAREL, MADE-UPS AND HOME FURNISHING  
**SUB-SECTOR:** Apparel  
**OCCUPATION:** Machine Embroidery Operation  
**REF ID:** AMH/ Q0801, v1.0  
**NSQF LEVEL:** 4



## Certificate

### CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

APPAREL MADE-UPS AND HOME FURNISHING SECTOR SKILL COUNCIL

for the

### MODEL CURRICULUM

Complying to National Occupational Standards of  
Job Role/ Qualification Pack: 'Embroidery Machine Operator (Zigzag Machine)'  
QP No. 'AMH/Qo8o1 NSQF Level 4'

Date of Issuance: May 2<sup>nd</sup>, 2019

Valid up to\*: May 2<sup>nd</sup>, 2023

\*Valid up to the next review date of the Qualification Pack

  
Authorised Signatory  
(Apparel Made-ups And Home Furnishing Sector Skill Council)

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This course encompasses 5 out of 5 National Occupational Standards (NOS) of “Embroidery Machine Operator (Zigzag Machine)” Qualification Pack issued by “Apparel, Made-Ups and Home Furnishing Sector Skill Council”.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<b>Introduction and Orientation</b>  <b>Theory Duration</b> (hh:mm) 02:00  <b>Practical Duration</b> (hh:mm) 00:00  <b>Corresponding NOS Code</b> Bridge Module	<ul style="list-style-type: none"> <li>Explain roles and responsibilities of a ‘Embroidery Machine Operator (Zigzag Machine)’.</li> <li>Describe various employment opportunities in the apparel industry for a ‘Embroidery Machine Operator (Zigzag Machine)’.</li> <li>Describe relation between work role and the overall manufacturing process.</li> <li>Describe the production process and the specific work activities that relate to the whole process.</li> </ul>	White /black Board With Marker and Chalk, Duster
2	<b>Carry out different types of embroidery stitches using an embroidery machine</b>  <b>Theory Duration</b> (hh:mm) 15:00  <b>Practical Duration</b> (hh:mm) 45:00  <b>Corresponding NOS Code</b> AMH/N0801	<ul style="list-style-type: none"> <li>Explain different types of fabrics, materials and accessories used in embroidery.</li> <li>List the characteristics of the materials to be embroidered and how they differ with each other.</li> <li>Describe technical terms associated with different kinds of embroidery work.</li> <li>State the organization’s policies, procedures, guidelines and standards for quality.</li> <li>Describe quality systems and other processes practiced in the organization.</li> <li>Describe types of problems with quality and how to report them to appropriate people.</li> <li>State reporting procedure in case of faults in own/ other processes.</li> <li>Identify who to refer problems to when they are outside the limit of one’s own authority.</li> <li>Describe the organization’s tools, templates and processes for embroidery related operations in production.</li> <li>State one’s own responsibilities under health, safety and environmental legislation.</li> <li>State safe working practices for performing embroidery work.</li> <li>Describe various types of embroidery.</li> <li>List types of decorative stitches, embroidery styles and techniques.</li> <li>Explain different types of embroidery techniques and associated stitch type.</li> <li>Describe range of techniques most suited to the different types of fabrics/materials.</li> <li>List the problems encountered when working on different types of materials.</li> <li>List elements of zig-zag machine embroidery.</li> <li>Identify tools and material requirements for embroidery as per given specifications.</li> </ul>	Thread (for embroidery surplus, quantity and quality may vary), Novelty Yarns/Fancy yarns (surplus, quantity and variety may vary), Fabric (surplus fabric, quantity and variety may vary), Surface Embellishments, Industrial Single Needle Lock Stitch Machine set, Zig - Zag Machine with table, Masking Tape, Needles (various sizes), Thimbles For The Thumb (Plastic and Plated), Measuring Scale, Measuring Tape, Hand Needle(all gauges, Punch Needle (all gauges. The quantity may vary), Scissors (fabric and paper cutting), Frame, Pattern Making Paper, Tracing Paper,

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> <li>Check the materials required for embroidery with the given specifications.</li> <li>List common factors affecting stitching and embroidery.</li> <li>Identify combination of basic stitches and workstyles.</li> <li>Describe processes of handling and preparation of machine embroidery.</li> <li>Describe thread thickness, shade, sizes and various parts of needles.</li> <li>Describe various attachments used in the embroidery machine.</li> <li>Describe how to adjust the top tension in the embroidery machine.</li> <li>Describe common hazards in the work area and work place procedures for dealing with them.</li> <li>Describe different types of defects in the embroidered product.</li> <li>Describe various parts of the embroidery machine and its application.</li> <li>Explain maintenance, adjustment and replacement procedures of worn parts on the machines required for different types of attachments.</li> <li>Describe elements of quality control.</li> <li>State the relation between thread, machine needle and cloth.</li> <li>Identify the characteristics of the embroidery materials and how they differ from each other.</li> <li>Describe types of thread used in machine embroidery.</li> <li>Identify correct thickness, shade and size of thread as per task requirements.</li> <li>Describe the process of colour combination/usage of thread as per the given design.</li> <li>Identify various types of needles and their suitability for the required task.</li> <li>List uses of different types of needles.</li> <li>Carry out test sews.</li> <li>Check needles and threads regularly.</li> <li>Describe procedure to follow when a needle breaks.</li> <li>Identify different types of trims.</li> <li>Identify different types of embroidery stitches and artwork such as round leaves in different design, dotted stitch, pointed leaves in different design, applique work in machine embroidery and its variation, dori work in machine embroidery, mirror work through machine embroidery, cut work through machine embroidery, round stitch in machine embroidery.</li> <li>Analyse and interpret the given design which needs to be embroidered and the type of embroidery that is required to be done.</li> <li>Setup the embroidery machine to the suited setting</li> </ul>	<p>Carbon Paper, Machine Tool Kit (screw driver, screw etc.), Machine Oil, Cotton Swabs/Dabber/roll, Hand Held Thread Trimmer, Hot Glue Gun (quantity may vary), Types Of Glue (Fabric and super glue. Any type), Metallic Tweezer, Tailor's Chalk (quantity may vary as per requirement), Pins And Safety Pins (quantity may vary as per requirement), Dress Maker's Pin (quantity may vary as per requirement), Pin Cushion (quantity may vary as per requirement), Needle Threader , Basic stationary, Fusible Backing Paper (Stabilizer)(any good quality. variety and quantity may vary as per requirement), Student's Chair With Table Arm, Stools Trainees For Machines, Teacher's Chair, Teacher's Table, White Board/Black Board, Boxes /Baskets/Pouches For Storing Items, Labels / Stickers (The quantity and variety may vary),Magnetic White Board</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<p>for carrying out the embroidery to be done.</p> <ul style="list-style-type: none"> <li>Describe required machine setting for different types of embroidery.</li> <li>Embroider any given pattern on fabric using the correct thread and materials, using the embroidery machine.</li> <li>Conform to company quality standards.</li> <li>Use the embroidery machine to carry out dotted stitch on given fabric / material.</li> <li>Operate the embroidery machine to embroider different designs as per given pattern/art work such as variations of round leaves and pointed leaves.</li> <li>Carry out appliqué work in machine embroidery and its variation.</li> <li>Carry out Dori work in machine embroidery as per given design/art work.</li> <li>Carry out mirror work through machine embroidery as per given design.</li> <li>Execute cut work through machine embroidery as per the given design.</li> <li>Carry out round stitch in machine embroidery.</li> <li>Check if the embroidered product meets the specifications.</li> <li>Take appropriate corrective action in case the final product does not meet specifications.</li> <li>Describe machine faults and their remedies.</li> <li>Describe the elements of care and maintenance of an embroidery machine.</li> <li>List the logical sequence of events to follow if a machine ceases to function correctly.</li> <li>Check with the concerned authority when unsure of new product details.</li> <li>State guidelines for correct storage and disposal of waste materials.</li> <li>List potential hazards associated with the machines and the safety precautions that must be taken.</li> <li>Minimise wastage of resources.</li> <li>Dispose off the waste materials in the approved manner.</li> </ul>	<p>Eraser and Marker/Chalk, File Cabinet, dustbin, Dress Form(size medium, male or female),Hanger, First Aid Box, Pressing Table, Iron, Cutting Table, Bobbin, Bobbin Case, Cleaning Cloth, Machine Folders, Machine Attachments, Tools For Maintenance(as per requirement ),Swatch Files, Trim Files, Embroidery Design Templates, Design Specification Sheet, Fire Extinguisher, Student Manual/notes, Seam Ripper, Tracing Wheel, Dexterity Test Kit, Dress , Markers Pins, Ink (The quantity and variety may vary),Projector / LCD, Job card</p>
3	<p><b>Embroider decorative designs using embroidery machine</b></p> <p><b>Theory Duration</b> (hh:mm) 15:00</p> <p><b>Practical Duration</b> (hh:mm)</p>	<ul style="list-style-type: none"> <li>Identify details of own job role and responsibilities from the job card/sheet.</li> <li>Identify work target and review mechanism from supervisor interactions.</li> <li>Describe how to use design specification sheet.</li> <li>Identify the various elements of the artwork required.</li> <li>State protocol to obtain more information on work related tasks.</li> <li>Set work targets in agreement with the supervisor.</li> <li>Review work targets and check for special instructions, if any.</li> </ul>	<p>Thread (for embroidery surplus, quantity and quality may vary), Novelty Yarns/Fancy yarns (surplus, quantity and variety may vary), Fabric (surplus fabric, and variety may vary), Surface</p>



Sr. No.	Module	Key Learning Outcomes	Equipment Required
	55:00  <b>Corresponding NOS Code</b> AMH/N0802	<ul style="list-style-type: none"> <li>State protocol and format for reporting work related risks/ problems.</li> <li>Identify contact person in case of queries on procedure or products and for resolving issues related to defective machines, tools and/or equipment.</li> <li>State documentation and reporting formats of the organisation.</li> <li>State importance of teamwork and harmonious working relationships.</li> <li>Describe process for offering/ obtaining work related assistance.</li> <li>Make sure the work area is free from hazards.</li> <li>Follow the instructions and design specifications given for the embroidery to be done.</li> <li>Obtain more information on tasks in case of doubts.</li> <li>Use the correct tools and equipment.</li> <li>Check that equipment is safe and set up in readiness for use.</li> <li>Select the correct component parts/fabric/material for embroidery.</li> <li>Check that the materials to be used are free from faults.</li> <li>Ensure that the materials used meet the specification matching embroidery artwork and the design sample of the embroidered product.</li> <li>Describe method of obtaining/ giving feedback related to performance.</li> <li>Check if fabric / component is correctly marked and pieces cut as required.</li> <li>Report faults in the materials.</li> <li>Conform to company quality standards.</li> <li>Report any damaged work to the responsible person.</li> <li>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.</li> <li>Leave work area safe and secure when work is complete.</li> <li>Operate embroidery machines safely and in accordance with guidelines.</li> <li>Optimize the positioning and layout of materials to ensure a smooth and rapid through put.</li> <li>Check the equipment prior to stitching, including correct controls, correct attachments, correct needle and thread.</li> <li>Ensure that the embroidered design conforms to the artwork specifications.</li> <li>Inspect embroidered products against specifications.</li> <li>Perform all embroidery operations with precision and accuracy.</li> </ul>	Embellishments, Industrial Single Needle Lock Stitch Machine set, Zig - Zag Machine with table, Masking Tape, Needles (various sizes), Thimbles For The Thumb (Plastic and Plated), Measuring Scale, Measuring Tape, Hand Needle(all gauges, Punch Needle (all gauges. The quantity may vary), Scissors (fabric and paper cutting), Frame, Pattern Making Paper, Tracing Paper, Carbon Paper, Machine Tool Kit (screw driver, screw etc.), Machine Oil, Cotton Swabs/Dabber/roll, Hand Held Thread Trimmer, Hot Glue Gun (quantity may vary), Types Of Glue (Fabric and super glue. Any type), Metallic Tweezer, Tailor's Chalk (quantity may vary as per requirement), Pins And Safety Pins (quantity may vary as per requirement), Dress Maker's Pin (quantity may vary as per requirement), Pin Cushion (quantity may vary as per requirement), Needle Threader , Basic stationary, Fusible Backing



Sr. No.	Module	Key Learning Outcomes	Equipment Required
			<p>Paper (Stabilizer)(any good quality. variety and quantity may vary as per requirement), Student's Chair With Table Arm, Stools Trainees For Machines, Teacher's Chair, Teacher's Table, White Board/Black Board, Boxes /Baskets/Pouches For Storing Items, Labels / Stickers (The quantity and variety may vary),Magnetic White Board Eraser and Marker/Chalk, File Cabinet, dustbin, Dress Form(size medium, male or female),Hanger, First Aid Box, Pressing Table, Iron, Cutting Table, Bobbin, Bobbin Case, Cleaning Cloth, Machine Folders, Machine Attachments, Tools For Maintenance(as per requirement ),Swatch Files, Trim Files, Embroidery Design Templates, Design Specification Sheet, Fire Extinguisher, Student Manual/notes, Seam Ripper, Tracing Wheel, Dexterity Test Kit, Dress , Markers</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
			Pins, Ink (The quantity and variety may vary), Projector / LCD, Job card
4	<p><b>Contribute to achieve quality in embroidery work</b></p> <p><b>Theory Duration</b> (hh:mm) 15:00</p> <p><b>Practical Duration</b> (hh:mm) 55:00</p> <p><b>Corresponding NOS Code</b> AMH/N1003</p>	<ul style="list-style-type: none"> <li>State the organisation's procedures and guidelines.</li> <li>Describe quality systems and machine embroidery processes practiced in the organization.</li> <li>State equipment operating procedures/ manufacturer's instructions.</li> <li>Identify and use materials required based on the specifications.</li> <li>Describe own responsibilities at work during production.</li> <li>Identify limits of personal responsibility.</li> <li>Work safely and at a rate which maintains work flow.</li> <li>Test, sort, track feed and examine work in progress.</li> <li>Carry out quality checks at specified intervals according to instructions.</li> <li>Apply the allowed tolerances.</li> <li>Identify faults and take appropriate action for rectification.</li> <li>Make adjustments promptly to ensure the embroidery work matches the specification.</li> <li>Fault-find materials and components for creased, stained, damage and incorrectly made-up component parts.</li> <li>List types of problems with quality and how to report them to appropriate people.</li> <li>State method to present any ideas for improvement to line manager.</li> <li>List appropriate inspection methods that can be used.</li> <li>List different types of defects.</li> <li>Describe types of faults which may occur, how they are identified and methods to deal with them.</li> <li>List different types of faults that are likely to be found and how to rectify them.</li> <li>List different techniques and methods used to detect faults.</li> <li>Inspect embroidered products against specifications.</li> <li>Identify modifiable defects and rework on them.</li> <li>Take the necessary action when materials do not conform to quality standards.</li> <li>Describe acceptable solutions for particular faults.</li> <li>Describe the types of adjustments suitable for specific types of faults.</li> <li>Report and replace identified faulty materials and component parts which do not meet specification.</li> <li>Describe consequences of incorrect settings in the embroidery machine.</li> <li>Describe the methods to keep stitched/ embroidered items away from contamination.</li> </ul>	<p>Thread (for embroidery surplus, quantity and quality may vary), Novelty Yarns/Fancy yarns (surplus, quantity and variety may vary), Fabric (surplus fabric, quantity and variety may vary), Surface Embellishments, Industrial Single Needle Lock Stitch Machine set, Zig - Zag Machine with table, Masking Tape, Needles (various sizes), Thimbles For The Thumb (Plastic and Plated), Measuring Scale, Measuring Tape, Hand Needle (all gauges, Punch Needle (all gauges. The quantity may vary), Scissors (fabric and paper cutting), Frame, Pattern Making Paper, Tracing Paper, Carbon Paper, Machine Tool Kit (screw driver, screw etc.), Machine Oil, Cotton Swabs/Dabber/roll, Hand Held Thread Trimmer, Hot Glue Gun (quantity may vary), Types Of Glue (Fabric and super glue. Any type), Metallic</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> <li>State the importance of marking and segregating rejects.</li> <li>Identify the mark and place rejects in the designated locations.</li> <li>State the consequences of not rectifying problems.</li> <li>Report to the responsible person when the work flow of other production areas disrupts work.</li> <li>Report faults in other processes to the appropriate person.</li> <li>Maintain the required productivity and quality levels.</li> <li>Complete and maintain documentation.</li> </ul>	<p>Tweezer, Tailor's Chalk (quantity may vary as per requirement), Pins And Safety Pins (quantity may vary as per requirement), Dress Maker's Pin (quantity may vary as per requirement), Pin Cushion (quantity may vary as per requirement), Needle Threader , Basic stationary, Fusible Backing Paper (Stabilizer)(any good quality. variety and quantity may vary as per requirement), Student's Chair With Table Arm, Stools Trainees For Machines, Teacher's Chair, Teacher's Table, White Board/Black Board, Boxes /Baskets/Pouches For Storing Items, Labels / Stickers (The quantity and variety may vary),Magnetic White Board Eraser andMarker/Chalk, File Cabinet, dustbin, Dress Form(size medium, male or female),Hanger, First Aid Box, Pressing Table, Iron, Cutting Table, Bobbin, Bobbin Case, Cleaning Cloth, Machine Folders,</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
			Machine Attachments, Tools For Maintenance (as per requirement ),Swatch Files, Trim Files, Embroidery Design Templates, Design Specification Sheet, Fire Extinguisher, Student Manual/notes, Seam Ripper, Tracing Wheel, Dexterity Test Kit, Dress , Markers Pins, Ink (The quantity and variety may vary),Projector / LCD, Job card
5	<b>Maintain work area , tools and machines</b>  <b>Theory Duration</b> (hh:mm) 12:00  <b>Practical Duration</b> (hh:mm) 18:00  <b>Corresponding NOS Code</b> AMH/N0102	<ul style="list-style-type: none"> <li>Describe safe working practices for cleaning and maintenance of equipment.</li> <li>Describe effects of contamination on products i.e. Machine oil, dirt etc.</li> <li>Identify different types of cleaning equipment and substances and their use.</li> <li>Describe various machines used for layering and spreading processes</li> <li>Describe various markers and tools that are required for marking.</li> <li>Describe different types of cutting machines like scissors, straight knife, band knife, laser cutting machine, etc.</li> <li>List procedures to conduct maintenance of tools and equipment.</li> <li>Handle materials and tools safely and correctly.</li> <li>Use cleaning equipment and methods appropriate for the work to be carried out.</li> <li>Identify common faults with equipment and the method to rectify.</li> <li>Use correct lifting and handling procedures.</li> <li>Carry out regular running maintenance of tools and equipment within agreed schedules and limits of responsibility.</li> <li>Carry out safe working practices for cleaning and maintenance of equipment.</li> <li>Maintain a comfortable position with correct posture while working.</li> <li>Identify different ways of minimizing wastage.</li> <li>Dispose off waste safely in the designated location.</li> </ul>	White/ Black Board, White and Black Board Marker , cleaning equipment, machines used for layering and spreading processes, markers and tools, cutting machines like scissors, straight knife, band knife, laser cutting machine, etc.,

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> <li>Carry out cleaning according to schedules and limits of responsibility.</li> <li>Store cleaning equipment safely at the designated place after use.</li> <li>Explain the importance of effective communication with colleagues and supervisors.</li> <li>Describe the lines of communication, authority and reporting procedures.</li> <li>Describe the company's quality standards.</li> <li>Describe the types of records kept and the methods to complete the records.</li> <li>Describe the importance of keeping accurate quality records.</li> <li>Describe the importance of complying with written instructions.</li> <li>Report quality issues to appropriate people.</li> <li>State the importance of keeping accurate records concerning quality.</li> <li>State safe working practices and organizational procedures.</li> <li>Describe limits of self-responsibility.</li> <li>Describe ways of resolving problems within the work area.</li> </ul>	
6	<p><b>Maintain health, safety and security at workplace</b></p> <p><b>Theory Duration</b> (hh:mm) 18:00</p> <p><b>Practical Duration</b> (hh:mm) 15:00</p> <p><b>Corresponding NOS Code</b> AMH/N0103</p>	<ul style="list-style-type: none"> <li>Explain health and safety related practices applicable at the workplace.</li> <li>Describe layout of the plant and details of emergency exits, escape routes, emergency equipment and assembly points.</li> <li>State environmental management system related procedures at the workplace.</li> <li>Follow environment management system related procedures.</li> <li>Comply with health and safety related instructions applicable in the workplace.</li> <li>List potential hazards, risks and threats based on nature of operations.</li> <li>List potential risks due to own actions and methods to minimize these.</li> <li>Describe potential accidents, emergencies and response to these scenarios.</li> <li>Monitor the workplace and work processes for potential risks and threats.</li> <li>Ensure the work area is free from potential hazards.</li> <li>Report hazards and potential risks/ threats to supervisors or other authorized personnel.</li> <li>Carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned.</li> <li>Seek clarifications, from supervisors or other authorized personnel in case of perceived risks.</li> <li>State reporting protocol and documentation required.</li> <li>Describe occupational health and safety risks and methods.</li> </ul>	<p>White/ Black Board, White and Black Board Marker, personal protective equipment, first aid kit, various types of fire extinguishers.</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> <li>State organizational procedures for safe handling of equipment and machine operations.</li> <li>Explain various personal protective equipment and their method of use.</li> <li>Use appropriate personal protective equipment as per protocol.</li> <li>Report unsafe equipment and other dangerous occurrences.</li> <li>Explain identification, handling and storage of machine oil, chemical or ink used for transferring the design.</li> <li>Describe elements of proper disposal system for waste and by-products.</li> <li>Identify signage related to health and safety and their meaning.</li> <li>List details of personnel trained in first aid, fire-fighting and emergency response.</li> <li>Describe actions to take in the event of a mock drill/ evacuation procedures or actual accident, emergency or fire.</li> <li>Participate in mock drills/ evacuation procedures organized at the workplace.</li> <li>Participate in first aid, fire-fighting and emergency response training.</li> <li>Follow instructions as per organisational norms in the event of fire, emergencies or accidents.</li> <li>Follow organization procedures for shutdown and evacuation when required.</li> <li>Carry out own activities in line with approved guidelines and procedures.</li> <li>Minimize health and safety risks to self and others due to own actions.</li> <li>Identify and correct (if possible) malfunctions in machinery and equipment.</li> <li>Report any service malfunctions that cannot be rectified.</li> <li>Store materials and equipment in line with manufacturer's and organizational requirements.</li> <li>Safely handle and move waste and debris.</li> <li>State importance of sound health, hygiene and good habits.</li> <li>Describe ill-effects of alcohol, tobacco and drugs.</li> <li>Maintain a healthy lifestyle and guard against dependency on intoxicants.</li> <li>Perform basic first aid.</li> <li>Perform basic CPR.</li> </ul>	
7	<b>Soft Skills</b> <b>Theory Duration</b> (hh:mm) 03:00  <b>Practical</b> <b>Duration</b> (hh:mm)	<ul style="list-style-type: none"> <li>Explain the importance of effective communication.</li> <li>Communicate effectively with others.</li> <li>Identify and follow personal grooming and hygiene.</li> <li>Follow organization procedures and maintain personal health and hygiene and avoid habits like ghutka, tobacco etc.</li> <li>Interact effectively in a group.</li> </ul>	White /Black Board with Marker and Chalk, Duster



Sr. No.	Module	Key Learning Outcomes	Equipment Required
	02:00 <b>Corresponding NOS Code</b> Bridge Module	<ul style="list-style-type: none"> <li>Manage time effectively.</li> <li>Explain the importance of creating an impressive resume and prepare a resume.</li> <li>Prepare for interviews.</li> </ul>	
	<b>Total Duration</b> <b>270:00</b>  <b>Theory Duration</b> <b>80:00</b>  <b>Practical Duration</b> <b>190:00</b>	<b>Unique Equipment Required:</b> Thread (for embroidery surplus, quantity and quality may vary), Novelty Yarns/Fancy yarns (surplus, quantity and variety may vary), Fabric (surplus fabric, quantity and variety may vary), Surface Embellishments, Industrial Single Needle Lock Stitch Machine set, Zig - Zag Machine with table, Masking Tape, Needles (various sizes), Thimbles For The Thumb (Plastic and Plated), Measuring Scale, Measuring Tape, Hand Needle(all gauges, Punch Needle (all gauges. The quantity may vary), Scissors (fabric and paper cutting), Frame, Pattern Making Paper, Tracing Paper, Carbon Paper, Machine Tool Kit (screw driver, screw etc.), Machine Oil, Cotton Swabs/Dabber/roll, Hand Held Thread Trimmer, Hot Glue Gun (quantity may vary), Types Of Glue (Fabric and super glue. Any type), Metallic Tweezer, Tailor's Chalk (quantity may vary as per requirement), Pins And Safety Pins (quantity may vary as per requirement), Dress Maker's Pin (quantity may vary as per requirement), Pin Cushion (quantity may vary as per requirement), Needle Threader , Basic stationary, Fusible Backing Paper (Stabilizer)(any good quality. variety and quantity may vary as per requirement), Student's Chair With Table Arm, Stools Trainees For Machines, Teacher's Chair, Teacher's Table, White Board/Black Board, Boxes /Baskets/Pouches For Storing Items, Labels / Stickers (The quantity and variety may vary),Magnetic White Board Eraser and Marker/Chalk, File Cabinet, dustbin, Dress Form(size medium, male or female),Hanger, First Aid Box, Pressing Table, Iron, Cutting Table, Bobbin, Bobbin Case, Cleaning Cloth, Machine Folders, Machine Attachments, Tools For Maintenance (as per requirement ),Swatch Files, Trim Files, Embroidery Design Templates, Design Specification Sheet, Fire Extinguisher, Student Manual/notes, Seam Ripper, Tracing Wheel, Dexterity Test Kit, Dress , Markers Pins, Ink (The quantity and variety may vary),Projector / LCD, Job card.	

Grand Total Course Duration: **270 Hours, 0 Minutes**

(This syllabus/ curriculum has been approved by Apparel, Made-Ups and Home Furnishing Sector Skill Council)



## Trainer Prerequisites for Job role: “Embroidery Machine Operator (Zigzag Machine)” mapped to Qualification Pack: “AMH/Q0801, version 1.0”

Sr. No.	Area	Details
1	<b>Description</b>	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with Qualification Pack “AMH/Q0801”
2	<b>Personal Attributes</b>	The candidate should have aptitude for conducting training, pre /post work to ensure competent, employable candidates at the end of training. Strong communication skills, interpersonal skills, ability to work as team; diligent and is passionate for maintaining the quality in content and training delivery methodology. Candidate should have basic understanding of English language; however, this should not be a restrictive criterion as long as the candidate is willing and open to learn. He/she must be able to speak, read and write in the local language.
3	<b>Minimum Educational Qualifications</b>	<ul style="list-style-type: none"> <li>• The candidate should be 10th pass with six years supervisory experience in relevant trade</li> <li>• Certificate in relevant trade of minimum 6 months duration</li> <li>• Diploma of minimum 1 year duration in the relevant trade</li> <li>• ITI in relevant trade</li> <li>• Graduate in the relevant trade</li> </ul>
4a	<b>Domain Certification</b>	Certified for Job Role: “Embroidery Machine Operator (Zigzag Machine)” mapped to QP: “AMH/Q0801”, v1.0”. Minimum accepted score is 80%
4b	<b>Platform Certification</b>	Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “MEP/Q2601”. Minimum accepted score as per MEPSC guidelines is 80%.
5	<b>Experience</b>	<ul style="list-style-type: none"> <li>• The candidate should be 10th pass with six years supervisory experience in relevant trade</li> <li>• Certificate of minimum six months duration in relevant trade with 4 years of work experience in relevant trade</li> <li>• Diploma of minimum 1 year duration in the relevant trade with 2 years of work experience in relevant trade</li> <li>• ITI in relevant trade with minimum 2 years of work experience in relevant trade</li> <li>• Graduation in relevant trade with minimum 2 years of work experience in relevant trade,</li> <li>• He should be able to communicate in English and local language.</li> <li>• He should have knowledge of equipment, tools, material, safety, health and hygiene.</li> </ul>

## Assessment Criteria

**Job Role** Embroidery Machine Operator (Zigzag Machine)

**Qualification Pack** AMH/Q0801, version 1.0

**Sector Skill Council** AMHSSC

### 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. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below)
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria
6. To pass the Qualification Pack, every trainee should score a minimum of 70% aggregate in QP
7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack

		Marks Allocation				
		Total Marks 270	Out Of	Theory	Skills Practical	Viva
<b>1.AMH/N0801</b> <b>Carry out different types of embroidery stitches using an embroidery machine</b>	PC1. Analyse and interpret the given design which needs to be embroidered and the type of embroidery that is required to be done		7	2	3	2
	PC2. Check the materials required for embroidery with the given specifications		5	1	3	1
	PC3. Setup the embroidery machine to the suited setting for carrying out the embroidery to be done		5	1	3	1
	PC4. Use the embroidery machine to carry out dotted stitch on given fabric / material		5	1	3	1
	PC5. Operate the embroidery machine to embroider different designs as per given pattern/art work such as variations of round leafs and pointed leafs		7	2	3	2
	PC6. Embroider any given pattern on fabric using the correct thread and materials, using the embroidery machine.		6	1	3	2

	PC7. Carry out appliqué work in machine embroidery and its variation	<b>90</b>	<b>5</b>	<b>1</b>	<b>3</b>	<b>1</b>
	PC8. Carry out Dori work in machine embroidery as per given design/art work		<b>5</b>	<b>1</b>	<b>3</b>	<b>1</b>
	PC9. Carry out mirror work through machine embroidery as per given design		<b>5</b>	<b>1</b>	<b>3</b>	<b>1</b>
	PC10. Execute cut work through machine embroidery as per the given design		<b>5</b>	<b>1</b>	<b>3</b>	<b>1</b>
	PC11. Carry out round stitch in machine embroidery		<b>5</b>	<b>1</b>	<b>3</b>	<b>1</b>
	PC12. Conform to company quality standards		<b>7</b>	<b>3</b>	<b>3</b>	<b>1</b>
	PC13. Check with in charge /others when unsure of new product details		<b>6</b>	<b>1</b>	<b>3</b>	<b>2</b>
	PC14. Minimise and dispose the waste materials in the approved manner		<b>5</b>	<b>1</b>	<b>3</b>	<b>1</b>
	PC15. Carry out Operations at a rate which maintains workflow		<b>5</b>	<b>1</b>	<b>3</b>	<b>1</b>
	PC16. Respond appropriately if the embroidery do not meet product specification and take corrective action		<b>7</b>	<b>2</b>	<b>3</b>	<b>2</b>
	<b>Total</b>		<b>90</b>	<b>21</b>	<b>48</b>	<b>21</b>
<b>2.AMH/N0802 Embroider decorative designs using embroidery machine</b>	PC1. Make sure the work area is free from hazards		<b>5</b>	<b>1</b>	<b>3</b>	<b>1</b>
	PC2. Follow the instructions and design specifications given for the embroidery to be done		<b>5</b>	<b>3</b>	<b>1</b>	<b>1</b>
	PC3. Ask questions to obtain more information on tasks when the instructions you have are unclear		<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>
	PC4. Agree and review your agreed upon work targets with your supervisor and check for special instructions, if any		<b>4</b>	<b>1</b>	<b>2</b>	<b>1</b>
	PC5. Use the correct tools and equipment's		<b>5</b>	<b>1</b>	<b>3</b>	<b>1</b>
	PC6. Check that equipment is safe and set up in readiness for use		<b>4</b>	<b>1</b>	<b>2</b>	<b>1</b>

<p>PC7. Select the correct component parts/fabric/material for embroidery</p> <p>PC8. Check that the materials to be used are free from faults</p> <p>PC9. Ensure the materials used meet the specification matching a. Embroidery Artwork b. Design sample of the embroidered product</p> <p>PC10. Carry out test sews</p> <p>PC11. Check needles and threads regularly</p> <p>PC12. Check if fabric / Component is correctly marked and pieces cut as required</p> <p>PC13. Report faults in the materials</p> <p>PC14. Conform to company quality standards</p> <p>PC15. Report any damaged work to the responsible person</p> <p>PC16. 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</p> <p>PC17. Leave work area safe and secure when work is complete</p> <p>PC18. Operate embroidery machines safely and in accordance with guidelines</p> <p>PC19. Optimize the positioning and layout of materials to ensure a smooth and rapid throughput</p> <p>PC20. Check the equipment prior to making the stitching, including correct controls, correct attachments, correct needle and thread</p> <p>PC21. Ensure the embroidered design conforms to the artwork specifications</p> <p>PC22. Inspect embroider products against specifications</p> <p>PC23. Perform all embroidery operations with precision and accuracy</p>	100	6	1	3	2
		4	1	2	1
		4	2	1	1
		4	1	2	1
		4	1	2	1
		5	1	3	1
		4	1	2	1
		4	1	2	1
		4	1	2	1
		3	1	1	1
		4	1	2	1
		6	1	3	2
		5	3	1	1
		4	1	2	1
		4	1	2	1
		5	1	3	1

		Total	100	28	47	25
<b>3.AMH/N1003</b> <b>Contribute to achieve quality in embroidery work</b>	PC1. Identify and use materials required based on the specifications	<b>100</b>	10	5	2	3
	PC2. Take the necessary action when materials do not conform to quality standards		5	3	1	1
	PC3. Report and replace identified faulty materials and component parts which do not meet specification		6	1	2	3
	PC4. Identify modifiable defects and rework on them		5	1	3	1
	PC5. Carry out work safely and at a rate which maintains work flow		10	2	5	3
	PC6. Report to the responsible person when the work flow of other production areas disrupts work		5	2	2	1
	PC7. Test, sort, track feed and examine work in progress		6	1	4	1
	PC8. Carry out quality checks at specified intervals according to instructions		6	1	4	1
	PC9. Apply the allowed tolerances		6	1	4	1
	PC10. Identify faults and take appropriate action for rectification		6	1	4	1
	PC11. Make adjustments promptly to ensure the embroidery work matches the specification		5	1	3	1
	PC12. Fault-find materials and components for creased, stained, damage and incorrectly made-up component arts		10	7	2	1
	PC13. Report faults in other processes to the appropriate person		5	1	3	1
	PC14. Maintain the required productivity and quality levels		5	1	3	1
	PC15. Complete and maintain documentation		10	5	2	3
	<b>Total</b>		<b>100</b>	<b>33</b>	<b>44</b>	<b>23</b>
<b>4.AMH/N0102</b> <b>Maintain work area, tools and</b>	PC1.Handle materials, machinery, equipment and tools safely and correctly		4	1	2	1
	PC2.Use correct lifting and handling procedures		3	1	1	1

<b>machines</b>	PC3. Use materials to minimize waste		4	1	2	1
	PC4. Maintain a clean and hazard free working area		4	1	2	1
	PC5. Maintain tools and equipment's		4	1	2	1
	PC6. Carry out running maintenance within agreed schedules		4	1	2	1
	PC7. Carry out maintenance and/or cleaning within one's responsibility		4	2	1	1
	PC8. Report unsafe equipment and other dangerous occurrences		4	2	1	1
	PC9. Ensure that the correct machine guards are in place		3	1	1	1
	PC10. Work in a comfortable position with the correct posture		4	2	1	1
	PC11. Use cleaning equipment and methods appropriate for the work to be carried out		3	1	1	1
	PC12. Dispose of waste safely in the designated location		3	1	1	1
	PC13. Store cleaning equipment safely after use		3	1	1	1
	PC14. Carry out cleaning according to schedules and limits of responsibility		3	1	1	1
	<b>Total</b>		<b>50</b>	<b>17</b>	<b>19</b>	<b>14</b>
<b>5. AMH/N0103</b> <b>Maintain health, safety and security at workplace</b>	PC1. Comply with health and safety related instructions applicable to the workplace	<b>60</b>	3	1	1	1
	PC2. Use and maintain personal protective equipment as per protocol		3	1	1	1
	PC3. Carry out own activities in line with approved guidelines and procedures		4	1.5	2	0.5
	PC4. Maintain a healthy lifestyle and guard against dependency on intoxicants		4	2	1	1
	PC5. Follow environment management system related procedures		3	1.5	1	0.5
	PC6. Identify and correct (if possible) malfunctions in machinery and equipment		4	2	1	1

	PC7. Report any service malfunctions that cannot be rectified		3	1	1	1
	PC8. Store materials and equipment in line with manufacturer's and organizational requirements		3	1	1	1
	PC9. Safely handle and move waste and debris		4	1	2	1
	PC10. Minimize health and safety risks to self and others due to own actions		3	1	1	1
	PC11. Seek clarifications, from supervisors or other authorized personnel in case of perceived risks		4	1	2	1
	PC12. Monitor the workplace and work processes for potential risks and threats		3	1	1	1
	PC13. Carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned		3	1	1	1
	PC14. Report hazards and potential risks/ threats to supervisors or other authorized personnel		3	1	1	1
	PC15. Participate in mock drills/ evacuation procedures organized at the workplace		3	1	1	1
	PC16. Undertake first aid, fire-fighting and emergency response training, if asked to do so		4	1	2	1
	PC17. Take action based on instructions in the event of fire, emergencies or accidents		3	1	1	1
	PC18. Follow organization procedures for shut down and evacuation when required		3	1	1	1
			<b>Total</b>	<b>60</b>	<b>21</b>	<b>22</b>
<b>Grand Total</b>		<b>400</b>	<b>120</b>	<b>180</b>	<b>100</b>	