**Technopak Advisors Private Limited**

**BIHAR SKILL DEVELOPMENT MISSION – 2018-19**

**2019-20**

**45 - DAYS PROGRAM**

It’s Objective, Learning outcomes, Modules, Assessments and Material list

**CERTIFICATE PROGRAM IN SEWING MACHINE OPERATOR**

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| Submitted to **:-**  **INDUSTRY DEPARTMENT, BIHAR GOVERNMENT** | Submitted By **:- Technopak Advisors Private Limited** |
| Session – 2018-19  2019-20 |

**Certificate Course in Sewing Machine Operator**

* Course Id- AMH/Q0301
* Candidate Eligibility : **Preferably Class V**
* Course Duration: 45 days

**CONTACT DETAILS OF THE BODY SUBMITTING THE QUALIFICATION FILE**

**Name and address of submitting body:**

**Technopak Advisors Private Limited**

**Name and contact details of individual dealing with the submission**

**Name :** Mr. Rahul Kumar

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**List of documents submitted in support of the Qualifications File**

1. Curriculum Document

**SUMMARY**

|  |  |
| --- | --- |
| **Qualification Title** | **Certificate in Sewing Machine Operator** |
| **Qualification Code** | **AMH/Q0301** |
| **Nature and purpose of the qualification** | **Nature**  **45 days certificate Course in Sewing Machine Operator**  **Purpose**  **Sewing Machine Operator, also called a ‘Stitcher or Machinist’ is an important job-role associated with Apparel sector. The primary responsibility of a machinist is to stitch/ sew fabric, fur, or synthetic materials to produce apparels.**  . |
| **Body/bodies which will award the qualification** | **APPAREL, MADE-UP’S AND HOME FURNISHING SECTOR SKILL COUNCIL** |
| **Occupation(s) to which the qualification gives access** | **Stitching** |
| **Entry requirements and / or recommendations** | **Preferably Class V** |

1. **OBJECTIVE OF THE COURSE: -**

Sewing Machine Operations involves stitching of components of garments together using a sewing machine. The role of a sewing machine operator is very critical to the industry as it enhances the quality of the product.

1. **LEARNING OUTCOMES :-**

1. Carry out stitching activities using machine or by hand

2. Contribute to achieve product quality in stitching operations

3. Maintain work area, tools and machines

4. Maintain health, safety and security at workplace

5. Comply with industry, regulatory and organizational requirements

1. **MODULE- 45 DAYS (CERTIFICATE PROGRAM IN SEWING MACHINE OPERATOR)**

|  |  |
| --- | --- |
| **DURATION :- 45 DAYS**  **CERTFICATE PROGRAM IN SEWING MACHINE OPERATOR** | |
| **MODULE CODE & NAMES** |  |
| **1** | **Code :- AMH/N0301**  **Module :-** Carry out stitching activities using machine or by hand |
| **RATIONALE & OBJECTIVE OF THE MODULES** | This unit provides Performance Criteria, Knowledge & Understanding and Skills & Abilities required to stitch components using machines or by hand. |
| **MODULE COMPETENCE** | This unit/task covers the following:   * Prepare for stitching operations * Stitch components to produce apparels |
| **2** | **Code :- AMH/N0302**  **Module :-** Contribute to achieve product quality in stitching operations |
| **RATIONALE & OBJECTIVE OF THE MODULES** | This unit provides Performance Criteria, Knowledge & Understanding and Skills & Abilities required to monitor the quality of the production while undertaking stitching related activities to ensure products meet specifications. |
| **MODULE COMPETENCE** | This unit/task covers the following:   * Contribute to achieving the product quality in stitching operations |
| **3** | **Code :- AMH/N0102**  **Module :-** Maintain work area, tools and machines |
| **RATIONALE & OBJECTIVE OF THE MODULES** | This unit provides Performance Criteria, Knowledge & Understanding and Skills & Abilities required to organize/ maintain work areas and activities to ensure tools and machines are maintained as per norms. |
| **MODULE COMPETENCE** | This unit/task covers the following:   * Maintain the work area, tools and machines |
| **4** | **Code :- AMH/N0103**  **Module :-** Maintain health, safety and security at workplace |
| **RATIONALE & OBJECTIVE OF THE MODULES** | This unit provides Performance Criteria, Knowledge & Understanding and Skills & Abilities required to comply with health, safety and security requirements at the workplace and covers procedures to prevent, control and minimize risk to self and others. |
| **MODULE COMPETENCE** | This unit/task covers the following:   * Comply with health, safety and security requirements at work |
| **5** | **Code :- AMH/N0104**  **Module :-** Comply with industry, regulatory and organizational requirements |
| **RATIONALE & OBJECTIVE OF THE MODULES** | This unit provides Performance Criteria, Knowledge & Understanding and Skills & Abilities required for complying with legal and ethical requirements at the workplace. |
| **MODULE COMPETENCE** | This unit/task covers the following:   * Comply with industry and organizational requirements |
| **MODE OF DELIVERY** | Practical and theoretical |
|  | |

| **Sr.No.** | **Module** | **Key Learning Outcomes** | **Equipment Required** |
| --- | --- | --- | --- |
| 1 | **Introduction and Orientation**  **Theory Duration**  (hh:mm) 02:00  **Practical Duration**  (hh:mm) 00:00  **Corresponding NOS Code**  Bridge Module | * Sewing as a profession * Apparel Sector In India * Roles and Responsibilities of a Sewing Machine Operator | Computer, Computer Peripherals (optional),white/black board, white board marker, chalk |
| 2 | **Carry out stitching**  **activities using machine or by hand**  **Theory Duration**  (hh:mm) 38:00  **Practical Duration**  (hh:mm) 100:00  **Corresponding NOS Code**  AMH/N0301 | **A. Prepare for stitching operations**   * Keep the work area free from hazards * Follow the instructions as written on the work ticket/ job card in line with the responsibilities of respective job role and * Seek information on the tasks which are not clear simultaneously reviewing instructions with supervisor. * Check that equipment is safe and set up in readiness for use * Select the correct component parts for the style being worked on * check that the materials to be used are free from faults * Ensure the materials used meet the specification matching Within a product and Between a pair of products where applicable * Carry out test sews * Check needles, awls and threads regularly * check that the fabric and the component is correctly marked and the pieces are cut as per the requirement. * ensure the fabric pieces and linings are pinned or sewn together as required, and appropriately hung in readiness for assembly. * Conform to company quality standards and 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 | Single Needle Lock Stitch (SNLS) with needle guard, Over lock Machine (5 thread over lock machine), Button Hole Machine& Button Attach Machine (optional), dexterity kit Pressing Table And  Iron , Computer(optional) Computer Peripherals(optional) Printer, (optional) Projector(optional) Design Patterns Template, Shears iron blade for cutting fabric Scissors (plastic  handled scissor for cutting paper) Trimmers Seam Ripper Tailor’s Chalk, Pins & safety pins Dress maker’s Pin , Pin Cushion, Scales/ other shapes of scales like l scale, Measuring Tape Bobbin, Bobbin Case, Dress Form (Template), Cleaning Cloth , Sewing Threads , Hand needle (Various gauges) , Machine Needle (Various Gauges), Sewing kit , Fabric Yardages Required Trims/Accessory  Machine Folders and Attachments, |

1. **ASSESSMENT / EXAMINATION**

|  |  |  | | **Marks Allocation** | | |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | **Total Marks 400** | **Out Of** | **Theory** | **Skills Practical** | **Viva** |
| **1. AMH/N0301 (Carryout Stitching activities using machine or by hand)** | PC1. Make sure the work area is free from hazards | **210** | 3 | 1 | 1 | 1 |
|  | PC2. Follow the instructions on the work ticket/ job card in line with the responsibilities of respective job role | 3 | 1 | 1 | 1 |
|  | PC3. Ask questions to obtain more information on tasks when the instructions you have are unclear | 3 | 1 | 1 | 1 |
|  | PC4. Agree and review your agreed upon work targets with your supervisor and check for special instructions, if any | 3 | 1 | 1 | 1 |
|  | PC5. Use the correct tools and equipments | 3 | 1 | 1 | 1 |
|  | PC6. Check that equipment is safe and set up in readiness for use | 3 | 1 | 1 | 1 |
|  | PC7. Select the correct component parts for the style being worked on | 3 | 1 | 1 | 1 |
|  | PC8. Check that the materials to be used are free from faults | 5 | 1 | 3 | 1 |
|  | PC9. Ensure the materials used meet the specification matching | 3 | 1 | 1 | 1 |
|  | a. Within a product | 4 | 1 | 2 | 1 |
|  | b. Between a pair of products where applicable | 4 | 1 | 2 | 1 |
|  | PC10. Carry out test sews | 4 | 1 | 2 | 1 |
|  | PC11. Check needles, awls and threads regularly | 4 | 1 | 2 | 1 |
|  | PC12. Check if fabric / Component is correctly marked and pieces cut as required | 4 | 1 | 2 | 1 |
|  | PC13. Fabric pieces and linings are pinned or sewn together as required, and appropriately hung in readiness for assembly | 4 | 1 | 2 | 1 |
|  | PC14. Report faults in the materials | 3 | 1 | 1 | 1 |
|  | PC15. Conform to company quality standards | 3 | 1 | 1 | 1 |
|  | PC16. Report any damaged work to the responsible person | 3 | 1 | 1 | 1 |
|  | PC17. 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 | 4 | 1 | 2 | 1 |
|  | PC18. Sort and place work to assist the next stage of production and minimise the risk of damage | 3 | 1 | 1 | 1 |
|  | PC19. Leave work area safe and secure when work is complete | 4 | 1 | 2 | 1 |
|  | PC20. Complete forms, records and other documentation | 4 | 2 | 1 | 1 |
|  | PC21. Examine the specific item to identify what type of stitching is best suited | 4 | 1 | 2 | 1 |
|  | PC22. Estimate the expected length of time for the process | 4 | 1 | 1 | 2 |
|  | PC23. Set up machine (Apparel Sewing machine) according to manufacturers’ instructions and production requirements | 4 | 1 | 2 | 1 |
|  | PC24. Set machine controls for the materials being stitched | 5 | 1 | 3 | 1 |
|  | PC25. Cut the thread appropriately | 4 | 1 | 2 | 1 |
|  | PC26. Thread the needle in the machine and adjust the needle as per the requirements | 4 | 1 | 2 | 1 |
|  | PC27. Perform a test run to ensure machine is operating correctly | 4 | 1 | 2 | 1 |
|  | PC28. Report defective machines, tools and/or equipment to the responsible person | 4 | 1 | 2 | 1 |
|  | PC29. Operate machines safely and in accordance with guidelines | 5 | 1 | 3 | 1 |
|  | PC30. Optimize the positioning and layout of materials to ensure a smooth and rapid throughput | 6 | 1 | 4 | 1 |
|  | PC31. Check the equipment prior to making the stitching, including: | 3 | 1 | 1 | 1 |
|  | a) Correct controls | 4 | 1 | 2 | 1 |
|  | b) Correct attachments | 4 | 1 | 2 | 1 |
|  | c) Changing needles | 4 | 1 | 2 | 1 |
|  | d) Changing threads | 4 | 1 | 2 | 1 |
|  | e) Changing awls | 4 | 1 | 2 | 1 |
|  | f) Correct Timing | 4 | 1 | 2 | 1 |
|  | PC32. Stitch the correct materials in the right sequence as required by the production specification | 6 | 1 | 4 | 1 |
|  | PC33. Ensure stitched product conforms to shape and size requirement | 4 | 1 | 2 | 1 |
|  | PC34. Ensure stitched products meets specification in terms of labels and trimmings | 4 | 1 | 2 | 1 |
|  | PC35. Inspect stitched products against specifications | 4 | 1 | 2 | 1 |
|  | PC36. Identify mark and place rejects in the designated locations | 4 | 1 | 2 | 1 |
|  | PC37. Carry out alterations to meet customer requirements | 4 | 1 | 2 | 1 |
|  | PC38. Pass the stitched item to the next stage in the manufacturing process after validation | 4 | 1 | 2 | 1 |
|  | PC39. Respond accordingly where stitched items do not meet production specification | 4 | 1 | 2 | 1 |
|  | PC40. Minimize and dispose the waste materials in the approved manner | 4 | 1 | 2 | 1 |
|  | PC41. Seek feedback from team mates on work related performance | 3 | 1 | 1 | 1 |
|  | PC42. Check with in charge /others when unsure of new product details | 4 | 1 | 2 | 1 |
|  | PC43. Clean and make safe machines after use | 5 | 1 | 3 | 1 |
|  | PC44. Carry out basic maintenance of own machines | 4 | 1 | 2 | 1 |
|  | PC45. Report risks/ problems likely to affect services to the relevant person promptly and accurately | 4 | 1 | 2 | 1 |
|  | PC46. Carry out Operations at a rate which maintains workflow and meets production targets | 4 | 1 | 2 | 1 |
|  |  | Total | **210** | **55** | **100** | **55** |
| **2. AMH/N0302 (Contribute to achieve product quality in stitching operations)** | PC1. Identify and use materials required based on the job card/ work ticket | **65** | 4 | 2 | 1 | 1 |
|  | PC2. Take the necessary action when materials do not conform to company quality standards | 4 | 1 | 2 | 1 |
|  | PC3. Report and replace identified faulty materials and component parts which do not meet specification | 4 | 1 | 2 | 1 |
|  | 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 | 4 | 1 | 2 | 1 |
|  | PC6. Report to the responsible person when the work flow of other production areas disrupts work | 4 | 1 | 2 | 1 |
|  | PC7. Test, sort, track feed and examine work in progress | 5 | 1 | 3 | 1 |
|  | PC8. Carry out quality checks at specified intervals according to instructions | 5 | 1 | 3 | 1 |
|  | PC9. Apply the allowed tolerances | 4 | 1 | 2 | 1 |
|  | PC10. Identify faults and take appropriate action for rectification | 5 | 1 | 3 | 1 |
|  | PC11. Make adjustments promptly to return product to specification | 4 | 1 | 2 | 1 |
|  | PC12. Fault-find materials and components for creased, stained, damage and incorrectly made-up component parts | 4 | 1 | 2 | 1 |
|  | PC13. Report faults in other processes to the appropriate person | 4 | 1 | 2 | 1 |
|  | PC14. Maintain the required productivity and quality levels | 5 | 1 | 3 | 1 |
|  | PC15. Complete and maintain documentation | 4 | 1 | 2 | 1 |
|  |  | Total | **65** | **16** | **34** | **15** |
| **3. AMH/N0102 Maintain work area, tools and machines** | PC1. Handle materials, machinery, equipment and tools safely and correctly | **50** | 3 | 1 | 1 | 1 |
|  | PC2. Use correct lifting and handling procedures | 3 | 1 | 1 | 1 |
|  | PC3. Use materials to minimize waste | 3 | 1 | 1 | 1 |
|  | PC4. Maintain a clean and hazard free working area | 4 | 1 | 2 | 1 |
|  | PC5. Maintain tools and equipment | 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 | 1 | 2 | 1 |
|  | PC8. Report unsafe equipment and other dangerous occurrences | 3 | 1 | 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 | 1 | 2 | 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 | 4 | 1 | 2 | 1 |
|  | PC13. Store cleaning equipment safely after use | 4 | 1 | 2 | 1 |
|  | PC14. Carry out cleaning according to schedules and limits of responsibility | 4 | 1 | 2 | 1 |
|  |  | Total | **50** | **14** | **22** | **14** |
| 4. AMH/N0103 Maintain health, safety and security at workplace | PC1. Comply with health and safety related instructions applicable to the workplace | **60** | 3 | 1 | 1 | 1 |
|  | PC2. Use and maintain personal protective equipment as per protocol | 4 | 1 | 2 | 1 |
|  | PC3. Carry out own activities in line with approved guidelines and procedures | 4 | 1 | 2 | 1 |
|  | PC4. Maintain a healthy lifestyle and guard against dependency on intoxicants | 3 | 1 | 1 | 1 |
|  | PC5. Follow environment management system related procedures | 3 | 1 | 1 | 1 |
|  | PC6. Identify and correct (if possible) malfunctions in machinery and equipment | 4 | 1 | 2 | 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 organisational requirements | 4 | 1 | 2 | 1 |
|  | PC9. Safely handle and move waste and debris | 3 | 1 | 1 | 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 | 3 | 1 | 1 | 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 | 4 | 1.5 | 2 | 0.5 |
|  | PC16. Undertake first aid, fire-fighting and emergency response training, if asked to do so | 4 | 1.5 | 2 | 0.5 |
|  | PC17. Take action based on instructions in the event of fire, emergencies or accidents | 3 | 1.5 | 1 | 0.5 |
|  | PC18. Follow organization procedures for shutdown and evacuation when required | 3 | 1.5 | 1 | 0.5 |
|  |  | Total | **60** | **20** | **24** | **16** |
| **5. AMH/N0104 -Comply with industry, regulatory and organizational requirements** | PC1. Carry out work functions in accordance with legislation and regulations, organizational guidelines and procedures | **15** | 3 | 1 | 1 | 1 |
|  | PC2. Seek and obtain clarifications on policies and procedures, from your supervisor or other authorized personnel | 3 | 1 | 1 | 1 |
|  | PC3. Apply and follow these policies and procedures within your work practices | 3 | 1 | 1 | 1 |
|  | PC4. Provide support to your supervisor and team members in enforcing these considerations | 3 | 1 | 1 | 1 |
|  | PC5. Identify and report any possible deviation to these requirements | 3 | 1 | 1 | 1 |
|  |  | Total | **15** | **5** | **5** | **5** |
|  | **Grand Total** |  | **400** | **110** | **185** | **105** |