

QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR TEXTILE SECTOR

**What are**

**Occupational**

**Standards(OS)?**

* OS describe what individuals need to do, know and understand in order to carry out a particular job role or function
* OS are performance standards that individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding

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**Introduction**

**Qualifications Pack – Knitting Machine Operator –Warp Knitting**

**Sector: Information technology- INFORMATION TECHNOLOGY enabled SERVICES (IT-ITeS)ces Helpdesk Attendant**

**Sector:** TEXTILE

**SUB-SECTOR:** KNITTING

**OCCUPATION: Knitting**

**REFERENCE ID: TSC/ Q 3501**

**ALIGNED TO: NCO-2004 /8262.55**

**Brief Job Description:** To produce a warp knitting fabric on the warp knitting machines it requires a yarn which feed on the beams. Sometimes, the ends of the yarn from the cone or cheese can be fed directly into warp knitting machines using creel, but this method is only used for pattern yarn on the lace machines. However, for the groundyarn the yarn is always used on the warp beam.
Warp beams are produced for various warping machines. For warp knitting, the warp beams produce on direct warping machines. Direct warping can be defined as the produce in which ends of the yarn are wrapped in one operation from the yarn packagesonto the warp beam.Most of modern warping machines, can work with 21” to 42”beam. Nowadays, this size of beam is mostly used on the warp knitting machine.This job requires the individual to have thorough knowledge of process flow and material flow in a knitting machine for fabric production and should be able to know the important functions and operations of knitting machines.

**Personal Attributes:** An knitting operator should have good eyesight, hand-eye-leg coordination, motor skills and vision. He/she should alsohave good interpersonal skills.

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| --- | --- | --- |
| Job Details | **Qualifications Pack Code** | **TSC/Q3501** |
| **Job Role** | **Knitting Machine Operator-Warp Knitting** |
| **Credits (NSQF)** | **TBD** | **Version number** | **1.0** |
| **Sector** | **Textile** | **Drafted on**  | **15/12/14** |
| **Sub-sector** | **Knitting** | **Last reviewed on** | **21/01/15** |
| **Occupation** | **Knitting** | **Next review date** |  |

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| --- | --- |
| **Job Role** | **Warp Machine Operator** |
| **Role Description** | This job requires the individual to have thorough knowledge in process flow and material flow in a knitting machine for fabric production and should be able to know the important functions and operations of knitting machines. |
| **NSQF level****Minimum Educational Qualifications****Maximum Educational Qualifications** | 4 |
| 5th standard, preferablyN/A |
| **Training**(Suggested but not mandatory) | Not Applicable |
| **Experience** | Preferably 1-2 years of work experience as knitting operator in a spinning mill.  |
| **National Occupational Standards (NOS)**  | **Compulsory:**1. [TSC/ N3501 Taking charge of shift and handing over shift to operator](#_TSC/_N0101)
2. [TSC/ N3502 Operating the Warping Machine](#_TSC/_N3502)
3. [TSC/ N3503 Prepare the creel](#_Carryout_cleaning_and)
4. [TSC/ N3504 Repair](#_Carryout_cleaning_and) yarn related faults
5. [TSC/ N3505 Operating the Warp Knitting Machine](#_TSC/_N3504)
6. [TSC/ N3506 Knotting the yarn and fabric take off](#_TSC/_N3504_1)
7. [TSC/ N3507 Repair yarn related faults at the knitting head and fabric press off](#_TSC/_N3507)
8. [TSC/ N9001 Maintain work area, tools and machines](#_This_unit_is_3)
9. [TSC/ N9002 Working in a team](#_This_unit_is_3)
10. [TSC/ N9003 Maintain health, safety and security at workplace](#_This_unit_is_4)
11. [TSC/ N9004 Comply with industry and organizational requirement](#_This_unit_is_5)

**Optional:** |
| **Performance Criteria** | As described in the relevant OS units |

Glossary of Key Terms

**Table 1: Glossary of Key Terms**

|  |  |  |
| --- | --- | --- |
| Definitions  | **Keywords /Terms** | **Description** |
| Sector | Sector is a conglomeration of different business operations having similar businesses and interests. It may also be defined asa distinct subset of the economy whose components share similar characteristics and interests. |
| Sub-sector | Sub-sector is derived from a further breakdown based on the characteristics and interests of its components. |
| Vertical | Vertical may exist within a sub-sector representing different domain areas  or the client industries served by the industry. |
| Occupation | Occupation is a set of job roles, which perform similar/related set of functions in an industry. |
| Function | Function is an activity necessary for achieving the key purpose of the sector, occupation, or area of work, which can be carried out by a person or a group of persons. Functions are identified through functional analysis and form the basis of OS. |
| Sub-functions | Sub-functions are sub-activities essential to fulfill the achieving the objectives of the function.  |
| Job role | Job role defines a unique set of functions that together form a unique employment opportunity in an organization. |
| Occupational Standards (OS) | OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the knowledge and understanding they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts. |
| Performance Criteria | Performance Criteria are statements that together specify the standard of performance required when carrying out a task. |
| National Occupational Standards (NOS) | NOS are Occupational Standards which apply uniquely in the Indian context. |
| Qualifications Pack Code | Qualifications Pack Code is a unique reference code that identifies a qualifications pack. |
| Qualifications Pack(QP) | Qualifications Pack comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A Qualifications Pack is assigned a unique qualification pack code.  |
| Unit Code | Unit Code is a unique identifier for an OS unit, which can be denoted with either an ‘**O**’ or an ‘**N**’. |
| Unit Title | Unit Title gives a clear overall statement about what the incumbent should be able to do. |
| Description | Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for. |
| Scope | Scope is the set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on the quality of performance required. |
| Knowledge and Understanding | Knowledge and Understanding are statements which together specify the technical, generic, professional and organizational specific knowledge that an individual needs in order to perform to the required standard. |
| Organizational Context | Organizational Context includes the way the organization is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility. |
| Technical Knowledge | Technical Knowledge is the specific knowledge  needed to accomplish specific designated responsibilities. |
| Core Skills/Generic Skills  | Core Skills or Generic Skills are a group of skills that are key to learning and working in today's world. These skills are typically needed in any work environment. In the context of the OS , these include communication related skills that are applicable to most job roles. |
| **Acronyms** | **Keywords /Terms** | **Description** |
| SSC | Sector Skill Council |
| OS | Occupational Standard(s) |
| NOS | National Occupational Standard(s) |
| QP | Qualifications Pack |
| NSQF | National Skill Qualifications Framework |
| NCO | National Classifications of Occupation |
| TBD | To Be Determined |
| TSC | Textile Sector Skill Council |
| NSDC | National Skill Development Corporation |

**National Occupational Standard**

**Overview**

**This unit is about taking charge of shift from the co-operator**

|  |  |
| --- | --- |
| **Unit Code**National Occupational Standard | TSC/ N3501 |
| **Unit Title****(Task)** | Taking charge and Handing Over of shift from the co-operator  |
| **Description** | This unit is about taking charge of shift from previous shift operator and relieving the responsibilities to the next shift operator |
| Scope | **This unit/task covers the following:*** To take charge of shift from previous shift operator
* To hand over the shift to next shift operator
 |
| **Elements** | **Performance Criteria** |
| Taking charge of shift | To be competent,you must be able to:1. reach atleast 10 - 15 minutes early to the work place
2. bring the necessary operational tools to the department
3. discuss with the previous shift operator and collect the information regarding the count, process, issues faced in quality, current beam production followed in the knitting department.
4. discuss about current order running for which company.
5. ensure the proper functioning of machine and problems if any should be reported to the supervisor and maintenance in- charge.
6. discuss about the current order quantity and balance quantity.
7. discuss about the new order fabric details and quantity.
8. discuss about the department cleanliness.
 |
| Handing Over Shift | 1. clean the machine and department before handing over the shift.
2. hand over the necessary operational tools if any.
3. discuss with the next shift operator and give the information regarding the count, gsm, loop length, process, issues faced in quality, and current fabric production followed in the knitting department.
4. discuss about current order running for which company.
5. note the production details for the current shift
6. the proper functioning of machine and problems if any should be reported to the supervisor and maintenance in- charge.
7. discuss with next operator about the current order quality ,quantity and balance quantity.
8. discuss about the new order fabric details and quantity.
9. discuss about the department cleanliness.
 |
| **Knowledge and Understanding (K)** |
| 1. **Organizational Context** (Knowledge of the company/ organization and its processes)
 | You need to know and understand:1. general rules and regulations in a knitting industry
2. safe working practices to be adopted in knitting industry
3. quality systems and other processes practiced in the knitting industry
4. reporting to the supervisor or higher authority in case of emergency
5. color coding adopted for different counts in the knitting industry
 |
| 1. **Technical Knowledge**
 | You need to know and understand:1. process flow and material flow in knitting industry
2. functions of knitting machine
3. importance of yarn quality, fabric type and quality
4. functions of control switches and signal lamps in knitting machine
5. functions of different control switches in knitting machine
6. knowledge of different functions in display panel and procedure to operate the knitting machine.
7. importance of fabric technical details (gsm, looplength, type of the fabric...)
8. knowledge about type of the fabric, machine settings.
9. functions of different control switches and signal lamps in knitting machine
10. knowledge of different functions in display panel and procedure to operate the knitting machine.
11. importance of fabric technical details (gsm, loop length, type of the fabric...)
12. knowledge about type of the fabric, machine settings.
13. importance of cleanliness and safety at work place.
 |
| **Skills (S)** |
| 1. **Core Skills/ Generic Skills**
 | **Writing Skills** |
| You need to know and understand how to:1. write in simple language
 |
| **Reading Skills** |
| You need to know and understand how to:1. read and comprehend written instructions
 |
| **Oral Communication (Listening and Speaking skills)** |
| You need to know and understand how to:1. communicate with supervisor appropriately
2. talk to others to convey information effectively
 |
| 1. **Professional Skills**
 | **Problem Solving** |
| You need to know and understand how to:1. apply problem-solving approaches in different situations
2. refer anomalies to the supervisor
3. seek clarification on problems from others
 |
| **Attention to Detail** |
| You need to know and understand how to:1. apply good attention to detail
2. check your work is complete and free from errors
 |
| 1. **Technical Skills**
 | You need to know and understand how to:1. procedure tocollect the yarn from creel zone and condense through the guides, positive feeders for fabric formation.
2. standard operating procedure for carrying out knotting activity
3. procedure for collecting the yarn from creel zone and condense through the guides, positive feeders for fabric formation.
4. standard operating procedure for carrying out knotting activity
5. standard operating procedure for carrying out fabric take off activity
6. procedure for segregating the different types of fabric and yarn
7. procedure for storing the fabric roll.
8. procedure for checking the fabric roll.
9. procedure for segregating the different types of wastes
10. procedure for storing reusable wastes and weighing them
11. procedure for material handling of cone, fabric roll.
12. maintain cleanliness at work.
 |

**NOS Version Control**

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| **NOS Code** | **TSC/ N3501** |
| **Credits (NSQF)****[*OPTIONAL*]** | **TBD** | **Version number** | **1.0** |
| **Industry** | **Textile** | **Drafted on**  | **15/12/14** |
| **Industry Sub-sector** | **Knitting** | **Last reviewed on** | **21/01/15** |
| **Occupation** | **Knitting** | **Next review date** |  |

**National Occupational Standard**

**Overview**

**This unit is about carrying out procedure for operating the warping machine in warp knitting.**

|  |  |
| --- | --- |
| **Unit Code**National Occupational Standard | TSC/ N3502 |
| **Unit Title****(Task)** | Operating the warping machine |
| **Description** | This unit is about carrying out procedure for operating the sequence of warping machine in warp knitting |
| Scope | **This unit/task covers the following:*** To ensure proper functioning of the warping machine
* To carryout cleaning maintenance activities in warping machine
* To carryout preventive maintenance activities in warping machine
* To ensure proper material handling and safety at work place
 |
| **Elements** | **Performance Criteria** |
| Operating the warping machine | To be competent,you must be able to:1. receive and correctly interpret work instructions
2. obtain the required resources and check that resources are sufficient and

meet specification1. protect resources from damage and contamination
2. ensure equipment is ready for use
3. take appropriate action when resources and equipment do not meet

requirements1. arrange resources and equipment to ensure efficient operations
2. certify correct sett loaded before warp drawn and to correctly draw

endsin1. ensure that the creel, machine and any other equipment are clean and
2. ready for use
3. ensure the correct yarn is selected
4. remove any existing yarn on the creel
5. plan the creel in sections according to the number of guide bars being

used1. thread the correct number of bobbins in the order specified for each

guide bar1. draw the warps in the correct order to the correct set of rollers and thread following the specified warp path
2. thread the guide bars in accordance with the pattern specified
3. ensure correct engage of section/tape is achieved
4. forward warp sheet safely to next location
5. ensure new beam is efficiently loaded onto loom
6. keep the work area clean and safe throughout operations
7. prepare the area to ensure efficiency during the next stage of work

operations1. carry out any other required preparation activities
2. identify problems address them within the limits of own responsibility
3. inform the relevant person of problems encountered
4. complete and store accurate records and documentation
 |
| Repair yarn related faults at the knitting head and fabric press-offs | 1. incorrectly-positioned yarns are rethreaded in accordance with workplace procedures.
2. broken yarns or new ends are joined in accordance with workplace procedures.
3. machines are reset for restart in accordance with workplace procedures.
4. arrange after fault correction, style changes, and pattern changes.
 |
| Carry out maintenance activities | 1. ensure the warping machine is working properly and yarn is uniformly fed into beam.
2. support the fitter for carrying out maintenance activities
3. ensure the yarn tension variation is within the limits and if it’s abnormal report it to superiors.
4. inform the supervisor and maintenance in- charge in case of a jam
5. support the fitter during minor breakdown
6. ancillary process machines are operated in accordance with machine-builder's instructions and workplace procedures.
7. safety precautions that comply with workplace procedures are observed.
8. Keep the working environment clean and free of contamination.
 |
| Material handling and safety at workplace | 1. ensure proper material handling of yarn, cone and beam
2. ensure using proper material handling of tools and equipments
3. ensure safety while operating the card
4. Use safety gadgets like caps, masks and shoes and verifying the safety stop motions
 |
| Other tenting responsibilities | 1. ensure the warp beam produced is free from outside damages
2. collect usable waste to be weighed at shift end and to be placed in the specified area
3. inform superiors immediately, if any break down or fault in the machine is noticed
4. ensure the proper functioning of signal lamps
5. ensure that machine is always working properly, if any deviations inform superiors immediately
6. yarn wastes are identified by fibre content and sorted according to workplace procedures.
7. provide all relevant information’s of the current working process to the next shift operator before relieving.
 |
| **Knowledge and Understanding (K)** |
| 1. **Organizational Context** (Knowledge of the company/ organization and its processes)
 | You need to know and understand:1. general rules and regulations in a spinning mill
2. safe working practices to be adopted in spinning mill
3. quality systems and other processes practiced in the spinning mill
4. reporting to the supervisor or higher authority in case of emergency
5. color coding adopted for different counts in the spinning mill
 |
| 1. **Technical Knowledge**
 | You need to know and understand:1. receive work instructions and specifications and interpret them
2. accurately
3. make use of the information detailed in specifications and
4. instructions
5. know the ways of planning work activities to maintain continuity of operations
6. understand the principles of knitting work operations to be followed
7. the importance of manual dexterity and attention to detail
8. preparation activities prior to work operations
9. characteristics of yarn (count, gauge, elasticity, material) and how to
10. handle them
11. capabilities of equipment to be used and actions to be taken when it
12. does not conform to specification
13. yarn properties and their effect on the warp beam (i.e. twist level,
14. direction, liveliness, tension etc.)
15. importance of maintaining a clean and safe work area
16. how to clean the creel sufficiently to prevent contamination
17. how to thread guide bars to meet specification
18. threading up techniques according to machine type
19. how to plan threading up plans correctly
20. the garment/fabric manufacturing process
21. relate quality to end user / customer
22. the importance of teamwork
23. how specific work activities, relates to the whole manufacturing operation
24. safe working practices and organizational procedures
25. limits of your own responsibility ways of resolving with problems within the work area
26. the production process and how your specific work activities relate to the
27. whole process
28. the importance of effective communication with colleagues
29. the lines of communication, authority and reporting procedures
30. the organization’s rules, codes and guidelines (including timekeeping)
31. the companies quality standards
32. the types of records kept, how are they completed and the importance of
33. keeping them accurate
34. the importance of complying with written instructions
35. equipment operating procedures / manufacturers’ instructions
36. statutory responsibilities under health, safety and environmental
37. legislation and regulations
 |
| **Skills (S)** |
| 1. **Core Skills/ Generic Skills**
 | **Writing Skills** |
| You need to know and understand how to:1. write in local language
 |
| **Reading Skills** |
| You need to know and understand how to:1. read and comprehend written instructions
 |
| **Oral Communication (Listening and Speaking skills)** |
| You need to know and understand how to:1. communicate with supervisor appropriately
2. talk to others to convey information effectively
 |
| 1. **Professional Skills**
 | **Problem Solving** |
| You need to know and understand how to:1. apply problem-solving approaches in different situations
2. refer anomalies to the supervisor
3. seek clarification on problems from others
 |
| **Attention to Detail** |
| You need to know and understand how to:1. apply good attention to detail
2. check your work is complete and free from errors
 |
| 1. **Technical Skills**
 | You need to know and understand how to::1. procedure to identify and remove the defects in fabric
2. procedure for cleaning the wastes and waste segregation
3. procedure to carryout cleaning activities in knitting machine
4. procedure for cleaning the knitting machine area.
5. procedure to carryout basic maintenance activities in knitting machine
6. maintain cleanliness at work place
 |

**NOS Version Control**

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| **NOS Code** | **TSC/ N3502** |
| **Credits (NSQF)****[*OPTIONAL*]** | **TBD** | **Version number** | **1.0** |
| **Industry** | **Textile** | **Drafted on**  | **15/12/14** |
| **Industry Sub-sector** | **Knitting** | **Last reviewed on** | **21/01/15** |
| **Occupation** | **Knitting** | **Next review date** |  |

**National Occupational Standard**

**Overview**

**This unit is about carrying out creel in the warp knitting department**

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| **Unit Code**National Occupational Standard | TSC/ N3503 |
| **Unit Title****(Task)** | Prepare the creel  |
| **Description** | This unit is about carrying out creel in the warp knitting department |
| Scope | **This unit/task covers the following**:* To load the cones in the creel
* To knot the broken yarn
* To ensure the Package holders, Tension devices, Guides, Stop

motion |
| **Elements** | **Performance Criteria** |
| Load the cones in the creel | to be competent, you must be able to:1. use suitable creel.
2. ensure the creel is vibration free
3. ensure that the electronic stop motion working properly.
4. ensure the signal lamp indicate the yarn breakage (row wise).
5. ensure that yarn tension uniformly maintained & centrally adjustable between creel & warping machine by set up of load cell system.
6. to ensure yarn tension can be set as the requirements of various yarn count & types.
7. fluff removed by air blowing nozzles on the disc on every tensioner with programmable cleaning cycle
8. preference for cone creel capacity
 |
| Knot the broken yarn | 1. unwind the yarn from cone
2. ensure proper knotting to draw the yarn through the guide, guide rollers and pass it through the stopmotin ,guide bar in delivery zone
3. ensure proper functioning of knitting machine post knotting
4. collect the wastes collected during knotting and store the waste at respective waste box
5. segregate the reusable wastes and weigh and record them in a register
6. ensure standard knotting procedure is adopted and quality of knotting is as per standards
7. ensure minimum time is taken for knotting the yarn.
8. ensure safety while carrying out knotting activity
 |
| Check the quality of knotting | 1. verify the quality of knotting done in the yarn
2. ensure yarn tension in the creeling section is appropriate
3. ensure proper functioning of the machine
 |
| Ensure the Package holders, Tension devices, Guides, Stop motion | 1. collect the empty cones from creel and replace with full cone.
2. ensure whether the beam is ready fortakeoffby viewing the details in display panel or by manual
3. keep the empty beam ready for replacement
4. keep the empty beam near the machine in manual take-off
5. ensure beam take off is carried out properly.
6. move the beam roll to warp knitting storage area
7. ensure the machine is properly restarted after take-off
 |
| Post fabric take off responsibilities | 1. ensure proper functioning of machine post beam take off
2. nsure proper material handling of yarn, cone and beam
3. ensure proper material handling of tools and equipments
 |
| **Knowledge and Understanding (K)** |
| 1. **Organizational Context** (Knowledge of the company/ organization and its processes)
 | You need to know and understand:1. general rules and regulations in a spinning mill
2. safe working practices to be adopted in spinning mill
3. quality systems and other processes practiced in the spinning mill
4. reporting to the supervisor or higher authority in case of emergency
5. color coding adopted for different counts in the spinning mill
 |
| 1. **Technical Knowledge**
 | You need to know and understand how to::1. Process flow and material flow in knitting industry
2. Functions of knitting machine
3. Functions of control switches and signal lamps in knitting machine
4. Importance of knotting
5. Importance of doffing
6. Importance of fabric quality
7. Guidelines for knotting the yarn
8. Guidelines for carrying out fabric take off activity
9. Functions of different control switches in knitting machine
10. Knowledge of different functions in display panel and procedure to operate the knitting machine
11. Functions of different signal lamps in knitting machine
12. Importance of cleanliness and safety at work place
 |
| **Skills (S)** |
| 1. **Core Skills/ Generic Skills**
 | **Writing Skills** |
| You need to know and understand how to:1. write in local language
 |
| **Reading Skills** |
| You need to know and understand how to:1. comprehend written instructions
 |
| **Oral Communication (Listening and Speaking skills)** |
| You need to know and understand how to:1. communicate with supervisor appropriately
2. talk to others to convey information effectively
 |
| 1. **Professional Skills**
 | **Problem Solving** |
| You need to know and understand how to:1. apply problem-solving approaches in different situations
2. refer anomalies to the supervisor
3. seek clarification on problems from others
 |
| **Attention to Detail** |
| You need to know and understand how to:1. apply good attention to detail.
2. check your work is complete and free from errors
 |
| 1. **Technical Skills**
 | You need to know and understand how to:1. procedure for collect the yarn from creel zone and condense through the guides, positive feeders for fabric formation.
2. standard operating procedure for carrying out knotting activity
3. standard operating procedure for carrying out fabric take off activity
4. procedure for segregating the different types of wastes
5. procedure for storing reusable wastes and weighing them
6. procedure for material handling of cone, fabric roll.
7. maintain cleanliness at work
 |

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| **NOS Code** | **TSC/ N3503** |
| **Credits (NSQF)****[*OPTIONAL*]** | **TBD** | **Version number** | **1.0** |
| **Industry** | **Textile** | **Drafted on**  | **15/12/14** |
| **Industry Sub-sector** | **Knitting** | **Last reviewed on** | **21/01/15** |
| **Occupation** | **Knitting** | **Next review date** |  |

**NOS Version Control**

**National Occupational Standard**

**Overview**

**This unit is about repairing yarn related faults**

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| --- | --- |
| **Unit Code**National Occupational Standard | TSC/ N3504 |
| **Unit Title****(Task)** | Repair yarn related faults  |
| **Description** | This unit is about carrying out the Repair yarn-related faults at the knitting head and fabric press-offs. |
| Scope | **This unit/task covers the following:*** To Repair yarn-related faults
 |
| **Elements** | **Performance Criteria** |
| Attending the yarn related faults | To be competent, you must be able to:1. identify incorrectly-positioned yarns and are rethread them in accordance with workplace procedures
2. identify the reasons for yarn breakage
3. join broken yarns or new ends in accordance with workplace procedures.
4. reset machines for restart in accordance with workplace procedures range after fault correction, style changes, and pattern changes.
 |
| **Knowledge and Understanding (K)** |
| 1. **Organizational Context** (Knowledge of the company/ organization and its processes)
 | You need to know and understand:1. general rules and regulations in a spinning mill
2. safe working practices to be adopted in spinning mill
3. quality systems and other processes practiced in the spinning mill
4. reporting to the supervisor or higher authority in case of emergency
5. color coding adopted for different counts in the spinning mill
 |
| 1. **Technical Knowledge**
 | You need to know and understand:1. process flow and material flow in knitting industry
2. functions of knitting machine
3. functions of control switches and signal lamps in knitting machine
4. importance of knotting
5. importance of doffing
6. importance of fabric quality
7. guidelines for knotting the yarn
8. guidelines for carrying out fabric take off activity
9. functions of different control switches in knitting machine
10. knowledge of different functions in display panel and procedure to operate the knitting machine
11. functions of different signal lamps in knitting machine.
12. importance of cleanliness and safety at work place
 |
| **Skills (S)** |
| 1. **Core Skills/ Generic Skills**
 | **Writing Skills** |
| You need to know and understand how to:1. write in local language
 |
| **Reading Skills** |
| You need to know and understand how to:1. comprehend written instructions
 |
| **Oral Communication (Listening and Speaking skills)** |
| You need to know and understand how to:1. communicate with supervisor appropriately
2. talk to others to convey information effectively
 |
| 1. **Professional Skills**
 | **Problem Solving** |
| You need to know and understand how to:1. apply problem-solving approaches in different situations
2. refer anomalies to the supervisor
3. seek clarification on problems from others
 |
| **Attention to Detail** |
| You need to know and understand how to:1. apply good attention to detail
2. check your work is complete and free from errors
 |
| 1. **Technical Skills**
 | You need to know and understand:1. procedure to collect the yarn from creel zone and condense through the guides, positive feeders for fabric formation.
2. standard operating procedure for carrying out knotting activity
3. standard operating procedure for carrying out fabric take off activity
4. procedure for segregating the different types of wastes
5. procedure for storing reusable wastes and weighing them
6. procedure for material handling of cone, fabric roll
7. maintain cleanliness at work
 |

**NOS Version Control**

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| **NOS Code** | **TSC/ N3504** |
| **Credits (NSQF)****[*OPTIONAL*]** | **TBD** | **Version number** | **1.0** |
| **Industry** | **Textile** | **Drafted on**  | **15/12/14** |
| **Industry Sub-sector** | **Knitting** | **Last reviewed on** | **21/01/15** |
| **Occupation** | **Knitting** | **Next review date** |  |

**National Occupational Standard**

**Overview**

**This unit is about operating the warp knitting machine**

|  |  |
| --- | --- |
| **Unit Code**National Occupational Standard | TSC/ N3504 |
| **Unit Title****(Task)** | Operating the warp knitting machine |
| **Description** | This unit is about carrying out procedure for operating the sequence of warp knitting machine |
| Scope | **This unit/task covers the following:*** To ensure proper functioning of the knitting machine
* To carryout cleaning maintenance activities in knitting machine
* To carryout preventive maintenance activities in knitting machine
* To ensure proper material handling and safety at work place
 |
| **Elements** | **Performance Criteria** |
| Operating the knitting machine | to be competent,you must be able to:1. start the machine
2. operate the control switches for starting and stopping the warp knitting machine.
3. follow the signal lamps used in machines.
4. ensure proper functioning of the knitting machine by verifying in the display panel.
5. operate the warping machine in accordance with workplace procedures to produce beams of lengths specified in work instructions.
6. Produce beams through reed and traverse-mechanism adjustments during warp build-up, free of yarn collars and/or winding collapses in accordance with workplace procedures.
7. Produce beams of exact levelness throughout by means of critical setting and adjustment of yarn tensions in accordance with workplace procedures.
8. reset broken ends in accordance with workplace procedures.
9. Thread completed beams are prepared ready into warp-knitting machines in accordance with workplace procedures.
10. Identify completed beams, doff, and store in accordance with workplace procedures or as directed by the supervisor.
11. Ensure yarn paths, eyelets, tension devices, and reeds are clean and free of contamination and build-up of residues from the yarns in accordance with workplace procedures.
12. Ensure the warping environment is clean and free of contaminants in accordance with workplace procedures.
13. ensure the machines are monitored for continuous functioning of all systems, and variations notified, in accordance with workplace procedures.
14. ensure the documentation of production is completed in accordance with workplace procedures.
15. ensure the machines are lubricated as directed in accordance with workplace procedures.
16. check whether the yarns are properly fed in the knitting machine
17. knot the yarn during breakage
18. view the display panel or signal and identify the reasons for machine stoppages if any
19. ensure the knitting machine is running in the set speed by viewing the display panel
20. ensure the working area is clean
21. ensure proper functioning of machine
 |
| Repair yarn-related faults at the knitting head and fabric press-offs | 1. to ensure incorrectly-positioned yarns are rethreaded
2. to ensure the broken yarns or new ends are joined
3. fabric press-offs are fixed in accordance with machine-type and workplace procedures.
4. machines are reset for restart in accordance with workplace procedures.
5. range after fault correction, style changes, and pattern changes.
 |
| Carryout maintenance activities | 1. to support the fitter for carrying out maintenance activities
2. ensure the gsm, loop length variation is within the limits and if it’s abnormal report it to superiors.
3. inform the supervisor and maintenance in- charge in case of a jam
4. to support the fitter during minor breakdown
5. ancillary process machines are operated in accordance with machine-builder's instructions and workplace procedures.
6. safety precautions that comply with workplace procedures are observed.
7. Ensure the working environment is kept clean and free of contamination.
 |
| Material handling and safety at workplace | 1. ensure proper material handling of yarn, beam and fabric roll
2. ensure using proper material handling of tools and equipments
3. ensure safety while operating the card
4. use safety gadgets like caps, masks and shoes and verifying the safety stop motions
 |
| Other responsibilities | 1. ensure the fabric produced is free from outside damages
2. collect usable waste to be weighed at shift end and to be placed in the specified area
3. inform superiors immediately, if any break down or fault in the machine is noticed
4. ensure the proper functioning of signal lamps
5. ensure that machine is always working properly, if any deviations inform superiors immediately
6. yarn wastes are identified by fibre content and sorted according to workplace procedures.
7. Ensure fabric wastes are identified and sorted according to workplace procedures.
8. provide all relevant information’s of the current working process to the next shift operator before relieving.
 |
| **Knowledge and Understanding (K)** |
| 1. **Organizational Context** (Knowledge of the company/ organization and its processes)
 | You need to know and understand:1. general rules and regulations in a spinning mill
2. safe working practices to be adopted in spinning mill
3. quality systems and other processes practiced in the spinning mill
4. reporting to the supervisor or higher authority in case of emergency
5. color coding adopted for different counts in the spinning mill
 |
| 1. **Technical Knowledge**
 | You need to know and understand:1. process and material flow in a knitting machine
2. understanding the importance of yarn, types of yarn, yarn count, types of fabric, loop length, gsm, importance of yarn and fabric quality
3. importance of weft knitting machine, various parts in a knitting machine and their functions
4. function of positive feeder
5. importance & functions of signal lamps
6. different control buttons in knitting machine
7. knowledge of different functions in display panel and procedure to operate the knitting machine
8. types of wastes
9. procedure for collecting wastes
10. guidelines for operating the material handling tools and equipments
11. importance of cleanliness at work place
12. procedure to identify the normal defects in fabric and actions needed to correct them
13. guidelines for carrying out cleaning activities
14. guidelines for carrying out maintenance activities
15. importance of material handling
16. types of material handling equipments used
17. functions and methodology for operating different material handling equipments.
18. safety gadgets used in a knitting department.
 |
| **Skills (S)** |
| 1. **Core Skills/ Generic Skills**
 | **Writing Skills** |
| You need to know and understand how to:1. write in simple language
 |
| **Reading Skills** |
| You need to know and understand how to:1. read and comprehend written instructions
 |
| **Oral Communication (Listening and Speaking skills)** |
| You need to know and understand how to:1. communicate with supervisor appropriately
2. talk to others to convey information effectively
 |
| 1. **Professional Skills**
 | **Problem Solving** |
| You need to know and understand how to:1. apply problem-solving approaches in different situations
2. refer anomalies to the supervisor
3. seek clarification on problems from others
 |
| **Attention to Detail** |
| You need to know and understand how to:1. apply good attention to detail
2. check your work is complete and free from errors
 |
| 1. **Technical Skills**
 | You need to know and understand how to :1. procedure to identify and remove the defects in fabric
2. procedure for cleaning the wastes and waste segregation
3. procedure to carryout cleaning activities in knitting machine
4. procedure for cleaning the knitting machine area.
5. procedure to carryout basic maintenance activities in knitting machine
6. maintain cleanliness at work place
 |

**NOS Version Control**

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| --- | --- |
| **NOS Code** | **TSC/ N3505** |
| **Credits (NSQF)****[*OPTIONAL*]** | **TBD** | **Version number** | **1.0** |
| **Industry** | **Textile** | **Drafted on**  | **15/12/14** |
| **Industry Sub-sector** | **Knitting** | **Last reviewed on** | **21/01/15** |
| **Occupation** | **Knitting** | **Next review date** |  |

**National Occupational Standard**

**Overview**

**This unit is about knotting the yarn and fabric take off**

|  |  |
| --- | --- |
| **Unit Code**National Occupational Standard | TSC/ N3504 |
| **Unit Title****(Task)** | Knotting the yarn and fabric take off |
| **Description** | This unit is about carrying out knotting, cleaning and maintenance activities in knitting department |
| Scope | **This unit/task covers the following:*** To knot the broken yarn
* To carryout fabric take off activity in knitting machine
 |
| **Elements** | **Performance Criteria** |
| Attending the machine on yarn breakage | To be competent, you must be able to:1. identity whether the machine stoppage by viewing the signal lamps and in display panel
2. identify the reasons for yarn breakage
3. ensure minimum time is taken for attending the yarn breakage in carding department
 |
| Knotting the yarn | 1. unwind the yarn from beam
2. ensure proper knotting
3. draw the yarn through the guide, guide rollers and pass it through the stop motion ,guide in delivery zone
4. ensure proper functioning of knitting machine post knotting
5. collect the wastes collected during knotting and store the waste at respective waste box
6. segregate the reusable wastes and weigh and record them in a register
7. ensure standard knotting procedure is adopted and quality of knotting is as per standards
8. ensure minimum time is taken for knotting the yarn.
9. ensure safety while carrying out knotting activity
 |
| Checking the quality of knotting  | 1. verify the quality of knotting done in the yarn
2. ensure yarn tension in the creeling section is appropriate
3. ensure proper functioning of the machine
 |
| Carrying out doffing | 1. collect the empty cones from creel and replace with full cone.
2. ensure whether the fabric roll is ready for fabric take off by viewing the details in display panel or by manual
3. keep the empty fabric roller ready for replacement
4. keep the empty fabric roll near the knitting machine in manual

take-off1. doff the full fabric roll in case of manual take-off.
2. ensure proper fabric take off procedure is followed
3. ensure fabric take off is carried out properly.
4. move the fabric roll to storage area
5. ensure the knitting machine is properly restarted after doffing
 |
| Post fabric take off responsibilities | 1. ensure proper functioning of knitting machine post fabric take off
2. ensure proper material handling of yarn, beam and fabric
3. ensure proper material handling of tools and equipments
 |
| **Knowledge and Understanding (K)** |
| 1. **Organizational Context** (Knowledge of the company/ organization and its processes)
 | You need to know and understand:1. general rules and regulations in a spinning mill
2. safe working practices to be adopted in spinning mill
3. quality systems and other processes practiced in the spinning mill
4. reporting to the supervisor or higher authority in case of emergency
5. color coding adopted for different counts in the spinning mill
 |
| 1. **Technical Knowledge**
 | You need to know and understand:1. process flow and material flow in knitting industry
2. functions of knitting machine
3. functions of control switches and signal lamps in knitting machine
4. importance of knotting
5. importance of fabric take-off
6. importance of fabric quality
7. guidelines for knotting the yarn
8. guidelines for carrying out fabric take off activity
9. functions of different control switches in knitting machine
10. knowledge of different functions in display panel and procedure to operate the knitting machine
11. functions of different signal lamps in knitting machine.
12. importance of cleanliness and safety at work place
 |
| **Skills (S)** |
| 1. **Core Skills/ Generic Skills**
 | **Writing Skills** |
| You need to know and understand how to:1. write in local language
 |
| **Reading Skills** |
| You need to know and understand how to:1. comprehend written instructions
 |
| **Oral Communication (Listening and Speaking skills)** |
| You need to know and understand how to:1. communicate with supervisor appropriately
2. talk to others to convey information effectively
 |
| 1. **Professional Skills**
 | **Problem Solving** |
| You need to know and understand how to:1. apply problem-solving approaches in different situations
2. refer anomalies to the supervisor
3. seek clarification on problems from others
 |
| **Attention to Detail** |
| You need to know and understand how to:1. apply good attention to detail
2. check your work is complete and free from errors
 |
| 1. **Technical Skills**
 | You need to know and understand :1. procedure for collect the yarn from creel zone and condense through the guides, positive feeders for fabric formation.
2. standard operating procedure for carrying out knotting activity
3. standard operating procedure for carrying out fabric take off activity
4. procedure for segregating the different types of wastes
5. procedure for storing reusable wastes and weighing them
6. procedure for material handling of cone, fabric roll .
7. maintain cleanliness at work
 |

**NOS Version Control**

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| --- | --- |
| **NOS Code** | **TSC/ N3506** |
| **Credits (NSQF)****[*OPTIONAL*]** | **TBD** | **Version number** | **1.0** |
| **Industry** | **Textile** | **Drafted on**  | **15/12/14** |
| **Industry Sub-sector** | **Knitting** | **Last reviewed on** | **21/01/15** |
| **Occupation** | **Knitting** | **Next review date** |  |

**National Occupational Standard**

**Overview**

**This unit is about repairing the yarn related faults at the knitting head and fabric press off**

|  |  |
| --- | --- |
| **Unit Code**National Occupational Standard | TSC/ N3507 |
| **Unit Title****(Task)** | Repair yarn related faults at the knitting head and fabric press off |
| **Description** | This unit is about carrying out the Repair yarn-related faults at the knitting head and fabric press-offs |
| Scope | **This unit/task covers the following:*** To Repair yarn-related faults
* To Repair fabric press-offs.
 |
| **Elements** | **Performance Criteria** |
| Attending the yarn-related faults | To be competent, you must be able to:1. rethread incorrectly-positioned yarns in accordance with workplace procedures
2. identify the reasons for yarn breakage
3. join broken yarns or new ends in accordance with workplace procedures.
4. ensure machines are reset for restart in accordance with workplace procedures Range after fault correction, style changes, and pattern changes.
 |
| Repair fabric press-offs | 1. ensure fabric press-offs are fixed in accordance with machine-type and workplace procedures.
2. machines are reset for restart in accordance with workplace procedures range after fault correction, style changes, pattern changes
 |
| **Knowledge and Understanding (K)** |
| 1. **Organizational Context** (Knowledge of the company/ organization and its processes)
 | You need to know and understand:1. general rules and regulations in a spinning mill
2. safe working practices to be adopted in spinning mill
3. quality systems and other processes practiced in the spinning mill
4. reporting to the supervisor or higher authority in case of emergency
5. color coding adopted for different counts in the spinning mill
 |
| 1. **Technical Knowledge**
 | You need to know and understand:1. process flow and material flow in knitting industry
2. functions of knitting machine
3. functions of control switches and signal lamps in knitting machine
4. importance of knotting
5. importance of doffing
6. importance of fabric quality
7. guidelines for knotting the yarn
8. guidelines for carrying out fabric take off activity
9. functions of different control switches in knitting machine
10. knowledge of different functions in display panel and procedure to operate the knitting machine
11. functions of different signal lamps in knitting machine.
12. importance of cleanliness and safety at work place
 |
| **Skills (S)** |
| 1. **Core Skills/ Generic Skills**
 | **Writing Skills** |
| You need to know and understand how to:1. write in local language
 |
| **Reading Skills** |
| You need to know and understand how to:1. comprehend written instructions
 |
| **Oral Communication (Listening and Speaking skills)** |
| You need to know and understand how to:1. communicate with supervisor appropriately
2. talk to others to convey information effectively
 |
| 1. **Professional Skills**
 | **Problem Solving** |
| You need to know and understand how to:1. apply problem-solving approaches in different situations
2. refer anomalies to the supervisor
3. seek clarification on problems from others
 |
| **Attention to Detail** |
| You need to know and understand how to:1. apply good attention to detail
2. check your work is complete and free from errors
 |
| 1. **Technical Skills**
 | You need to know and understand :1. procedure for collect the yarn from creel zone and condense through the guides, positive feeders for fabric formation.
2. standard operating procedure for carrying out knotting activity
3. standard operating procedure for carrying out fabric take off activity
4. procedure for segregating the different types of wastes
5. procedure for storing reusable wastes and weighing them
6. procedure for material handling of cone, fabric roll
7. maintain cleanliness at work
 |

**NOS Version Control**

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| **NOS Code** | **TSC/ N3507** |
| **Credits (NSQF)****[*OPTIONAL*]** | **TBD** | **Version number** | **1.0** |
| **Industry** | **Textile** | **Drafted on**  | **15/12/14** |
| **Industry Sub-sector** | **Knitting** | **Last reviewed on** | **21/01/15** |
| **Occupation** | **Knitting** | **Next review date** |  |

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**National Occupational Standard**

**Overview**

**This unit is about maintaining work areas and activities to ensure tools and machines are maintained as per norms.**

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| **Unit Code**National Occupational Standard | **TSC/ N9001** |
| **Unit Title****(Task)** | Maintaining work area, tools and machines |
| **Description** | This unit provides performance criteria, knowledge & understanding and skills & abilities required to organise/ maintain work areas and activities to ensure tools and machines are maintained as per norms |
| Scope | This unit/task covers the following:* Proper maintaining of work area and activities
 |
| **Performance Criteria (PC) w.r.t. the Scope** |
| **Elements** | **Performance Criteria** |
| Maintain the work area, tools and machines | To be competent, you must be able to:1. handle materials, machinery, equipment and tools with care and use them in the correct way
2. use correct lifting and handling procedures
3. use materials to minimize waste
4. maintain a clean and hazard free working area
5. maintain tools and equipment
6. carry out running maintenance within agreed schedules
7. carry out maintenance and/or cleaning within one’s responsibility
8. report unsafe equipment and other dangerous occurrences
9. ensure that the correct machine guards are in place
10. work in a comfortable position with the correct posture
11. use cleaning equipment and methods appropriate for the work to be carried out
12. dispose of waste safely in the designated location
13. store cleaning equipment safely after use
14. carry out cleaning according to schedules and limits of responsibility
 |
| **Knowledge and Understanding (K)** |
| 1. **Organizational Context** (Knowledge of the company/ organization and its processes)
 | You need to know and understand:1. personal hygiene and duty of care
2. safe working practices and organisational procedures
3. limits of your own responsibility
4. ways of resolving with problems within the work area
5. the production process and the specific work activities that relate to the whole process
6. the importance of effective communication with supervisors
7. the lines of communication, authority and reporting procedures
8. the organisation’s rules, codes and guidelines (including timekeeping)
9. the company’s quality standards
10. the importance of complying with written instructions
11. equipment operating procedures / supervisor’s instructions
 |
| 1. **Technical Knowledge**
 | You need to know and understand:1. work instructions and specifications and interpret them accurately
2. relation between work role and the overall manufacturing process
3. hazards likely to be encountered when conducting routine maintenance
4. the importance of taking action when problems are identified
5. different ways of minimising waste
6. the importance of running maintenance and regular cleaning
7. effects of contamination on products i.e. machine oil, dirt, foreign materials
8. common faults with equipment and the method to rectify
9. maintenance procedures
10. different types of cleaning equipment and substances and their use
11. safe working practices for cleaning and the method of carrying them out
 |

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| **Skills (S)** |
| 1. **Core Skills/ Generic Skills**
 | **Writing Skills** |
| You need to know and understand how to:1. Write in simple language
 |
| **Reading Skills** |
| You need to know and understand how to:1. comprehend written instructions
2. read any application sent by other colleagues
 |
| **Oral Communication (Listening and Speaking skills)** |
| You need to know and understand how to:1. Communicate effectively in local language
2. communicate with supervisor appropriately
3. talk to others to convey information effectively
 |
| 1. **Professional Skills**
 | **Problem Solving** |
| You need to know and understand how to:1. identify the real reason of problem faced
2. apply problem-solving approaches in different situations
3. refer anomalies to the supervisor
4. seek clarification on problems from others
 |
| **Attention to Detail** |
| You need to know and understand how to:1. apply good attention to detail
2. check your work is complete and free from errors
3. make sure every kind of communication is error free
 |
| 1. **Technical Skills**
 | You need to know and understand :1. communicate effectively
2. apply leadership skills wherever required
3. take initiative at the right place
4. understand the requirement to be creative
 |

**NOS Version Control**

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| **NOS Code** | **TSC/ N9001** |
| **Credits (NSQF)****[*OPTIONAL*]** | **TBD** | **Version number** | **1.0** |
| **Industry** | **Textile** | **Drafted on**  | **15/12/14** |
| **Industry Sub-sector** | **Knitting** | **Last reviewed on** | **21/01/15** |
| **Occupation** | **Knitting** | **Next review date** |  |

**National Occupational Standard**

**Overview**

# This unit is about working as part of a team in the textile industry.

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| --- | --- |
| **Unit Code** | **TSC/ N9002** |
| **Unit Title**National Occupational Standard**(Task)** | Working in a team |
| **Description** | This unit is about working as a team member in the textile industry |
| Scope | This unit/task covers the following:* commitment and trust
* communication
* adaptability
* creative freedom
 |
| **Performance Criteria (PC) w.r.t. the Scope** |
| **Elements** | **Performance Criteria** |
| Commitment and trust | To be competent, you must be able to:1. be accountable to the own role in whole process
2. perform all roles with full responsibility
3. be effective and efficient at workplace
 |
| Communication | 1. properly communicate about company policies
2. report all problems faced during the process
3. talk politely with other team members and colleagues
4. submit daily report of own performance
 |
| Adaptability | 1. adjust in different work situations
2. give due importance to others’ point of view
3. avoid conflicting situations
 |
| Creative freedom | 1. develop new ideas for work procedures
2. improve upon the existing techniques to increase process efficiency
 |
| **Knowledge and Understanding (K)** |
| 1. **Organizational Context**
 | You need to know and understand:1. general rules and regulations in a textile mill
2. procedure followed to get the final output in the mill
3. safe working practices to be adopted in textile mill
4. reporting to the supervisor or higher authority about any grievances faced
 |
| 1. **Technical Knowledge**
 | 1. the importance of the previous and next step of the process
2. process flow in a textile mill and the concerned workers
3. material flow in a textile mill and the required person
4. functions of different parts of the machine
5. tools and equipments used
6. guidelines for operating the machine
7. safety procedures to be followed in the machine
 |
| **Skills (S)** |
| 1. **Core Skills/ Generic Skills**
 | **Writing Skills** |
| You need to know and understand how to:1. write in simple language
2. write daily work report
3. write grievance complaint application
 |
| **Reading Skills** |
| 1. comprehend written instructions
2. read any application sent by other colleagues
 |
| **Oral Communication (Listening and Speaking skills)** |
| 1. communicate with supervisor appropriately
2. talk to co-workers to convey information effectively
 |
| 1. **Professional Skills**
 | **Problem Solving** |
| You need to know and understand how to:1. identify the real reason of problem faced
2. be able to find the most effective solution to the problems faced
 |
| **Attention to Detail** |
| 1. apply good attention to detail
2. ensure every kind of communication is error free
 |
| 1. **Technical Skills**
 | You need to know and understand how to:1. communicate effectively
2. apply leadership skills wherever required
3. take initiative at the right place
4. understand the requirement to be creative
 |

**NOS Version Control**

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| **NOS Code** | **TSC/ N9002** |
| **Credits (NSQF)****[*OPTIONAL*]** | **TBD** | **Version number** | **1.0** |
| **Industry** | **Textile** | **Drafted on**  | **15/12/14** |
| **Industry Sub-sector** | **Knitting** | **Last reviewed on** | **21/01/15** |
| **Occupation** | **Knitting** | **Next review date** |  |

**National Occupational Standard**

**Overview**

# This unit is about maintaining health, safety, and security standards at workplace.

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| **Unit Code**National Occupational Standard | **TSC/ N9003** |
| **Unit Title****(Task)** | Maintain health, safety and security at work place |
| **Description** | 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. |
| Scope | This unit/task covers the following:* Comply with health, Safety and security requirements at work
* to recognize hazards
* to plan safety techniques
* to implement programs
 |
| **Performance Criteria (PC) w.r.t. the Scope** |
| **Elements** | **Performance Criteria** |
| Comply with health, Safety and security requirements at work | To be competent, operator must be able to:1. comply with health and safety related instructions applicable to the workplace
2. use and maintain personal protective equipment such as “ear plug”, “ nose mask “, “ head cap” etc., as per protocol
3. carry out own activities in line with approved guidelines and procedures
4. maintain a healthy lifestyle and guard against dependency on intoxicants
5. follow environment management system related procedures
6. identify and correct (if possible) malfunctions in machinery and equipment
7. report any service malfunctions that cannot be rectified
8. store materials and equipment in line with organisational requirements
9. safely handle and remove waste
10. minimize health and safety risks to self and others due to own actions
11. seek clarifications, from supervisors or other authorized personnel in case of perceived risks
12. monitor the workplace and work processes for potential risks and threat
13. carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned
14. report hazards and potential risks/ threats to supervisors or other authorized personnel
15. participate in mock drills/ evacuation procedures organized at the workplace
16. undertake first aid, fire-fighting and emergency response training, if asked to do so
17. take action based on instructions in the event of fire, emergencies or accidents
18. follow organisation procedures for shutdown and evacuation when required
 |
| Recognizing the hazards | To be competent, you must be able to:1. identify different kinds of possible hazards (environmental, personal, ergonomic, chemical) of the industry
2. recognise other possible security issues existing in the workplace
 |
| Planning the safety techniques | 1. recognise different measures to curb the hazards
 |
| Implementing the programs | 1. communicate the safety plan to everyone
2. attach disciplinary rules with the implementation
 |
| **Knowledge and Understanding (K)** |
| 1. **Organizational Context** (Knowledge of the company/ organization and its processes)
 | You need to know and understand:1. general rules and regulations in a textile mill
2. safe working practices to be adopted in textile mill
3. quality systems and other processes practiced in the textile mill
4. health and safety related practices applicable at the workplace
5. potential hazards, risks and threats based on nature of operations
6. organizational procedures for safe handling of equipment and machine operations
7. potential risks due to own actions and methods to minimize these
8. environmental management system related procedures at the workplace
9. layout of the plant and details of emergency exits, escape routes, emergency equipment and assembly points
10. potential accidents and emergencies and response to these scenarios
11. reporting protocol and documentation required
12. details of personnel trained in first aid, fire-fighting and emergency response
13. actions to take in the event of a mock drills/ evacuation procedures or actual accident, emergency or fire
 |
| 1. **Technical Knowledge**
 | You need to know and understand:1. occupational health and safety risks and methods
2. personal protective equipment and method of use
3. identification, handling and storage of hazardous substances
4. proper disposal system for waste and by-products
5. signage related to health and safety and their meaning
6. importance of sound health, hygiene and good habits
7. ill-effects of alcohol, tobacco and drugs
 |
| **Skills (S)** |
| 1. **Core Skills/ Generic Skills**
 | **Writing Skills** |
| You need to know and understand how to:1. write in simple language
 |
| **Reading Skills** |
| 1. read and understand the company instructions
2. read and understand work instructions
3. read and understand the safety guidelines
 |
| **Oral Communication (Listening and Speaking skills)** |
| 1. listen to others attentively
2. respond to emergencies, accidents or fire at the workplace
3. evacuate the premises and help others in need while doing so
4. the value of physical fitness, personal hygiene and good habits
5. talk with others politely
 |
| 1. **Professional Skills**
 | **Decision Making**  |
| 1. identify correct safety measure for particular hazard
2. make required safety plans as and when required
3. raise alarm in case of emergency
 |
| **Analytical Thinking** |
| 1. know the use of correct safety measure whenever required
 |
| **Attention to Detail** |
| 1. be attentive to details
2. be careful to avoid occurrence of hazards
 |
| 1. **Technical Skills**
 | You need to know and understand :1. maintainance of neatness at work
2. procedure for reporting unwanted behavior
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| **NOS Code** | **TSC/ N9003** |
| **Credits (NSQF)****[*OPTIONAL*]** | **TBD** | **Version number** | **1.0** |
| **Industry** | **Textile** | **Drafted on**  | **15/12/14** |
| **Industry Sub-sector** | **Knitting** | **Last reviewed on** | **21/01/15** |
| **Occupation** | **Knitting** | **Next review date** |  |

 **NOS Version Control**

**National Occupational Standard**

**Overview**

# This unit is about knowing, understanding, and complying with the requirements of the organization and the textle industry.

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| **Unit Code**National Occupational Standard | **TSC/ N9004** |
| **Unit Title****(Task)** | Comply with industry and organizational requirements |
| **Description** | This unit is about knowing, understanding, and complying with the requirements of the organization and the textle industry |
| Scope | **This unit/task covers the following:*** focus on self development
* focus on team work
* know and understand organizational standards
* know and understand industry standards
 |
| **Performance Criteria (PC) w.r.t. the Scope**  |
| **Elements** | **PerformanceCriteria** |
| Self- development | To be competent, you must be able to:1. perform own duties effectively
2. take responsibility for own actions
3. be accountable towards the job role and assigned duties
4. take initiative and innovate the existing methods
5. focus on self-learning and improvement
 |
| Team work | 1. co-ordinate with all the team members and colleagues
2. communicate politely
3. avoid conflicts and miscommunication
 |
| Organisational standards | 1. know the organisational standards
2. implement them in your performance
3. motivate others to follow them
 |
| Industry standards | 1. know the industry standards
2. align them with organisation standards
 |
| **Knowledge and Understanding (K)** |
| 1. **Organizational Context** (Knowledge of the company/ organization and its processes)
 | You need to know and understand:1. general rules and regulations in a textile mill
2. reporting to the supervisor or higher authority
3. knowledge of organisationl standards
4. knowledge of industry standards
 |
| 1. **Technical Knowledge**
 | You need to know and understand:1. process and material flow in a textile mill
2. importance of complying with the standards
3. guidelines for cleaning the various parts of machine
 |
| **Skills (S)** |
| 1. **Core Skills/ Generic Skills**
 | **Writing Skills** |
| You need to know and understand how to:1. write in simple language
 |
| **Reading Skills** |
| You need to know and understand how to:1. read the given instructions
2. comprehend written instructions
 |
| **Oral Communication (Listening and Speaking skills)** |
| 1. talk effectively with others
2. put forward your point
3. listen to others
 |
| 1. **Technical skills**
 | you need to know and understand :1. Organizational requirements
2. your responsibilities at the workplace
3. procedure to comply with the industry standards
 |

**NOS Version Control**

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| **NOS Code** | **TSC/N 9004** |
| **Credits (NSQF)****[*OPTIONAL*]** | **TBD** | **Version number** | **1.0** |
| **Industry** | **Textile** | **Drafted on**  | **15/12/14** |
| **Industry Sub-sector** | **Knitting** | **Last reviewed on** | **21/01/15** |
| **Occupation** | **Knitting** | **Next review date** |  |

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| **Job Role: Knitting Machine Operator - Warp Knitting Qualification Pack: Knitting Machine Operator - Warp Knitting Sector Skill Counci: Textile Sector Skill Council**  |
|
| **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 & skill practical for each PC. 2. The assessment for the theory part will be based on knowledge bank of question created by the SSC. 3. Individual assessment agencies will create unique evaluations for skill practical for every student each examination/training centre (as per assessment criteria below). 4. To pass the qualification pack, every trainee should achieve minimum grade 'C' (More Than 90% - "A+", 80%-89%-"A", 70%-79%-"B+", 60%-69%-"B", 50%-59%-"C", 49% or less is "F")** |
|  |  |  |  |  |  |  |
| **National Occupational Standards (NOS)** | **Performance Criteria (PC)** | **Total Marks** | **Out Of** | **Marks Allocation** |
| **Theory** | **Skills Practical** | **Viva** |
|  |
|  **1. TSC/N3501(Taking charge of shift and handing over shift to operator )** | **PC1.      Should reachatleast 10 - 15 minutes early to the work place** | **100** | **4** | **1** | **2** | **1** |
| **PC2.      Bring the necessary operational tools to the department** | **4** | **1** | **2** | **1** |
| **PC3.      Should discuss with the previous shift operator and collect the information regarding the count, process, issues faced in quality, current beam production followed in the knitting department.** | **6** | **2** | **2** | **2** |
| **PC4.      Should discuss about current order running for which company.** | **4** | **1** | **2** | **1** |
| **PC5.      Ensure the proper functioning of machine and problems if any should be reported to the supervisor and maintenance in- charge.** | **4** | **1** | **2** | **1** |
| **PC6.      Should discuss about the current order quantity and balance quantity.** | **4** | **1** | **2** | **1** |
| **PC7.      Should discuss about the new order fabric details and quantity.** | **4** | **1** | **2** | **1** |
| **PC8.      Should discuss about the department cleanliness.**  | **4** | **1** | **2** | **1** |
| **PC9.      Should clean the machine and department before handing over the shift.** | **5** | **1** | **2** | **2** |
| **PC10.  Should hand over the necessary operational tools if any.** | **8** | **2** | **4** | **2** |
| **PC11.  Should discuss with the next shift operator and give the information regarding the count, gsm, loop length, process, issues faced in quality, and current fabric production followed in the knitting department.** | **8** | **2** | **4** | **2** |
| **PC12.  Should discuss about current order running for which company.** | **8** | **2** | **4** | **2** |
| **PC13.  Should note the production details for the current shift** | **6** | **2** | **2** | **2** |
| **PC14.  Ensure the proper functioning of machine and problems if any should be reported to the supervisor and maintenance in- charge.** | **8** | **2** | **4** | **2** |
| **PC15.  Should discuss with next operator about the current order quality ,quantity and balance quantity.** | **7** | **2** | **3** | **2** |
| **PC16.  Should discuss about the new order fabric details and quantity.** | **8** | **2** | **4** | **2** |
| **PC17.  Should discuss about the department cleanliness.** | **8** | **2** | **4** | **2** |
|  | **100** | **26** | **47** | **27** |
| **Total** | **Weightage %** |  | **35%** | **63%** | **36%** |
|  |
| **2. TSC/N3502 (Operate a warping machine )** | **PC1.      Receive and correctly interpret work instructions** | **200** | **5** | **1** | **2** | **2** |
| **PC2.      Obtain the required resources and check that resources are sufficient and Meet specification** | **5** | **1** | **2** | **2** |
| **PC3.      Protect resources from damage and contamination** | **5** | **1** | **2** | **2** |
| **PC4.      Ensure equipment is ready for use** | **5** | **1** | **2** | **2** |
| **PC5.      Take appropriate action when resources and equipment do not meet Requirements** | **4** | **1** | **2** | **1** |
| **PC6.      Arrange resources and equipment to ensure efficient operations** | **4** | **1** | **2** | **1** |
| **PC7.      Certify correct sett loaded before warp drawn and to correctly draw Ends in** | **8** | **2** | **4** | **2** |
| **PC8.      Ensure that the creel, machine and any other equipment are clean and Ready for use** | **5** | **1** | **2** | **2** |
| **PC9.      Ensure the correct yarn is selected** | **5** | **1** | **2** | **2** |
| **PC10.  Remove any existing yarn on the creel** | **4** | **1** | **2** | **1** |
| **PC11.  Plan the creel in sections according to the number of guide bars being used** | **3** | **1** | **1** | **1** |
| **PC12.  Thread the correct number of bobbins in the order specified for each Guide bar** | **3** | **1** | **1** | **1** |
| **PC13.  Draw the warps in the correct order to the correct set of rollers and thread following the specified warp path** | **4** | **1** | **2** | **1** |
| **PC14.  Thread the guide bars in accordance with the pattern specified** | **4** | **1** | **2** | **1** |
| **PC15.  Ensure correct engage of section/tape is achieved** | **4** | **1** | **2** | **1** |
| **PC16.  Forward warp sheet safely to next location** | **4** | **1** | **2** | **1** |
| **PC17.  Ensure new beam is efficiently loaded onto loom** | **4** | **1** | **2** | **1** |
| **PC18.  Keep the work area clean and safe throughout operations** | **4** | **1** | **2** | **1** |
| **PC19.  Prepare the area to ensure efficiency during the next stage of work Operations** | **4** | **1** | **2** | **1** |
| **PC20.  Carry out any other required preparation activities** | **4** | **1** | **2** | **1** |
| **PC21.  Identify problems address them within the limits of own responsibility** | **4** | **1** | **2** | **1** |
| **PC22.  Inform the relevant person of problems encountered** | **3** | **1** | **1** | **1** |
| **PC23.  Complete and store accurate records and documentation** | **3** | **1** | **1** | **1** |
| **PC24.  Incorrectly-positioned yarns are rethreaded in accordance with workplace procedures.** | **4** | **1** | **2** | **1** |
| **PC25.  Broken yarns or new ends are joined in accordance with workplace procedures.** | **5** | **1** | **2** | **2** |
| **PC26.  Machines are reset for restart in accordance with workplace procedures.** | **5** | **1** | **2** | **2** |
| **PC27.  Arrange after fault correction, style changes, and pattern changes.**  | **5** | **1** | **2** | **2** |
| **PC28.  Ensure the warping machine is working properly and yarn is uniformly fed into beam.** | **4** | **1** | **2** | **1** |
| **PC29.  To support the fitter for carrying out maintenance activities** | **3** | **1** | **1** | **1** |
| **PC30.  Ensure the yarn tension variation is within the limits and if it’s abnormal report it to Superiors.** | **3** | **1** | **1** | **1** |
| **PC31.  To inform the supervisor and maintenance in- charge incase of a jam**  | **3** | **1** | **1** | **1** |
| **PC32.  To support the fitter during minor breakdown**  | **3** | **1** | **1** | **1** |
| **PC33.  Ancillary process machines are operated in accordance with machine-builder's instructions and workplace procedures.** | **3** | **1** | **1** | **1** |
| **PC34.  Safety precautions that comply with workplace procedures are observed.** | **3** | **1** | **1** | **1** |
| **PC35.  The working environment is kept clean and free of contamination.**  | **3** | **1** | **1** | **1** |
| **PC36.  To ensure proper material handling of yarn, cone and beam** | **4** | **1** | **2** | **1** |
| **PC37.  To ensure using proper material handling of tools and equipments** | **4** | **1** | **2** | **1** |
| **PC38.  To ensure safety while operating the card** | **5** | **1** | **2** | **2** |
| **PC39.  Using of safety gadgets like caps, masks and shoes and verifying the safety stop motions** | **6** | **2** | **2** | **2** |
| **PC40.  To ensure the warp beam produced is free from outside damages**  | **6** | **2** | **2** | **2** |
| **PC41.  Collected usable waste to be weighed at shift end and to be placed in the specified area** | **5** | **1** | **2** | **2** |
| **PC42.  Inform superiors immediately, if any break down or fault in the machine is noticed**  | **6** | **2** | **2** | **2** |
| **PC43.  Ensure the proper functioning of signal lamps** | **5** | **1** | **2** | **2** |
| **PC44.  Ensure that machine is always working properly, if any deviations inform superiors immediately**  | **6** | **2** | **2** | **2** |
| **PC45.  Yarn wastes are identified by fibre content and sorted according to workplace procedures.** | **6** | **2** | **2** | **2** |
| **PC46.  To provide all relevant information’s of the current working process to the next shift operator before relieving.** | **5** | **2** | **2** | **1** |
|  | **200** | **53** | **83** | **64** |
| **Total** | **Weightage %** |  | **27%** | **42%** | **32%** |
|  |
| **3 . TSC/N3503(Prepare the creel )** | **PC1.    Use suitable Creel.** | **150** | **4** | **1** | **2** | **1** |
| **PC2.    To ensure the creel is Vibration free** | **5** | **1** | **2** | **2** |
| **PC3.    To ensure that the Electronic Stop Motion working properly.** | **5** | **1** | **2** | **2** |
| **PC4.    To ensure the signal lamp Indicate the yarn breakage (Row wise).** | **6** | **2** | **2** | **2** |
| **PC5.    To ensure that Yarn tension uniformly maintained & centrally adjustable between creel & warping machine by set up of load cell system.** | **6** | **2** | **2** | **2** |
| **PC6.    To ensure Yarn tension can be set as the requirements of various yarn count & types.** | **4** | **1** | **2** | **1** |
| **PC7.    Fluff removed by air blowing nozzles on the disc on every tensioner with programmable cleaning cycle** | **5** | **1** | **2** | **2** |
| **PC8.    Preference for cone creel capacity** | **4** | **1** | **2** | **1** |
| **PC9.    Unwind the yarn from cone**  | **6** | **2** | **2** | **2** |
| **PC10. To ensure proper knotting To draw the yarn through the guide, guide rollers and pass it through the stopmotin ,guide bar in delivery zone**  | **5** | **1** | **2** | **2** |
| **PC11. To ensure proper functioning of knitting machine post knotting**  | **5** | **1** | **2** | **2** |
| **PC12. To collect the wastes collected during knotting and store the waste at respective waste box** | **5** | **1** | **2** | **2** |
| **PC13. Segregate the reusable wastes and weigh and record them in a register** | **5** | **1** | **2** | **2** |
| **PC14. Ensure standard knotting procedure is adopted and quality of knotting is as per standards** | **6** | **2** | **2** | **2** |
| **PC15. Ensure minimum time is taken for knotting the yarn.** | **6** | **2** | **2** | **2** |
| **PC16. Ensure safety while carrying out knotting activity**  | **6** | **2** | **2** | **2** |
| **PC17. Verify the quality of knotting done in the yarn** | **8** | **2** | **4** | **2** |
| **PC18. Ensure yarn tension in the creeling section is appropriate** | **8** | **2** | **4** | **2** |
| **PC19. Ensure proper functioning of the machine** | **8** | **2** | **4** | **2** |
| **PC20. To collect the empty cones from creel and replace with full cone.** | **5** | **1** | **2** | **2** |
| **PC21. To ensure whether the beam is ready fortakeoffby viewing the details in display panel or by manual** | **5** | **1** | **2** | **2** |
| **PC22. Keep the empty beam ready for replacement**  | **5** | **1** | **2** | **2** |
| **PC23. To keep the empty beam near the machine in manual take-off** | **5** | **1** | **2** | **2** |
| **PC24. To ensure beam take off is carried out properly.** | **6** | **2** | **2** | **2** |
| **PC25. To move the beam roll to warp knitting storage area** | **5** | **1** | **2** | **2** |
| **PC26. To ensure the machine is properly restarted after take-off**  | **4** | **1** | **2** | **1** |
| **PC27. To ensure proper functioning of machine post beam take off** | **4** | **1** | **2** | **1** |
| **PC28. To ensure proper material handling of yarn, cone and beam** | **2** | **1** | **1** | **0** |
| **PC29. To ensure proper material handling of tools and equipments** | **2** | **1** | **1** | **0** |
|  | **150** | **39** | **62** | **49** |
| **Total** | **Weightage %** |  | **26%** | **41%** | **33%** |
|  |  |  |  |  |  |  |
| **4 . TSC/N3504 (Repair yarn related faults )** | **PC1.      Identify incorrectly-positioned yarns and are rethread them in accordance with workplace procedures**  | **25** | **6** | **2** | **3** | **1** |
| **PC2.      Identify the reasons for yarn breakage**  | **7** | **3** | **3** | **1** |
| **PC3.      Join broken yarns or new ends in accordance with workplace procedures.** | **6** | **1** | **3** | **2** |
| **PC4.      Reset machines for restart in accordance with workplace procedures Range after fault correction, style changes, and pattern changes** | **6** | **2** | **2** | **2** |
|  | **25** | **8** | **11** | **6** |
| **Total** | **Weightage %** |  | **32%** | **44%** | **24%** |
|  |
| **5.TSC/N3505 (Operating the warp knitting machine)** | **PC1.       To start the machine** | **160** | **4** | **1** | **2** | **1** |
| **PC2.       To operate the control switches for starting and stopping the warp knitting machine.** | **4** | **1** | **2** | **1** |
| **PC3.       Following the signal lamps used in machines.** | **3** | **1** | **1** | **1** |
| **PC4.       To ensure proper functioning of the knitting machine by verifying in the display panel.** | **3** | **1** | **1** | **1** |
| **PC5.       The warping machine is operated in accordance with workplace procedures to produce beams of lengths specified in work instructions.** | **4** | **2** | **1** | **1** |
| **PC6.       Beams are produced through reed and traverse-mechanism adjustments during warp build-up, free of yarn collars and/or winding collapses in accordance with workplace procedures.** | **4** | **1** | **2** | **1** |
| **PC7.       Beams of exact levelness throughout are produced by means of critical setting and adjustment of yarn tensions in accordance with workplace procedures.** | **4** | **1** | **2** | **1** |
| **PC8.       Broken ends are reset in accordance with workplace procedures.** | **4** | **1** | **2** | **1** |
| **PC9.       Completed beams are prepared ready for threading into warp-knitting machines in accordance with workplace procedures.** | **3** | **1** | **1** | **1** |
| **PC10.   Completed beams are identified, doffed, and stored in accordance with workplace procedures or as directed by the supervisor.** | **3** | **1** | **1** | **1** |
| **PC11.   Yarn paths, eyelets, tension devices, and reeds are clean and free of contamination and build-up of residues from the yarns in accordance with workplace procedures.** | **3** | **1** | **1** | **1** |
| **PC12.   The warping environment is clean and free of contaminants in accordance with workplace procedures.** | **4** | **1** | **2** | **1** |
| **PC13.   To ensure the Machines are monitored for continuous functioning of all systems, and variations notified, in accordance with workplace procedures.** | **3** | **1** | **1** | **1** |
| **PC14.   To ensure the Documentation of production is completed in accordance with workplace procedures.** | **3** | **1** | **1** | **1** |
| **PC15.   To ensure the Machines are lubricated as directed in accordance with workplace procedures.** | **3** | **1** | **1** | **1** |
| **PC16.   To check whether the yarns are properly fed in the knitting machine**  | **4** | **2** | **1** | **1** |
| **PC17.   To knot the yarn during breakage** | **4** | **1** | **2** | **1** |
| **PC18.   To view the display panel or signal and identify the reasons for machine stoppages if any** | **4** | **1** | **2** | **1** |
| **PC19.   Ensure the knitting machine is running in the set speed by viewing the display panel** | **4** | **1** | **2** | **1** |
| **PC20.   To ensure the working area is clean** | **3** | **1** | **1** | **1** |
| **PC21.   To ensure proper functioning of machine**  | **3** | **1** | **1** | **1** |
| **PC22.   To ensure Incorrectly-positioned yarns are rethreaded**  | **3** | **1** | **1** | **1** |
| **PC23.   To ensure the Broken yarns or new ends are joined**  | **4** | **1** | **2** | **1** |
| **PC24.   Fabric press-offs are fixed in accordance with machine-type and workplace procedures.** | **3** | **1** | **1** | **1** |
| **PC25.   Machines are reset for restart in accordance with workplace procedures.** | **3** | **1** | **1** | **1** |
| **PC26.   Range after fault correction, style changes, and pattern changes.**  | **3** | **1** | **1** | **1** |
| **PC27.   To support the fitter for carrying out maintenance activities** | **4** | **2** | **1** | **1** |
| **PC28.   Ensure the GSM, loop length variation is within the limits and if it’s abnormal report it to Superiors.** | **4** | **1** | **2** | **1** |
| **PC29.   To inform the supervisor and maintenance in- charge incase of a jam**  | **4** | **1** | **2** | **1** |
| **PC30.   To support the fitter during minor breakdown**  | **4** | **1** | **2** | **1** |
| **PC31.   Ancillary process machines are operated in accordance with machine-builder's instructions and workplace procedures.** | **4** | **1** | **2** | **1** |
| **PC32.   Safety precautions that comply with workplace procedures are observed.** | **4** | **1** | **2** | **1** |
| **PC33.   The working environment is kept clean and free of contamination.**  | **4** | **1** | **2** | **1** |
| **PC34.   To ensure proper material handling of yarn, beam and fabric roll** | **4** | **1** | **2** | **1** |
| **PC35.   To ensure using proper material handling of tools and equipments** | **3** | **1** | **1** | **1** |
| **PC36.   To ensure safety while operating the card** | **3** | **1** | **1** | **1** |
| **PC37.   Using of safety gadgets like caps, masks and shoes and verifying the safety stop motions**  | **3** | **1** | **1** | **1** |
| **PC38.   To ensure the fabric produced is free from outside damages**  | **4** | **2** | **1** | **1** |
| **PC39.   Collected usable waste to be weighed at shift end and to be placed in the specified area** | **4** | **1** | **2** | **1** |
| **PC40.   Inform superiors immediately, if any break down or fault in the machine is noticed**  | **4** | **1** | **2** | **1** |
| **PC41.   Ensure the proper functioning of signal lamps** | **4** | **1** | **2** | **1** |
| **PC42.   Ensure that machine is always working properly, if any deviations inform superiors immediately**  | **3** | **1** | **1** | **1** |
| **PC43.   Yarn wastes are identified by fibre content and sorted according to workplace procedures.** | **3** | **1** | **1** | **1** |
| **PC44.   Fabric wastes are identified and sorted according to workplace procedures.** | **3** | **1** | **1** | **1** |
| **PC45.   To provide all relevant information’s of the current working process to the next shift operator before relieving.** | **4** | **1** | **2** | **1** |
|  | **160** | **49** | **66** | **45** |
| **Total** | **Weightage %** |  | **31%** | **41%** | **28%** |
|  |  |  |  |  |  |  |
| **6.TSC/N3506 (Knotting the yarn and fabric take off)** | **PC1.         Identity whether the machine stoppage by viewing the signal lamps and in display panel** | **98** | **4** | **1** | **2** | **1** |
| **PC2.         Identify the reasons for yarn breakage**  | **4** | **1** | **2** | **1** |
| **PC3.         Ensure minimum time is taken for attending the yarn breakage in carding department**  | **3** | **1** | **1** | **1** |
| **PC4.         Unwind the yarn from beam** | **3** | **1** | **1** | **1** |
| **PC5.         To ensure proper knotting**  | **4** | **2** | **1** | **1** |
| **PC6.         To draw the yarn through the guide, guide rollers and pass it through the stop motion ,guide in delivery zone**  | **4** | **1** | **2** | **1** |
| **PC7.         To ensure proper functioning of knitting machine post knotting**  | **4** | **1** | **2** | **1** |
| **PC8.         To collect the wastes collected during knotting and store the waste at respective waste box** | **4** | **1** | **2** | **1** |
| **PC9.         Segregate the reusable wastes and weigh and record them in a register** | **3** | **1** | **1** | **1** |
| **PC10.      Ensure standard knotting procedure is adopted and quality of knotting is as per standards** | **3** | **1** | **1** | **1** |
| **PC11.      Ensure minimum time is taken for knotting the yarn.** | **3** | **1** | **1** | **1** |
| **PC12.      Ensure safety while carrying out knotting activity**  | **4** | **1** | **2** | **1** |
| **PC13.      Verify the quality of knotting done in the yarn** | **3** | **1** | **1** | **1** |
| **PC14.      Ensure yarn tension in the creeling section is appropriate** | **3** | **1** | **1** | **1** |
| **PC15.      Ensure proper functioning of the machine** | **3** | **1** | **1** | **1** |
| **PC16.      To collect the empty cones from creel and replace with full cone.** | **4** | **2** | **1** | **1** |
| **PC17.      To ensure whether the fabric roll is ready for fabric take off by viewing the details in display panel or by manual** | **4** | **1** | **2** | **1** |
| **PC18.      Keep the empty fabric roller ready for replacement**  | **4** | **1** | **2** | **1** |
| **PC19.      To keep the empty fabric roll near the knitting machine in manual**  | **4** | **1** | **2** | **1** |
| **PC20.      take-off** | **3** | **1** | **1** | **1** |
| **PC21.      To doff the full fabric roll in case of manual take-off.** | **3** | **1** | **1** | **1** |
| **PC22.      Ensure proper fabric take off procedure is followed** | **3** | **1** | **1** | **1** |
| **PC23.      To ensure fabric take off is carried out properly.** | **4** | **1** | **2** | **1** |
| **PC24.      To move the fabric roll to storage area** | **3** | **1** | **1** | **1** |
| **PC25.      To ensure the knitting machine is properly restarted after doffing**  | **3** | **1** | **1** | **1** |
| **PC26.      To ensure proper functioning of knitting machine post fabric take off** | **3** | **1** | **1** | **1** |
| **PC27.      To ensure proper material handling of yarn, beam and fabric** | **4** | **2** | **1** | **1** |
| **PC28.      To ensure proper material handling of tools and equipments** | **4** | **1** | **2** | **1** |
|  | **98** | **31** | **39** | **28** |
| **Total** | **Weightage %** |  | **32%** | **40%** | **29%** |
|  |  |  |  |  |  |  |
| **7.TSC/N3507 (Repair yarn related faults at the knitting head and fabric press off)** | **PC1.      Incorrectly-positioned yarns are rethreaded in accordance with workplace procedures**  | **22** | **4** | **1** | **2** | **1** |
| **PC2.      Identify the reasons for yarn breakage**  | **4** | **1** | **2** | **1** |
| **PC3.      Broken yarns or new ends are joined in accordance with workplace procedures.** | **3** | **1** | **1** | **1** |
| **PC4.      Machines are reset for restart in accordance with workplace procedures Range after fault correction, style changes, and pattern changes.**  | **3** | **1** | **1** | **1** |
| **PC5.      Fabric press-offs are fixed in accordance with machine-type and workplace procedures.** | **4** | **2** | **1** | **1** |
| **PC6.      Machines are reset for restart in accordance with workplace procedures Range after fault correction, style changes, pattern changes** | **4** | **1** | **2** | **1** |
|  | **22** | **7** | **9** | **6** |
| **Total** | **Weightage %** |  | **32%** | **41%** | **27%** |
|  |  |  |  |  |  |  |
| **8.TSC/N9001(Maintaining work area, tools and machines)** | **PC1. handle materials, machinery, equipment and tools with care and use them in the correct way**  | **50** | **4** | **1** | **2** | **1** |
| **PC2. use correct lifting and handling procedures**  | **4** | **1** | **2** | **1** |
| **PC3. use materials to minimize waste**  | **3** | **1** | **1** | **1** |
| **PC4. maintain a clean and hazard free working area**  | **3** | **1** | **1** | **1** |
| **PC5. maintain tools and equipment**  | **4** | **2** | **1** | **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**  | **4** | **1** | **2** | **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**  | **3** | **1** | **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**  | **4** | **1** | **2** | **1** |
| **PC13. store cleaning equipment safely after use**  | **3** | **1** | **1** | **1** |
| **PC14. carry out cleaning according to schedules and limits of responsibility** | **4** | **1** | **2** | **1** |
|  | **50** | **15** | **21** | **14** |
| **Total** | **Weightage %** |  | **30%** | **42%** | **28%** |
|  |  |  |  |  |  |  |
| **9.TSC/N9002 (Working in a team)** | **PC1. be accountable to the own role in whole process** | **50** | **4** | **2** | **1** | **1** |
| **PC2. perform all roles with full responsibility** | **4** | **2** | **1** | **1** |
| **PC3. be effective and efficient at workplace** | **4** | **1** | **2** | **1** |
| **PC4. properly communicate about company policies** | **4** | **1** | **1** | **2** |
| **PC5. report all problems faced during the process** | **4** | **1** | **1** | **2** |
| **PC6. talk politely with other team members and colleagues** | **4** | **1** | **1** | **2** |
| **PC7. submit daily report of own performance** | **5** | **2** | **2** | **1** |
| **PC8. adjust in different work situations** | **4** | **1** | **2** | **1** |
| **PC9. give due importance to others’ point of view** | **5** | **1** | **3** | **1** |
| **PC10. avoid conflicting situations** | **4** | **1** | **2** | **1** |
| **PC11. develop new ideas for work procedures**  | **4** | **1** | **2** | **1** |
| **PC12. improve upon the existing techniques to increase process efficiency**  | **4** | **1** | **2** | **1** |
|  | **50** | **15** | **20** | **15** |
| **Total** | **Weightage %** |  | **30%** | **40%** | **30%** |
|  |
| **10.TSC/N9003 (Maintain health, safety and security at work place)** | **PC1. comply with health and safety related instructions applicable to the workplace**  | **100** | **5** | **2** | **2** | **1** |
| **PC2. use and maintain personal protective equipment such as “ ear plug” “ nose mask “ “ head cap” etc., as per protocol**  | **5** | **2** | **2** | **1** |
| **PC3. carry out own activities in line with approved guidelines and procedures**  | **4** | **2** | **1** | **1** |
| **PC4. maintain a healthy lifestyle and guard against dependency on intoxicants**  | **4** | **2** | **1** | **1** |
| **PC5. follow environment management system related procedures**  | **4** | **2** | **1** | **1** |
| **PC6. identify and correct (if possible) malfunctions in machinery and equipment**  | **5** | **2** | **2** | **1** |
| **PC7. report any service malfunctions that cannot be rectified**  | **4** | **2** | **1** | **1** |
| **PC8. store materials and equipment in line with organisational requirements**  | **4** | **1** | **2** | **1** |
| **PC9. safely handle and remove waste**  | **4** | **1** | **2** | **1** |
| **PC10. minimize health and safety risks to self and others due to own actions**  | **5** | **2** | **2** | **1** |
| **PC11. seek clarifications, from supervisors or other authorized personnel in case of perceived risks**  | **4** | **2** | **0** | **2** |
| **PC12. monitor the workplace and work processes for potential risks and threat**  | **5** | **2** | **2** | **1** |
| **PC13. carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned**  | **5** | **2** | **2** | **1** |
| **PC14. report hazards and potential risks/ threats to supervisors or other authorized personnel**  | **4** | **1** | **2** | **1** |
| **PC15. participate in mock drills/ evacuation procedures organized at the workplace**  | **4** | **2** | **2** | **0** |
| **PC16. undertake first aid, fire-fighting and emergency response training, if asked to do so**  | **5** | **2** | **2** | **1** |
| **PC17. take action based on instructions in the event of fire, emergencies or accidents**  | **5** | **2** | **2** | **1** |
| **PC18. follow organisation procedures for shutdown and evacuation when required** | **4** | **2** | **1** | **1** |
| **PC19. identify different kinds of possible hazards (environmental, personal, ergonomic, chemical) of the industry** | **4** | **2** | **1** | **1** |
| **PC20. recognise other possible security issues existing in the workplace** | **4** | **2** | **1** | **1** |
| **PC21. recognise different measures to curb the hazards** | **4** | **2** | **1** | **1** |
| **PC22. communicate the safety plan to everyone** | **4** | **2** | **1** | **1** |
| **PC23. attach disciplinary rules with the implementation**  | **4** | **2** | **1** | **1** |
|  | **100** | **43** | **34** | **23** |
| **Total** | **Weightage %** |  | **43%** | **34%** | **23%** |
|  |
| **11.TSC/N9004 (Comply with industry and organizational requirements)** | **PC1. perform own duties effectively** | **50** | **4** | **1** | **2** | **1** |
| **PC2. take responsibility for own actions** | **4** | **1** | **2** | **1** |
| **PC3. be accountable towards the job role and assigned duties** | **4** | **2** | **1** | **1** |
| **PC4. take initiative and innovate the existing methods** | **3** | **1** | **1** | **1** |
| **PC5. focus on self-learning and improvement** | **4** | **1** | **2** | **1** |
| **PC6. co-ordinate with all the team members and colleagues** | **4** | **1** | **2** | **1** |
| **PC7. communicate politely** | **4** | **1** | **1** | **2** |
| **PC8. avoid conflicts and miscommunication** | **4** | **1** | **2** | **1** |
| **PC9. know the organisational standards** | **4** | **2** | **1** | **1** |
| **PC10. implement them in your performance** | **4** | **1** | **2** | **1** |
| **PC11. motivate others to follow them** | **3** | **1** | **1** | **1** |
| **PC12. know the industry standards** | **4** | **3** | **1** | **0** |
| **PC13. align them with organisation standards** | **4** | **2** | **1** | **1** |
|  | **50** | **18** | **19** | **13** |
| **Total** | **Weihtage %** |  | **40%** | **40%** | **20%** |
|  | **Total** |  | **1005** | **304** | **411** | **290** |
| **Grand Total-1 (Subject Domain)** |  | **1005** |