

Model Curriculum

Combing Operator

SECTOR: TEXTILE
SUB-SECTOR: SPINNING
OCCUPATION: SPINNING PREPARATORY
REF ID: TSC/Q 0104, VERSION 1.0
NSQF LEVEL: 4



Certificate

CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

TEXTILE SECTOR SKILL COUNCIL

for the

MODEL CURRICULUM

Complying to National Occupational Standards of
Job Role/Qualification Pack: 'COMBING OPERATOR' QP No. 'TSC/Q 0104' **NSQF Level 4**

Date of Issuance: **January, 18th, 2016**

Valid up to: **January 17th, 2017**

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


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Combing Operator

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Combing Operator”, in the “Textile” Sector/Industry and aims at building the following key competencies amongst the learner

| | | | |
|--|--|----------------------------|------------|
| Program Name | Combing Operator | | |
| Qualification Pack Name & Reference ID. | Combing Operator TSC/Q0104, version 1.0 | | |
| Version No. | 1.0 | Version Update Date | 30-12-2015 |
| Pre-requisites to Training | Preferably equivalent to 5th (Normal literacy of reading, writing and understanding) | | |
| Training Outcomes | <p>After completing this programme, participants will be able to:</p> <ul style="list-style-type: none"> • Become well verse with taking charge of shift and handing over shift • Learn and operate combing machine • Perform creeling, piecing and doffing activities • Maintain work area, tools and machines • Gain behavioural skill for team working • Maintain health, safety and security at work place • Comply with industry and organisational requirement | | |

This course encompasses 7 out of 7 National Occupational Standards (NOS) of “Combing Operator” Qualification Pack issued by “TSC: Textile Sector Skill Council”

| Sr. No. | Module | Key Learning Outcomes | Equipment Required |
|---------|--|--|--|
| 1 | <p>Taking charge of shift and handing over shift to operator</p> <p>Theory Duration (hh:mm) 13:00</p> <p>Practical Duration (hh:mm) 24:00</p> <p>Corresponding NOS Code TSC/N 0110</p> | <ul style="list-style-type: none"> • Learning general discipline • Become well verse with basic skills of communication • Understand the role of combing operator • Perform tasks while taking charge of shift and handing over shift • Become familiar in faults identification | <p><u>Class room requirements:</u> a batch of 25 people seating capacity with a screen and projector</p> |
| 2 | <p>Operating the combing machine</p> <p>Theory Duration (hh:mm) 27:30</p> <p>Practical Duration (hh:mm) 66:00</p> <p>Corresponding NOS Code TSC/N 0111</p> | <ul style="list-style-type: none"> • Gain knowledge on machine parts & its function • Understand the tenting activities of comber tenter such as change comber lap, attend piecing, fetch supply laps, reserve empty cans for doffing, dispose doffed cans and carry out cleaning activities of comber machine at frequent intervals • Gain knowledge on control switches and display board operation • starting, inching and stopping machine • Gain knowledge on control buttons and signal lights used for attending malfunctions and doffing • Knowing procedures to be followed to open/close doors, dismantle/assemble parts (top detaching rollers, top comb, draw box top rollers), etc • Cleaning detaching roller clearer using clearer machine • Cleaning top comb, draw box zone, coiler zone and creel zone using brush or cleaning gun | <p><u>1. common for every batch:</u> Clearer cleaning machine, cleaning guns, cleaning stick, cleaning brush, poster/video visuals on work methods</p> <p><u>2. Class room requirements:</u> a batch of 25 people seating capacity with a screen and projector</p> |
| 3 | <p>Carryout creeling, piecing and doffing activities</p> <p>Theory Duration (hh:mm) 25:00</p> | <ul style="list-style-type: none"> • Gain knowledge on machine parts & its function related to the respective module • Gain knowledge on count, lap length, can content, colour coding, etc. • Knowing procedure for handle full/empty sliver cans and spools (castor & non castor cans) | <p><u>1. common for every batch:</u> poster/video visuals for work method</p> <p><u>2. Class room requirements:</u> a batch of 25 people seating capacity with a screen and projector</p> |

| Sr. No. | Module | Key Learning Outcomes | Equipment Required |
|---------|---|---|--|
| | <p>Practical Duration (hh:mm) 50:30</p> <p>Corresponding NOS Code TSC/N 0112</p> | <ul style="list-style-type: none"> Knowing procedure for patrolling and check sliver lap exhaust, lap break, sliver break and malfunctions Repairing broken end at table region attending lapping break of detaching top/bottom roller attending sliver break at draw box and coiler zone attending lapping break of drafting/draw box roller handle lap trolley and transporting laps from reparatory to comber machine replenishing laps and run machine gain skill with quality of piecing attending can doffing knowing post doffing responsibilities Gain knowledge on Waste control activities | |
| 4 | <p>Maintain work area, tools and machines</p> <p>Theory Duration (hh:mm) 05:30</p> <p>Practical Duration (hh:mm) 13:00</p> <p>Corresponding NOS Code TSC/N 9001</p> | <ul style="list-style-type: none"> Gain knowledge on Housekeeping system Well verse in Identification of basic hand tools like cleaning hook, cleaning brush, cleaning gun, clearer cleaning machine, bag, etc. Knowing the Procedure for handling equipments Perform maintenance activities for handling equipments | <p><u>Class room requirements:</u> a batch of 25 people seating capacity with a screen and projector</p> |
| 5 | <p>Working in a team</p> <p>Theory Duration (hh:mm) 06:30</p> <p>Practical Duration (hh:mm) 12:30</p> <p>Corresponding NOS Code TSC/N 9002</p> | <ul style="list-style-type: none"> Understanding the team work and its importance Knowing the basic requirements for team working | <p><u>Class room requirements:</u> a batch of 25 people seating capacity with a screen and projector</p> |
| 6 | <p>Maintain health, safety and security at work place</p> | <ul style="list-style-type: none"> Knowing the general safety Rules Knowing the importance of personal protective equipment like apron, cap, earplugs, nose mask etc. and their | <p><u>1. A sample of following items for each trainee:</u> apron, head cap, nose mask, ear plug, shoe,</p> |

| Sr. No. | Module | Key Learning Outcomes | Equipment Required |
|---------|--|---|---|
| | <p>Theory Duration (hh:mm) 16:00</p> <p>Practical Duration (hh:mm) 22:00</p> <p>Corresponding NOS Code TSC/N 9003</p> | <p>application under different working conditions.</p> <ul style="list-style-type: none"> Gain knowledge on various health hazards relevant to workplace and basic first aid training. Identify and select right equipment such as fire extinguisher & based on type of fire. Become good practice on first aid, firefighting etc. | <p><u>2. common for every batch:</u> first aid materials, fire extinguisher, work method posters/pictures,</p> <p><u>3. Class room requirements:</u> 25 people seating capacity with a screen and projector</p> |
| 7 | <p>Comply with industry and organisational requirement</p> <p>Theory Duration (hh:mm) 06:30</p> <p>Practical Duration (hh:mm) 12:00</p> <p>Corresponding NOS Code TSC/N 9004</p> | <ul style="list-style-type: none"> Know about organizational and industry standards Know the requirements for self-development Gain knowledge on Organizational & Industry standards | <p><u>Class room requirements:</u> 25 people seating capacity with a screen and projector</p> |
| | <p>Total Duration:</p> <p>Theory Duration 100:00</p> <p>Practical Duration 200:00</p> | <p>Unique Equipment Required: Samples of lap spool, full lap and Sliver can Lap trolley, clearer cleaning machine, cleaning hook, cleaning brush, sweep stick, apron, head cap, nose mask, ear plug, shoe, first aid materials, fire extinguisher, work method posters, work method video visuals, projector, screen</p> | |

Grand Total Course Duration: 300 Hours, 0 Minutes

(This syllabus/ curriculum has been approved by TSC: Textile Sector Skill Council)

Trainer Prerequisites for Job role: “Combing Operator” mapped to Qualification Pack: “Combing Operator/TQ 0104, Version 1.0”

| Sr. No. | Area | Details |
|---------|---|--|
| 1 | Description | To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack “ <u>Combing Operator/TQ0104, Version 1.0</u> ”. |
| 2 | Personal Attributes | Aptitude for conducting training, and pre/ post work to ensure competent, employable candidates at the end of the training. Strong communication skills, interpersonal skills, ability to work as part of a team; a passion for quality and for developing others; well-organised and focused, eager to learn and keep oneself updated with the latest in the mentioned field. |
| 3 | Minimum Educational Qualifications | Preferably equivalent to 5th (Normal literacy of reading, writing and understanding) |
| 4a | Domain Certification | Certified for Job Role: “ <u>Combing Operator</u> ” mapped to QP: “ <u>Combing Operator/TQ0104, Version 1.0</u> ”. Minimum accepted score 85%. |
| 4b | Platform Certification | Required that the Trainer is certified for SSC/Q 1402 Job Role: “Trainer” with atleast 85% score |
| 5 | Experience | Minimum 2 years experience with Combing Operator |

Annexure: Assessment Criteria

| | |
|-----------------------------|--|
| Job Role | Combing Operator |
| Qualification Pack | Combing Operator (QPTSC/Q 0104) |
| Sector Skill Council | Textile Sector Skill Council |

| Sr. No. | Guidelines for Assessment |
|---------|--|
| 1 | Criteria for assessment for each qualification pack will be created by the Sector Skill Council. Each performance criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for theory & 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 question papers for theory part for each candidate at each examination/training centre (as per assessment criteria below) |
| 4 | Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training centre based on these criteria. |
| 5 | To pass the qualification pack, every trainee should score a minimum of 75%. |
| 6 | In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack |

| National Occupational Standards (NOS) | Performance Criteria (PC) | Total Marks | Out Of | Marks Allocation | | |
|--|--|-------------|--------|------------------|------------------|------|
| | | | | Theory | Skills Practical | Viva |
| 1. TSC/N0110 (Taking charge of shift and handing over shift to Combing machine operator) | PC1. come at least 10 - 15 minutes earlier to the work spot | 100 | 4 | 2 | 1 | 1 |
| | PC2. bring the necessary operational tools to the department | | 4 | 1 | 2 | 1 |
| | PC3. meet the previous shift operator and discuss with him/ her regarding the issues faced by them with respect to the quality or production or spare or safety or any other specific instruction etc. | | 5 | 2 | 1 | 2 |
| | PC4. understand the hank produced, colour coding, followed in the combing preparatory and combing department for his allocated number of machines | | 6 | 2 | 2 | 2 |
| | PC5. ensure the technical details are mentioned in the display board in the autoconer | | 4 | 2 | 1 | 1 |
| | PC6. check for the availability of the comber laps and spools in storage area | | 4 | 1 | 2 | 1 |
| | PC7. ensure all the machines are running properly, machines which are not running and problems if any should be clarified with the supervisor and operator | | 4 | 1 | 2 | 1 |
| | PC8. ensure proper functioning of combing machine parts | | 5 | 2 | 2 | 1 |
| | PC9. check the cleanliness of the machines & other work areas | | 4 | 1 | 2 | 1 |
| | PC10. Check whether any spare/raw material/ tool / yarn / any other material are thrown under the machines or in the other work areas. | | 4 | 1 | 2 | 1 |
| | PC11. Question the previous shift operator for any deviation in the above and should bring the same to the knowledge of His/Her shift Superior as well that of the previous shift as well. | | 4 | 2 | 1 | 1 |
| | PC12. ensure the wastes collection boxes are empty while taking charge of shift | | 4 | 1 | 2 | 1 |
| | PC13. ensure the work spot is clean | | 3 | 1 | 1 | 1 |
| | PC14. ensure carding can randomization | | 5 | 2 | 2 | 1 |
| | PC15. hand over the shift to the incoming shift operator in a proper manner | | 6 | 2 | 2 | 2 |

| National Occupational Standards (NOS) | Performance Criteria (PC) | Total Marks | Out Of | Marks Allocation | | |
|--|--|-------------|------------|------------------|------------------|-----------|
| | | | | Theory | Skills Practical | Viva |
| | PC16. ensure in providing the details regarding hank produced, colour coding followed in the combing preparatory for his allocated number of machines | | 6 | 2 | 2 | 2 |
| | PC17. provide all relevant information regarding the hank produced, , damaged machine parts if any | | 5 | 2 | 1 | 2 |
| | PC18. get clearance from the incoming counterpart before leaving the work spot | | 5 | 2 | 1 | 2 |
| | PC19. report to his/ her shift Superiors as well as that of the incoming shift operator in case his/ her counterpart doesn't report for the incoming shift | | 4 | 1 | 2 | 1 |
| | PC20. ensure the shift has to be properly handed over to the incoming shift operator | | 4 | 1 | 1 | 2 |
| | PC21. report to his/ her shift Superior about the quality / production / safety issues/ any other issue faced in his/her shift and should leave the department only after getting concurrence for the same from his/ her superiors | | 4 | 2 | 2 | 0 |
| | PC22. collect the wastes from waste collection bags, weigh them and transport to storage area | | 3 | 1 | 1 | 1 |
| | PC23. ensure the work spot is clean | | 3 | 1 | 1 | 1 |
| | Total | | 100 | 35 | 36 | 29 |
| | Weightage % | | | 35 | 36 | 29 |
| 2. TSC/N 0111 (Operating the combing machine) | PC1. ensure that necessary changes and tests are carried out and follow the instructions of the superiors before running the machine | 250 | 5 | 2 | 1 | 2 |
| | PC2. operate the control switches for starting and stopping the machine | | 5 | 2 | 1 | 2 |
| | PC3. follow the different signal lamps used in machines | | 4 | 1 | 2 | 1 |
| | PC4. identify the mixing by looking at the hank board affixed on the machine | | 4 | 1 | 2 | 1 |
| | PC5. sliver display monitor should be always on while the machine is working | | 4 | 1 | 2 | 1 |
| | PC6. ensure proper functioning of comber by verifying in the display panel | | 4 | 1 | 2 | 1 |

| National Occupational Standards (NOS) | Performance Criteria (PC) | Total Marks | Out Of | Marks Allocation | | |
|---------------------------------------|---|-------------|--------|------------------|------------------|------|
| | | | | Theory | Skills Practical | Viva |
| | PC7. check whether the comber lap is properly fed | | 4 | 1 | 2 | 1 |
| | PC8. replenish the laps with minimum waste | | 4 | 1 | 2 | 1 |
| | PC9. remove the roller lapping | | 4 | 1 | 2 | 1 |
| | PC10. draw the cotton web to the delivery zone | | 4 | 1 | 2 | 1 |
| | PC11. piece the sliver during breakage | | 6 | 2 | 2 | 2 |
| | PC12. doff the full comber sliver can | | 6 | 2 | 2 | 2 |
| | PC13. view the display panel and identify the reasons for machine stoppages if any | | 4 | 1 | 2 | 1 |
| | PC14. ensure the machine is running in the set speed by viewing the display panel | | 4 | 1 | 2 | 1 |
| | PC15. ensure the working area is clean | | 4 | 1 | 2 | 1 |
| | PC16. ensure surface of the comber lap fed is free from defects / damages | | 4 | 1 | 2 | 1 |
| | PC17. ensure the sliver produced is free from surface damages | | 4 | 1 | 2 | 1 |
| | PC18. clean the can castors before putting the cans to the comber | | 4 | 1 | 2 | 1 |
| | PC19. ensure the sliver cans are clean before feeding in the doffing zone | | 4 | 1 | 2 | 1 |
| | PC20. clean the drafting zone twice a shift and remove cotton sticking in the rollers, bearings etc | | 5 | 2 | 2 | 1 |
| | PC21. remove the defect in slivers | | 5 | 2 | 2 | 1 |
| | PC22. support the mechanic while carryout cleaning maintenance activities | | 4 | 1 | 2 | 1 |
| | PC23. ensure drawing area is clean | | 4 | 1 | 2 | 1 |
| | PC24. ensure the comber table is clean and clean at regular intervals | | 3 | 1 | 1 | 1 |
| | PC25. carryout cleaning activities in creeling zone, drafting zone, and delivery zone | | 4 | 1 | 2 | 1 |
| | PC26. ensure that the nipper, half lap, top comb, drafting zone, table, calendaring zone, triumphet, coilers etc. are clean | | 4 | 1 | 2 | 1 |
| | PC27. collect the nails in the comber machine at the specified intervals | | 4 | 1 | 2 | 1 |
| | PC28. clean the comber once a shift and remove cotton sticking if any | | 5 | 2 | 2 | 1 |

| National Occupational Standards (NOS) | Performance Criteria (PC) | Total Marks | Out Of | Marks Allocation | | |
|---------------------------------------|--|-------------|--------|------------------|------------------|------|
| | | | | Theory | Skills Practical | Viva |
| | PC29. clean the wastes around the machine | | 4 | 1 | 2 | 1 |
| | PC30. deposit the lap / sliver waste mixing wise in the containers provided near the machine | | 4 | 1 | 2 | 1 |
| | PC31. ensure safety while carrying out cleaning | | 4 | 1 | 2 | 1 |
| | PC32. ensuring the wastes collected are deposited in the respective hank wise waste box | | 4 | 1 | 2 | 1 |
| | PC33. ensure combing area is clean | | 3 | 1 | 1 | 1 |
| | PC34. support the fitter for carrying out maintenance activities | | 5 | 2 | 2 | 1 |
| | PC35. ensure the draft variation on cv% is within the limits and if it's abnormal report it to superiors | | 4 | 1 | 2 | 1 |
| | PC36. ensure the noils are removed as per the set limits, if abnormal should be reported to the superiors | | 5 | 2 | 2 | 1 |
| | PC37. attend roller lapping, chocking of lap, sliver and ensure minimum waste | | 5 | 2 | 2 | 1 |
| | PC38. carry out wheel changes/ hank changes as per supervisor's instructions | | 5 | 2 | 2 | 1 |
| | PC39. ensure roller lapping doesn't happen frequently | | 4 | 1 | 2 | 1 |
| | PC40. ensure the rollers are dry enough to avoid lapping | | 4 | 1 | 2 | 1 |
| | PC41. ensure the top comb is clean | | 4 | 1 | 2 | 1 |
| | PC42. ensure the surface of the comber table is smooth | | 4 | 1 | 2 | 1 |
| | PC43. release the pressure on top rollers of the drafting zone when the machine is to be stopped for longer duration | | 4 | 1 | 2 | 1 |
| | PC44. ensure the nail sortiment position in panel board is as per the direction of supervisors | | 4 | 1 | 2 | 1 |
| | PC45. inform superiors immediately if the sliver monitors alarm rings in the machine | | 4 | 1 | 1 | 2 |
| | PC46. inform the supervisor and maintenance in charge in case of a jam | | 4 | 1 | 1 | 2 |
| | PC47. report to the superiors and support him for carrying out maintenance activities ,in case of any break-downs, | | 5 | 1 | 1 | 3 |

| National Occupational Standards (NOS) | Performance Criteria (PC) | Total Marks | Out Of | Marks Allocation | | |
|--|--|-------------|------------|------------------|------------------|-----------|
| | | | | Theory | Skills Practical | Viva |
| | PC48. support the fitter during minor breakdown | | 4 | 1 | 2 | 1 |
| | PC49. ensure proper material handling of spool, comber lap, sliver, sliver can and empty can | | 5 | 2 | 2 | 1 |
| | PC50. ensure using proper material handling of tools and equipment | | 5 | 2 | 2 | 1 |
| | PC51. ensure safety while operating the comber | | 4 | 1 | 2 | 1 |
| | PC52. use the safety gadgets like caps, masks and shoes and verifying the safety stop motions | | 5 | 2 | 2 | 1 |
| | PC53. ensure the sliver produced is free from outside damages | | 4 | 1 | 2 | 1 |
| | PC54. Inform superiors immediately, if any break down or fault in the machine is noticed | | 4 | 1 | 1 | 2 |
| | PC55. ensure the proper functioning of signal lamps | | 3 | 1 | 1 | 1 |
| | PC56. ensure that machine is working properly, if any deviations inform superiors immediately | | 4 | 1 | 2 | 1 |
| | PC57. collect the reusable wastes and weigh them at shift end and place them in specified area | | 6 | 2 | 2 | 2 |
| | PC58. Provide all relevant information's of the current working process to the next shift operator before relieving. | | 6 | 2 | 2 | 2 |
| | Total | | 250 | 74 | 107 | 69 |
| | Weightage % | | | 30 | 42 | 28 |
| 3. TSC/N0112 (Carryout creeling, piecing and doffing activities at combing machine) | PC1. understand the mixings, hanks and the colour codification used | 200 | 6 | 2 | 1 | 3 |
| | PC2. ensure the correct hank of comber laps are taken for creeling | | 6 | 2 | 2 | 2 |
| | PC3. follow proper colour coding of comber laps | | 4 | 1 | 2 | 1 |
| | PC4. creel the required number of cans and drawing the sliver forward | | 5 | 2 | 2 | 1 |
| | PC5. ensure proper creeling procedure is followed for creeling the comber laps | | 5 | 2 | 2 | 1 |
| | PC6. ensure the laps are passed through all guide rollers, comber table and stop motions | | 6 | 2 | 3 | 1 |
| | PC7. ensure proper material handling of spool and comber laps | | 5 | 2 | 2 | 1 |

| National Occupational Standards (NOS) | Performance Criteria (PC) | Total Marks | Out Of | Marks Allocation | | |
|---------------------------------------|--|-------------|--------|------------------|------------------|------|
| | | | | Theory | Skills Practical | Viva |
| | PC8. identify whether the machine stoppage by viewing the signal lamps and in display panel | | 4 | 1 | 2 | 1 |
| | PC9. identify the reasons for machine stoppage | | 5 | 2 | 2 | 1 |
| | PC10. ensure minimum time is taken for attending the roller lapping, comber web breakage and sliver breakage | | 4 | 1 | 2 | 1 |
| | PC11. ensure minimum time is taken for attending the breakage at creel zone | | 4 | 1 | 2 | 1 |
| | PC12. identify the reason for breakage is due to roller lapping, comber web breakage or due to comber lap exhaust | | 4 | 1 | 2 | 1 |
| | PC13. ensure proper procedure is followed for creeling the comber lap | | 5 | 2 | 2 | 1 |
| | PC14. ensure the comber lap is properly combed by comber | | 6 | 2 | 3 | 1 |
| | PC15. ensure the thickness of comber web produced is uniform | | 6 | 2 | 3 | 1 |
| | PC16. draw the comber web through the comber head and trumpet for sliver formation | | 6 | 2 | 3 | 1 |
| | PC17. ensure proper length of sliver is available for drawing in the comber table | | 5 | 2 | 2 | 1 |
| | PC18. ensure all the sliver are uniformly drawn through comber table to the calendaring zone | | 4 | 1 | 2 | 1 |
| | PC19. ensure standard piecing procedure is adopted and quality of piecing is as per standards | | 5 | 2 | 2 | 1 |
| | PC20. ensure all the sliver are uniformly calendared and drafted in drafting zone | | 5 | 2 | 2 | 1 |
| | PC21. ensure minimum time is taken for drawing the sliver | | 4 | 1 | 2 | 1 |
| | PC22. ensure the sliver passes to the coiler zone uniformly | | 5 | 2 | 2 | 1 |
| | PC23. collect the wastes collected and store in the respective waste bins hank wise | | 5 | 2 | 2 | 1 |
| | PC24. keep the sliver waste in the waste collection pocket provided to each tenter and then put in the waste in waste collection box | | 4 | 1 | 2 | 1 |
| | PC25. open the calendaring zone | | 5 | 2 | 2 | 1 |

| National Occupational Standards (NOS) | Performance Criteria (PC) | Total Marks | Out Of | Marks Allocation | | |
|---------------------------------------|--|-------------|------------|------------------|------------------|-----------|
| | | | | Theory | Skills Practical | Viva |
| | PC26. ensure minimum time is taken for piecing the sliver | | 5 | 2 | 2 | 1 |
| | PC27. ensure proper procedure is followed | | 4 | 1 | 2 | 1 |
| | PC28. draw the sliver through the conveyor rollers and pass it through the coiler rollers in delivery zone into the sliver can | | 5 | 2 | 2 | 1 |
| | PC29. ensure proper functioning of machine post piecing | | 5 | 2 | 2 | 1 |
| | PC30. collect the wastes collected during piecing and store the waste at respective waste box | | 4 | 1 | 2 | 1 |
| | PC31. segregate the reusable wastes and weigh and record them in a register | | 4 | 1 | 2 | 1 |
| | PC32. transfer the reusable wastes to blowroom/ storage area | | 4 | 1 | 2 | 1 |
| | PC33. ensure standard piecing procedure is adopted and quality of piecing is as per standards | | 4 | 1 | 2 | 1 |
| | PC34. verify the quality of piecing done in the sliver | | 5 | 2 | 2 | 1 |
| | PC35. ensure minimum time is taken for piecing the sliver | | 4 | 1 | 2 | 1 |
| | PC36. ensure safety while carrying out piecing activity | | 4 | 1 | 2 | 1 |
| | PC37. collect the empty cans from drawing or carding department for feeding the empty cans | | 5 | 2 | 2 | 1 |
| | PC38. keep the can castors clean before feeding | | 4 | 1 | 2 | 1 |
| | PC39. ensure whether the sliver can is ready for doffing by viewing the details in display panel | | 5 | 2 | 2 | 1 |
| | PC40. Keep the required number of empty cans near doff zone for automatic can change | | 4 | 1 | 2 | 1 |
| | PC41. keep the empty sliver can near the doffing machine in manual doffing | | 5 | 2 | 2 | 1 |
| | PC42. doff the full sliver can in case of manual doffing | | 6 | 2 | 2 | 2 |
| | Total | | 200 | 67 | 87 | 46 |
| | Weightage % | | | 34 | 44 | 23 |

| National Occupational Standards (NOS) | Performance Criteria (PC) | Total Marks | Out Of | Marks Allocation | | |
|--|---|-------------|-----------|------------------|------------------|-----------|
| | | | | Theory | Skills Practical | Viva |
| 4.TSC/N 9001 (Maintain 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 |
| | Total | | | 50 | 15 | 21 |
| Weightage % | | | 30 | 42 | 28 | |
| 5.TSC/N 9002 (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 | | 5 | 1 | 2 | 1 |
| | PC4. properly communicate about company policies | | 4 | 1 | 2 | 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 |

| National Standards (NOS) | Marks | Of | Marks Allocation | | |
|---|------------|-----------|------------------|------------------|------------|
| | | | Theory | Skills Practical | |
| PC8. adjust in different work situations | | 4 | 1 | 1 | 2 |
| PC9. give due importance to others' point of view | | 4 | 2 | 1 | 1 |
| PC10. avoid conflicting situations | | 4 | 2 | 1 | 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 |
| Total | | 50 | 17 | 17 | 16 |
| Weightage % | | | 34% | 34% | 32% |
| 6.TSC/N 9003 (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 |

| National Occupational Standards (NOS) | Performance Criteria (PC) | Total Marks | Out Of | Marks Allocation | | |
|--|---|-------------|------------|------------------|------------------|-----------|
| | | | | Theory | Skills Practical | Viva |
| | 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 |
| | Total | | 100 | 43 | 34 | 23 |
| | Weightage % | | | 43 | 34 | 23 |
| 7.TSC/N9004 (Comply with industry and organizational requirement) | 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 |

| National Occupational Standards (NOS) | Performance Criteria (PC) | Total Marks | Out Of | Marks Allocation | | |
|---------------------------------------|--|-------------|------------|------------------|------------------|------------|
| | | | | Theory | Skills Practical | Viva |
| | PC12. know the industry standards | | 4 | 3 | 1 | 0 |
| | PC13. align them with organisation standards | | 4 | 2 | 1 | 1 |
| | Total | | 50 | 18 | 19 | 13 |
| | Weightage % | | | 34 | 40 | 26 |
| Total | | | 800 | 269 | 321 | 210 |
| Grand total | | | 800 | | | |



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