





Size Mixer

QP Code: TSC/Q2102

Version: 3.0

NSQF Level: 3

Textile Sector Skill Council || 14-H, 14th Floor, Hansalaya Building, 15, Barakhamba Road New Delhi – 110001



सत्यमेव जयते GOVERNMENT OF INDIA MINISTRY OF SKILL DEVELOPMENT & ENTREPRENEURSHIP Qualification Pack



Contents

. 3
.3 .3
. 3
. 3
. 3
. 5
11
17
21
25
31
35
40
40
41
42
43





N·S·D·C National Skill Development Corporation Transforming the skill landscape

TSC/Q2102: Size Mixer

Brief Job Description

A Size Mixer is a job-role in a weaving preparatory department. The responsibility of a Size Mixer is to prepare the size mixing efficiently so as to get quality output with minimum defects giving due importance to safety and environment aspects.

Personal Attributes

A Size Mixer should have good eyesight, eye-hand coordination, motor skills and vision (including near vision, distance vision, colour vision, peripheral vision, depth perception and ability to change focus.)

Applicable National Occupational Standards (NOS)

Compulsory NOS:

- 1. TSC/N2104: Taking charge of shift and handing over shift to Size Mixer
- 2. TSC/N2105: Preparing Size Mix
- 3. TSC/N9001: Maintain work area, tools, and machines
- 4. TSC/N9002: Working in a team
- 5. TSC/N9003: Maintain health, safety and security at workplace
- 6. TSC/N9004: Comply with industry and organizational requirement
- 7. DGT/VSQ/N0101: Employability Skills (30 Hours)

Qualification Pack (QP) Parameters

Sector	Textile
Sub-Sector	Weaving – Textiles
Occupation	Preparatory - Weaving
Country	India
NSQF Level	3
Credits	11







Aligned to NCO/ISCO/ISIC Code	NCO-2015/8151.19
Minimum Educational Qualification & Experience	9th Class (with No Experience (OR) Grade 8 pass and pursuing continuous schooling in regular school with vocational subject with no experience (OR) 8th grade pass with 1 year of relevant experience (OR) 5th grade pass with 4 years of relevant experience (OR) Ability to read and write with 5 years of experience) with NA of experience
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	NA
Next Review Date	27/01/2025
NSQC Approval Date	17/11/2022
Version	3.0
Reference code on NQR	2022/TEXT/TSC/07056
NQR Version	1.0







TSC/N2104: Taking charge of shift and handing over shift to Size Mixer

Description

This unit is about taking charge of shift from previous shift mixer and relieving the responsibilities to the next shift mixer

Scope

The scope covers the following :

- Taking charge of shift from Size Mixer
- Handing over shift to Size Mixer

Elements and Performance Criteria

Taking charge of shift from size mixer

To be competent, the user/individual on the job must be able to:

- 1. come at least 10 15 minutes earlier to the work spot
- 2. check for the necessary items like weighing scale& other measuring equipment
- 3. meet the previous shift size mixer & discuss with him/ her the
- **4.** issues faced by them with respect to the quality, reuse of size, wastage etc., or safety or any other specific instruction etc.
- 5. check the size level in the storage tank and check whether any size mixing has to be prepared immediately for the running program.
- 6. check the size mix given by the higher authority for the running program
- 7. check the availability of the sizing ingredients & chemicals required for the running program
- **8.** take instructions in writing for the size mixing for the next programs from the higher authority.
- 9. check availability of the size ingredients & the size chemicals required for the next shift
- **10.** maintain the stock of the sizing ingredients, sizing chemicals etc. in the register and to show the same to the higher authority.
- 11. check the availability of good quality of water for mixing
- 12. check the steam quality

Handing over shift to size mixer

To be competent, the user/individual on the job must be able to:

- **13.** hand over the shift to the incoming size mixer in a proper manner & get clearance from him before leaving the work spot
- **14.** report to his/ her shift superiors as well as that of the incoming shift, in case his/ her counterpart doesn't report for work
- **15.** hand over the shift to the incoming shift superior in case his/her counterpart does not arrive& get clearance from him/ her before leaving the work spot
- **16.** 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







17. ensure the work place is clean & tidy

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1. the organization's policies & procedures
- KU2. awareness and knowledge of customers
- KU3. potential hazards associated with the machines and the safety precautions
- KU4. protocol to obtain more information on work related tasks
- **KU5.** contact person in case of queries on procedure or products and for resolving issues related to defective machines, tools, materials & equipment
- **KU6.** details of the various job rolls & responsibilities
- KU7. documentation and reporting formats
- KU8. work targets & review machine with superiors
- KU9. protocol and format for reporting work related risks/ problems
- KU10. method of obtaining /giving feed back with respect to performance
- KU11. importance of team work, harmonious working relationships
- KU12. process for offering /obtaining work related assistance
- KU13. responsibilities under health, safety and environmental legislation
- KU14. guidelines for storage & disposal of waste materials
- **KU15.** Minimum quality requirements of the product with respect to permissible/non-permissible defects
- KU16. About the various size ingredients & chemicals in use
- KU17. Yarns from natural fibres Cotton, Silk, Wool
- KU18. Yarns from Manmade Fibres Polyester, Nylon, Viscose
- KU19. Blended yarns Polyester Cotton, Polyester Viscose
- KU20. Conventional Sizing Machine
- KU21. Modern Sizing Machines
- KU22. Shade Variation in yarn
- **KU23.** Soft Sized Beams
- KU24. Size Patches
- KU25. Sunken Ends
- KU26. Sizing Stain
- KU27. Beam Centre Oil
- KU28. Safety mechanisms of the size cooker/ mixer & ensure that the same are in order
- KU29. About the functions & operations of various controls & ensure that the same are in order
- KU30. About the functional operations of the machines, where He/ She is working

Generic Skills (GS)

User/individual on the job needs to know how to:







- **GS1.** write clear and short sentences
- **GS2.** Comprehend written instructions.
- GS3. communicate with supervisor appropriately
- GS4. talk to others to convey information effectively
- **GS5.** apply problem-solving approaches in different situations
- **GS6.** refer anomalies to the supervisor
- **GS7.** seek clarification on problems from others
- GS8. apply good attention to detail
- GS9. check your work is complete and free from errors
- **GS10.** produce sized beams free from Shade variation Soft Size, Size Patches, Sunken Ends, Cut & Missing Ends etc.
- **GS11.** plan and manage work routine based on instructions from supervisor
- **GS12.** participate in the various programs/ meetings that will be conducted by the superiors.
- **GS13.** put forth the suggestions in the interest of the company
- **GS14.** participate in the quality circles formed by the superiors extend voluntary supports and adapt to the various procedures that will be adopted by the company with respect to compliances for the different certifications like ISO 9001, ISO 14001, SA 8001, GOTS certification, Fair trade, etc.



सत्यमेव जयते GOVERNMENT OF INDIA MINISTRY OF SKILL DEVELOPMENT & ENTREPRENEURSHIP



Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Taking charge of shift from size mixer	32	67	-	16
1. come at least 10 - 15 minutes earlier to the work spot	-	10	-	2
2. check for the necessary items like weighing scale& other measuring equipment	2	5	-	2
3. meet the previous shift size mixer & discuss with him/ her the	2	6	-	2
4. issues faced by them with respect to the quality, reuse of size, wastage etc., or safety or any other specific instruction etc.	3	3	-	4
5. check the size level in the storage tank and check whether any size mixing has to be prepared immediately for the running program.	5	5	-	-
6. check the size mix given by the higher authority for the running program	4	6	-	-
check the availability of the sizing ingredients& chemicals required for the running program	3	7	-	-
8. take instructions in writing for the size mixing for the next programs from the higher authority.	3	7	-	-
9. check availability of the size ingredients & the size chemicals required for the next shift	2	6	-	2
10. maintain the stock of the sizing ingredients, sizing chemicals etc. in the register and to show the same to the higher authority.	1	3	-	1
11. check the availability of good quality of water for mixing	3	3	-	3
12. check the steam quality	4	6	-	-
Handing over shift to size mixer	8	33	-	4
13. hand over the shift to the incoming size mixer in a proper manner & get clearance from him before leaving the work spot	3	4	-	3







Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
14. report to his/ her shift superiors as well as that of the incoming shift, in case his/ her counterpart doesn't report for work	2	8	-	-
15. hand over the shift to the incoming shift superior in case his/her counterpart does not arrive& get clearance from him/ her before leaving the work spot	1	9	-	-
16. 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	1	9	_	-
17. ensure the work place is clean & tidy	1	3	-	1
NOS Total	40	100	-	20







National Occupational Standards (NOS) Parameters

NOS Code	TSC/N2104
NOS Name	Taking charge of shift and handing over shift to Size Mixer
Sector	Textile
Sub-Sector	Weaving – Textiles
Occupation	Preparatory - Weaving
NSQF Level	3
Credits	TBD
Version	2.0
Last Reviewed Date	27/01/2022
Next Review Date	27/01/2025
NSQC Clearance Date	17/11/2022







TSC/N2105: Preparing Size Mix

Description

This unit provides performance criteria, knowledge & understanding and skills & Abilities required to prepare size mixing, so as to get quality output & minimum defects, without entertaining any damage to the people, the machine etc., without wasting much of raw materials, size chemicals etc., & without affecting the environmental aspects.

Scope

The scope covers the following :

- Size mix preparation
- Transfering Size to Storage Tank
- Other Work Practices

Elements and Performance Criteria

Size preparation

To be competent, the user/individual on the job must be able to:

- **1.** ensure that the size cooker is cleaned before any new mixing is prepared.
- 2. weigh the size ingredients, size chemicals etc. required for preparing the new mixing.
- 3. drain out condensed water from the size cooker.
- 4. fill water in the cooker as per the size mixing given
- 5. check the steam pressure in the line
- 6. pour hardened materials like PVA first & stir it so that it gets dissolved in the water completely
- 7. pour maize starch and other chemicals as per the size mixing given
- 8. ensure that all these materials poured in the cooker are dissolved completely.
- 9. close the cooker lid and open steam
- **10.** allow the chemicals to cook for 20 minutes at a temp of 130 degree Celsius

Transfering Size To Storage Tank

To be competent, the user/individual on the job must be able to:

- **11.** check the viscosity & refractrometer reading for the size
- **12.** check whether the storage tank is completely cleaned. if not, to clean the same.
- **13.** drain out the left over size of the previous shift to collect in other storage vessels as per the instructions of the higher authority.
- **14.** transfer the size prepared to the Storage Tank

Other Work Practices

To be competent, the user/individual on the job must be able to:

- 15. wear the protecting tools like shoes, gloves etc., whenever required.
- 16. keep all the vessels and the working area neat & clean







- **17.** give preference to safety. should not enter the area, where he/ she are not allowed. should not do a job in which training has not being given
- 18. ensure that no size / sizing material / any other material in the other work areas.
- **19.** report immediately to the Superior for any problem

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1. The Organization's Policies & Procedures
- KU2. awareness and knowledge of customers
- KU3. potential hazards associated with the machines and the safety precautions
- KU4. protocol to obtain more information on work related tasks
- **KU5.** contact person in case of queries on procedure or products and for resolving issues related to defective machines, tools, materials & equipments
- KU6. details of the various job roles & responsibilities
- KU7. documentation and reporting formats
- KU8. work targets & review with superiors
- KU9. protocol and format for reporting work related risks/ problems
- KU10. method of obtaining /giving feed back with respect to performance
- KU11. importance of team work harmonious working relationships
- **KU12.** process for offering /obtaining work related assistance
- KU13. responsibilities under health, safety and environmental legislation
- KU14. guidelines for storage & disposal of waste materials
- **KU15.** minimum quality requirements of the product with respect to permissible/non-permissible defects
- KU16. about the various size ingredients & chemicals in use
- KU17. yarns from natural fibres cotton, silk, wool
- KU18. yarns from manmade fibres polyester, nylon, viscose
- KU19. blended yarns polyester cotton, polyester viscose
- KU20. conventional sizing machine
- **KU21.** modern sizing machines
- KU22. shade variation
- KU23. Soft Sized Beams
- KU24. Size Patches
- KU25. Sunken Ends
- KU26. Sizing Stain
- KU27. Beam Centre Oil
- **KU28.** safety mechanisms of the machines & ensure that the same are in order
- KU29. about the stop motions & other controls ensure that the same are in order
- KU30. about the functional operations of the machines, where He/ She is working







Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1. write in local language
- **GS2.** Comprehend written instructions.
- GS3. communicate with supervisor appropriately
- **GS4.** talk to others to convey information effectively
- GS5. refer anomalies to the supervisor
- **GS6.** apply problem solving approaches in different situation
- GS7. seek clarification on problems from others
- GS8. apply good attention to detail
- **GS9.** check your work is complete and free from errors
- **GS10.** should be able to produce sized beams free from Shade variation Soft Size Size Patches, Sunken Ends, Cut & Missing Ends etc.
- **GS11.** plan and manage work routine based on instructions from supervisor
- **GS12.** willingly participate in the various programs/ meetings that will be conducted by the superiors & put forth the suggestions in the interest of the company
- **GS13.** willingly participate in the quality circles formed by the superiors extend voluntary support and adapt to the various procedures that are adopted by the company with respect to compliances for the different certifications like ISO 9001, ISO 14001, SA 8001, GOTS Certification, Fair Trade, etc.



सत्यमेव जयते GOVERNMENT OF INDIA MINISTRY OF SKILL DEVELOPMENT & ENTREPRENEURSHIP





Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Size preparation	46	99	-	31
1. ensure that the size cooker is cleaned before any new mixing is prepared.	4	12	-	4
2. weigh the size ingredients, size chemicals etc. required for preparing the new mixing.	4	12	-	4
3. drain out condensed water from the size cooker.	3	10	-	3
4. fill water in the cooker as per the size mixing given	3	10	-	3
5. check the steam pressure in the line	3	10	-	3
6. pour hardened materials like PVA first & stir it so that it gets dissolved in the water completely	3	10	-	3
7. pour maize starch and other chemicals as per the size mixing given	3	10	-	3
8. ensure that all these materials poured in the cooker are dissolved completely.	7	11	-	2
9. close the cooker lid and open steam	6	8	-	2
10. allow the chemicals to cook for 20 minutes at a temp of 130 degree Celsius	10	6	-	4
Transfering Size To Storage Tank	26	38	-	10
11. check the viscosity & refractrometer reading for the size	10	6	-	4
12. check whether the storage tank is completely cleaned. if not, to clean the same.	3	12	-	3
13. drain out the left over size of the previous shift to collect in other storage vessels as per the instructions of the higher authority.	3	10	_	3
14. transfer the size prepared to the Storage Tank	10	10	-	-







Transforming the skill landscape

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Other Work Practices	45	45	-	-
15. wear the protecting tools like shoes, gloves etc., whenever required.	10	10	-	-
16. keep all the vessels and the working area neat & clean	8	8	-	-
17. give preference to safety. should not enter the area, where he/ she are not allowed. should not do a job in which training has not being given	9	9	-	-
18. ensure that no size / sizing material / any other material in the other work areas.	8	8	-	-
19. report immediately to the Superior for any problem	10	10	-	-
NOS Total	117	182	-	41







National Occupational Standards (NOS) Parameters

NOS Code	TSC/N2105
NOS Name	Preparing Size Mix
Sector	Textile
Sub-Sector	Weaving – Textiles
Occupation	Preparatory - Weaving
NSQF Level	3
Credits	TBD
Version	2.0
Last Reviewed Date	27/01/2022
Next Review Date	27/01/2025
NSQC Clearance Date	17/11/2022







TSC/N9001: Maintain 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

The scope covers the following :

• Maintaining the work area, tools and machines

Elements and Performance Criteria

Maintaining the work area, tools and machines

To be competent, the user/individual on the job 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 ones 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 (KU)

The individual on the job needs to know and understand:

- KU1. personal hygiene and duty of care
- KU2. safe working practices and organisational standard operating procedures
- KU3. limits of your own responsibility
- **KU4.** ways of resolving problems within the work area
- **KU5.** the production process and the specific work activities that relate to the whole process
- KU6. the importance of effective communication with supervisors
- **KU7.** the lines of communication, authority and reporting procedures







- KU8. the organisation's rules, codes and guidelines (including timekeeping)
- **KU9.** the company's quality standards
- KU10. the importance of complying with written instructions
- **KU11.** equipment operating procedures / supervisor's instructions
- KU12. work instructions and specifications and interpret them accurately
- KU13. relation between work role and the overall manufacturing process
- KU14. hazards likely to be encountered when conducting routine maintenance
- KU15. the importance of taking action when problems are identified
- KU16. different ways of minimising waste
- KU17. the importance of running maintenance and regular cleaning
- KU18. effects of contamination on products i.e. machine oil, dirt, foreign materials
- KU19. common faults with equipment and the method to rectify
- KU20. maintenance procedures
- KU21. different types of cleaning equipment and substances and their use
- KU22. safe working practices for cleaning and the method of carrying them out

Generic Skills (GS)

User/individual on the job needs to know how to:

- **GS1.** comprehend written instructions
- GS2. read any application sent by other colleagues
- GS3. Communicate effectively in local language
- GS4. communicate with supervisor appropriately
- GS5. talk to others to convey information effectively
- GS6. identify the real reason of problem faced
- **GS7.** apply problem-solving approaches in different situations
- GS8. refer anomalies to the supervisor
- GS9. seek clarification on problems from others
- GS10. apply good attention to detail
- GS11. check your work is complete and free from errors
- GS12. make sure every kind of communication is error free
- GS13. communicate effectively
- GS14. apply leadership skills wherever required
- GS15. take initiative at the right place
- GS16. understand the requirement to be creative



सत्यमेव जयते GOVERNMENT OF INDIA MINISTRY OF SKILL DEVELOPMENT & ENTREPRENEURSHIP





Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Maintaining the work area, tools and machines	17	20	-	13
1. handle materials, machinery, equipment and tools with care and use them in the correct way	2	2	-	1
2. use correct lifting and handling procedures	1	2	_	1
3. use materials to minimize waste	2	1	-	1
4. maintain a clean and hazard free working area	1	1	-	1
5. maintain tools and equipment	2	1	_	1
6. carry out running maintenance within agreed schedules	1	2	-	1
7. carry out maintenance and/or cleaning within ones responsibility	1	2	-	1
8. report unsafe equipment and other dangerous occurrences	1	2	-	-
9. ensure that the correct machine guards are in place	1	1	-	1
10. work in a comfortable position with the correct posture	1	1	-	1
11. use cleaning equipment and methods appropriate for the work to be carried out	1	1	-	1
12. dispose of waste safely in the designated location	1	2	-	1
13. store cleaning equipment safely after use	1	1	-	1
14. carry out cleaning according to schedules and limits of responsibility	1	1	-	1
NOS Total	17	20	-	13







National Occupational Standards (NOS) Parameters

NOS Code	TSC/N9001
NOS Name	Maintain work area, tools, and machines
Sector	Textile
Sub-Sector	Spinning, Weaving, Processing, Knitting
Occupation	Textile Mill sector - Cotton
NSQF Level	3
Credits	TBD
Version	3.0
Last Reviewed Date	27/01/2022
Next Review Date	31/03/2025
NSQC Clearance Date	17/11/2022







TSC/N9002: Working in a team

Description

This unit is about working as a team member in the textile industry

Scope

The scope covers the following :

- commitment and trust
- communication
- adaptability
- creative freedom

Elements and Performance Criteria

Commitment and trust

To be competent, the user/individual on the job 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

To be competent, the user/individual on the job must be able to:

- 4. properly communicate about company policies
- 5. report all problems faced during the process
- 6. talk politely with other team members and colleagues
- 7. submit daily report of own performance

Adaptability

To be competent, the user/individual on the job must be able to:

- 8. adjust in different work situations
- 9. give due importance to other's point of view
- **10.** avoid conflicting situations

Creative freedom

To be competent, the user/individual on the job must be able to:

- **11.** develop new ideas for work procedures
- **12.** improve upon the existing techniques to increase process efficiency

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** standard operating procedures (SOP) and regulations in a textile mill
- KU2. procedure followed to get the final output in the mill







- **KU3.** safe working practices to be adopted in textile mill
- KU4. reporting to the supervisor or higher authority about any grievances faced
- **KU5.** the importance of the previous and next step of the process
- **KU6.** process flow in a textile mill and the concerned workers
- KU7. material flow in a textile mill and the required person
- KU8. functions of different parts of the machine
- KU9. tools and equipments used
- **KU10.** guidelines for operating the machine
- **KU11.** safety procedures to be followed in the machine

Generic Skills (GS)

User/individual on the job needs to know how to:

- **GS1.** write clear and short sentences
- GS2. write daily work report
- **GS3.** write grievance complaint application
- **GS4.** comprehend written instructions
- GS5. read any application sent by other colleagues
- GS6. communicate with supervisor appropriately
- GS7. talk to co-workers to convey information effectively
- **GS8.** identify the real reason of problem faced
- GS9. be able to find the most effective solution to the problems faced
- GS10. apply good attention to detail
- GS11. ensure every kind of communication is error free
- GS12. communicate effectively
- GS13. apply leadership skills wherever required
- GS14. take initiative at the right place
- GS15. understand the requirement to be creative









Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Commitment and trust	5	4	-	2
1. be accountable to the own role in whole process	2	1	-	1
2. perform all roles with full responsibility	2	1	-	1
3. be effective and efficient at workplace	1	2	-	-
Communication	6	7	-	4
 properly communicate about company policies 	1	2	-	1
5. report all problems faced during the process	1	2	-	1
6. talk politely with other team members and colleagues	2	1	-	1
7. submit daily report of own performance	2	2	-	1
Adaptability	5	4	-	3
8. adjust in different work situations	1	1	-	1
9. give due importance to other's point of view	2	1	-	1
10. avoid conflicting situations	2	2	-	1
Creative freedom	3	5	-	2
11. develop new ideas for work procedures	1	3	-	1
12. improve upon the existing techniques to increase process efficiency	2	2	-	1
NOS Total	19	20	-	11







National Occupational Standards (NOS) Parameters

NOS Code	TSC/N9002
NOS Name	Working in a team
Sector	Textile
Sub-Sector	Spinning, Weaving, Processing, Knitting
Occupation	Textile Mill sector - Cotton
NSQF Level	3
Credits	TBD
Version	6.0
Last Reviewed Date	27/01/2022
Next Review Date	31/03/2025
NSQC Clearance Date	17/11/2022







TSC/N9003: Maintain health, safety and security at workplace

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

The scope covers the following :

- comply with health, safety and security requirements at work
- Recognizing the hazards
- Planning the safety techniques
- Implementing the programs

Elements and Performance Criteria

Comply with health, Safety and security requirements at work

To be competent, the user/individual on the job 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, the user/individual on the job must be able to:







- **19.** identify different kinds of possible hazards (environmental, personal, ergonomic, chemical) of the industry
- **20.** recognise other possible security issues existing in the workplace

Planning the safety techniques Implementing the programs

To be competent, the user/individual on the job must be able to:

- **21.** recognise different measures to curb the hazards
- 22. communicate the safety plan to everyone
- 23. attach disciplinary rules with the implementation

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1. standard operating procedures (SOP) and regulations in a textile mill
- KU2. safe working practices to be adopted in textile mill
- KU3. quality systems and other processes practiced in the textile mill
- KU4. health and safety related practices applicable at the workplace
- KU5. potential hazards, risks and threats based on nature of operations
- KU6. organizational procedures for safe handling of equipment and machine operations
- KU7. potential risks due to own actions and methods to minimize these
- KU8. environmental management system related procedures at the workplace
- **KU9.** layout of the plant and details of emergency exits, escape routes, emergency equipment and assembly points
- KU10. potential accidents and emergencies and response to these scenarios
- KU11. reporting protocol and documentation required
- KU12. details of personnel trained in first aid, fire-fighting and emergency response
- **KU13.** actions to take in the event of a mock drills/ evacuation procedures or actual accident, emergency or fire
- KU14. occupational health and safety risks and methods
- KU15. personal protective equipment and method of use
- KU16. identification, handling and storage of hazardous substances
- KU17. proper disposal system for waste and by-products
- KU18. signage related to health and safety and their meaning
- **KU19.** importance of sound health, hygiene and good habits
- KU20. ill-effects of alcohol, tobacco and drugs

Generic Skills (GS)

User/individual on the job needs to know how to:

- **GS1.** write clear and short sentences
- GS2. read and understand the company instructions







- GS3. read and understand work instructions
- GS4. read and understand the safety guidelines
- **GS5.** listen to others attentively
- **GS6.** respond to emergencies, accidents or fire at the workplace
- **GS7.** evacuate the premises and help others in need while doing so
- GS8. the value of physical fitness, personal hygiene and good habits
- GS9. talk with others politely
- GS10. identify correct safety measure for particular hazard
- **GS11.** make required safety plans as and when required
- **GS12.** raise alarm in case of emergency
- GS13. know the use of correct safety measure whenever required
- **GS14.** be attentive to details
- **GS15.** be careful to avoid occurrence of hazards
- **GS16.** maintenance of neatness at work
- GS17. procedure for reporting unwanted behavior



सत्यमेव जयते GOVERNMENT OF INDIA MINISTRY OF SKILL DEVELOPMENT & ENTREPRENEURSHIP

Qualification Pack



Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Comply with health, Safety and security requirements at work	27	35	-	23
 comply with health and safety related instructions applicable to the workplace 	2	2	-	2
2. use and maintain personal protective equipment such as ear plug, nose mask , head cap etc., as per protocol	2	2	-	2
3. carry out own activities in line with approved guidelines and procedures	2	2	-	2
4. maintain a healthy lifestyle and guard against dependency on intoxicants	2	2	-	2
5. follow environment management system related procedures	2	2	-	2
6. identify and correct (if possible) malfunctions in machinery and equipment	2	2	-	1
 report any service malfunctions that cannot be rectified 	2	2	-	1
8. store materials and equipment in line with organisational requirements	2	2	-	1
9. safely handle and remove waste	2	2	-	1
10. minimize health and safety risks to self and others due to own actions	1	2	-	1
11. seek clarifications, from supervisors or other authorized personnel in case of perceived risks	1	2	-	2
12. monitor the workplace and work processes for potential risks and threat	1	2	-	1
13. carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned	1	2	-	1
14. report hazards and potential risks/ threats to supervisors or other authorized personnel	1	2	-	1







Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
15. participate in mock drills/ evacuation procedures organized at the workplace	1	2	-	-
16. undertake first aid, fire-fighting and emergency response training, if asked to do so	1	2	_	1
17. take action based on instructions in the event of fire, emergencies or accidents	1	2	-	1
18. follow organisation procedures for shutdown and evacuation when required	1	1	-	1
Recognizing the hazards	2	2	-	2
19. identify different kinds of possible hazards (environmental, personal, ergonomic, chemical) of the industry	1	1	-	1
20. recognise other possible security issues existing in the workplace	1	1	-	1
<i>Planning the safety techniques Implementing the programs</i>	3	3	-	3
21. recognise different measures to curb the hazards	1	1	_	1
22. communicate the safety plan to everyone	1	1	_	1
23. attach disciplinary rules with the implementation	1	1	_	1
NOS Total	32	40	-	28







National Occupational Standards (NOS) Parameters

NOS Code	TSC/N9003
NOS Name	Maintain health, safety and security at workplace
Sector	Textile
Sub-Sector	Spinning, Weaving, Processing, Knitting
Occupation	Textile Mill sector - Cotton
NSQF Level	3
Credits	TBD
Version	5.0
Last Reviewed Date	27/01/2022
Next Review Date	31/03/2025
NSQC Clearance Date	17/11/2022







TSC/N9004: Comply with industry and organizational requirement

Description

This unit is about knowing, understanding, and complying with the requirements of the organization and the textile industry

Scope

The scope covers the following :

- self development
- team work
- organizational standards
- industry standards

Elements and Performance Criteria

Self development

To be competent, the user/individual on the job 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

To be competent, the user/individual on the job must be able to:

- 6. co-ordinate with all the team members and colleagues
- 7. communicate politely
- 8. avoid conflicts and miscommunication

Organisational standards

To be competent, the user/individual on the job must be able to:

- 9. know the organisational standards
- 10. implement them in your performance
- 11. motivate others to follow them

Industry standards

To be competent, the user/individual on the job must be able to:

- 12. monitor the workplace and work processes for potential risks and threat
- 13. align them with organisation standards

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:







- KU1. standard operating procedures (SOP) and regulations in a textile mill
- KU2. reporting to the supervisor or higher authority
- KU3. knowledge of organisational standards
- **KU4.** knowledge of industry standards
- **KU5.** process and material flow in a textile mill
- KU6. importance of complying with the standards
- **KU7.** guidelines for cleaning the various parts of machine

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1. write clear and short sentences
- **GS2.** read the given instructions
- GS3. comprehend written instructions
- GS4. talk effectively with others
- GS5. put forward your point
- GS6. listen to others
- **GS7.** Organizational requirements
- **GS8.** your responsibilities at the workplace
- GS9. procedure to comply with the industry standards



सत्यमेव जयते GOVERNMENT OF INDIA MINISTRY OF SKILL DEVELOPMENT & ENTREPRENEURSHIP





Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Self development	5	9	-	7
1. perform own duties effectively	1	2	-	2
2. take responsibility for own actions	1	2	-	2
3. be accountable towards the job role and assigned duties	1	2	-	1
 take initiative and innovate the existing methods 	1	1	-	1
5. focus on self-learning and improvement	1	2	_	1
Team work	3	5	-	4
6. co-ordinate with all the team members and colleagues	1	2	-	1
7. communicate politely	1	1	-	2
8. avoid conflicts and miscommunication	1	2	-	1
Organisational standards	3	4	-	3
9. know the organisational standards	1	1	-	1
10. implement them in your performance	1	2	_	1
11. motivate others to follow them	1	1	-	1
Industry standards	4	2	-	1
12. monitor the workplace and work processes for potential risks and threat	2	1	-	_
13. align them with organisation standards	2	1	_	1
NOS Total	15	20	-	15







National Occupational Standards (NOS) Parameters

NOS Code	TSC/N9004
NOS Name	Comply with industry and organizational requirement
Sector	Textile
Sub-Sector	Spinning, Weaving, Processing, Knitting
Occupation	Textile Mill sector - Cotton
NSQF Level	3
Credits	TBD
Version	3.0
Last Reviewed Date	27/01/2022
Next Review Date	31/03/2025
NSQC Clearance Date	17/11/2022







DGT/VSQ/N0101: Employability Skills (30 Hours)

Description

This unit is about employability skills, Constitutional values, becoming a professional in the 21st Century, digital, financial, and legal literacy, diversity and Inclusion, English and communication skills, customer service, entrepreneurship, and apprenticeship, getting ready for jobs and career development.

Scope

The scope covers the following :

- Introduction to Employability Skills
- Constitutional values Citizenship
- Becoming a Professional in the 21st Century
- Basic English Skills
- Communication Skills
- Diversity & Inclusion
- Financial and Legal Literacy
- Essential Digital Skills
- Entrepreneurship
- Customer Service
- Getting ready for Apprenticeship & Jobs

Elements and Performance Criteria

Introduction to Employability Skills

To be competent, the user/individual on the job must be able to:

PC1. understand the significance of employability skills in meeting the job requirements

Constitutional values - Citizenship

To be competent, the user/individual on the job must be able to:

PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices

Becoming a Professional in the 21st Century

To be competent, the user/individual on the job must be able to:

PC3. explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, selfmotivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.

Basic English Skills

To be competent, the user/individual on the job must be able to:

PC4. speak with others using some basic English phrases or sentences

Communication Skills

To be competent, the user/individual on the job must be able to:

- PC5. follow good manners while communicating with others
- PC6. work with others in a team



सन्यमेव जयते GOVERNMENT OF INDIA MINISTRY OF SKILL DEVELOPMENT & ENTREPRENEURSHIP

Qualification Pack



Diversity & Inclusion

To be competent, the user/individual on the job must be able to:

- PC7. communicate and behave appropriately with all genders and PwD
- PC8. report any issues related to sexual harassment

Financial and Legal Literacy

To be competent, the user/individual on the job must be able to:

- PC9. use various financial products and services safely and securely
- PC10. calculate income, expenses, savings etc.
- **PC11.** approach the concerned authorities for any exploitation as per legal rights and laws *Essential Digital Skills*

To be competent, the user/individual on the job must be able to:

- PC12. operate digital devices and use its features and applications securely and safely
- PC13. use internet and social media platforms securely and safely

Entrepreneurship

To be competent, the user/individual on the job must be able to:

PC14. identify and assess opportunities for potential business

PC15. identify sources for arranging money and associated financial and legal challenges *Customer Service*

To be competent, the user/individual on the job must be able to:

- PC16. identify different types of customers
- PC17. identify customer needs and address them appropriately
- PC18. follow appropriate hygiene and grooming standards

Getting ready for apprenticeship & Jobs

To be competent, the user/individual on the job must be able to:

- PC19. create a basic biodata
- PC20. search for suitable jobs and apply
- PC21. identify and register apprenticeship opportunities as per requirement

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1. need for employability skills
- KU2. various constitutional and personal values
- KU3. different environmentally sustainable practices and their importance
- KU4. Twenty first (21st) century skills and their importance
- KU5. how to use basic spoken English language
- KU6. Do and dont of effective communication
- KU7. inclusivity and its importance
- KU8. different types of disabilities and appropriate communication and behaviour towards PwD
- KU9. different types of financial products and services







- **、**
- **KU10.** how to compute income and expenses
- **KU11.** importance of maintaining safety and security in financial transactions
- **KU12.** different legal rights and laws
- KU13. how to operate digital devices and applications safely and securely
- KU14. ways to identify business opportunities
- KU15. types of customers and their needs
- KU16. how to apply for a job and prepare for an interview
- KU17. apprenticeship scheme and the process of registering on apprenticeship portal

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1. communicate effectively using appropriate language
- GS2. behave politely and appropriately with all
- **GS3.** perform basic calculations
- **GS4.** solve problems effectively
- **GS5.** be careful and attentive at work
- GS6. use time effectively
- GS7. maintain hygiene and sanitisation to avoid infection



सत्यमेव जयते GOVERNMENT OF INDIA MINISTRY OF SKILL DEVELOPMENT & ENTREPRENEURSHIP



Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Introduction to Employability Skills	1	1	-	-
PC1. understand the significance of employability skills in meeting the job requirements	-	-	-	-
Constitutional values – Citizenship	1	1	-	-
PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices	-	-	-	-
Becoming a Professional in the 21st Century	1	3	-	-
PC3. explain 21st Century Skills such as Self- Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.	-	-	-	-
Basic English Skills	2	3	-	-
PC4. speak with others using some basic English phrases or sentences	-	-	-	-
Communication Skills	1	1	-	-
PC5. follow good manners while communicating with others	-	-	-	-
PC6. work with others in a team	-	-	-	-
Diversity & Inclusion	1	1	-	-
PC7. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC8. report any issues related to sexual harassment	-	-	-	-
Financial and Legal Literacy	3	4	-	-
PC9. use various financial products and services safely and securely	-	-	-	-







Transforming the skill landscape

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. calculate income, expenses, savings etc.	-	-	-	-
PC11. approach the concerned authorities for any exploitation as per legal rights and laws	-	-	-	-
Essential Digital Skills	4	6	-	-
PC12. operate digital devices and use its features and applications securely and safely	-	-	-	-
PC13. use internet and social media platforms securely and safely	-	-	-	-
Entrepreneurship	3	5	-	-
PC14. identify and assess opportunities for potential business	-	-	-	-
PC15. identify sources for arranging money and associated financial and legal challenges	-	-	-	-
Customer Service	2	2	-	-
PC16. identify different types of customers	-	-	-	-
PC17. identify customer needs and address them appropriately	-	-	-	-
PC18. follow appropriate hygiene and grooming standards	-	-	-	-
Getting ready for apprenticeship & Jobs	1	3	-	-
PC19. create a basic biodata	-	-	-	-
PC20. search for suitable jobs and apply	-	-	-	-
PC21. identify and register apprenticeship opportunities as per requirement	-	-	-	-
NOS Total	20	30	-	-







National Occupational Standards (NOS) Parameters

NOS Code	DGT/VSQ/N0101
NOS Name	Employability Skills (30 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	2
Credits	1
Version	1.0
Last Reviewed Date	ΝΑ
Next Review Date	17/10/2024
NSQC Clearance Date	25/06/2020

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1.Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.

2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.

3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).

4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.

5. In case of successfully passing only certain number of NOSs, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.

6. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Minimum Aggregate Passing % at QP Level : 50







(**Please note**: Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
TSC/N2104.Taking charge of shift and handing over shift to Size Mixer	40	100	-	20	160	20
TSC/N2105.Preparing Size Mix	117	182	-	41	340	43
TSC/N9001.Maintain work area, tools, and machines	17	20	-	13	50	6
TSC/N9002.Working in a team	19	20	-	11	50	6
TSC/N9003.Maintain health, safety and security at workplace	32	40	-	28	100	13
TSC/N9004.Comply with industry and organizational requirement	15	20	-	15	50	6
DGT/VSQ/N0101.Employability Skills (30 Hours)	20	30	0	0	50	6
Total	260	412	0	128	800	100







Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training







Glossary

Sector	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a 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.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
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 (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC)	Performance Criteria (PC) 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 (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by 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 a 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 quality of performance required.







Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.
Organisational Context	Organisational context includes the way the organisation 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 (GS)	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment 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.
Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.