Ring Frame Operator

Options: Manual doffing/ Automatic doffing

QP Code: TSC/Q0205

Version: 2.0

NSQF Level: 3

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Contents

TSC/Q0205: Ring Frame Operator

Brief Job Description

A Ring Frame Operator is responsible for carrying out tenting and doffing activities in Ring Frame machine. The operator should be able to creel the roving bobbin, piece the broken yarn, perform doffing and carry out routine cleaning activities to produce defect free yarn and ensure quality ring cops are produced in Ring Frame machine.

Personal Attributes

A Ring Frame operator should have physicals attributes like dexterity, coordination, motor skills, strength, stamina and handle heavy equipment. A Ring Frame operator should also have sensory attributes like hearing ability and vision (normal distance vision, color vision, night vision, peripheral vision, depth perception and ability to change focus).

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. TSC/N0218: Carryout shift change, bobbin change, piecing, and tenting responsibilities in Ring Frame department

2. TSC/N9015: Follow machine, safety, and organizational guidelines in textile sector

3. TSC/N9016: Follow teamwork, adaptability, and communication guidelines in textile sector

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

Options(Not mandatory):

Option 1: Manual doffing

The Ring Frame operator – Manual doffing should be able to carry out manual doffing by following the prescribed guidelines in the Ring Frame machine.

1. TSC/N0219: Carryout manual doffing in Ring Frame department

Option 2: Automatic doffing

The Ring Frame operator – Auto doffing should be able to prepare the machine for auto doffing by following the prescribed guidelines in the Ring Frame department.

1. TSC/N0220: Carryout responsibilities while working with automatic doffing Ring Frame

Qualification Pack (QP) Parameters

Sector	Textile
Sub-Sector	Spinning – Textiles
Occupation	Spinning
Country	India
NSQF Level	3
Credits	15
Aligned to NCO/ISCO/ISIC Code	NCO-2015/8151.0600
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)
Minimum Level of Education for Training in School	9th Class
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	NA
Next Review Date	25/11/2024
NSQC Approval Date	17/11/2022
Version	2.0
Reference code on NQR	2022/TEXT/TSC/07053
NQR Version	1.0

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TSC/N0218: Carryout shift change, bobbin change, piecing, and tenting responsibilities in Ring Frame department

Description

This unit is about performance criteria, knowledge and understanding and generic skills and abilities required to carry out shift change, creeling, piecing and tenting responsibilities in Ring Frame department

Scope

The scope covers the following :

- Taking charge of shift in Ring Frame department
- Handing over shift in Ring Frame department
- Attending the Ring Frame for changing bobbins
- Piecing operations at Ring Frame
- Cleaning and other tenting activities

Elements and Performance Criteria

Taking charge of shift in Ring Frame department

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

PC1. report for the shift at scheduled time as per the duty chart with necessary operational tools and take stock of supply packages, running count production, count change and lot change (reach 10-15 minutes earlier to take stock)

PC2. discuss with previous shift Ring Frame Tenter and gather the shift details (i.e., production, maintenance, raw material, colour coding, etc.)

PC3. receive technical details as per SOP and match them with display board for the allotted Ring Frame machines

PC4. check for quality and the availability of spares/ production materials (i.e., roving bobbin, bobbin trolley, spare rings and travellers, etc.)

PC5. monitor condition of processing materials and accessories (i.e., travellers, roving passage, yarn formation, run outs, roller lapping, burnt travellers, OHTC, waste collection box, etc.) and report deviations

PC6. check for the availability of the spare roving bobbins and empty tubes regarding the count being produced

PC7. report idle spindles, yarn length variation between the cops and other deviations to incoming shift supervisor

PC8. check the work spot and Ring Frame machine for cleanliness as per specifications

Handing over shift in Ring Frame department

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

PC9. provide shift details to incoming Ring Frame Tenter (i.e., production, maintenance, spare parts, counts running, count changes, maintenance schedule, roving bobbin availability, etc.)

PC10. provide shift details to incoming Ring Frame Tenter (i.e., production, maintenance, spare parts, counts running, count changes, maintenance schedule, roving bobbin availability, etc.)

PC11. complete the shift end jobs like writing production log report, waste collection box disposal, cleaning as per standard protocol

PC12. report deviation to incoming shift supervisor (i.e., production, maintenance, absenteeism, etc.)

Attending the Ring Frame for changing bobbins

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

PC13. transfer full roving bobbins from storage area using bobbin trolley as per specified colour code

PC14. load prescribed colour coded bobbins in Ring Frame machine as per production plan

PC15. inspect for surface damages of roving bobbins before creeling

PC16. replenish exhausted roving bobbins with new bobbins as per specifications provided

PC17. thread new roving by following standard procedure ensuring passage of material as per norms

Piecing operations at Ring Frame

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

PC18. examine the allotted Ring Frame s and identify roving and yarn breakages at the spindles

PC19. perform piecing of broken roving and yarns as per standard procedure and guidelines (i.e., quality, piecing time, tension and size)

PC20. verify the proper seating of ring cops in the spindle and roving bobbin on umbrella creel after piecing

PC21. monitor the roving and yarn passage in the Ring Frame Machine after piecing (i.e., passing through yarn guides, traveller, anti-balloon ring, etc.)

PC22. check cop build after piecing as per standard guidelines

PC23. collect roving and yarn waste in allotted waste dropping box

Cleaning & other tenting activities

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

PC24. monitor the working condition of clearer roller, drafting, pneumafil suction tube, OHTC, spindle tape, etc. at specified intervals

PC25. remove roller lappings as per standard method

PC26. clean waste collection chambers at specified intervals as per SOP

PC27. support the Ring Frame doffer for the doffing activity

PC28. replace traveller, spacer, apron, etc. during count change as per specifications

PC29. maintain reserve of running count spare travellers and use as when it is required

PC30. support maintenance team of Ring Frame Spinning within limits of responsibility

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. process and material flow for Ring Frame machine

KU2. types of fibres, fibre mixing, blends, natural and synthetic yarns and their importance

KU3. roving hank, yarn count systems, count, yarn quality, defects and their significance in Ring Frame

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Qualification Pack

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KU4. quality systems and parameters with specifications practiced in the Ring Frame department

KU5. colour coding followed in the Speed frame and Ring Frame departments

KU6. basic electrical connections and motor/drum drives used in Ring Frame machine

KU7. different parts of Ring Frame machine, accessories, OHTC and their functions

KU8. yarn parameters such twist, strength, evenness, ply, hairiness and their effect on yarn quality

KU9. control measures to reduce pneumafil waste

KU10. methods of identifying faults at Ring Frame machine, their causes and procedures to correct them

KU11. impacts of apron cut, spindle tape cut, top roller cot damage, roving undraft, poor cop build, etc. on yarn quality

KU12. functions of signal lamps in the Ring Frame machine

KU13. standard yarn and roving piecing method and passage

KU14. various types and size of travellers and their effect on yarn twist and quality

KU15. importance of quality yarn production

KU16. reporting formats to superiors and logbook formats

KU17. protocol for taking charge, handing over shift, creeling, piecing, cleaning, tenting and other activities in Ring Frame spinning department

Generic Skills (GS)

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

GS1. write clear and short sentences in the log book (i.e. Ring Frame production, maintenance, cot change, traveller change etc.)

GS2. communicate with colleagues and superiors as per standard protocol

GS3. comprehend written Ring Frame production, work method poster, safety and routine maintenance instructions, etc

GS4. calculate Ring frame production, waste percentage etc.

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Taking charge of shift in Ring Frame department	**12**	**13**	**-**	**16**
PC1. report for the shift at scheduled time as per the duty chart with necessary operational tools and take stock of supply packages, running count production, count change and lot change (reach 10-15 minutes earlier to take stock)	-	-	-	-
PC2. discuss with previous shift Ring Frame Tenter and gather the shift details (i.e., production, maintenance, raw material, colour coding, etc.)	-	-	-	-
PC3. receive technical details as per SOP and match them with display board for the allotted Ring Frame machines	-	-	-	-
PC4. check for quality and the availability of spares/ production materials (i.e., roving bobbin, bobbin trolley, spare rings and travellers, etc.)	-	-	-	-
PC5. monitor condition of processing materials and accessories (i.e., travellers, roving passage, yarn formation, run outs, roller lapping, burnt travellers, OHTC, waste collection box, etc.) and report deviations	-	-	-	-
PC6. check for the availability of the spare roving bobbins and empty tubes regarding the count being produced	-	-	-	-
PC7. report idle spindles, yarn length variation between the cops and other deviations to incoming shift supervisor	-	-	-	-
PC8. check the work spot and Ring Frame machine for cleanliness as per specifications	-	-	-	-
Handing over shift in Ring Frame department	**6**	**6**	**-**	**7**
PC9. provide shift details to incoming Ring Frame Tenter (i.e., production, maintenance, spare parts, counts running, count changes, maintenance schedule, roving bobbin availability, etc.)	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. provide shift details to incoming Ring Frame Tenter (i.e., production, maintenance, spare parts, counts running, count changes, maintenance schedule, roving bobbin availability, etc.)	-	-	-	-
PC11. complete the shift end jobs like writing production log report, waste collection box disposal, cleaning as per standard protocol	-	-	-	-
PC12. report deviation to incoming shift supervisor (i.e., production, maintenance, absenteeism, etc.)	-	-	-	-
Attending the Ring Frame for changing bobbins	**55**	**100**	**-**	**25**
PC13. transfer full roving bobbins from storage area using bobbin trolley as per specified colour code	-	-	-	-
PC14. load prescribed colour coded bobbins in Ring Frame machine as per production plan	-	-	-	-
PC15. inspect for surface damages of roving bobbins before creeling	-	-	-	-
PC16. replenish exhausted roving bobbins with new bobbins as per specifications provided	-	-	-	-
PC17. thread new roving by following standard procedure ensuring passage of material as per norms	-	-	-	-
Piecing operations at Ring Frame	**90**	**150**	**-**	**60**
PC18. examine the allotted Ring Frame s and identify roving and yarn breakages at the spindles	-	-	-	-
PC19. perform piecing of broken roving and yarns as per standard procedure and guidelines (i.e., quality, piecing time, tension and size)	-	-	-	-
PC20. verify the proper seating of ring cops in the spindle and roving bobbin on umbrella creel after piecing	-	-	-	-
PC21. monitor the roving and yarn passage in the Ring Frame Machine after piecing (i.e., passing through yarn guides, traveller, anti-balloon ring, etc.)	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC22. check cop build after piecing as per standard guidelines	-	-	-	-
PC23. collect roving and yarn waste in allotted waste dropping box	-	-	-	-
Cleaning & other tenting activities	**35**	**50**	**-**	**35**
PC24. monitor the working condition of clearer roller, drafting, pneumafil suction tube, OHTC, spindle tape, etc. at specified intervals	-	-	-	-
PC25. remove roller lappings as per standard method	-	-	-	-
PC26. clean waste collection chambers at specified intervals as per SOP	-	-	-	-
PC27. support the Ring Frame doffer for the doffing activity	-	-	-	-
PC28. replace traveller, spacer, apron, etc. during count change as per specifications	-	-	-	-
PC29. maintain reserve of running count spare travellers and use as when it is required	-	-	-	-
PC30. support maintenance team of Ring Frame Spinning within limits of responsibility	-	-	-	-
NOS Total	**198**	**319**	**-**	**143**

National Occupational Standards (NOS) Parameters

NOS Code	TSC/N0218
NOS Name	Carryout shift change, bobbin change, piecing, and tenting responsibilities in Ring Frame department
Sector	Textile
Sub-Sector	Spinning – Textiles
Occupation	Spinning
NSQF Level	3
Credits	TBD
Version	1.0
Last Reviewed Date	31/12/2021
Next Review Date	25/11/2024
NSQC Clearance Date	17/11/2022

TSC/N9015: Follow machine, safety, and organizational guidelines in textile sector

Description

This unit provides performance criteria, knowledge and skills required to follow machine, safety and organizational guidelines in textile sector.

Scope

The scope covers the following :

- Maintaining the work area, tools and machines
- Greening and energy conservation in textile sector
- Health, safety and response to emergencies at textile sector
- Organizational standards and policies

Elements and Performance Criteria

Maintaining the work area, tools and machines

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

PC1. handle materials, machinery, equipment and tools as per standard procedure

PC2. use appropriate material handling equipment and tools as per standard procedure

PC3. keep the equipment, machine and work area clean using appropriate cleaning tools as per standard procedure

PC4. undertake minor routine maintenance of equipment and tools as per standard maintenance procedure

PC5. maintain record for defective and unsafe equipment and tools

PC6. verify that machine guards are in place as per standard specifications

PC7. follow specified ergonomics for the assigned job role in textile sector

PC8. collect and store worn-out spare parts at specified location

PC9. report the condition of worn out parts as per standard procedure

Greening and energy conservation in textile sector

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

PC10. segregate wastes such as recyclable, non-recyclable, hazardous as per standard protocol

PC11. optimize usage of material and resources including water, electricity in various tasks

PC12. switch off the machines and lights when not in use

Health, safety and response to emergencies at textile sector

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

PC13. use Personal Protective Equipment (PPEs) like body protector, ear plugs, nose mask, head cap, etc. as per guidelines

PC14. identify abnormal sounds emanating from faulty or worn out machine parts and take appropriate action

PC15. avoid dependency on any type of intoxicants

PC16. maintain social distance as per the instruction at workplace

PC17. report hazardous material to superiors at workplace

PC18. use the various appropriate fire extinguishers on different types of fires correctly

PC19. follow the specified steps in case of electricity failure

PC20. lift heavy objects using correct lifting procedures

PC21. recall emergency exits, safe spots, etc. of workplace

PC22. practice mock drills and evacuation procedures organized by industry

PC23. assist others to reach to safe spots in emergency situations

PC24. provide basic first aid for injury to peers and report to superiors

PC25. interpret different signs, alarms and take action appropriately

PC26. follow the guidelines while working in hazards atmosphere

PC27. assist in designing the safety plans with peers and superiors

PC28. follow the approved safety plans at workplace

Organizational standards and policies

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

PC29. perform assigned duties as per organization's protocol within scheduled time period

PC30. follow organization policies, quality standards, rules and regulations for working in textile sector

PC31. motivate colleagues to follow operational guidelines of organization

PC32. wear specified uniform and follow etiquette as per standard guidelines for the textile sector

PC33. maintain hygienic working atmosphere as per protocol of the textile sector

PC34. submit lost and found articles as per standard protocol

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. organizational standard procedures, quality standards, rules, codes, policies and safety standards in the textile sector

KU2. different type of tools and equipment used in textile sub- sector and their specifications and operating procedures

KU3. safe handling procedure of tools and equipment

KU4. the importance of displays and written instructions for the allocated machines

KU5. dos and donts specific to the assigned work responsibilities

KU6. protocol for minimizing the wastage of material, effort and time

KU7. organization's formats and procedures for reporting production, defects, faults, material/tool requisition and quality parameters and task completed for assigned job

KU8. schedule for cleaning and waste collection for the assigned job role

KU9. importance and standard procedure for disposal of soft, hard, non-hazardous and hazardous wastes and materials

KU10. available types of material handling equipment and handling methods used in the textile sector

KU11. hazards of unsafe workplace conditions and procedures in the textile industry and methods to avoid hazards

KU12. various types of fire extinguishers

KU13. importance of stable mental condition in case of emergency

KU14. correct work posture and importance of ergonomics for the assigned job role

KU15. organizational quality systems like quality circle, 5S, ISO, SA, etc. followed in the textile sector

KU16. importance of following work wear standards, behavioral protocols and etiquette in the textile sector

KU17. importance of energy conservation through proper maintenance schedule in the textile sector

KU18. procedures and formats for reporting lost and found material

KU19. different types of alarms and their significance

Generic Skills (GS)

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

GS1. read and comprehend policies in notice boards displayed in the workplace

GS2. minimize the resource consumption for the assigned task

GS3. solve basic arithmetic calculations related to assigned job role

GS4. recognize and differentiate colors of materials used in textile sector

GS5. lift specified materials for the allotted task using prescribed ergonomic position

GS6. exhibit motor skill required for the allotted task

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Maintaining the work area, tools and machines	**10**	**10**	**-**	**6**
PC1. handle materials, machinery, equipment and tools as per standard procedure	-	-	-	-
PC2. use appropriate material handling equipment and tools as per standard procedure	-	-	-	-
PC3. keep the equipment, machine and work area clean using appropriate cleaning tools as per standard procedure	-	-	-	-
PC4. undertake minor routine maintenance of equipment and tools as per standard maintenance procedure	-	-	-	-
PC5. maintain record for defective and unsafe equipment and tools	-	-	-	-
PC6. verify that machine guards are in place as per standard specifications	-	-	-	-
PC7. follow specified ergonomics for the assigned job role in textile sector	-	-	-	-
PC8. collect and store worn-out spare parts at specified location	-	-	-	-
PC9. report the condition of worn out parts as per standard procedure	-	-	-	-
Greening and energy conservation in textile sector	**7**	**10**	**-**	**6**
PC10. segregate wastes such as recyclable, non-recyclable, hazardous as per standard protocol	-	-	-	-
PC11. optimize usage of material and resources including water, electricity in various tasks	-	-	-	-
PC12. switch off the machines and lights when not in use	-	-	-	-
Health, safety and response to emergencies at textile sector	**32**	**40**	**-**	**28**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. use Personal Protective Equipment (PPEs) like body protector, ear plugs, nose mask, head cap, etc. as per guidelines	-	-	-	-
PC14. identify abnormal sounds emanating from faulty or worn out machine parts and take appropriate action	-	-	-	-
PC15. avoid dependency on any type of intoxicants	-	-	-	-
PC16. maintain social distance as per the instruction at workplace	-	-	-	-
PC17. report hazardous material to superiors at workplace	-	-	-	-
PC18. use the various appropriate fire extinguishers on different types of fires correctly	-	-	-	-
PC19. follow the specified steps in case of electricity failure	-	-	-	-
PC20. lift heavy objects using correct lifting procedures	-	-	-	-
PC21. recall emergency exits, safe spots, etc. of workplace	-	-	-	-
PC22. practice mock drills and evacuation procedures organized by industry	-	-	-	-
PC23. assist others to reach to safe spots in emergency situations	-	-	-	-
PC24. provide basic first aid for injury to peers and report to superiors	-	-	-	-
PC25. interpret different signs, alarms and take action appropriately	-	-	-	-
PC26. follow the guidelines while working in hazards atmosphere	-	-	-	-
PC27. assist in designing the safety plans with peers and superiors	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC28. follow the approved safety plans at workplace	-	-	-	-
Organizational standards and policies	**16**	**20**	**-**	**10**
PC29. perform assigned duties as per organization's protocol within scheduled time period	-	-	-	-
PC30. follow organization policies, quality standards, rules and regulations for working in textile sector	-	-	-	-
PC31. motivate colleagues to follow operational guidelines of organization	-	-	-	-
PC32. wear specified uniform and follow etiquette as per standard guidelines for the textile sector	-	-	-	-
PC33. maintain hygienic working atmosphere as per protocol of the textile sector	-	-	-	-
PC34. submit lost and found articles as per standard protocol	-	-	-	-
NOS Total	**65**	**80**	**-**	**50**

National Occupational Standards (NOS) Parameters

NOS Code	TSC/N9015
NOS Name	Follow machine, safety, and organizational guidelines in textile sector
Sector	Textile
Sub-Sector	Generic - Textiles Handloom
Occupation	Generic - Textiles & Handloom
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	27/01/2022
Next Review Date	31/03/2025
NSQC Clearance Date	17/11/2022

TSC/N9016: Follow teamwork, adaptability, and communication guidelines in textile sector

Description

This unit provides performance criteria, knowledge and skills required to follow team work, communication and adaptability in textile sector

Scope

The scope covers the following :

- Teamwork and communication
- Adaptability

Elements and Performance Criteria

Teamwork, trust and communication

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

PC1. contribute to create a positive work environment in the team

PC2. carry out tasks as per instructions received from superiors

PC3. contribute to team work as per allocated responsibility to complete the task by using appropriate tools and methods

PC4. build trust with team mates and superiors

PC5. implement the ideas after superior's approval at work place

PC6. communicate clearly with the team members as per standard protocol

PC7. use suggested hand signs, vocal sound signals to convey the information in the production area

PC8. listen effectively to the ideas and concerns of the peers

PC9. use correct and respectful terms while communicating as per industry policy

PC10. express views proactively and effectively

PC11. make efforts to resolve difference of opinion with superiors and team members

PC12. report to superior for problems identified in assigned duty

PC13. report the daily performance to superior in prescribed manner and formats

Adaptability

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

PC14. adapt to flexible work environment for the assigned task

PC15. adapt to work with various members of different ethnicity, gender and PwD without biases

PC16. consider opinions of colleagues, fitters, superiors for the assigned task

PC17. plan the work-routine within the limits of the responsibility

PC18. adopt new ideas after due approval from superior for improving the productivity

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. importance of teamwork and discipline
KU2. limits and responsibilities for the assigned duties in the textile sector
KU3. possible conflicts in the assigned job role and methods to resolve the same
KU4. importance of teamwork, group discussions and healthy work environment
KU5. importance of reporting as per the standard protocol
KU6. hierarchy of communication and communication etiquettes in the textile sector
KU7. protocol for communication with different ethnicity, gender and PwD
KU8. report and grievance submission formats
KU9. importance of hand, vocal sound signals in the textile sector

Generic Skills (GS)

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

GS1. read and comprehend written instructions
GS2. listen effectivity for the instructions
GS3. coordinate with team mates for the allotted tasks
GS4. use and comprehend prescribed voice and hand signals in the textile production area
GS5. fill forms and prepare reports such as production report, material requisition forms, leave application, etc. as per standard formats

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Teamwork, trust and communication	**10**	**15**	**-**	**5**
PC1. contribute to create a positive work environment in the team	-	-	-	-
PC2. carry out tasks as per instructions received from superiors	-	-	-	-
PC3. contribute to team work as per allocated responsibility to complete the task by using appropriate tools and methods	-	-	-	-
PC4. build trust with team mates and superiors	-	-	-	-
PC5. implement the ideas after superior's approval at work place	-	-	-	-
PC6. communicate clearly with the team members as per standard protocol	-	-	-	-
PC7. use suggested hand signs, vocal sound signals to convey the information in the production area	-	-	-	-
PC8. listen effectively to the ideas and concerns of the peers	-	-	-	-
PC9. use correct and respectful terms while communicating as per industry policy	-	-	-	-
PC10. express views proactively and effectively	-	-	-	-
PC11. make efforts to resolve difference of opinion with superiors and team members	-	-	-	-
PC12. report to superior for problems identified in assigned duty	-	-	-	-
PC13. report the daily performance to superior in prescribed manner and formats	-	-	-	-
Adaptability	**5**	**5**	**-**	**5**
PC14. adapt to flexible work environment for the assigned task	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC15. adapt to work with various members of different ethnicity, gender and PwD without biases	-	-	-	-
PC16. consider opinions of colleagues, fitters, superiors for the assigned task	-	-	-	-
PC17. plan the work-routine within the limits of the responsibility	-	-	-	-
PC18. adopt new ideas after due approval from superior for improving the productivity	-	-	-	-
NOS Total	**15**	**20**	**-**	**10**

National Occupational Standards (NOS) Parameters

NOS Code	TSC/N9016
NOS Name	Follow teamwork, adaptability, and communication guidelines in textile sector
Sector	Textile
Sub-Sector	Generic - Textiles Handloom
Occupation	Generic - Textiles & Handloom
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	27/01/2022
Next Review Date	31/03/2025
NSQC Clearance Date	17/11/2022

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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, self-motivation, 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

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

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	-	-	-	-

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	NA
Next Review Date	30/12/2024
NSQC Clearance Date	30/12/2021

सत्यमेव जयते
GOVERNMENT OF INDIA
MINISTRY OF SKILL DEVELOPMENT
& ENTREPRENEURSHIP

TSC/N0219: Carryout manual doffing in Ring Frame department

Description

This unit is about performance criteria, knowledge and understanding and generic skills and abilities required to carry out manual doffing in Ring Frame department.

Scope

The scope covers the following :

- Prepare for doffing operation
- Carry out doffing operation

Elements and Performance Criteria

Prepare for doffing operation

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

PC1. patrol and identify which machine in Ring Frame department is ready for doffing as per the plan specified by the supervisor

PC2. identify the empty tubes required for doff and segregate good empties according to size and colour code and clean remnants

PC3. load the required number of empty cops and arrange in crate as per requirement

PC4. move and arrange the cop trolleys in an organised manner near the Ring Frame machine in which doffing activity is to be carried out

PC5. dispose the collected waste and store it in a waste collection box

PC6. stop the overhead blower at one side of the machine before begins doffing

Carry out doffing operation

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

PC7. arrange the trolley in an organized manner at Ring Frame and stop the machine

PC8. verify the machine is stopped and the lappet rail lifted completely

PC9. perform doffing and donning as per standard procedure and guide lines (i.e. quality, right work method, doffing time, etc.)

PC10. verify all the full cops are replaced with empty tubes and empty tubes are mounted firmly in the spindle

PC11. check the machine is ready to start with other doffers in gang

PC12. re-start the machine and verify that the lappet rail is lowered to its position

PC13. perform gaiting (i.e. piecing broken ends) as per the standard procedure and guide lines

PC14. report to the supervisor / maintenance team if the machine is not functioning

PC15. restart the overhead blower along with the machine

PC16. transport filled cop trolleys to storage area and stack

PC17. prepare doff slip and fix to doffed cops for identification

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. protocol for carryout doffing operation at Ring Frame
KU2. impact of using wrong colour coded empties, damaged empty tubes and crates for doffing
KU3. functions of material handling equipment such as doffing trolley, doffing and donning crate
KU4. impact of taking premature and late doffs
KU5. reasons for more re-staring breaks after doffing
KU6. importance of under winding length in cop and impacts of inconsistent in length
KU7. importance of doff slip
KU8. protocol for operating handling equipment and OHTC

Generic Skills (GS)

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

GS1. read and comprehend the machine number, details in the display board, count board and colour code identifications at machine
GS2. write machine number, date, shift and yarn count clearly in doff slip
GS3. communicate verbal and non-verbal information among the doffers/operators within team

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Prepare for doffing operation	**18**	**30**	**-**	**6**
PC1. patrol and identify which machine in Ring Frame department is ready for doffing as per the plan specified by the supervisor	-	-	-	-
PC2. identify the empty tubes required for doff and segregate good empties according to size and colour code and clean remnants	-	-	-	-
PC3. load the required number of empty cops and arrange in crate as per requirement	-	-	-	-
PC4. move and arrange the cop trolleys in an organised manner near the Ring Frame machine in which doffing activity is to be carried out	-	-	-	-
PC5. dispose the collected waste and store it in a waste collection box	-	-	-	-
PC6. stop the overhead blower at one side of the machine before begins doffing	-	-	-	-
Carry out doffing operation	**36**	**80**	**-**	**10**
PC7. arrange the trolley in an organized manner at Ring Frame and stop the machine	-	-	-	-
PC8. verify the machine is stopped and the lappet rail lifted completely	-	-	-	-
PC9. perform doffing and donning as per standard procedure and guide lines (i.e. quality, right work method, doffing time, etc.)	-	-	-	-
PC10. verify all the full cops are replaced with empty tubes and empty tubes are mounted firmly in the spindle	-	-	-	-
PC11. check the machine is ready to start with other doffers in gang	-	-	-	-
PC12. re-start the machine and verify that the lappet rail is lowered to its position	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. perform gaiting (i.e. piecing broken ends) as per the standard procedure and guide lines	-	-	-	-
PC14. report to the supervisor / maintenance team if the machine is not functioning	-	-	-	-
PC15. restart the overhead blower along with the machine	-	-	-	-
PC16. transport filled cop trolleys to storage area and stack	-	-	-	-
PC17. prepare doff slip and fix to doffed cops for identification	-	-	-	-
NOS Total	**54**	**110**	**-**	**16**

National Occupational Standards (NOS) Parameters

NOS Code	TSC/N0219
NOS Name	Carryout manual doffing in Ring Frame department
Sector	Textile
Sub-Sector	Spinning – Textiles
Occupation	Spinning
NSQF Level	3
Credits	TBD
Version	1.0
Last Reviewed Date	31/12/2021
Next Review Date	25/11/2024
NSQC Clearance Date	17/11/2022

TSC/N0220: Carryout responsibilities while working with automatic doffing Ring Frame

Description

This unit is about performance criteria, knowledge and understanding and generic skills and abilities required to carryout responsibilities while working with automatic doffing Ring Frame.

Scope

The scope covers the following :

- Prepare for automatic doffing operation
- Responsibilities during automatic doffing at Ring Frame

Elements and Performance Criteria

Prepare for automatic doffing operation

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

PC1. identify the empty tubes according the count and colour code specified and fetch to machine using bin trolley

PC2. load empty tubes in reserve box at Ring Frame as specified

Responsibilities during automatic doffing at Ring fame

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

PC3. verify empty tubes are ready in all channel peg tray before the machine reaches the doff length

PC4. verify empty tubes are loaded fully in the tube loader reserve box before doffing is started

PC5. check doff trolleys are kept in the off-end in a specified position

PC6. verify that all the grippers in the doffing unit are available in position without missing during doffing

PC7. identify the machine which is ready to doffing using signal lamps and reach the spot

PC8. monitor that the automatic doffingis functioning without any malfunction

PC9. check that there is no air leakage in the grippers

PC10. perform manual doffing for malfunctioned spindles, If any gripper failure

PC11. verify that all the full cops are removed from the spindles and empties are loaded in spindles during doffing

PC12. gait ends and verify all the broken ends are pieced

PC13. verify there is no empties or full cop under the doffing unit

PC14. transport filled cops trolley to storage area and bring empty trolley by return

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. protocol for carryout responsibilities at automatic doffing Ring Frame

KU2. different parts of automatic doffing system and its principle of working

KU3. functions of different signal lamps provided in auto-doffing Ring Frame

KU4. impact of using damaged empty tubes, grippers, etc

KU5. impact of taking pre-mature or late doff

KU6. reasons for more re-staring breaks after doffing

KU7. protocol for operating handling equipment and OHTC

Generic Skills (GS)

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

GS1. read and comprehend the machine number, details in the display board, count board and colour code identifications at machine

GS2. write machine number, date, shift and yarn count clearly in doff report

GS3. communicate verbal and non-verbal information among the doffers/operators within team

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Prepare for automatic doffing operation	**8**	**10**	**-**	**6**
PC1. identify the empty tubes according the count and colour code specified and fetch to machine using bin trolley	-	-	-	-
PC2. load empty tubes in reserve box at Ring Frame as specified	-	-	-	-
Responsibilities during automatic doffing at Ring fame	**46**	**70**	**-**	**40**
PC3. verify empty tubes are ready in all channel peg tray before the machine reaches the doff length	-	-	-	-
PC4. verify empty tubes are loaded fully in the tube loader reserve box before doffing is started	-	-	-	-
PC5. check doff trolleys are kept in the off-end in a specified position	-	-	-	-
PC6. verify that all the grippers in the doffing unit are available in position without missing during doffing	-	-	-	-
PC7. identify the machine which is ready to doffing using signal lamps and reach the spot	-	-	-	-
PC8. monitor that the automatic doffingis functioning without any malfunction	-	-	-	-
PC9. check that there is no air leakage in the grippers	-	-	-	-
PC10. perform manual doffing for malfunctioned spindles, If any gripper failure	-	-	-	-
PC11. verify that all the full cops are removed from the spindles and empties are loaded in spindles during doffing	-	-	-	-
PC12. gait ends and verify all the broken ends are pieced	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. verify there is no empties or full cop under the doffing unit	-	-	-	-
PC14. transport filled cops trolley to storage area and bring empty trolley by return	-	-	-	-
NOS Total	**54**	**80**	**-**	**46**

National Occupational Standards (NOS) Parameters

NOS Code	TSC/N0220
NOS Name	Carryout responsibilities while working with automatic doffing Ring Frame
Sector	Textile
Sub-Sector	Spinning – Textiles
Occupation	Spinning
NSQF Level	3
Credits	TBD
Version	1.0
Last Reviewed Date	31/12/2021
Next Review Date	25/11/2024
NSQC Clearance Date	17/11/2022

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

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.

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

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

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

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.

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/N0218.Carryout shift change, bobbin change, piecing, and tenting responsibilities in Ring Frame department	198	319	-	143	660	70
TSC/N9015.Follow machine, safety, and organizational guidelines in textile sector	65	80	-	50	195	20
TSC/N9016.Follow teamwork, adaptability, and communication guidelines in textile sector	15	20	-	10	45	5
DGT/VSQ/N0101.Employability Skills (30 Hours)	20	30	0	0	50	5
Total	**298**	**449**	**0**	**203**	**950**	**100**

Optional: 1 Manual doffing

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
TSC/N0219.Carryout manual doffing in Ring Frame department	54	110	-	16	180	20
Total	**54**	**110**	**-**	**16**	**180**	**20**

Optional: 2 Automatic doffing

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
TSC/N0220.Carryout responsibilities while working with automatic doffing Ring Frame	54	80	-	46	180	20
Total	**54**	**80**	**-**	**46**	**180**	**20**

Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training
OHTC	Over Head Traveller Clearer
PPE	Personal Protective Equipment
SOP	Standard Operating Procedure

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.

Qualification Pack

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.