

Model Curriculum

Textile Post Processing Machine Operator

SECTOR	: TEXTILE
SUB-SECTOR	: PROCESSING - TEXTILES
OCCUPATION	: Textile Finishing
REF ID	: TSC/Q5404, V 2.0
NSQF LEVEL	2



Certificate

CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

TEXTILE SECTOR SKILL COUNCIL

for the

MODEL CURRICULUM

Complying to National Occupational Standards of

Job Role/ Qualification Pack: 'Textile Post Processing Machine Operator' QP No. 'TSC/Q 54.04' **NSQF Level 2**'

Date of Issuance:

! 5/08/2020

valid up to:

! 5/08/2021

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



(Dr. Swapna Mishra)

Director (C&T)

(Textile Sector Skill Council)

TABLE OF CONTENTS

1. Curriculum	01
2. Trainer Prerequisites	08
3. Annexure: Assessment Criteria	09

Textile Post Processing Machine Operator

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Qualifications Pack – Textile Post Processing Machine Operator”, in the “Textile” Sector and aims at building the following key competencies amongst the learner

Program Name	Textile Post Processing Machine Operator		
Qualification Pack Name & Reference ID.	Textile Post Processing Machine Operator TSC/Q5404, version 2.0		
Version No.	2.0	Version Update Date	31.03.2022
Pre-requisites to Training	Ability to read and write		
Training Outcomes	<p>After completing this programme, participants will be able to:</p> <p>Compulsory NOS</p> <ul style="list-style-type: none"> • Maintain work area, tools and machines • Gain knowledge on behavioral skill for team working • Maintain health, safety and security at work place • Comply with industry and organizational requirement <p>Elective 1 – Washing Range</p> <ul style="list-style-type: none"> • Perform taking charge of shift and handing over shift • Operate the washing range and check the quality of processed sample <p>Elective 2 – Drying Range</p> <ul style="list-style-type: none"> • Perform taking charge of shift and handing over shift to drying range operator • Operate the Drying range machine • Preparing the sample for check quality of processed fabric <p>Elective 3 – Folding</p> <ul style="list-style-type: none"> • Perform taking charge of shift and handing over shift • Operate the Folding machine • Record the data during fabric inspection <p>Elective 4 – Balloon Squeezing</p> <ul style="list-style-type: none"> • Perform taking charge of shift and handing over shift • Operate the Balloon squeezer machine • Prepare the finishing chemicals for Balloon squeezer machine <p>Elective 5 – Calendar</p> <ul style="list-style-type: none"> • Perform taking charge of shift and handing over shift • Operate the Calendaring machine • Prepare the sample to check quality of calendared fabric 		

S. No	Module Type	Module	Key Learning Outcomes	Equipment Required
1.	Compulsory	<p>Follow machine, safety & organizational guidelines in Textile sector</p> <p>Theory Duration (hh:mm) 25:00</p> <p>Practical Duration (hh:mm) 50:00</p> <p>Corresponding NOS Code TSC/N9015</p>	<ul style="list-style-type: none"> Differentiate various types of tools used for cleaning and maintenance. Explain the objectives of each cleaning tool used in production operation. Discuss the significance of safe handling procedures of tools and equipment. Brief the importance and written instructions on the allocated machines. Discuss the significance of minimizing the wastage of material, effort, and time. Prepare a draft schedule for cleaning and waste collection for the assigned job role. List the available types of material handling equipment and handling methods used in the production department. Discuss the types and importance of PPE used in the allotted production department. Demonstrate the procedure to handle materials, tools, PPE, and machines. Demonstrate identification of the appropriate tools and equipment for the respective job. Demonstrate the scheduled cleaning of machines and equipment. Demonstrate the inspection of machine guards Demonstrate the segregation of recyclable, non-recyclable, hazardous wastes Demonstrate the identification of abnormal sounds emanating from faulty/worn-out machine parts. Demonstrate handling of fire extinguishers. 	Material handling equipment, and tool kits of operational, cleaning maintenance activities, Seating arrangement for 25 people.
2.	Compulsory	<p>Follow teamwork, adaptability and communication guidelines in Textile sector</p> <p>Theory Duration (hh:mm) 05:00</p> <p>Practical Duration (hh:mm) 10:00</p> <p>Corresponding NOS Code TSC/N9016</p>	<ul style="list-style-type: none"> Discuss the importance of teamwork and following industry protocols at the workplace. Explain the limits and responsibilities for the assigned duties in the textile sector. Summarize emergency contact numbers, details of officials, reporting Protocols, and formats. List hierarchy of communication and communication etiquettes in the textile sector. Demonstrate the ability to work in a dynamic work environment by developing coping mechanisms, survival tactics, and traits of flexibility. Create a sample backup work plan for the shortage of manpower, raw materials, etc 	Video visuals of basic communications and team working, models of communicating and team working area at your job, Seating arrangement for 25 people

3.	Elective 1 – Washing Range	<p>Carryout shift change, production and quality analyse at washing range department</p> <p>Theory Duration (hh:mm) 60:00</p> <p>Practical Duration (hh:mm) 150:00</p> <p>Corresponding NOS Code TSC/N5410</p>	<ul style="list-style-type: none"> • Learn general discipline • Become well verse with basic skills of communication • Understand the role of washing range operator • Perform tasks while taking charge of shift and handing over shift • Familiar in fabric faults identification • Gain knowledge on machine parts & its function • Gain knowledge on preparation activities of Washing range machine • Perform Starting and feeding operation • Perform machine settings regarding processing parameters • Perform cutting of sample after drying • Perform and check the processed sample matching with the standard 	<ul style="list-style-type: none"> • Washing Range Machine – 1 Nos. • Fabric – 500 mtrs. • Empty Fabric Rolls – 1 Nos.
4	Elective 2 – Drying Range	<p>Carryout shift change, production and quality analyse at drying range department</p> <p>Theory Duration (hh:mm) 60:00</p> <p>Practical Duration (hh:mm) 150:00</p> <p>Corresponding NOS Code TSC/N5411</p>	<ul style="list-style-type: none"> • Learn general discipline • Perform basic skills of communication effectively • Understand the role of Drying range operator • Perform tasks while taking charge of shift and handing over shift • Perform faults identification and correction efficiently • Understand the fabric parameters • Perform preparatory activities for the operation • Run the drying machine • Perform feeding of fabric with controlled conditions • Perform cleaning of the drying cylinders and minor maintenance activities • Prepare sample for quality analysis • Check the quality of drying • Make the batch ready for quality approval • Understand the quality standards followed in the industry • Prepare the quality analysis report • Follow the organizational 	<ul style="list-style-type: none"> • Drying Range Machine – 1 Nos. • Fabric – 500 mtrs. • Empty Fabric Rolls – 1 Nos.

			standards and implement in the work	
			<ul style="list-style-type: none"> Refer deviations with the supervisor 	
5	Elective 3 – Folding	Carryout shift change, folding and inspection activity at processed fabric folding department Theory Duration (hh:mm) 60:00 Practical Duration (hh:mm) 150:00 Corresponding NOS Code TSC/N5412	<ul style="list-style-type: none"> Gain knowledge on general discipline Gain knowledge about basic skills of communication Understand the role of Folding machine operator Perform tasks while taking charge of shift and handing over shift Become familiar in faults identification Gain knowledge on machine parts & its function Gain knowledge on preparatory activities for preparing the machine operation Perform clean the machine and carryout preventive maintenance activities Perform recording the defects in the fabric Gain knowledge on recording the data in various forms 	<ul style="list-style-type: none"> Folding Machine – 4 Nos. Fabric – 200 mtrs. Empty Fabric Rolls – 4 Nos.
6	Elective 4 – Balloon Squeezing	Carryout shift change, production and preparation of chemicals at balloon squeezer department Theory Duration (hh:mm) 60:00 Practical Duration (hh:mm) 150:00 Corresponding NOS Code TSC/N5413	<ul style="list-style-type: none"> Gain knowledge on general discipline Gain knowledge about basic skills of communication Understand the role of Balloon squeezer machine operator Perform tasks while taking charge of shift and handing over shift Become familiar in reporting procedure and importance cleaning at work place Gain knowledge on machine parts & its function Gain knowledge on preparation activities of Balloon squeezer machine Perform Starting and feeding operation Perform machine settings regarding processing parameters Perform dissolving and mixing of chemicals for the machine Perform mangle pressure setting Perform and check the processed sample matching with the standard 	<ul style="list-style-type: none"> Balloon Squeezer Machine – 1 Nos. Fabric – 500 mtrs. Empty Fabric Rolls – 1 Nos.
7	Elective 5 –	Carryout shift	<ul style="list-style-type: none"> Gain knowledge about general 	<ul style="list-style-type: none"> Calendaring

	<p>Calendar</p> <p>change, production and quality analyse at calendar department</p> <p>Theory Duration (hh:mm) 60:00</p> <p>Practical Duration (hh:mm) 150:00</p> <p>Corresponding NOS Code TSC/N5414</p>	<p>discipline</p> <ul style="list-style-type: none"> • Gain knowledge about basic skills of communication • Understand the role of Calendaring machine operator • Perform tasks while taking charge of shift and handing over shift • Gain knowledge about importance of cleanliness of work place • Gain knowledge on machine parts & its function • Gain knowledge on preparation activities of Balloon squeezer machine • Perform Starting and feeding operation • Perform machine settings regarding processing parameters • Check the processed sample matching with the standard • Perform Adjusting the setting based on required fabric process parameters 	<p>Machine – 1 Nos.</p> <ul style="list-style-type: none"> • Fabric – 500 mtrs. • Empty Fabric Rolls – 1 Nos.
--	---	--	---

8	<p>Employability Skills (30 Hours)</p> <p>Theory Duration (hh:mm) 12:00</p> <p>Practical Duration (hh:mm) 18:00</p>	<ul style="list-style-type: none"> • Discuss the importance of Employability Skills in meeting the job requirements. • Explain constitutional values, civic rights, duties, citizenship, responsibility towards society etc. that are required to be followed to become a responsible citizen. • Show how to practice different environmentally sustainable practices • Discuss 21st century skills. • Display positive attitude, self-motivation, problem solving, time management skills and continuous learning mindset in different situations. • Use appropriate basic English sentences/phrases while speaking • Demonstrate how to communicate in a well-mannered way with others. • Demonstrate working with others in a team • Show how to conduct oneself appropriately with all genders and PwD • Discuss the significance of reporting sexual harassment issues in time • Discuss the significance of using financial products and services safely and securely. • Explain the importance of managing expenses, income, and savings. • Explain the significance of approaching the concerned authorities in time for any exploitation as per legal rights and laws • Show how to operate digital devices and use the associated applications and features, safely and securely • Discuss the significance of using internet for browsing, accessing social media platforms, safely and securely. • Discuss the need for identifying opportunities for potential business, sources for arranging money and potential legal and financial challenges. • Differentiate between types of customers • Explain the significance of identifying customer needs and addressing them • Discuss the significance of maintaining hygiene and dressing appropriately. • Create a biodata • Use various sources to search and apply for jobs • Discuss the significance of dressing up neatly and maintaining hygiene for an interview • Discuss how to search and register for apprenticeship opportunities. 	<p>Class room requirements: 25 people seating capacity with a screen and projector</p>
---	--	---	--

Elective 1 Duration: Theory Duration 102:00 Practical Duration 228:00		Unique Equipment Required: Apron, head cap, nose mask, earplug, shoe, Fabric roll, Fabric trolley
Elective 2 Duration: Theory Duration 102:00 Practical Duration 228:00		
Elective 3 Duration: Theory Duration 102:00 Practical Duration 228:00		
Elective 4 Duration: Theory Duration 102:00 Practical Duration 228:00		
Elective 5 Duration: Theory Duration 102:00 Practical Duration 228:00		

Grand Total Course Duration: 330 Hours, 0 Minutes

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

Trainer Prerequisites for Job role: “Textile Post Processing Machine Operator” mapped to Qualification Pack: “Textile Post Processing Machine Operator / TSC/Q5404, Version 2.0”

Sr. No.	Area	Details
1	Description	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack “Textile Post Processing Machine Operator / TSC/Q5404, Version 2.0”.
2	Personal Attributes	Aptitude for conducting training, and pre / post work to ensure competent, Employable candidates at the end of the training. Strong communication skills, interpersonal skills, ability to work as part of a team; a passion for quality and for developing others; well-organized and focused, eager to learn and keep oneself updated with the latest in the mentioned field.
3	Minimum Educational Qualifications	Basic Literacy & Numeracy
4a	Domain Certification	Certified for Job Role: “Textile Post Processing Machine Operator ” mapped to QP: “Textile Post Processing Machine Operator TSC Q5404, Version 2.0 Minimum accepted score 80%.
4b	Platform Certification	Required that the Trainer is certified for MEP/Q 0102 Job Role: “Trainer” with at least 80% score
5	Experience	1 year of Specific sector & 4 years of Trainer experience

Employability Trainer Prerequisites

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
Graduate/CITS	Any Discipline			2	Teaching Experience	Prospective ES trainer should: <ul style="list-style-type: none"> • have good communication skills • be well versed in English • have digital skills • have attention to detail • be adaptable • have willingness to learn
Current ITI Trainers	Employability Skills Training (3 days full-time course done between 2019-2022)					
Certified current EEE trainers (155 hours)	from Management SSC (MEPSC)					
Certified Trainer	Qualification Pack: Trainer (MEP/Q0102)					

Annexure: Assessment Criteria

Job Role: Textile Post Processing Machine Operator
Qualification Pack: Textile Post Processing Machine Operator (TSC/Q 5404)
Sector Skill Council: Textile Sector Skill Council

Guidelines for assessment :-

1. Criteria for assessment for each qualification pack will be created by the Sector Skill Council. Each performance criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for theory & skill practical for each PC.
2. The assessment for the theory part will be based on knowledge bank of question created by the SSC.
3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training centre (as per assessment criteria below)
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training centre based on these criteria.
5. To pass the qualification pack, every trainee should score a minimum of 50%.
6. In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack

Module	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
TSC/N9015: Follow machine, safety & organizational guidelines in Textile sector	Maintaining the work area, tools and machines	10	10	-	6
	1. handle materials, machinery, equipment and tools as per standard procedure	-	-	-	-
	2. use appropriate material handling equipment and tools as per standard procedure	-	-	-	-
	3. keep the equipment, machine and work area clean using appropriate cleaning tools as per standard procedure	-	-	-	-
	4. undertake minor routine maintenance of equipment and tools as per standard maintenance procedure	-	-	-	-
	5. maintain record for defective and unsafe equipment and tools	-	-	-	-
	6. verify that machine guards are in place as per standard specifications	-	-	-	-
	7. follow specified ergonomics for the assigned job role in textile sector	-	-	-	-
	8. collect and store worn-out spare parts at specified location	-	-	-	-
	9. report the condition of worn out parts as per standard procedure	-	-	-	-
	Greening and energy conservation in textile sector	7	10	-	6
	10. segregate wastes such as recyclable, non-recyclable, hazardous	-	-	-	-

as per standard protocol				
11. optimize usage of material and resources including water, electricity in various tasks	-	-	-	-
12. switch off the machines and lights when not in use	-	-	-	-
Health, safety and response to emergencies at textile sector	32	40	-	28
13. use Personal Protective Equipment (PPEs) like body protector, ear plugs, nose mask, headcap, etc. as per guidelines	-	-	-	-
14. identify abnormal sounds emanating from faulty or worn out machine parts and take appropriate action	-	-	-	-
15. avoid dependency on any type of intoxicants	-	-	-	-
16. maintain social distance as per the instruction at workplace	-	-	-	-
17. report hazardous material to superiors at workplace	-	-	-	-
18. use the various appropriate fire extinguishers on different types of fires correctly	-	-	-	-
19. follow the specified steps in case of electricity failure	-	-	-	-
20. lift heavy objects using correct lifting procedures	-	-	-	-
21. recall emergency exits, safe spots, etc. of workplace	-	-	-	-
22. practice mock drills and evacuation procedures organized by industry	-	-	-	-
23. assist others to reach to safe spots in emergency situations	-	-	-	-
24. provide basic first aid for injury to peers and report to superiors	-	-	-	-
25. interpret different signs, alarms and take action appropriately	-	-	-	-
26. follow the guidelines while working in hazardous atmosphere	-	-	-	-
27. assist in designing the safety plans with peers and superiors	-	-	-	-
28. follow the approved safety plans at workplace	-	-	-	-
Organizational standards and policies	16	20	-	10
29. perform assigned duties as per organization's protocol within scheduled time period	-	-	-	-
30. follow organization policies, quality standards, rules and regulations for working in textile sector	-	-	-	-

	31. motivate colleagues to follow operational guidelines of organization	-	-	-	-
	32. wear specified uniform and follow etiquettes as per standard guidelines for the textile sector	-	-	-	-
	33. maintain hygienic working atmosphere as per protocol of the textile sector	-	-	-	-
	34. submit lost and found articles as per standard protocol	-	-	-	-
	NOS Total	65	80	-	50
Module	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
TSC/N9016. Follow teamwork, adaptability and communication guidelines in Textile sector	Teamwork, trust and communication	10	15	-	5
	1. contribute to create a positive work environment in the team	-	-	-	-
	2. carry out tasks as per instructions received from superiors	-	-	-	-
	3. contribute to team work as per allocated responsibility to complete the task by using appropriate tools and methods	-	-	-	-
	4. build trust with team mates and superiors	-	-	-	-
	5. implement the ideas after superior's approval at work place	-	-	-	-
	6. communicate clearly with the team members as per standard protocol	-	-	-	-
	7. use suggested hand signs, vocal sound signals to convey the information in the production area	-	-	-	-
	8. listen effectively to the ideas and concerns of the peers	-	-	-	-
	9. use correct and respectful terms while communicating as per industry policy	-	-	-	-
	10. express views proactively and effectively	-	-	-	-
	11. make efforts to resolve difference of opinion with superiors and team members	-	-	-	-
	12. report to superior for problems identified in assigned duty	-	-	-	-
	13. report the daily performance to superior in prescribed manner and formats	-	-	-	-
	Adaptability	5	5	-	5
	14. adapt to flexible work environment for the assigned task	-	-	-	-
	15. adapt to work with various member of different ethnicity, gender and PwD without biases	-	-	-	-
	16. consider opinions of colleagues, fitters, superiors for the assigned task	-	-	-	-

	17. plan the work-routine within the limit of the responsibility	-	-	-	-
	18. adopt new ideas after due approval from superior for improving the productivity	-	-	-	-
	NOS Total	15	20	-	10
Module	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Elective 1 – TSC/N5410: Carryout shift change, production and quality analyse at washing range department	Taking charge of shift from washing range operator	9	10		11
	1. come at least 10 - 15 minutes earlier to the work place				
	2. bring the necessary operational tools to the department				
	3. meet the previous shift operator and discuss with him/her regarding the issues faced by them with respect to the quality, production, spare, safety or any other specific instruction etc				
	4. understand the fabric being processed & process running on the machine				
	5. ensure the technical details are mentioned on the job card display on the machine				
	6. check for the availability of the spare trolley for unloading the fabric				
	7. check the next batch to be processed is ready near the machine				
	8. ensure the required chemicals are already weighed & prepared				
	9. check the cleanliness of the machines & other work areas				
	10. question the previous shift washing range operator for any deviation in the above and should bring the same to the knowledge of his/ her shift superior as well as that of the previous shift				
	11. Take charge of the shift from the outgoing washing range operator in a proper manner				
	Handing Over Shift to washing range operator	9	10		11
	12. ensure in providing the details regarding fabric quality & the process running on the machine				
	13. provide all relevant information regarding the stoppages or breakdown in the machine, any damage to the fabric or machine				
	14. ensure the empty trolley is near the machine for unloading the fabric				

15. ensure the next lot to be processed is ready near the machine already stitched & arranged properly				
16. ensure the required chemicals for the next lot or next process are weighed & prepared				
17. get clearance from the incoming counterpart before leaving the work spot				
18. report to his/her shift superiors as well as that of the incoming shift operator in case his/ her counterpart doesn't report for the incoming shift				
19. ensure the shift has to be properly handed over to the incoming shift operator				
20. 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				
21. collect the wastes from waste collection bags, weigh them and transport to storage area				
22. ensure the machine and its work place is clean				
Carry out preparatory activities for operations in the machine	50	110		10
1. understand the task mentioned in the work order				
2. ensure that the machine is empty & clean including guide rolls & squeezing rolls				
3. feed the fabric from the batch or trolley in the center of the machine using fabric centering & compensating devices				
4. ensure fabric is crease-less and evenly fed onto the machine using J-box for continuous operation of machine				
Operate the machine for specified tasks as per Work Order	50	110		8
5. know the operations of the machine				
6. read & understand the process being followed to do the task				
7. keep even tension on fabric throughout the process				
8. keep optimum pressure of the squeezer rolls to get good results				
9. set the required temp in all chambers				
10. open the steam valves & drain the condensate in all compartments				
11. dispense the chemicals in the				

	chambers				
	12. start the machine & take out fabric either on batch or trolley				
	13. check ph & temp & other parameters in all compartments				
	Clean the machine on a regular basis and carryout preventive maintenance activities	41	85		5
	14. make sure the machine is kept clean at all times, before loading, while running & after unloading the fabric				
	15. follow the preventive maintenance schedule & ensure the machine is running smoothly				
	16. check that all controls are functioning properly				
	17. clean & empty out the dirt collector as and when required				
	18. stop the machine in case of any abnormal sound				
	19. ensure enough supply of utilities such as water, air & steam for proper functioning of machine				
	Taking out the sample after washing & comparing it with the standard	41	85		5
	1. take out the sample near the stitch				
	2. compare the sample with the standard				
	3. check the sample for washing or rubbing fastness				
	4. take the sample to your supervisor if the sample is not matching to the standard for decision				
	NOS Total	200	410		50
Module	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Elective 2 – TSC/N5411: Carryout shift change, production and quality analyse at drying range department	Taking charge of shift from Drying range operator	9	10		11
	1. come at least 10 - 15 minutes earlier to the work place				
	2. bring the necessary operational tools to the department				
	3. meet the previous shift operator and discuss with him/ her regarding the issues faced by them with respect to the quality, production, spare, safety or any other specific instruction etc				
	4. understand the fabric being processed & process running on the machine				
	5. ensure the technical details are mentioned on the job card display on the machine				

6. check for the availability of the spare trolley for unloading the fabric				
7. check the next batch to be processed is ready near the machine				
8. must ensure the required dyes & chemicals are already weighed & prepared				
9. check the cleanliness of the machines & other work areas				
10. question the previous shift operator for any deviation in the above and should bring the same to the knowledge of his/ her shift superior as well as that of the previous shift as well.				
Handing over shift to Drying range operator	9	10		11
11. hand over the shift to the incoming operator in a proper manner				
12. ensure in providing the details regarding fabric quality & the process running on the machine				
13. provide all relevant information regarding the stoppages or breakdown in the machine, any damage to the fabric or machine				
14. ensure the empty trolley is near the machine for unloading the fabric				
15. ensure the next lot to be processed is ready near the machine already stitched & arranged properly				
16. Ensure the required dyes & chemicals for the next lot or next process are weighed & prepared				
17. get clearance from the incoming counterpart before leaving the work spot				
18. should report to his/ her shift superiors as well as that of the incoming shift operator in case his/ her counterpart doesn't report for the incoming shift				
19. ensure, the shift has to be properly handed over to the incoming shift operator				
20. 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				
21. collect the wastes from waste collection bags, weigh them and transport to storage area				
22. ensure the machine and its work place is clean				
Carry out preparatory activities for	50	110		8

operations in the machine				
1. understand the task mentioned in the work order				
2. ensure that the machine is empty & clean				
3. load the fabric from the batch/trolley in the center of the machine				
4. ensure fabric is crease-less and evenly fed onto the machine				
5. Check that edge control sensors & fabric centring device is functioning properly				
6. Ensure that all drying cylinders are clean & free from any lint or loose thread				
7. Drain condensate from the steam & air line				
8. Ensure enough & good quality steam & air pressure is available				
9. Keep empty batch or trolley ready for the fabric to be taken after drying				
10. Ensure that all safety devices & other controls are functioning properly				
Operate the machine for specified tasks as per Work Order	50	110		8
11. know the operations of the drying range machine				
12. read & understand the process being followed to do the task				
13. keep even tension on fabric throughout the process				
14. keep optimum pressure of the squeezer rolls to get good results				
15. set the required temp in all cylinders				
16. open the steam valves & drain the condensate				
17. start the machine & take out fabric either on batch or trolley				
18. Ensure that all drying cylinders are moving freely & there is no crease formation in the fabric				
19. check moisture content in the dried fabric & adjust the machine speed to the optimum for good productivity				
20. Take minimum time to change the batch or trolley or use J box to reduce stoppage time				
21. Close steam valves & cool down the machine before stopping down completely				
22. make sure the machine is kept clean at all times ,before loading, while running & after unloading the fabric				

	Clean the machine on a regular basis and carryout preventive maintenance activities	42	85		6
	23. follow the preventive maintenance schedule & ensure the machine is running smoothly				
	24. check that all controls are functioning properly				
	25. Report to your supervisor or concerned person in case of any problem or abnormal sound in the machine				
	26. Check & arrest any leakages in the steam, water or air line				
	27. Oil & grease all moving parts of machine regularly				
	Taking out the sample after drying & comparing it with the standard	40	85		6
	1. taking out the sample after drying near the stitch				
	2. compare the sample with the standard				
	3. take the sample to your supervisor if the sample is not matching to the standard for decision				
	NOS Total	200	410		50
Module	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Elective 3 – TSC/N5412: Carryout shift change, folding and inspection activity at processed fabric folding department	Taking charge of shift from Folding machine operator	9	10		11
	1. come at least 10 - 15 minutes earlier to the work place				
	2. bring the necessary operational tools to the department				
	3. meet the previous shift operator and discuss with him/ her regarding the issues faced by him with respect to the quality or production, spare, safety or any other specific instruction etc				
	4. understand the fabric running on the machine				
	5. ensure the technical details are mentioned in the job card display on the machine				
	6. check for the availability of the spare trolley for unloading the fabric				
	7. check the next batch to be inspected is ready near the machine				
	8. ensure the required dyes & chemicals are already weighed & prepared				
	9. check the cleanliness of the machines & other work areas				
	10. question the previous shift operator for any deviation in the above				

and should bring the same to the knowledge of his/ her shift superior as well as that of the previous shift				
Handing Over Shift to Folding machine operator	9	10		11
11. take over the shift from the outgoing operator in a proper manner				
12. ensure proper communication regarding fabric quality running on the machine while providing the details				
13. to provide all relevant information regarding the stoppages or breakdown in the machine, any damage to the fabric or machine				
14. ensure the empty trolley is near the machine for unloading the fabric				
15. ensure the next lot to be inspected is ready near the machine already stitched & arranged properly				
16. ensure the required dyes & chemicals for the next lot or next process are weighed & prepared				
17. get clearance from the incoming counterpart before leaving the work spot				
18. report to his/ her shift superiors as well as that of the incoming shift operator in case his/ her counterpart doesn't report for the incoming shift				
19. ensure, the shift has to be properly handed over to the incoming shift operator				
20. 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				
21. collect the wastes from waste collection bags, weigh them and transport to storage area				
22. ensure the machine and its work place is clean				
Carry out preparatory activities for operations in the machine	50	110		10
1. come 10-15 minutes earlier to his work place				
2. meet the previous shift operator & discuss with him the process running on the machine				
3. check if the machine is running smoothly & has any breakdown in previous shift				
4. check for any quality issues in the fabric & need any correction				
Operate the machine for specified tasks as per work Order	50	110		8

	5. understand the task mentioned in the work order				
	6. ensure that the machine is empty & clean				
	7. load the fabric from the batch/trolley in the center of the machine				
	8. ensure fabric is crease-less and evenly fed onto the machine				
	9. know the operations of the machine & the plc programs				
	10. read & understand the process being followed to do the task				
	11. check the width of the fabric at regular intervals				
	12. keep even temperature across the width of machine				
	13. keep even & minimum tension while rolling				
	14. check for all types of defects in the fabric				
	Clean the machine and carryout preventive maintenance activities	42	85		5
	15. mark the defects according to their nature minor or major				
	16. cut & change the roll after specified length				
	17. put quality sticker / tag on the roll				
	18. pack the roll in poly bag				
	19. make sure the machine is kept clean at all times, before loading, while running & after unloading the fabric				
	20. follow the preventive maintenance schedule & ensure the machine is running smoothly				
	21. check that all controls are functioning properly				
	22. ensure the right quality of air pressure is available for proper functioning of machine				
	23. cool down the machine after completion of job				
	Recording the defects in the fabric	40	85		5
	1. record the defects in the book under respective heads.				
	2. mention the details about quality, width, length etc. on the roll				
	3. grade the fabric according to specified grading system				
	4. make a summary of various defects to calculate fresh percentage				
	NOS Total	200	410		50
Module	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Elective 4 – TSC/N5413: Carryout shift	Taking charge of shift from Balloon squeezer machine operator	9	10		11
	1. come at least 10 - 15 minutes				

change, production and preparation of chemicals at balloon squeezer department	earlier to the work place				
	2. bring the necessary operational tools to the department				
	3. meet the previous shift operator and discuss with him/ her regarding the issues faced by them with respect to the quality, production, spare, safety or any other specific instruction etc				
	4. understand the fabric being processed & process running on the machine				
	5. ensure the technical details are mentioned on the job card display on the machine				
	6. check for the availability of the spare trolley for unloading the fabric				
	7. check the next batch to be processed is ready near the machine				
	8. ensure the required chemicals are already weighed & prepared				
	9. check the cleanliness of the machines & other work areas				
	10. question the previous shift operator for any deviation in the above and should bring the same to the knowledge of his/ her shift superior as well as that of the previous shift				
	11. take over the shift from the incoming operator in a proper manner				
	Handing Over Shift to Balloon squeezer machine operator	9	10		11
	12. ensure in providing the details regarding fabric quality & the process running on the machine				
	13. to provide all relevant information regarding the stoppages or breakdown in the machine, any damage to the fabric or machine				
	14. ensure the empty trolley is near the machine for unloading the fabric				
	15. ensure the next lot to be processed is ready near the machine already stitched & arranged properly				
	16. ensure the required chemicals for the next lot or next process are weighed & prepared				
	17. should get clearance from the incoming counterpart before leaving the work spot				
	18. should report to his/ her shift superiors as well as that of the incoming shift operator in case his/ her counterpart doesn't report for the incoming shift				
	19. ensure the shift has to be properly handed over to the incoming shift operator				
	20. should 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				
21. Should collect the wastes from waste collection bags, weigh them and transport to storage area				
22. ensure the machine and its work place is clean				
Carry out preparatory activities for operations of the machine	50	100		8
1. understand the task mentioned in the work order				
2. ensure that the machine is clean				
3. place the fabric trolley/ box on the centre of turn table				
4. lock the trolley/ box to avoid falling down while rotating				
5. pass the fabric through squeezer rolls to the compensating basket				
6. adjust roller pressure to suit the fabric construction				
7. thread the fabric through the de-twisting unit				
8. remove the twist in the fabric by operating the machine manually				
9. feed the fabric to the expander basket				
10. place the sensor on the cutting line				
11. adjust the cutting knife on the slitting line				
12. expand the magnetic stretcher/ expander basket to fit tightly in the fabric tube				
13. pass the fabric through the trough to the squeezing rolls				
14. pull out the fabric through plaiting device to the empty trolley				
15. Ensure the mangle trough & squeezing rollers are clean & free from any loose thread or lint				
16. Ensure the fabric trolley / box is clean & free from any type of contaminations				
17. Ensure the safety devices are functioning properly				
18. Ensure to use personal protective equipment such as mask, gloves, ear plugs & gum boots				
Operate the machine for specified tasks as per Work Order	50	100		5
19. Carry out the operations of the balloon squeezer machine				
20. read & understand the process being followed to do the task				
21. start the machine in manual mode				

	& adjust the expander according to fabric width				
	22. set the overfeed in case of tubular fabric as specified in the job order				
	23. adjust the squeezer roller pressure to the optimum				
	24. adjust the machine speed to the optimum				
	25. check if all safety devices are working				
	26. change the machine to auto mode				
	27. check the width of fabric & adjust the expander accordingly				
	Clean the machine and carryout preventive maintenance activities	32	75		5
	28. ensure the machine is kept clean all time, while working or after completion of job				
	29. follow the preventive maintenance schedule & make sure the machine is running smoothly without any problem				
	30. ensure the right quality of water steam & air is available for proper functioning of machine				
	31. ensure there is no leakage in the water, steam or air line				
	32. greasing & oiling of moving part/ of machine as specified				
	33. stop the machine in case of any abnormal sound and report the matter to concerned person & supervisor				
	34. Ensure that all safety devices are working properly				
	Preparing the finishing chemicals & filling the mangle trough	30	75		5
	Checking the feel of finished fabric	20	40		5
	1. dissolve & mix the finishing chemicals as per the recipe				
	2. adjust the ph of finishing mixture as required				
	3. fill chemicals into mangle trough				
	4. adjust mangle pressure to get the right feel of fabric				
	5. report to the supervisor in case of any problem in the fabric				
	6. Sample cutting & checking the feel of fabric after squeezer				
	NOS Total	200	410		50
Module	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Elective 5 – TSC/N5414: Carryout shift	Taking charge of shift from calendaring machine operator	9	10		11
	1. come atleast 10 - 15 minutes earlier				

change, production and quality analyse at calendar department	to the work place				
	2. bring the necessary operational tools to the department				
	3. meet the previous shift operator and discuss with him/ her regarding the issues faced by them with respect to the quality, production, spare, safety or any other specific instruction etc				
	4. understand the fabric being processed & process running on the machine				
	5. ensure the technical details are mentioned on the job card display on the machine				
	6. check for the availability of the spare trolley for unloading the fabric				
	7. check the next batch to be processed is ready near the machine				
	8. ensure the required dyes & chemicals are already weighed & prepared				
	9. check the cleanliness of the machines & other work areas				
	10. question the previous shift operator for any deviation in the above and should bring the same to the knowledge of his/ her shift superior as well as that of the previous shift				
	Handing Over Shift to calendaring machine operator	9	10		11
	11. take over the shift from the outgoing operator in a proper manner				
	12. Ensure in providing the details regarding fabric quality & the process running on the machine				
	13. To provide all relevant information regarding the stoppages or breakdown in the machine, any damage to the fabric or machine				
	14. ensure the empty trolley is near the machine for unloading the fabric				
	15. ensure the next lot to be processed is ready near the machine already stitched & arranged properly				
	16. ensure the required dyes & chemicals for the next lot or next process are weighed & prepared				
	17. get clearance from the incoming counterpart before leaving the work spot				
	18. report to His/ Her shift Superiors as well as that of the incoming shift operator in case His/ Her counterpart doesn't report for the incoming shift				
	19. Ensure that the shift has to be properly handed over to the incoming shift operator				
	20. 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				
21. collect the wastes from waste collection bags, weigh them and transport to storage area				
22. Ensure the machine and its work place is clean				
Carry out preparatory activities for operations in the machine	50	110		8
1. understand the task mentioned in the work order				
2. ensure that the machine is empty & clean				
3. load the fabric from the batch/trolley in the center of the machine				
4. ensure fabric is crease-less and evenly fed onto the machine				
5. Drain condensate water from the steam line before opening the steam				
6. Ensure required steam pressure is there in the main supply line				
7. Drain water from air supply line & check if required pneumatic pressure is available				
8. Check oil level in the hydraulic pump				
9. Ensure empty batch or trolley is ready to take the fabric after calendaring				
10. Open steam valve or switch on electrical heater for heating the calendaring rollers				
Operate the machine for specified tasks as per Work Order	50	110		8
11. know the operations of the calendaring machine				
12. read & understand the process being followed to do the task				
13. keep even tension on fabric throughout the process				
14. set the required roller pressure				
15. set the required temp of calendaring rolls				
16. ensure that all safety devices are operational				
17. start the machine & take out fabric either on batch or trolley				
18. adjust the machine speed, roller temp or pressure according to required finish				
Clean the machine on a regular basis and carryout preventive maintenance activities	42	85		7
19. make sure the machine is kept				

clean at all times, before loading, while running & after unloading the fabric				
20. follow the preventive maintenance schedule of the machine is running smoothly				
21. check that all controls are functioning properly				
22. ensure the right quality of water, steam & air is available for proper functioning of machine				
23. cool down the machine after completion of job				
24. Ensure working of metal detector and its sensitivity				
25. check oil pressure and level in hydraulic unit				
26. report to his work place well before time to meet the previous shift operator				
27. discuss with him the process running on the machine				
28. check if the machine is running smoothly & has any breakdown in previous shift				
29. check for any quality issues in the fabric running on the machine				
Taking out the sample after calendaring & comparing it with the standard	40	85		5
1. taking out the sample after calendaring near the stitch				
2. compare the sample with the standard				
3. take the sample to your supervisor if the sample is not matching to the standard for decision				
4. Adjust the roller pressure, temp or machine speed to match the required feel & finish as advised by the supervisor				
NOS Total	200	410		50

National Occupational Standards (NOS)	Performance Criteria (PC)	Total Marks	Out Of	Marks Allocation		
				Theory Marks	Practical Marks	Viva Marks
DGT/VSQ/N0101 – Employability Skills	Introduction to Employability Skills			1	1	-
	1. understand the significance of employability skills in meeting the job requirements					
	Constitutional values – Citizenship			1	1	-
	2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices.					
	Becoming a Professional in the 21st Century			1	3	-
	3. 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	-
	4. speak with others using some basic English phrases or sentences					
	Communication Skills			1	1	-
	5. follow good manners while communicating with others					
	6. work with others in a team					
	Diversity & Inclusion			1	1	-
	7. communicate and behave appropriately with all genders and PwD					
	8. report any issues related to sexual harassment					
	Financial and Legal Literacy			3	4	-
	9. use various financial products and services safely and securely					
	10. calculate income, expenses, savings etc.					
	11. approach the concerned authorities for any exploitation as per legal rights and laws					

	Essential Digital Skills			4	6	-
	12. operate digital devices and use its features and applications securely and safely					
	13. use internet and social media platforms securely and safely					
	Entrepreneurship			3	5	-
	14. identify and assess opportunities for potential business					
	15. identify sources for arranging money and associated financial and legal challenges					
	Customer Service			2	2	-
	16. identify different types of customers					
	17. identify customer needs and address them appropriately.					
	18. follow appropriate hygiene and grooming standards.					
	Getting ready for apprenticeship & Jobs			1	3	-
	19. create a basic biodata					
	20. search for suitable jobs and apply					
	21. identify and register apprenticeship opportunities as per requirement					
	NOS Total		50	20	30	-
	Grand Total		3590	1100	2180	310



Textile Sector Skill Council

15th Floor, Nirmal Tower, Barakhamba Road, New Delhi-110 001