

# Model Curriculum

## Textile Finishing Machine Operator

SECTOR	: TEXTILE
SUB-SECTOR	: PROCESSING - TEXTILES
OCCUPATION	: Textile Finishing
REF ID	: TSC/Q5405, 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 Finishing Machine Operator' QP No. 'TSC/Q 5405' **NSQF Level 2**'

Date of Issuance:

! 5/10/2020

Valid up to:

! 5/10/2020

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

(Dr. Swapna Mishra)

Director (C&T)

(Textile Sector Skill Council)

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# Textile Finishing Machine Operator

## CURRICULUM / SYLLABUS

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

Program Name	Textile Finishing Machine Operator		
Qualification Pack Name & Reference ID.	Textile Finishing Machine Operator TSC/Q5405, 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><b>After completing this programme, participants will be able to:</b></p> <p><b>Compulsory NOS</b></p> <ul style="list-style-type: none"> <li>• Maintain work area, tools and machines</li> <li>• Gain knowledge on behavioral skill for team working</li> <li>• Maintain health, safety and security at work place</li> <li>• Comply with industry and organizational requirement</li> </ul> <p><b>Elective 1 – Stenter</b></p> <ul style="list-style-type: none"> <li>• Become well verse with taking charge of shift and handing over shift</li> <li>• Learn and familiar to operate the stenter machine</li> <li>• Preparing the finishing chemicals for stenter</li> </ul> <p><b>Elective 2 – Sanforiser</b></p> <ul style="list-style-type: none"> <li>• Perform taking charge of shift and handing over shift</li> <li>• Operate the Finishing machine</li> <li>• Prepare the sample for check quality of finished fabric</li> </ul> <p><b>Elective 3 – Relax Dryer</b></p> <ul style="list-style-type: none"> <li>• Perform taking charge of shift and handing over shift</li> <li>• Operate the Relax dryer machine</li> <li>• Prepare the sample for check quality of calendared fabric</li> </ul> <p><b>Elective 4 – Compactor</b></p> <ul style="list-style-type: none"> <li>• Perform taking charge of shift and handing over shift</li> <li>• Operate the Compacting machine</li> <li>• Prepare the sample to check quality of Compacted fabric</li> </ul>		

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

3.	<b>Elective 1 – Stenter</b>	<p><b>Carryout shift change, production and preparation of chemicals at stenter machine department</b></p> <p><b>Theory Duration</b> (hh:mm) 60:00</p> <p><b>Practical Duration</b> (hh:mm) 150:00</p> <p><b>Corresponding NOS Code</b> TSC/N5415</p>	<ul style="list-style-type: none"> <li>• Learning general discipline</li> <li>• Become well verse with basic skills of communication</li> <li>• Understand the role of stenter machine Operator</li> <li>• Perform tasks while taking charge of shift and handing over shift</li> <li>• Become familiar in faults identification</li> <li>• Clean the machine properly including filters, radiators, entry exit rails, rolls etc.</li> <li>• Feed the fabric from trolley using guide rolls, compensating, fabric centering devices</li> <li>• Check the fabric width &amp; set the machine</li> <li>• Knowing the operation of the machine</li> <li>• Read &amp; understand the process being followed to do the task</li> <li>• Set the width max. &amp; min. once a day to keep even tension on fabric through out the process.</li> <li>• Keep optimum pressure of the squeezer roll to get specified results.</li> <li>• Set required temp &amp; fan speed in all chamber</li> <li>• Feed the fabric to the stenter chain.</li> <li>• Adjust the overfeed device as per requirement</li> <li>• Start the machine &amp; take out the fabric at the delivery end.</li> <li>• Check various control parameters such as temp. fabric width, pressure etc.</li> <li>• Make sure the machine is kept clean</li> <li>• Follow the preventive maintenance schedule &amp; ensure m/c is running smoothly</li> <li>• Check that all controls are functioning properly</li> <li>• Ensure the right quality of water, steam &amp; air is available</li> <li>• Cool down the m/c after completion of job</li> <li>• Dissolve the pre weighted or dispensed chemicals in the drum</li> <li>• Stir &amp; mix the chemicals properly to make a homogenous liquid.</li> <li>• Adjust the ph, temp &amp; concentration of the mixture as specified in the recipe.</li> <li>• Filter through filtering cloth and, feed the chemicals either manually</li> </ul>	<ul style="list-style-type: none"> <li>• Stenter Machine – 1 Nos.</li> <li>• Fabric – 500 mtrs.</li> <li>• Empty Fabric Rolls – 1 Nos.</li> </ul>
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			<p>or via pump to the mangle trough</p> <ul style="list-style-type: none"> <li>Adjust the mangle pressure to get the required pick up.</li> </ul>	
4	<b>Elective 2 – Sanforiser</b>	<p><b>Carry out shift change, production and quality analysis at sanforising department</b></p> <p><b>Theory Duration</b> (hh:mm) 60:00</p> <p><b>Practical Duration</b> (hh:mm) 150:00</p> <p><b>Corresponding NOS Code</b> TSC/N5416</p>	<ul style="list-style-type: none"> <li>Learn general discipline</li> <li>Perform basic skills of communication effectively</li> <li>Understand the role of Finishing machine operator</li> <li>Perform tasks while taking charge of shift and handing over shift</li> <li>Perform faults identification and correction efficiently</li> <li>Understand different machine parts &amp; its function</li> <li>Operate the machine for the specified task</li> <li>Perform cleaning of the machine</li> <li>Carry out preventive maintenance of the finishing machine</li> <li>Arrange the empty &amp; full trolley as per the batch run</li> <li>Prepare sample for quality analysis</li> <li>Compare the prepared sample with the standard sample</li> <li>Make the batch ready for quality approval</li> <li>Understand the quality standards followed in the industry</li> <li>Prepare the quality analysis report</li> </ul>	<ul style="list-style-type: none"> <li>Finishing Machine – 1 Nos.</li> <li>Fabric – 500 mtrs.</li> <li>Empty Fabric Rolls – 1 Nos.</li> </ul>
5	<b>Elective 3 – Relax Dryer</b>	<p><b>Carry out shift change, production and quality analysis at relax dryer department</b></p> <p><b>Theory Duration</b> (hh:mm) 60:00</p> <p><b>Practical Duration</b> (hh:mm) 150:00</p> <p><b>Corresponding NOS Code</b> TSC/N5417</p>	<ul style="list-style-type: none"> <li>Learn general discipline</li> <li>Become familiar with basic skills of communication</li> <li>Understand the role of Relax dryer operator</li> <li>Perform tasks while taking charge of shift and handing over shift</li> <li>Become familiar in faults identification</li> <li>Gain knowledge on machine parts &amp; its function</li> <li>Gain knowledge on preparation activities of Relax dryer machine</li> <li>Perform Starting and feeding operation</li> <li>Perform machine settings regarding processing parameters</li> <li>Perform cutting of sample after drying</li> <li>Perform and check the processed sample matching with the standard</li> </ul>	<ul style="list-style-type: none"> <li>Relax Dryer Machine – 1 Nos.</li> <li>Fabric – 500 mtrs.</li> <li>Empty Fabric Rolls – 1 Nos.</li> </ul>

6	<b>Elective 4 – Compactor</b>	<p><b>Carryout shift change, production and quality analyse at compacting department</b></p> <p><b>Theory Duration</b> (hh:mm) 60:00</p> <p><b>Practical Duration</b> (hh:mm) 150:00</p> <p><b>Corresponding NOS Code</b> TSC/N5418</p>	<ul style="list-style-type: none"> <li>• Gain knowledge about general discipline</li> <li>• Gain knowledge about basic skills of communication</li> <li>• Understand the role of Compacting Machine Operator</li> <li>• Perform tasks while taking charge of shift and handing over shift</li> <li>• Gain knowledge about the importance of surrounding cleanliness</li> <li>• Gain knowledge about the fabric parameters</li> <li>• Gain knowledge on compacting machine starting and operating procedure</li> <li>• Gain knowledge the fabric processing parameters</li> <li>• Perform feeding of fabric with controlled conditions</li> <li>• Perform cleaning and minor maintenance activities</li> <li>• Perform sampling based on standards</li> <li>• Gain knowledge on quality parameters of the fabric</li> <li>• Gain knowledge about various testing methods</li> <li>• Perform machine settings based on desired quality of output material</li> </ul>	<ul style="list-style-type: none"> <li>• Compacting Machine – 1 Nos.</li> <li>• Fabric – 500 mtrs.</li> <li>• Empty Fabric Rolls – 1 Nos.</li> </ul>
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7	<p><b>Employability Skills (30 Hours)</b></p> <p><b>Theory Duration</b> (hh:mm) 12:00</p> <p><b>Practical Duration</b> (hh:mm) 18:00</p>	<ul style="list-style-type: none"> <li>• Discuss the importance of Employability Skills in meeting the job requirements.</li> <li>• Explain constitutional values, civic rights, duties, citizenship, responsibility towards society etc. that are required to be followed to become a responsible citizen.</li> <li>• Show how to practice different environmentally sustainable practices</li> <li>• Discuss 21st century skills.</li> <li>• Display positive attitude, self-motivation, problem solving, time management skills and continuous learning mindset in different situations.</li> <li>• Use appropriate basic English sentences/ phrases while speaking</li> <li>• Demonstrate how to communicate in a well-mannered way with others.</li> <li>• Demonstrate working with others in a team</li> <li>• Show how to conduct oneself appropriately with all genders and PwD</li> <li>• Discuss the significance of reporting sexual harassment issues in time</li> <li>• Discuss the significance of using financial products and services safely and securely.</li> <li>• Explain the importance of managing expenses, income, and savings.</li> <li>• Explain the significance of approaching the concerned authorities in time for any exploitation as per legal rights and laws</li> <li>• Show how to operate digital devices and use the associated applications and features, safely and securely</li> <li>• Discuss the significance of using internet for browsing, accessing social media platforms, safely and securely.</li> <li>• Discuss the need for identifying opportunities for potential business, sources for arranging money and potential legal and financial challenges.</li> <li>• Differentiate between types of customers</li> <li>• Explain the significance of identifying customer needs and addressing them</li> <li>• Discuss the significance of maintaining hygiene and dressing appropriately.</li> <li>• Create a biodata</li> <li>• Use various sources to search and apply for jobs</li> <li>• Discuss the significance of dressing up neatly and maintaining hygiene for an interview</li> <li>• Discuss how to search and register for apprenticeship opportunities.</li> </ul>	<p>Class room requirements: 25 people seating capacity with a screen and projector</p>
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<b>Elective 1</b> <b>Duration:</b> <b>Theory</b> <b>Duration</b> <b>102:00</b>  <b>Practical</b> <b>Duration</b> <b>228:00</b>		<b>Unique Equipment Required:</b> Apron, head cap, nose mask, earplug, shoe, Fabric roll, Fabric trolley
<b>Elective 2</b> <b>Duration:</b> <b>Theory</b> <b>Duration</b> <b>102:00</b>  <b>Practical</b> <b>Duration</b> <b>228:00</b>		
<b>Elective 3</b> <b>Duration:</b> <b>Theory</b> <b>Duration</b> <b>102:00</b>  <b>Practical</b> <b>Duration</b> <b>228:00</b>		
<b>Elective 4</b> <b>Duration:</b> <b>Theory</b> <b>Duration</b> <b>102:00</b>  <b>Practical</b> <b>Duration</b> <b>228:00</b>		

**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 Finishing Machine Operator” mapped to Qualification Pack: “Textile Finishing Machine Operator / TSC/Q5405, Version 2.0”

Sr. No.	Area	Details
1	<b>Description</b>	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack “ <u>Textile Finishing Machine Operator /TSC/Q5405, Version 2.0</u> ”.
2	<b>Personal Attributes</b>	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	<b>Minimum Educational Qualifications</b>	Basic Literacy & Numeracy
4a	<b>Domain Certification</b>	Certified for Job Role: “Textile Finishing Machine Operator ” mapped to QP: “ <u>Textile Finishing Machine Operator TSC Q5405, Version 2.0</u> ” Minimum accepted score 80%.
4b	<b>Platform Certification</b>	Required that the Trainer is certified for MEP/Q 0102 Job Role: “Trainer” with at least 80% score
5	<b>Experience</b>	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"> <li>• have good communication skills</li> <li>• be well versed in English</li> <li>• have digital skills</li> <li>• have attention to detail</li> <li>• be adaptable</li> <li>• have willingness to learn</li> </ul>
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 Finishing Machine Operator**  
**Qualification Pack: Textile Finishing Machine Operator (TSC/Q 5405)**  
**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
<b>TSC/N9015: Follow machine, safety &amp; organizational guidelines in Textile sector</b>	<b>Maintaining the work area, tools and machines</b>	<b>10</b>	<b>10</b>	<b>-</b>	<b>6</b>
	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 part at specified location	-	-	-	-
	9. report the condition of worn out parts as per standard procedure	-	-	-	-
	<b>Greening and energy conservation in textile sector</b>	<b>7</b>	<b>10</b>	<b>-</b>	<b>6</b>
	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	-	-	-	-
<b>Health, safety and response to emergencies at textile sector</b>	<b>32</b>	<b>40</b>	<b>-</b>	<b>28</b>
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	-	-	-	-
<b>Organizational standards and policies</b>	<b>16</b>	<b>20</b>	<b>-</b>	<b>10</b>
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	-	-	-	-
	<b>NOS Total</b>	<b>65</b>	<b>80</b>	<b>-</b>	<b>50</b>
Module	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>TSC/N9016. Follow teamwork, adaptability and communication guidelines in Textile sector</b>	<b>Teamwork, trust and communication</b>	<b>10</b>	<b>15</b>	<b>-</b>	<b>5</b>
	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	-	-	-	-
	<b>Adaptability</b>	<b>5</b>	<b>5</b>	<b>-</b>	<b>5</b>
	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
<b>Elective 1 – TSC/N5415: Carryout shift change, production and preparation of chemicals at stenter machine department</b>	<b>Taking charge of shift from Stenter Machine Operator</b>	<b>9</b>	<b>10</b>		<b>11</b>
	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 / batching 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 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 Stenter Machine Operator in a proper manner	-	-	-	-
	<b>Handing over shift to Stenter Machine Operator</b>	<b>9</b>	<b>10</b>		<b>11</b>
	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. 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	-	-	-	-
<b>Carry out preparatory activities for operations in the machine</b>	<b>10</b>	<b>20</b>		<b>8</b>
1. Clean the machine properly including filters, radiators, exhaust system, cooling zone, entry & exit rails, feeding & delivery ends, chemical trough & squeezing rolls.	-	-	-	-
2. feed the fabric from the batch or trolley using guide rolls, compensating device & fabric centering devices	-	-	-	-
3. Check the fabric width & set the machine width accordingly	-	-	-	-
<b>Operate the machine for specified tasks as per Work Order</b>	<b>50</b>	<b>100</b>		<b>5</b>
4. know the operations of the machine	-	-	-	-
5. read & understand the process being followed to do the task	-	-	-	-
6. set the width maximum and minimum once a day keep even tension on fabric throughout the process	-	-	-	-
7. keep optimum pressure of the squeezer rolls to get specified results	-	-	-	-
8. set the required temp & fan speeds in all chambers	-	-	-	-
9. feed the fabric to the stenter chain	-	-	-	-
10. adjust the overfeed device as per the requirement of the fabric	-	-	-	-
11. start the machine & take out the fabric at the delivery end	-	-	-	-



	12. check various control parameters such as temp, fabric width, mangle pressure & machine speed at regular interval	-	-	-	-
	<b>Clean the machine on a regular basis and carryout preventive maintenance activities</b>	<b>50</b>	<b>100</b>		<b>5</b>
	13. make sure the machine is kept clean at all times, before loading, while running & after unloading the fabric	-	-	-	-
	14. follow the preventive maintenance schedule & ensure the machine is running smoothly	-	-	-	-
	15. check that all controls are functioning properly	-	-	-	-
	16. ensure the right quality of water, steam & air is available for proper functioning of machine	-	-	-	-
	17. cool down the machine after completion of the job	-	-	-	-
	<b>Dissolving and mixing the chemicals</b>	<b>36</b>	<b>85</b>		<b>5</b>
	1. dissolve the pre weighed or dispensed chemicals in the drum	-	-	-	-
	2. stir & mix the chemicals properly to make a homogenous liquid	-	-	-	-
	3. adjust the ph, temp & concentration of the mixture as specified in the finishing recipe	-	-	-	-
	<b>Feeding the chemicals into the mangle trough</b>	<b>36</b>	<b>85</b>		<b>5</b>
	4. Filter through filtering cloth and, feed the chemicals either manually or via pump to the mangle trough	-	-	-	-
	5. adjust the mangle pressure to get the required pick up	-	-	-	-
	<b>NOS Total</b>	<b>200</b>	<b>410</b>		<b>50</b>
<b>Module</b>	<b>Assessment Criteria for Outcomes</b>	<b>Theory Marks</b>	<b>Practical Marks</b>	<b>Project Marks</b>	<b>Viva Marks</b>
<b>Elective 2 – TSC/N5416: Carryout shift change, production and quality analyse at sanforising department</b>	<b>Taking charge of shift from Finishing machine operator (Sanforizer)</b>	<b>9</b>	<b>10</b>		<b>11</b>
	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 or production or spare or 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 bring the same to the knowledge of His/ Her shift Superior as well that of the previous shift as well	-	-	-	-
<b>Handing Over Shift to Finishing machine operator (zerozero/ compactor)</b>	<b>9</b>	<b>10</b>		<b>11</b>
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. 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	-	-	-	-
<b>Carry out preparatory activities for operations in the machine</b>	<b>52</b>	<b>110</b>		<b>8</b>
1. understand the task mentioned in the work order	-	-	-	-
2. read & understand the fabric parameters properly	-	-	-	-
3. bring the fabric trolley or batch near the machine	-	-	-	-
4. join the feeding cloth/ end piece to the fabric to be processed	-	-	-	-
5. check for any unstitched or loose ends & join them	-	-	-	-
6. check the width of the fabric before sanforizing	-	-	-	-
7. ensure that the machine is clean	-	-	-	-
8. feed the fabric from the batch/trolley in the center of the machine	-	-	-	-
9. ensure fabric is crease-less and evenly spread into the machine	-	-	-	-
10. open steam valve & drain the condensate from the line	-	-	-	-
11. drain water from air line	-	-	-	-
12. set the overfeed & the compression values as specified in the work order	-	-	-	-
13. arrange empty trolley or batch for rolling at the exit end	-	-	-	-
<b>Operate the machine for specified tasks as per Work Order</b>	<b>50</b>	<b>110</b>		<b>8</b>
14. know the operations of the sanforizing machine	-	-	-	-
15. read & understand the process being followed to do the task	-	-	-	-
16. keep even tension on fabric throughout the process	-	-	-	-
17. adjust the Rubber Felt compression to the desired level and in accordance with rubber felt supplier norms	-	-	-	-
18. use selvedge uncurlers& fabric spreader rollers for feeding the fabric	-	-	-	-
19. set the required temp of machine	-	-	-	-
20. set the required pressure of compression roller on the felt	-	-	-	-
21. start the machine & adjust the overfeed & compression to the optimum	-	-	-	-

22. ensure that all safety devices are operational	-	-	-	-
23. take out fabric either on batch or trolley from the other end	-	-	-	-
24. check the width of the fabric after sanforizing	-	-	-	-
25. check the fabric for feel, lustre & other parameters as specified	-	-	-	-
26. adjust the machine speed or overfeed according to required finish	-	-	-	-
27. keep next trolley or batch ready both at entry and exit	-	-	-	-
28. use scray or j- box for continuous operation of machine	-	-	-	-
29. record the shift production in the production register	-	-	-	-
30. record all stoppages & breakdowns in the register	-	-	-	-
31. cool down the machine before shutting down completely	-	-	-	-
<b>Clean the machine on a regular basis and carryout preventive maintenance activities</b>	<b>40</b>	<b>85</b>		<b>7</b>
32. make sure the machine is kept clean at all times	-	-	-	-
33. follow the preventive maintenance schedule & ensure the machine is running smoothly	-	-	-	-
34. check that all controls are functioning properly	-	-	-	-
35. ensure the right quality of water, steam & air is available for proper functioning of machine	-	-	-	-
36. ensure there is no leakage in steam, air or water line	-	-	-	-
37. oiling the moving parts of machine as specified in the operation manual	-	-	-	-
38. stop the machine in case of any abnormal sound & report the matter to the concerned person & supervisor	-	-	-	-
39. cool down the machine after completion of job	-	-	-	-
<b>Taking out the sample after sanforizing &amp; comparing it with the standard</b>	<b>40</b>	<b>85</b>		<b>5</b>
1. Taking out the sample after sanforizing 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	-	-	-	-
<b>NOS Total</b>	<b>200</b>	<b>410</b>		<b>50</b>

Module	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>Elective 3 – TSC/N5417: Carryout shift change, production and quality analyse at relax dryer department</b>	<b>Taking charge of shift from Relax Dryer operator</b>	<b>9</b>	<b>10</b>		<b>11</b>
	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 that the machine & its control functions are working properly	-	-	-	-
	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 outgoing operator in a proper manner	-	-	-	-
	<b>Handing Over Shift to Relax Dryer operator</b>	<b>9</b>	<b>10</b>		<b>11</b>
	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 that machine control functions are working properly	-	-	-	-
	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 is 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	-	-	-	-
<b>Carry out preparatory activities for operations of the machine</b>	<b>52</b>	<b>110</b>		<b>8</b>
1. understand the task mentioned in the work order	-	-	-	-
2. read & understand the fabric parameters properly	-	-	-	-
3. ensure that the machine is clean	-	-	-	-
4. clean all filters properly	-	-	-	-
5. open steam valve & drain condensate from the line	-	-	-	-
6. drain water, from the air line	-	-	-	-
7. start blowers to heat the machine	-	-	-	-
8. bring the fabric trolley near the machine	-	-	-	-
9. join the loose ends properly	-	-	-	-
10. keep empty trolley ready in the front for taking fabric	-	-	-	-
<b>Operate the machine for specified tasks as per Work Order</b>	<b>50</b>	<b>110</b>		<b>8</b>
11. know the operations of relax dryer machine	-	-	-	-
12. & understand the process being followed to do the task	-	-	-	-
13. the required temp in all chambers	-	-	-	-
14. fabric through guide rolls to the overfeeding roller	-	-	-	-
15. the fabric evenly and ensure fabric coverage of 95% to 100% in line with belt width	-	-	-	-
16. the overfeed values as per the requirement of fabric quality	-	-	-	-
17. ensure tensionless feeding of fabric	-	-	-	-
18. ensure that all safety devices are operational	-	-	-	-

	19. out fabric from exit end in the trolley	-	-	-	-
	20. check the fabric width after drying	-	-	-	-
	21. check moisture content in the fabric to avoid over drying	-	-	-	-
	22. adjust machine speed accordingly	-	-	-	-
	23. adjust overfeed values as specified	-	-	-	-
	24. keep next trolley ready both at entry & exit	-	-	-	-
	25. shift production in the production register	-	-	-	-
	26. all machine stoppages in the book	-	-	-	-
	<b>Clean the machine and carryout preventive maintenance activities</b>	<b>40</b>	<b>85</b>		<b>7</b>
	27. keep the machine clean at all times	-	-	-	-
	28. follow the preventive maintenance schedule & ensure the machine is running smoothly	-	-	-	-
	29. check that all controls are functioning properly	-	-	-	-
	30. ensure enough supply of utilities such as water, air & steam for proper functioning of machine	-	-	-	-
	31. cool down the machine after completion of job	-	-	-	-
	<b>Taking out the sample after drying &amp; comparing it with the standard</b>	<b>40</b>	<b>85</b>		<b>5</b>
	1. take out the sample near the stitch, after drying,	-	-	-	-
	2. compare the sample with the standard for physical appearance	-	-	-	-
	3. take the sample to your supervisor if the sample is not matching for the standard for decision	-	-	-	-
	<b>NOS Total</b>	<b>200</b>	<b>410</b>		<b>50</b>
<b>Module</b>	<b>Assessment Criteria for Outcomes</b>	<b>Theory Marks</b>	<b>Practical Marks</b>	<b>Project Marks</b>	<b>Viva Marks</b>
<b>Elective 4 – TSC/N5418: Carryout shift change, production and quality analyse at compacting department</b>	<b>Taking charge of shift from Compacting machine operator</b>	<b>9</b>	<b>10</b>		<b>11</b>
	1. come atleast 10 - 15 minutes earlier to the work place superior as well that of the previous shift as well	-	-	-	-
	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 or production or spare or 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 bring the same to the knowledge of his/ her shift superior as well as that of the previous shift	-	-	-	-
<b>Handing Over Shift to Compacting machine operator</b>	<b>9</b>	<b>10</b>		<b>11</b>
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. weigh the required dyes & chemicals for the next lot get clearance from the incoming counterpart before leaving the work spot	-	-	-	-
17. 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	-	-	-	-
18. ensure the shift has to be properly handed over to the incoming shift operator	-	-	-	-
19. 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	-	-	-	-
20. collect the wastes from waste collection bags, weigh them and transport to storage area	-	-	-	-
21. ensure the machine and its work				



place is clean	-	-	-	-
<b>Carry out preparatory activities for operations of the machine</b>	<b>52</b>	<b>110</b>		<b>8</b>
1. understand the task mentioned in the Work Order	-	-	-	-
2. ensure that the machine is clean	-	-	-	-
3. feed the fabric from the trolley in the center of the machine	-	-	-	-
4. ensure fabric is crease-less and evenly fed into the machine	-	-	-	-
5. join & stitch any loose end for continuous operation of machine	-	-	-	-
6. open steam valve & drain the condensate from the line	-	-	-	-
7. drain any water present in the air line	-	-	-	-
8. check the width of fabric & adjust the machine width accordingly	-	-	-	-
9. keep empty roll or trolley at the exit end ready	-	-	-	-
<b>Operate the machine for specified task as per work order</b>	<b>50</b>	<b>110</b>		<b>8</b>
10. operate the compacting machine	-	-	-	-
11. read & understand the process being followed to do the task	-	-	-	-
12. keep even tension on fabric through out the process	-	-	-	-
13. set the required width of machine	-	-	-	-
14. set the required temp of Compacting cylinder	-	-	-	-
15. open steam in the conditioning chamber	-	-	-	-
16. ensure that all safety devices are operational	-	-	-	-
17. start the machine & take out fabric either on roll or trolley	-	-	-	-
18. check the fabric width & adjust machine width accordingly	-	-	-	-
19. ensure the Teflon shoe insertion is according to the fabric while fabric enters the shrinking felt	-	-	-	-
20. adjust the machine speed according to required finish	-	-	-	-
21. check fabric feel & GSM and adjust overfeed accordingly	-	-	-	-
22. Adjust felt compression to achieve desired feel/ finish of fabric	-	-	-	-
23. ensure that all safety devices are operational	-	-	-	-
24. keep next trolley or roll ready both at entry & exit end	-	-	-	-
25. record shift production in the production register	-	-	-	-
26. record all machine stoppages in				

the book	-	-	-	-
<b>Clean the machine &amp; carryout preventive maintenance</b>	<b>40</b>	<b>85</b>		<b>7</b>
27. keep the machine clean at all times	-	-	-	-
28. follow the preventive maintenance schedule	-	-	-	-
29. check that all controls are functioning properly	-	-	-	-
30. ensure enough supply of utilities such as water, air & steam in the machine	-	-	-	-
31. ensure there is no leakage in steam, water & air line	-	-	-	-
32. oil the machine parts as specified in the operation manual	-	-	-	-
33. stop the machine in case of any abnormal sound & report	-	-	-	-
34. cool down the machine after completion of job	-	-	-	-
<b>Taking out the sample after Compacting &amp; comparing it with the standard</b>	<b>40</b>	<b>85</b>		<b>5</b>
1. take out the sample after compacting near the stitch	-	-	-	-
2. compare the sample with the standard for physical appearance	-	-	-	-
3. cut a sample & check the fabric gsm	-	-	-	-
4. take the sample to your supervisor if the sample is not matching to the standard for decision	-	-	-	-
5. Adjust machine speed, temp, overfeed or machine width to get the required GSM or fabric feel	-	-	-	-
<b>NOS Total</b>	<b>200</b>	<b>410</b>		<b>50</b>

National Occupational Standards (NOS)	Performance Criteria (PC)	Total Marks	Out Of	Marks Allocation		
				Theory Marks	Practical Marks	Viva Marks
<b>DGT/VSQ/N0101 – Employability Skills</b>	<b>Introduction to Employability Skills</b>			1	1	-
	1. understand the significance of employability skills in meeting the job requirements					
	<b>Constitutional values – Citizenship</b>			1	1	-
	2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices.					
	<b>Becoming a Professional in the 21st Century</b>			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.					
	<b>Basic English Skills</b>			2	3	-
	4. speak with others using some basic English phrases or sentences					
	<b>Communication Skills</b>			1	1	-
	5. follow good manners while communicating with others					
	6. work with others in a team					
	<b>Diversity &amp; Inclusion</b>			1	1	-
	7. communicate and behave appropriately with all genders and PwD					
	8. report any issues related to sexual harassment					
	<b>Financial and Legal Literacy</b>			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					

	<b>Essential Digital Skills</b>			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					
	<b>Entrepreneurship</b>			3	5	-
	14. identify and assess opportunities for potential business					
	15. identify sources for arranging money and associated financial and legal challenges					
	<b>Customer Service</b>			2	2	-
	16. identify different types of customers					
	17. identify customer needs and address them appropriately.					
	18. follow appropriate hygiene and grooming standards.					
	<b>Getting ready for apprenticeship &amp; Jobs</b>			1	3	-
	19. create a basic biodata					
	20. search for suitable jobs and apply					
	21. identify and register apprenticeship opportunities as per requirement					
	<b>NOS Total</b>		<b>50</b>	<b>20</b>	<b>30</b>	<b>-</b>
	<b>Grand Total</b>		<b>2930</b>	<b>900</b>	<b>1770</b>	<b>260</b>



### **Textile Sector Skill Council**

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