

# Model Curriculum

## Textile Dyeing machine Operator

SECTOR	: TEXTILE
SUB-SECTOR	: PROCESSING - TEXTILES
OCCUPATION	: Dyeing & Printing
REF ID	: TSC/Q5207, 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 Dyeing machine Operator' QP No. 'TSC/Q 5207' **NSQF Level 2**

Date of Issuance: ! \$%& ' ( )

Valid up to: ! \$%& ' ( )

\* 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 Dyeing machine Operator

## CURRICULUM / SYLLABUS

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

Program Name	Textile Dyeing machine Operator		
Qualification Pack Name & Reference ID.	Textile Dyeing machine Operator TSC/Q5207, version 2.0		
Version No.	2.0	Version Update Date	31.03.2022
Pre-requisites to Training	Able 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 – Jigger</b></p> <ul style="list-style-type: none"> <li>• Demonstrate the activities involved in taking charge of shift and handing over of shift</li> <li>• Operate Jigger machine as per Standard Operating Procedure</li> </ul> <p><b>Elective 2 - Soft Flow Dyeing</b></p> <ul style="list-style-type: none"> <li>• Perform taking charge of shift and handing over shift</li> <li>• Operate the Soft Flow dyeing machine</li> <li>• Prepare the sample to check quality of dyed fabric</li> </ul> <p><b>Elective 3 - Package Dyeing</b></p> <ul style="list-style-type: none"> <li>• Perform taking charge of shift and handing over shift</li> <li>• Operate the Package dyeing machine and quality check for processed sample</li> </ul>		

S. No	Module Type	Module	Key Learning Outcomes	Equipment Required
1.	Compulsory	<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.	Compulsory	<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 – Jigger</b>	<b>Carryout shift change, production and quality analyse at Jigger machine department</b>  <b>Theory Duration</b> (hh:mm) 60:00  <b>Practical Duration</b> (hh:mm) 150:00  <b>Corresponding NOS Code</b> TSC/N5220	<ul style="list-style-type: none"> <li>• Explain the different types of Fabrics and its usage</li> <li>• Describe the importance of general discipline at work place</li> <li>• Describe the Textile dyeing process flow</li> <li>• Discuss the production information with the incoming and outgoing counterpart</li> <li>• Describe the role of Jigger machine operator</li> <li>• Demonstrate the activities involved in taking charge of shift and handing over of shift</li> <li>• Recall the material flow in the textile processing industry</li> <li>• Identify the fabric processing faults and report as per the industry standard</li> <li>• Describe the parts and functions of Jigger machine</li> <li>• Describe the importance of Jigger machine maintenance</li> <li>• Demonstrate Loading and Unloading of chemical/ dyestuffs on Jigger machine</li> <li>• Demonstrate Loading and Unloading of fabric on Jigger machine</li> <li>• Record the technical details/information in the given log book or ledger</li> <li>• List the need and importance of operational tools required for Jigger machine</li> <li>• List out the major check points in the Jigger before starting the machine</li> <li>• Demonstrate the activities involved in machine preparation</li> <li>• Explain the sample preparation procedure for quality testing</li> <li>• Demonstrate sample cutting, soaping &amp; washing</li> <li>• Explain the effects of processing parameters on finished fabric</li> <li>• Record the observations/ results in the given log book or ledger</li> <li>• List out the tools required for sample preparation</li> <li>• Explain the Standard Quality checking method following in the Textile processing mill</li> </ul>	<ul style="list-style-type: none"> <li>• Jigger Machine - 2 Nos.</li> <li>• Fabric – 100 mtrs.</li> <li>• Empty Fabric Rolls Or Suitable Trolleys – 1 Nos.</li> </ul>
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4.	<b>Elective 2 - Soft Flow Dyeing</b>	<b>Carryout shift change, production and quality analyse at soft flow dyeing department</b>  <b>Theory Duration</b> (hh:mm) 60:00  <b>Practical Duration</b> (hh:mm) 150:00  <b>Corresponding NOS Code</b> TSC/N5221	<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 Soft flow jet dyeing machine operator</li> <li>Perform tasks while taking charge of shift and handing over shift</li> <li>Perform faults identification of processed material</li> <li>Gain knowledge on machine parts &amp; its function</li> <li>Gain knowledge on preparation activities of Soft flow jet dyeing 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>Soft Flow Dyeing Machine - 1 Nos.</li> <li>Fabric – 500 mtrs.</li> <li>Empty Fabric Rolls Or Suitable Trolleys – 1 Nos.</li> </ul>
5.	<b>Elective 3 - Package Dyeing</b>	<b>Carryout shift change, production and quality analyse at package dyeing department</b>  <b>Theory Duration</b> (hh:mm) 60:00  <b>Practical Duration</b> (hh:mm) 150:00  <b>Corresponding NOS Code</b> TSC/N5222	<ul style="list-style-type: none"> <li>Learn general discipline</li> <li>Become well verse with basic skills of communication</li> <li>Understand the role of Package dyeing machine operator</li> <li>Perform tasks while taking charge of shift and handing over shift</li> <li>Become familiar in fabric faults identification</li> <li>Gain knowledge on machine parts &amp; its function</li> <li>Gain knowledge on preparation activities of Jigger machine</li> <li>Perform placing of cone package for dyeing</li> <li>Perform machine settings regarding processing parameters</li> <li>Perform checking of processed yarn for quality deviation</li> <li>Perform sample matching with the standard</li> </ul>	<ul style="list-style-type: none"> <li>Package Dyeing Unit - 2 Nos.</li> <li>Yarn Package Of Cone Cheese – 100 Nos.</li> <li>Empty Cone Cheese Carriers – 5 Nos.</li> </ul>

6	<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>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>Unique Equipment Required:</b> Apron, head cap, nose mask, earplug, shoe, Fabric roll, Fabric trolley
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**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 Dyeing machine Operator” mapped to Qualification Pack: “Textile Dyeing machine Operator / TSC/Q5207, 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 “Textile Dyeing machine Operator /TSC/Q5207, Version 2.0”.
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 Dyeing machine Operator” mapped to QP: “Textile Dyeing machine Operator TSC Q5207, Version 2.0” 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:
Current ITI Trainers	Employability Skills Training (3 days full-time course done between 2019-2022)					<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>
Certified current EEE trainers (155 hours)	from Management SSC (MEPSC)					
Certified Trainer	Qualification Pack: Trainer (MEP/Q0102)					

## Annexure: Assessment Criteria

**Job Role: Textile Dyeing machine Operator**

**Qualification Pack: Textile Dyeing machine Operator (TSC/Q 5207)**

**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>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 parts 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>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 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 members 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 limits ofthe responsibility	-	-	-	-
	18. adopt new ideas after due approval fromsuperior for improving the productivity	-	-	-	-
	<b>NOS Total</b>	<b>15</b>	<b>20</b>	<b>-</b>	<b>10</b>
Module	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>Elective 1 - TSC/N5220: Carryout shift change, production and quality analyse at Jigger machine department</b>	<b>Taking charge of shift from Jigger 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 him 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 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	-	-	-	-
	11. take over the shift from the outgoing operator in a proper manner	-	-	-	-
	<b>Handing Over Shift to Jigger machine operator</b>	<b>9</b>	<b>10</b>		<b>11</b>
	12. ensure proper communication regarding fabric quality & the process running on the machine while providing the details	-	-	-	-

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, which is already stitched & arranged properly is ready near the machine	-	-	-	-
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 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>50</b>	<b>110</b>		<b>5</b>
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. prepare the chemical/dye-stuff required for the batch	-	-	-	-
6. inject the chemical in the machine tank/dispenser	-	-	-	-
<b>Operate the machine for specified tasks as per Work Order</b>	<b>50</b>	<b>110</b>		<b>5</b>
7. know the operations of the machine & the plc/ control mechanism programs	-	-	-	-
8. read & understand the process being followed to do the task	-	-	-	-

9. check the ph, temp & other parameters during the process	-	-	-	-
10. maintain even temp across the width of machine	-	-	-	-
11. maintain even & minimum tension on the fabric	-	-	-	-
12. drain the machine once sample is approved	-	-	-	-
13. unload the fabric from the machine after completion of the process	-	-	-	-
<b>Clean the machine on a regular basis and carryout preventive maintenance activities</b>	<b>22</b>	<b>43</b>		<b>5</b>
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. ensure the right quality of water , steam & air is available for proper functioning of machine	-	-	-	-
18. cool down the machine after completion of job	-	-	-	-
<b>Cutting the sample after specified time/ no. of turns</b>	<b>20</b>	<b>43</b>		<b>5</b>
1. cut sample as per the time / no. of turn mentioned in the work order to avoid any delay	-	-	-	-
2. cut proper size of the sample	-	-	-	-
3. cut the sample from same place every time	-	-	-	-
4. clean hands or cutting tools to avoid soiling of the sample	-	-	-	-
<b>Developing, soaping, washing &amp; drying the sample</b>	<b>20</b>	<b>43</b>		<b>5</b>
5. Develop the sample as per developing techniques for various types of dyestuffs used in the process such as direct, reactive, vat, sulphur etc.	-	-	-	-
6. Soap the sample as per SOP for various types of dyestuffs	-	-	-	-
7. Dry the sample at clean & dust free place	-	-	-	-
<b>Comparing the sample with the standard</b>	<b>20</b>	<b>41</b>		<b>3</b>
8. compare the sample with the standard attached to the work order or in the master file	-	-	-	-
9. 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 2 - TSC/N5221: Carryout shift change, production and quality analyse at soft flow dyeing department</b>	<b>Taking charge of shift from Soft Flow Dyeing 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 Soft Flow Dyeing machine 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 bring the same to the knowledge of His/ Her shift Superior as well that of the previous shift.	-	-	-	-
	11. Take charge of the shift from the outgoing Soft Flow Dyeing machine operator in a proper manner	-	-	-	-
	<b>Handing over shift to Soft Flow Dyeing 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. 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>51</b>	<b>110</b>		<b>5</b>
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 all chambers of the machine equally	-	-	-	-
4. Fill required quantity of water & close all safety doors properly	-	-	-	-
5. prepare the chemical/dye-stuff required for the batch	-	-	-	-
6. inject the chemical in the machine tank/dispenser	-	-	-	-
<b>Operate the machine for specified tasks as per Work Order</b>	<b>51</b>	<b>110</b>		<b>5</b>
7. know the operations of the machine & the plc programs / control mechanism	-	-	-	-
8. read & understand the process being followed to do the task	-	-	-	-
9. check the ph, temp & other parameters during the process	-	-	-	-
10. maintain even temp across the width of machine	-	-	-	-
11. maintain even & minimum tension on the fabric	-	-	-	-
12. drain the machine once sample is approved	-	-	-	-

	13. unload the fabric from the machine after completion of the process	-	-	-	-
	<b>Clean the machine on a regular basis and carryout preventive maintenance activities</b>	<b>20</b>	<b>44</b>		<b>5</b>
	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. ensure the right quality of water , steam & air is available	-	-	-	-
	<b>Cutting the sample after specified time/ no. of turns</b>	<b>20</b>	<b>44</b>		<b>5</b>
	1. cut sample as per the time / no. of turn mentioned in the work order to avoid any delay	-	-	-	-
	2. cut proper size of the sample	-	-	-	-
	3. cut the sample from same place every time	-	-	-	-
	4. clean hands or cutting tools to avoid soiling of the sample	-	-	-	-
	<b>Developing, soaping, washing &amp; drying the sample</b>	<b>20</b>	<b>42</b>		<b>5</b>
	5. develop the sample as per standard techniques for various types of dyestuffs used in the process such as direct, reactive, vat, sulphur etc	-	-	-	-
	6. soap the sample using soaping chemical, temp & no. of soaping/ washings as specified for different dyestuff	-	-	-	-
	7. dry the sample at a clean & dust free place	-	-	-	-
	<b>Comparing the sample with the standard</b>	<b>20</b>	<b>40</b>		<b>3</b>
	8. compare the sample with the standard attached to the work order or in the master file	-	-	-	-
	9. 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>
<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 3 - TSC/N5222: Carryout shift change,</b>	<b>Taking charge of shift from Package Dyeing machine operator</b>	<b>9</b>	<b>10</b>		<b>11</b>

production and quality analyse at package dyeing department	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 fibre / yarn being processed & process running on the machine	-	-	-	-
	5. ensure the technical details are mentioned on the job card display on the machine	-	-	-	-
	6. should check for the availability of the spare trolley for unloading the yarn packages	-	-	-	-
	7. should check the next batch to be processed is ready near the machine	-	-	-	-
	8. must ensure the required dyes & chemicals are already weighed & prepared	-	-	-	-
	9. should 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 Package Dyeing machine operator</b>	<b>9</b>	<b>10</b>		<b>11</b>
	12. ensure in providing the details regarding yarn quality & the process running on the machine	-	-	-	-
	13. provide all relevant information regarding the stoppages or breakdown in the machine, any damage to the yarn or machine.	-	-	-	-
	14. ensure the empty trolley is near the machine for unloading the yarn packages	-	-	-	-
	15. ensure the next lot to be processed is ready near the machine	-	-	-	-
	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>50</b>	<b>110</b>		<b>5</b>
1. understand the task mentioned in the work order	-	-	-	-
2. ensure that the machine is empty & clean	-	-	-	-
3. receiving the material to be processed	-	-	-	-
4. loading the material to be processed in the carrier	-	-	-	-
5. closing the machine lid & ensuring the safety locks are in place	-	-	-	-
6. fill & start the machine as per specified MLR	-	-	-	-
7. prepare & inject the dyes / chemicals in the machine	-	-	-	-
<b>Operate the machine for specified tasks as per Work Order</b>	<b>50</b>	<b>110</b>		<b>5</b>
8. know the operations of the machine & the plc/control mechanism programs	-	-	-	-
9. read & understand the process being followed to do the task	-	-	-	-
10. check the ph, temp & other parameters during the process	-	-	-	-
11. attend to the machine signals for manual intervention	-	-	-	-
12. ensure the rate of heating/ cooling, final temp & hold time is as programmed	-	-	-	-
<b>Clean the machine on a regular basis and carryout preventive maintenance activities</b>	<b>22</b>	<b>43</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. ensure the right quality of water, steam & air is available	-	-	-	-
<b>Taking out the sample after specified hold time</b>	<b>20</b>	<b>43</b>		<b>5</b>
1. take out the sample after hold time to avoid any delay	-	-	-	-
2. close the lid & restart the machine after drawing the sample	-	-	-	-
<b>Developing , soaping, washing &amp; drying the sample</b>	<b>20</b>	<b>42</b>		<b>5</b>
3. Develop the sample as per SOP techniques for various types of dyestuffs used in the process such as direct, reactive, vat, sulphur etc.	-	-	-	-
4. Soap the sample as per SOP for soaping for various dyestuffs	-	-	-	-
5. Dry the sample at clean & dust free place	-	-	-	-
<b>Comparing the sample with the standard</b>	<b>20</b>	<b>42</b>		<b>3</b>
6. compare the sample with the standard attached to the work order or in the master file	-	-	-	-
7. 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>

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>2270</b>	<b>700</b>	<b>1360</b>	<b>210</b>



### **Textile Sector Skill Council**

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