



National Competency Standards for
“Textile Wet Processing”
(Operator)
Level-3



National Vocational and Technical Training Commission (NAVTTTC)
Government of Pakistan



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INTRODUCTION

Pakistan is the 8th largest exporter of textile products in Asia. It is 4th largest producer and 3rd largest consumer of cotton. It comprises of 46% of the total manufacturing sector and provides employment to 40% of the total labor force. 5% of the total textile companies are listed on the stock exchange.

The textile sector contributes 8.5 % of total GDP of Pakistan.

Thus, making it imperative for Pakistan government to actively train the individuals to attend to the needs of the ever challenging and rapidly evolving changes in the sector, Textile industry a highly challenging and well-paid professional is always in need of trained & quality-oriented staff

Whether it is merchandising/marketing, stitching /wet processing / HSE or awareness to the quality standards, the industry is always in need of quality individuals.

Textile industry competency standards deal with the knowledge and skills required in the provision of wet processing. These standards focus on the procedures to equip the work force with the knowledge and skills that personify the efficient work performance in assisting the higher management in delivering the quality products & services

This course on wet processing is designed as a comprehensive training program for both male and female students at diploma level (level1-5). This training program covers all features of wet processing like introduction of the concept, principles, constituents, organization, etc.; as well as technological issues involved. It also involves the management of multitude of activities covering all aspects of wet processing

PURPOSE OF THE QUALIFICATION

The competency based NVQ has been developed to train the unskilled men and women of Pakistan on the technical and entrepreneurial skills to be employed / self-employed and inevitably set sustainable impact on their lives by increase in their livelihood income



generation.



The purpose of this qualification is to give the candidate a thorough understanding and skills of the textile sector with special reference to wet processing in three years training programme. The textile industry needs skilled labour for meeting the national and international standards. It is therefore important to stress the need for a multidisciplinary approach to meet the challenges within the sector. Upon successful completion of this course the trainee should be able to:

- Core elements and the development of textile industry
- Give an account of essentials textile industry and future of this industry
- Demonstrate an understanding of different textile traits.
- Point out relevant industry stakeholders & their roles in driving innovative in textile management
- Improve the professional competence of the trainees
- Provide opportunities for recognition of skills attained through non-formal or informal pathways
- Improve the quality and effectiveness of training and assessment for textile industry skilled labour
- Enhance textile industry activities at regional/provincial/national levels through better approach

DATE OF VALIDATION

This national vocational qualification (NVQ) has been validated by the Qualifications Development Committee (QDC) in **06th to 10th December, 2021** and will remain in currency until June 2024.

*Shall be reviewed after 3 years



CODE OF QUALIFICATION

Qualification Title	Code
National Vocational Certificate Level 3, in (Textile Wet Processing) "Operator"	0723TWP02

ENTRY REQUIREMENTS

- For National Vocational Certificate Level-3 in Textile Wet Processing, the entry requirement is award of National Vocational Certificate Level-2 in Textile Wet Processing.



DEVELOPMENT COMMITTEE

The following members participated in the qualification development of these qualifications:

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Sr. No.	Name	Designation	Organization
1.	Mr. Muhammad Aasim	Assistant Director,	NAVTTTC Coordinator, Islamabad
2.	Ms. Mehwish Aisha	DACUM Facilitator	CBT Expert/Certified Assessor
3.	Mr. Muhammad Irfan	Principal	GAMTI (PTEVTA), Township, Lahore
4.	Ms. Ayesha Yameen	Deputy Manager	Friends Enterprises Lahore
5.	Ms. Qurbat Zahra	Director	Adamjee Enterprises BOR Society Lahore
6.	Ms. Tehrim Ijaz	MTO	Taiga Apparels
7.	Ms. Warda Afzal	Instructor Clothing & Textiles	GCTW Lytton Lahore
8.	Mr. Hassan Tariq	DGM	Laundry and Development Cotton Web Ltd, Lahore
9.	Mr. Ahsan Nazer	Director	RND NTU Faisalabad
10.	Mr. Ayazudin	CEO, Reet Garment, Lahore	
11.	Mr. Abdul Samad	Freelancer	, MBA, Faisalabad



12.	Ms. Mehak Hamid	Fashion Designer & Assessor,	UMT, Sialkot
13.	Mr. Imran Afzal	GM,	Future session pvt. Ltd.
14.	Mr. Kashif Asif Mirza	Divisional Head EC	RUDOLF Pakistan
15.	Mr. Ali Abbas	Director	Arts and Design Lahore



QUALIFICATIONS REVIEW AND VALIDATION COMMITTEE

The following members participated in the qualification development of these qualifications:

Sr. No.	Name	Designation	Organization
1.	Mr. Shahzad Ahmad	Director	VT, NAVTTC HQ, Islamabad
2.	Ms. Mehwish Aisha	DACUM Facilitator	CBT Expert/Certified Assessor
3.	Mr. Muhammad Irfan	Principal	GAMTI (PTEVTA), Township, Lahore
4.	Ms. Warda Afzal	Instructor	GCT(W), Lytton Road, Lahore
5.	Ms. Syeda Fatima Iqbal	System Analyst	PBTE, Lahore
6.	Ms. Mehak Hamid	Lecturer	UMT, Sialkot
7.	Ms. Amreen Hassan	Lecturer	LPDI, Sialkot
8.	Ms. Manal Akhtar	Quality Assurance Supervisor	Interloop, Faisalabad
9.	Ms. Faiza Jabeen	Fashion & Textile Designer	The Trendy House
10.	Ms. Sameen Aslam	Instructor	
11.	Ms. Muhammad Shahzad	Sr. Instructor (Textile)	GCT (Campus), PTUT, Lahore



SUMMARY OF COMPETENCY STANDARDS

“Operator” (6 Months)								
Code	Competency Standards	Level	Theory		Practical		Total	
			C	Hr.	C	Hr.	C	Hr.
1.	Identify and implement Workplace Policies and Procedures	3	1	10	1	10	2	20
2.	Apply work health and safety practices (WHS)	3	2	20	1	10	3	30
3.	Communicate at workplace	3	2	20	1	10	3	30
4.	Perform Basic Computer Application Skills	3	2	20	3	30	5	50
5.	Perform Industrial Fabric Dyeing	3	3	30	21	210	24	240
6.	Perform Industrial Fabric Printing	3	2	20	21	210	23	230
Total			12	120	48	480	60	600



Competency Standard A: Identify and Implement Workplace policies and Procedures - 041700840

Overview: This unit describes the skills and knowledge required to develop and implement a workplace policy & procedures and to modify the policy to suit changed circumstances. It applies to individuals with managerial responsibilities who undertake work developing approaches to create, monitor and improve strategies and policies within workplaces and engage with a range of relevant stakeholders and specialists.

Competency Units	Performance Criteria
CU1. Identify workplace policy & procedures	<p>You must be able to:</p> <p>P1. Identify the workplace policy & procedures</p> <p>P2. Apply appropriate strategies that can be used to measure whether your workplace health and safety obligations are being met.</p> <p>P3. Assure the policies are realistic, resources and personnel to implement</p> <p>P4. Implement the policy & procedures that reflects the organizations commitments</p> <p>P5. Ensure the appropriate methods of implementation, outcomes and performance indicators</p>
CU2. Implement workplace policy & procedures	<p>You must be able to:</p> <p>P1. Apply and assign responsibility for recording systems to track continuous improvements in policy & procedures</p> <p>P2. Implement strategies for continuous improvement in effective and efficient information</p>
CU3. Communicate workplace policy & procedures	<p>You must be able to:</p> <p>P1. Communicate procedures to help implement workplace policy</p>



	P2. Inform those involved in implementing the policy about expected outcomes, activities to be undertaken and assigned responsibilities
CU4. Review the implementation of workplace policy & procedures	<p>You must be able to</p> <p>P1. Identify the trends that may require remedial actions</p> <p>P2. Record the trends that may require remedial actions.</p> <p>P3. Ensure policy and procedures as required are made for continuous improvement of performance</p>

Knowledge & Understanding:

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of:

- K1.** Legislation, regulations and codes of practice applicable to the organization
- K2.** internal and external sources of information and organizational policy & procedures
- K3.** Typical barriers to implementing policies and procedures in an organization.
- K4.**

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- 1.** Identify evidences of the ability to implement work place policy and procedures. Briefly identify work place procedures to avoid incident.



Competency Standard B: Apply Work Health and Safety Practices (WHS) - 102200846

Overview: This unit describes the skills to work with safety and participate in hazard assessment activities, follow emergency procedures and participate in OHS practices in process.

Competency Units	Performance Criteria
CU1. Implement safe work practices at work place	<p>You must be able to</p> <p>P1. Implement relevant rules and procedures of WHS at work place.</p> <p>P2. Comply with duty of care requirements</p> <p>P3. Use personal protective equipment according to safe work practices</p> <p>P4. Contribute to WHS consultative activities</p> <p>P5. Raise WHS issues with relevant personnel</p>
CU2. Participate in hazard assessment activities a work place	<p>You must be able to</p> <p>P1. Identify hazards or WHS issues in the workplace to relevant personnel</p> <p>P2. Assess and control risks according to own level of responsibility, in line with workplace procedures</p> <p>P3. Report hazards or WHS issues in the workplace to relevant personnel</p> <p>P4. Document risk control actions as required</p>
CU3. Follow emergency procedures at workplace	<p>You must be able to</p> <p>P1. Report emergencies or incidents promptly to relevant personnel</p> <p>P2. Deal with emergencies in line with own level of responsibility</p> <p>P3. Implement evacuation procedures as required</p>



CU4. Participate in OHS consultative processes	<i>You must be able to</i> P1. Contribute to workplace meetings, inspections or other consultative activities P2. Raise OHS (Occupational Health and Safety) issues with designated persons in accordance with organizational procedures P3. Take actions to eliminate workplace hazards or to reduce risks
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Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of:

- K1.** Outline the WHS rights and responsibilities that apply to own role
- K2.** Explain the term duty of care
- K3.** Describe typical health and safety roles in the workplace
- K4.** List and describe common safety signs and symbols
- K5.** Explain procedures for reporting hazards, risks, incidents and accidents
- K6.** Identify and describe common hazards and major causes of accidents relevant to the workplace
- K7.** Explain what the term risk control means
- K8.** List and describe potential emergency situations and how to respond to them

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

1. Demonstrate evidences of the Health and safety Processes to avoid any incident.



Competency Standard C: Communicate at Workplace - 001100852

Overview: This unit describes the performance outcomes, skills and knowledge required to develop communication skills in the workplace. It covers gathering, conveying and receiving information, along with completing assigned written information under direct supervision.

Competency Units	Performance Criteria
CU1. Communicate within the organization	<p>You must be able to</p> <p>P1. Communicate within a department</p> <p>P2. Communicate with other departments.</p> <p>P3. Use various media to communicate effectively</p> <p>P4. Communicate orally and written</p>
CU2. Communicate outside the organization	<p>You must be able to</p> <p>P1. Deal with vendors</p> <p>P2. Deal with clients/customers</p> <p>P3. Interact with other organisations</p> <p>P4. Use various media to communicate effectively</p> <p>P5. Work with people of different cultures / backgrounds</p>
CU3. Communicate effectively in work group	<p>You must be able to</p> <p>P1. Assess the issues to provide relevant suggestion to group members</p> <p>P2. Resolve the issues/ problems /conflicts within the group</p> <p>P3. Arrange group working sessions to increase the level of participation in the group processes</p> <p>P4. Communicate messages to group members clearly to ensure interpretation is valid</p> <p>P5. Communicate style /manner to reflect professional standards/ awareness of appropriate cultural practices</p> <p>P6. Act upon constructive feedback</p>
CU4. Communicate in writing	<p>You must be able to</p> <p>P1. Identify relevant procedures for written information</p>



	<p>P2. Use strategies to ensure correct communication in writing .i.e.</p> <ul style="list-style-type: none">• correct composition• clarity• comprehensiveness• accuracy• appropriateness <p>P3. Draft assigned written information for approval, ensuring it is written within designated timeframes</p> <p>P4. Ensure written information meets required standards of style, format and detail</p> <p>P5. Seek assistance / feedback to aid communication skills development</p>
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Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge of:

- K1.** Importance of intra and inter organizational communication
- K2.** Basics of business communication
- K3.** Defining Modes of communication
- K4.** Effective communication in work group
- K5.** Communicating through writing
- K6.** The importance of teamwork

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

1. In your current position, what types of written communication do you use most often?
(List them all).



Competency Standard D: Perform Basic Computer Operations - 0723TWP02A

Overview: This competency standard will provide skills and knowledge related to basic computer hardware, software, applications and troubleshooting. You will be able to demonstrate your skills in operating a computer system and software such as MS Word, MS PowerPoint, MS Excel as well as installation and troubleshooting of operating system and software. Your underpinning knowledge will be sufficient to provide you the basis for your work.

Competency Units	Performance Criteria
CU1. Configure Computer System	<p><i>You must be able to:</i></p> <p>P1. Connect computer components and peripherals as per requirement.</p> <p>P2. Install Drivers and applications according to the software specification.</p> <p>P3. Troubleshoot Applications to trace and fix faults in a specific application to bring it in a running condition.</p> <p>P4. Follow health, safety and security procedures to ensure safe working environment.</p>
CU2. Create a Document using MS Word	<p><i>You must be able to:</i></p> <p>P1. Compose a document as per the requirement.</p> <p>P2. Format Word Document according to given requirements.</p> <p>P3. Print Word Documents according to requirements.</p>
CU3. Prepare a Worksheet using MS Excel	<p><i>You must be able to:</i></p> <p>P1. Develop a worksheet as per given data.</p> <p>P2. Format the worksheet according to given criteria.</p> <p>P3. Apply Formulas according to the requirement.</p> <p>P4. Generate Charts/Graphs according to the given data.</p>
CU4. Prepare a	<p><i>You must be able to:</i></p>



<p>presentation using MS PowerPoint</p>	<p>P1. Insert Slides with different Layouts according to requirements of presentation.</p> <p>P2. Insert text, tables, images, etc. according to the requirement.</p> <p>P3. Apply a set of effects to animate the slide according to requirement.</p> <p>P4. Apply Slide Transitions on Slides according to requirement.</p> <p>P5. Apply Sound Effects on Objects/text/images according to requirement.</p> <p>P6. Present a presentation according to 7Cs of communication.</p>
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Knowledge & Understanding

The student must be able to demonstrate knowledge and understanding required to carry out tasks covered in this competency standards. This includes the knowledge of:

- K1.** Operating systems
- K2.** Hardware and Software
- K3.** Troubleshooting
- K4.** Internet and E-mailing
- K5.** Hyperlink and referencing
- K6.** Printing
- K7.** Formulas
- K8.** Short Keys
- K9.** WPM (Word Per Minute)
- K10.** 7 Cs of communication

Critical Evidence(s) Required

The candidate needs to produce any or all of the following documents/evidences:

- 1. Portfolio
- 2. Assignment(s)/Project(s)
- 3. Relevant Certification(s)
- 4. Relevant Job/Experience Letter



Furthermore, the candidate must execute demonstration(s) which may include the following:

- 1.** Install MS Office Application correctly
- 2.** Prepare a formatted document using MS Word
- 3.** Enter data into the respective columns and rows as per given instructions
- 4.** Set page layouts and margins
- 5.** Apply any slide transition on entire presentation.



Competency Standard E: Perform Industrial Fabric Dyeing - 0723TWP02B

Overview: This competency standard deal with learning the competencies needed to perform Industrial Fabric Dyeing. That includes Perform Winch, Jigger, jet, pad batch, Thermosol, pad steam, soft flow and Stenter dyeing. Your underpinning knowledge will be sufficient to provide you the basis for your work.

Competency Units	Performance Criteria
CU1. Perform Winch Dyeing	<p>You must be able to:</p> <ul style="list-style-type: none"> P1. Interpret Specification Sheet/Processing Order (PO) for Winch Dyeing P2. Arrange material for dyeing process as per program sheet P3. Load fabric on the Winch Dyeing machine P4. Set Winch Dyeing machine parameters as Winch Dyeing process requirement/Specification Sheet/Processing Order (PO) P5. Operate Winch dyeing machine for fabric dyeing P6. Maintain quality parameters during process according to program sheet/protocol P7. Wash & Neutralize dyed fabric as per program sheet P8. Maintain Record for Winch Dyeing
CU2. Perform Jigger Dyeing	<p>You must be able to:</p> <ul style="list-style-type: none"> P1. Interpret Specification Sheet/Processing Order (PO) for Jigger Dyeing P2. Arrange material for Jigger dyeing process as per program sheet P3. Load fabric on the Jigger Dyeing machine P4. Set Jigger Dyeing machine parameters as per Jigger Dyeing process requirement/Specification



	<p>Sheet/Processing Order (PO)</p> <p>P5. Operate Jigger dyeing machine for fabric dyeing</p> <p>P6. Maintain quality parameters during process according to program sheet/protocol</p> <p>P7. Wash & Neutralize dyed fabric as per program sheet</p> <p>P8. Maintain Record for Jigger Dyeing</p>
CU3. Perform Jet Dyeing	<p>You must be able to:</p> <p>P1. Interpret Specification Sheet/Processing Order (PO) for Jet Dyeing</p> <p>P2. Arrange material for Jet dyeing process as per program sheet</p> <p>P3. Load fabric on the Jet Dyeing machine</p> <p>P4. Set Jet Dyeing machine parameters as per Jet Dyeing process requirement/Specification Sheet/Processing Order (PO)</p> <p>P5. Operate Jet dyeing machine for fabric dyeing</p> <p>P6. Maintain quality parameters during process according to program sheet/protocol</p> <p>P7. Wash & Neutralize dyed fabric as per program sheet</p> <p>P8. Maintain Record for Jet Dyeing</p>
CU4. Perform Rope Dyeing	<p>You must be able to:</p> <p>P1. Interpret Specification Sheet/Processing Order (PO) for Rope Dyeing</p> <p>P2. Arrange material for Rope Dyeing process as per program sheet</p> <p>P3. Load fabric on the Rope Dyeing machine</p> <p>P4. Set De-Sizing machine parameters as per Rope Dyeing process requirement/Specification Sheet/Processing Order (PO)</p> <p>P5. Operate Rope Dyeing machine for fabric dyeing</p> <p>P6. Maintain quality parameters during process according to program sheet/protocol</p>



	<p>P7. Wash & Neutralize dyed fabric as per program sheet</p> <p>P8. Maintain Record for Rope Dyed Fabric</p>
<p>CU5. Perform Pad Batch Dyeing</p>	<p>You must be able to:</p> <p>P1. Interpret Specification Sheet/Processing Order (PO) for Pad Batch Dyeing</p> <p>P2. Arrange material for Pad Batch Dyeing process as per program sheet</p> <p>P3. Load fabric on the Pad Batch Dyeing machine</p> <p>P4. Set Pad Batch Dyeing machine parameters as per Pad Batch Dyeing process requirement/Specification Sheet/Processing Order (PO)</p> <p>P5. Operate Pad Batch Dyeing machine for fabric dyeing</p> <p>P6. Maintain quality parameters during process according to program sheet/protocol</p> <p>P7. Wash & Neutralize dyed fabric as per program sheet</p> <p>P8. Maintain Record for Pad Batch Dyeing</p>
<p>CU1. Perform Yarn/Cone Dyeing</p>	<p>You must be able to:</p> <p>P1. Interpret Specification Sheet/Processing Order (PO) for yarn/Cone Dyeing</p> <p>P2. Arrange material for Yarn/Cone Dyeing process as per program sheet</p> <p>P3. Load fabric on the Yarn/Cone Dyeing machine</p> <p>P4. Set Yarn/Cone Dyeing machine parameters as per Yarn/Cone Dyeing process requirement/Specification Sheet/Processing Order (PO)</p> <p>P5. Operate Yarn/Cone Dyeing machine for Yarn Dyeing</p> <p>P6. Maintain quality parameters during process according to program sheet/protocol</p> <p>P7. Wash & Neutralize dyed Yarn/Cone as per program sheet</p> <p>P8. Maintain Record for Dyed Yarn/Cone</p>



Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. Therefore he/she must be able to:

- K1. Describe proper use and handling of equipment
- K2. Explain the proper use of suitable PPEs
- K3. Describe different types of dyes
- K4. Describe different types of dyeing techniques
- K5. Explain importance of Dyes and Chemicals with their proper uses
- K6. Explain the operating procedure of different dyeing machines
- K7. Identify types of fabric on the basis of fibre, knit, weave, etc.
- K8. Describe the machine Capacity and Control Parameters
- K9. Explain the importance of Liquor Ratio
- K10. Determine the lab recipes
- K11. Identify the dyeing defects
- K12. Explain washing of dyed fabric
- K13. Explain the importance of machine cleaning
- K14. Troubleshooting of machine

Critical Evidence(s) Required

The candidate needs to produce any or all of the following documents/evidences:

- 1. Portfolio
- 2. Assignment(s)/Project(s)
- 3. Relevant Certification(s)
- 4. Relevant Job/Experience Letter

Furthermore, the candidate must execute demonstration(s) which may include the following:

- 1. Perform any two Dyeing techniques assigned by assessor (Winch Dyeing or Soft Flow Dyeing or Stenter Dyeing or Jet Dyeing)



Competency Standard G: Perform Industrial Fabric Printing - 0723TWP02C

Overview: This competency standard deal with learning the competencies needed to perform Industrial Fabric Dyeing. That includes Operate Colour Kitchen (Develop Colour), Perform Rotary Printing, Perform Flatbed Printing, Perform Curing/Steaming and Perform Washing. Your underpinning knowledge will be sufficient to provide you the basis for your work.

Competency Units	Performance Criteria
CU1. Operate Colour Kitchen (Develop Colour)	<p>You must be able to:</p> <p>P1. Prepare Stock paste for Colour development, including following tasks:</p> <ul style="list-style-type: none"> ○ Interpretation of Specification Sheet/Process Order (PO) ○ Arrangement of required material (Dyes, Auxiliaries, etc.) ○ Weighing chemicals for preparing printing paste according to recipe ○ Preparation of glue (adhesive) for printing machine <p>P2. Write Colour Recipe</p> <p>P3. Mix Colour for preparation of printing paste manually as per recipe</p> <p>P4. Operate Dispensing System</p> <p>P5. Maintain quality parameters during process according to protocol.</p> <p>P6. Maintain Record for recipes.</p>
CU2. Perform engraving/exposing (Rotary screen printing)	<p>You must be able to:</p> <p>P1. Interpret Specification Sheet/Processing Order (PO) to Engrave for rotary screen printing</p> <p>P2. Select Length, Repeat and mesh size of screen according to design</p>



	<p>P3. Perform rounding of screen</p> <p>P4. Perform chemical coating on screen</p> <p>P5. Dry chemical coating screen</p> <p>P6. Perform design exposing</p> <p>P7. Perform curing / washing on screen</p> <p>P8. Fix Rotary Screen Endrings</p> <p>P9. Perform stripping by mechanical and chemical process</p> <p>P10. Maintain quality parameters during process according to protocol.</p> <p>P11. Maintain Record for engraving/exposing (Rotary screen printing)</p>
<p>CU3. Perform engraving/exposing (Flatbed)</p>	<p>You must be able to:</p> <p>P1. Interpret Specification Sheet/Processing Order (PO) to Engrave for Flatbed printing</p> <p>P2. Select mesh size according to design</p> <p>P3. Select frame size according to repeat of design</p> <p>P4. Stretch Mesh cloth on frames</p> <p>P5. Perform chemical coating on screen</p> <p>P6. Dry chemical coating screen</p> <p>P7. Load soft file of every separation</p> <p>P8. Perform design exposing</p> <p>P9. Perform curing / washing on screen</p> <p>P10. Check exposed screen</p> <p>P11. Perform Pad fixing/Hardening chemical after exposing</p> <p>P12. Apply screen stripping</p> <p>P13. Maintain quality parameters during process according to protocol.</p> <p>P14. Maintain Record for engraving/exposing (Flatbed)</p>
<p>CU4. Perform Rotary Printing</p>	<p>You must be able to:</p> <p>P1. Interpret Specification Sheet/Processing Order (PO) to Engrave for Rotary Printing</p> <p>P2. Arrange material for Rotary Printing according to</p>



	<p>program Sheet</p> <p>P3. Load fabric on the Rotary Printing machine</p> <p>P4. Set Rotary Printing machine parameters as per Rotary Printing process requirement/Specification Sheet/Processing Order (PO)</p> <p>P5. Operate Rotary Printing Machine</p> <p>P6. Perform fixation process on material according to nature of dye class</p> <p>P7. Unload the fabric from machine</p> <p>P8. Maintain quality parameters during process according to protocol.</p> <p>P9. Maintain Record for Rotary printing</p>
CU5. Perform Flatbed Printing	<p>You must be able to:</p> <p>P1. Interpret Specification Sheet/Processing Order (PO) for Flatbed Printing</p> <p>P2. Arrange material for Flatbed Printing according to program Sheet</p> <p>P3. Select printing paste according to design from colour kitchen.</p> <p>P4. Load fabric on the Flatbed Printing machine</p> <p>P5. Set Flatbed Printing machine parameters as per Flatbed Printing process requirement/Specification Sheet/Processing Order (PO)</p> <p>P6. Operate Flatbed Printing Machine</p> <p>P7. Perform fixation process on material according to nature of colorant.</p> <p>P8. Unload the fabric from machine</p> <p>P9. Maintain quality parameters during process according to protocol.</p> <p>P10. Maintain Record for Flatbed printing</p>



<p>CU6. Perform Curing/Steaming (ager)</p>	<p>You must be able to:</p> <p>P1. Interpret Specification Sheet/Processing Order (PO) for Curing/Steaming</p> <p>P2. Arrange material for Curing/Steaming according to program Sheet</p> <p>P3. Load fabric on the Curing/Steaming (ager) machine</p> <p>P4. Operate Curing/Steaming Machine</p> <p>P5. Perform fixation process on material according to nature of colorant.</p> <p>P6. Maintain quality parameters during process according to program sheet / protocol.</p> <p>P7. Maintain Record for Curing/Steaming</p>
<p>CU7. Perform Washing</p>	<p>You must be able to:</p> <p>P1. Interpret Specification Sheet/Processing Order (PO) for Washing process</p> <p>P2. Arrange material for Washing process according to program Sheet</p> <p>P3. Load fabric on the Washing machine</p> <p>P4. Set Washing machine parameters as per Washing process requirement/Specification Sheet/Processing Order (PO)</p> <p>P5. Operate Industrial Washing Machine</p> <p>P6. Maintain quality parameters during process according to program sheet / protocol.</p> <p>P7. Maintain Record for Industrial Washing</p>

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. Therefore he/she must be able to:

- K1.** Explain the Importance of Curing/Steaming
- K2.** Explain the Importance of Washing
- K3.** Explain Fabric Quality Parameters



- K4. Explain drying Temperatures
- K5. Explain fixation techniques
- K6. Define After treatments
- K7. Define dyes and pigments
- K8. Determine faults of printing and remedies
- K9. Explain screen mesh and its types
- K10. Explain the difference between Flatbed and Rotary Printing
- K11. Explain troubleshooting of machine.

Critical Evidence(s) Required

The candidate needs to produce any or all of the following documents/evidences:

1. Portfolio
2. Assignment(s)/Project(s)
3. Relevant Certification(s)
4. Relevant Job/Experience Letter

Furthermore, the candidate must execute demonstration(s) which may include the following:

1. Operate Colour Kitchen (Develop Colour)
2. Perform Rotary Printing
3. Perform Flatbed Printing
4. Perform Curing/Steaming
5. Perform Washing



COMPLETE LIST OF TOOLS AND EQUIPMENT

SR#	Tools & Equipment	Quantity
1.	Computer Systems	25
2.	Scanner	1
3.	Printer	1
4.	Panton Book	1
5.	Pick Glass/Magnifying Glass	25
6.	Textile/Fabric Light Box	1
7.	Scissors	25
8.	Electronic Weight Scale	1
9.	Measuring Tape	25
10.	Colour Pallets	25
11.	Colour Brushes Set	25
12.	Bowls/Buckets	25
13.	Batchers	5
14.	Trollies	5
15.	L-Box/J-Box/Jigger/Winch Machine	1
16.	Screens	25
17.	Rope Dyeing Plant	1
18.	Yarn/Cone Dyeing Plant	1
19.	Pad Batch Dyeing Plant	1



20.	Rotary Printing Machine	1
21.	Flatbed Printing Machine	1
22.	Curing/Steaming Machine	1
23.	Engraving / Exposing (Rotary screen printing machine)	1
24.	Engraving / Exposing (Flatbed screen printing machine)	1
25.	Industrial Washing Machine	1