

QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR TEXTILE SECTOR

What are Occupational Standards(OS)?

- OS describe what individuals need to do, know and understand in order to carry out a particular job role or function
- OS are performance standards that individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding

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Introduction

Qualifications Pack – Printing Machine Operator

SECTOR: TEXTILE

SUB-SECTOR: PROCESSING

OCCUPATION: DYEING & PRINTING

REFERENCE ID: TSC/Q 5204

ALIGNED TO: NCO-2004 / 8264.90

Brief Job Description: Printing Machine Operator is responsible for printing of fabric & smooth operation of machine without damaging either fabric or machine. This job requires the individual to have thorough knowledge of process flow and material flow in a processing mill for fabric production and should know about the important functions and operations of a printing machine.

Personal Attributes: A Printing Machine Operator should have good eyesight, motor skills and vision. He/she should also have good interpersonal skills.

Job Details	Qualifications Pack Code	TSC/Q5204		
	Job Role	Printing Machine Operator		
	Credits (NSQF)	TBD	Version number	1.0
	Sector	Textile	Drafted on	15/12/15
	Sub-sector	Processing	Last reviewed on	25/02/15
	Occupation	Dyeing & Printing	Next review date	01/03/16
	Job Role	Printing Machine Operator		
Role Description		To carryout printing operations on fabric using a Printing Machine, as specified under Job Order		
NSQF level		4		
Minimum Educational Qualifications		10 th standard, preferably		
Maximum Educational Qualifications		N/A		
Training (Suggested but not mandatory)		Three to six months of training in textile processing.		
Experience		Preferably 2-3 years in textile processing		
National Occupational Standards (NOS)		Compulsory: <ol style="list-style-type: none"> TSC/N 5210 Taking charge of shift and handing over shift to Printing Machine Operator TSC/N 5211 Operating the Printing Machine TSC/N 5212 Check the quality of a sample of the printed fabric TSC/ N9001 Maintain work area, tools and machines TSC/ N9002 Working in a team TSC/ N9003 Maintain health, safety and security at workplace TSC/ N9004 Comply with industry and organizational requirement Optional: Not Applicable		
Performance Criteria		As described in the relevant OS units		

Table 1: Glossary of Key Terms

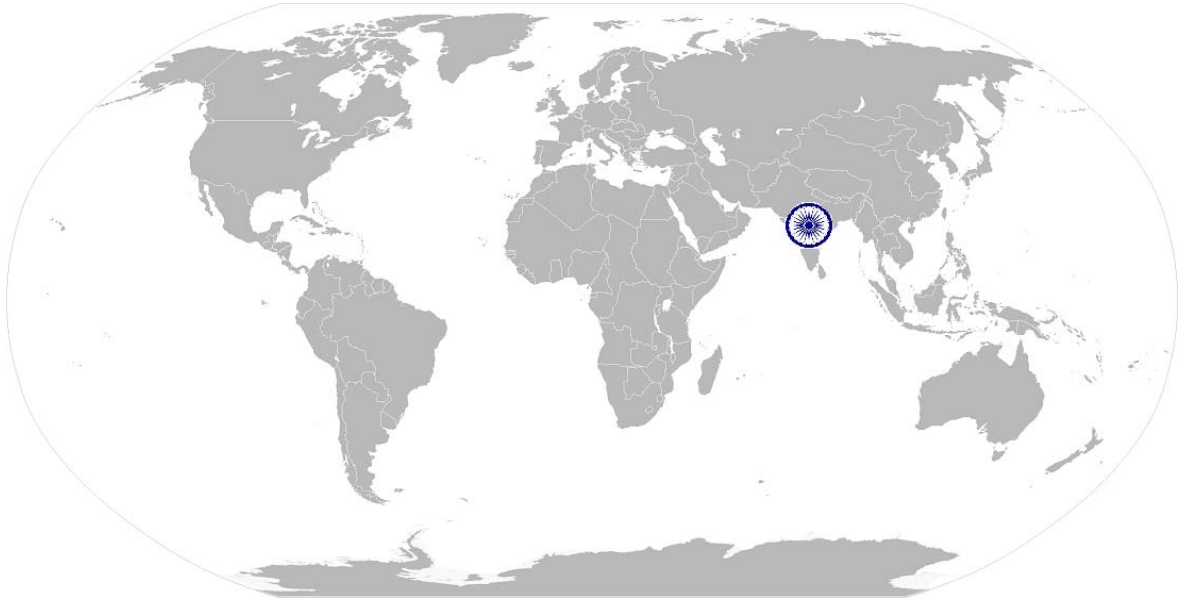
Definitions	Keywords /Terms	Description
	Sector	Sector is a conglomeration of different business operations having similar businesses and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
	Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
	Vertical	Vertical may exist within a sub-sector representing different domain areas or the client industries served by the industry.
	Occupation	Occupation is a set of job roles, which perform similar/related set of functions in an industry.
	Function	Function is an activity necessary for achieving the key purpose of the sector, occupation, or area of work, which can be carried out by a person or a group of persons. Functions are identified through functional analysis and form the basis of OS.
	Sub-functions	Sub-functions are sub-activities essential to fulfill the achieving the objectives of the function.
	Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organization.
	Occupational Standards (OS)	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the knowledge and understanding they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
	Performance Criteria	Performance Criteria are statements that together specify the standard of performance required when carrying out a task.
	National Occupational Standards (NOS)	NOS are Occupational Standards which apply uniquely in the Indian context.
	Qualifications Pack Code	Qualifications Pack Code is a unique reference code that identifies a qualifications pack.
	Qualifications Pack(QP)	Qualifications Pack comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A Qualifications Pack is assigned a unique qualification pack code.
	Unit Code	Unit Code is a unique identifier for an OS unit, which can be denoted with either an 'O' or an 'N'.
	Unit Title	Unit Title gives a clear overall statement about what the incumbent should be able to do.

Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Scope	Scope is the set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on the quality of performance required.
Knowledge and Understanding	Knowledge and Understanding are statements which together specify the technical, generic, professional and organizational specific knowledge that an individual needs in order to perform to the required standard.
Organizational Context	Organizational Context includes the way the organization is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical Knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/Generic Skills	Core Skills or Generic Skills are a group of skills that are key to learning and working in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.
Helpdesk	Helpdesk is an entity to which the customers will report their IT problems. IT Service Helpdesk Attendant is responsible for managing the helpdesk.
Keywords /Terms	Description
SSC	Sector Skill Council
OS	Occupational Standard(s)
NOS	National Occupational Standard(s)
QP	Qualifications Pack
NSQF	National Skill Qualifications Framework
NCO	National Classifications of Occupation
TBD	To Be Determined
TSC	Textile Sector Skill Council
NSDC	National Skill Development Corporation

TSC/N 5210

Taking charge of shift and handing over shift to Printing Machine Operator

National Occupational Standard



Overview

This unit is about taking charge of shift and handing over shift to a printing machine operator

TSC/N 5210

Taking charge of shift and handing over shift to Printing Machine Operator

Unit Code	TSC/N 5210
Unit Title (Task)	Taking charge of shift and handing over shift to Printing Machine Operator
Description	This unit is about taking charge of shift from previous shift Printing machine operator and relieving the responsibilities to the next shift Printing machine operator
Scope	This unit/task covers the following: <ul style="list-style-type: none"> taking charge of shift from Printing machine operator handing over shift to Printing machine operator
Elements	Performance Criteria
Taking charge of shift from Printing machine operator	<p>To be competent, you must be able to:</p> <p>PC1. come at least 10 - 15 minutes earlier to the work place</p> <p>PC2. bring the necessary operational tools to the department</p> <p>PC3. Meet the previous shift Printing 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.</p> <p>PC4. understand the fabric being processed & process running on the machine</p> <p>PC5. ensure the technical details are mentioned on the job card display on the machine</p> <p>PC6. check for the availability of the spare trolley for unloading the fabric</p> <p>PC7. check the next batch to be processed is ready near the machine</p> <p>PC8. ensure the required dyes & chemicals are already weighed & prepared</p> <p>PC9. check the cleanliness of the machines & other work areas</p> <p>PC10. 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.</p> <p>PC11. Take over the shift from the outgoing operator in a proper manner</p>
Handing over shift to Printing machine operator	<p>PC12. ensure in providing the details regarding fabric quality & the process running on the machine</p> <p>PC13. provide all relevant information regarding the stoppages or breakdown in the machine, any damage to the fabric or machine.</p> <p>PC14. ensure the empty trolley is near the machine for unloading the fabric</p> <p>PC15. ensure the next lot to be processed is ready near the machine already stitched & arranged properly</p> <p>PC16. ensure the required dyes & chemicals for the next lot or next process are weighed & prepared</p> <p>PC17. get clearance from the incoming counterpart before leaving the work spot</p> <p>PC18. 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</p> <p>PC19. ensure the shift has to be properly handed over to the incoming shift operator</p> <p>PC20. 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</p> <p>PC21. collect the wastes from waste collection bags, weigh them and transport to storage area</p> <p>PC22. ensure the machine and its work place is clean</p>

TSC/N 5210 Taking charge of shift and handing over shift to Printing Machine Operator

Knowledge and Understanding (K)	
A. Technical Knowledge	<p>You need to know and understand:</p> <p>KA1. the importance of quality & productivity</p> <p>KA2. various defects in the fabric due to yarn, weaving or processing</p> <p>KA3. reasons for various defects in the fabric due to processing & their remedy</p> <p>KA4. process flow in a processing unit</p> <p>KA5. material flow in a processing unit</p> <p>KA6. functions of various controls of the machine</p> <p>KA7. importance of material handling and types of material handling equipment being used</p> <p>KA8. importance of cleanliness at workplace</p> <p>KA9. functions and methodology for operating different material handling equipment</p> <p>KA10. the functions of various alarm signals</p> <p>KA11. guidelines for operating the machine</p> <p>KA12. guidelines for taking charge of shift from previous shift Printing machine operator</p> <p>KA13. guidelines for handing over the shift to the next shift Printing machine operator</p> <p>KA14. safety procedures to be followed while operating the machine</p>
Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills
	You need to know and understand how to:
	SA1. write clear and short sentences
	Reading Skills
	You need to know and understand how to:
	SA2. comprehend written instructions
	Oral Communication (Listening and Speaking skills)
	You need to know and understand how to:
	SA3. communicate with supervisor appropriately
	SA4. talk to others to convey information effectively
B. Professional Skills	Problem Solving
	You need to know and understand how to:
	SB1. apply problem-solving approaches in different situations
	SB2. refer anomalies to the supervisor
	SB3. seek clarification on problems from others
	Attention to Detail
	You need to know and understand how to:
	SB4. apply good attention to detail
	SB5. check your work is complete and free from errors
	SB6. operate the machine
	SB7. operate various valves & traps
	SB8. operate different material handling tools and equipment
	SB9. check the quality of processed/printed fabric
	SB10. maintain cleanliness at work place

TSC/N 5210 Taking charge of shift and handing over shift to Printing Machine Operator

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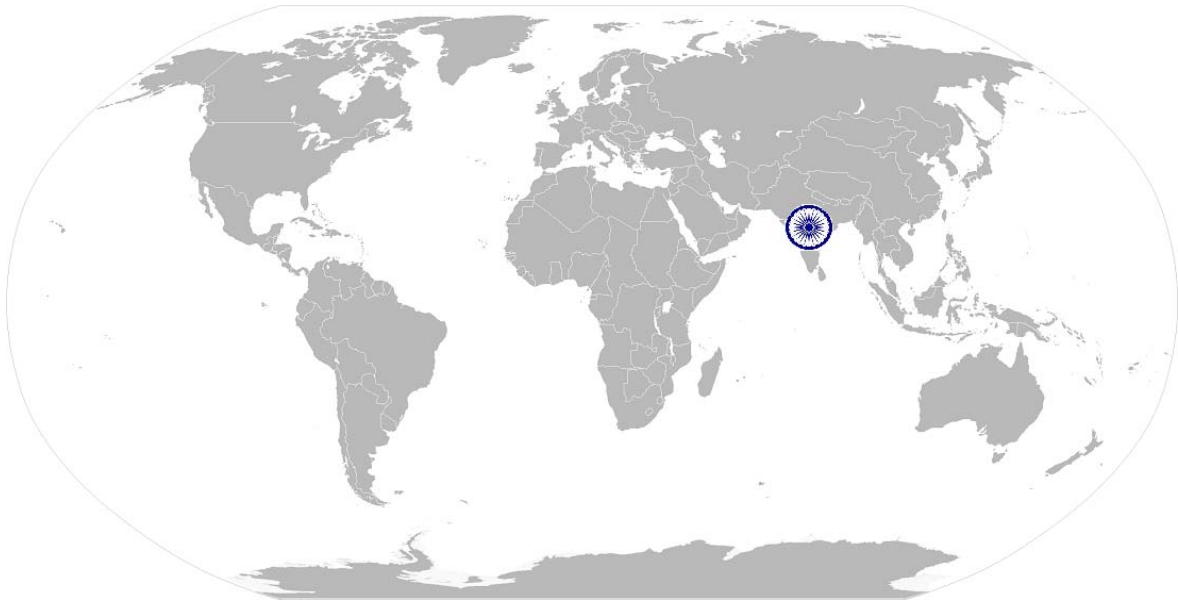
NOS Code	TSC/N 5210		
Credits (NSQF)	TBD	Version number	1.0
Industry	Textile	Drafted on	15/12/15
Industry Sub-sector	Processing	Last reviewed on	25/02/15
Occupation	Dyeing & Printing	Next review date	01/03/16



TSC/N 5211

Operating The Printing Machine

National Occupational Standard



Overview

This unit is about operating the Printing Machine.

TSC/N 5211

Operating the Printing Machine

Unit Code	TSC/N 5211
Unit Title (Task)	Operating the Printing Machine
Description	This unit is about operating the Printing Machine
Scope	This unit/task covers the following: <ul style="list-style-type: none"> carry out preparatory activities for operations in the machine preparation of print paste operate the machine for the specified task as per work order clean the machine on a regular basis& carryout preventive maintenance
Performance Criteria (PC) w.r.t. the Scope	
Elements	Performance Criteria
Carry out preparatory activities for operations in the machine	To be competent, you must be able to: PC1. understand the task mentioned in the work order PC2. ensure that the machine is empty & clean PC3. load the fabric from the batch/trolley in the center of the machine at the feeding point PC4. ensure fabric is crease-free and lint/ dust free PC5. place the screens on the print station/ printing head according to the colours to be printed PC6. set the repeat according to the design to be printed PC7. apply glue /adhesive material to the printing blanket for sticking
Preparation of Print paste	PC8. get all dyes & printing chemical / auxiliaries weighed PC9. mix the thickener , binder & other auxiliaries first to get the required viscosity PC10. add dyes/ pigments to the thickening paste according to the shade PC11. filter the print paste to avoid choke up of design screen
Operate the machine for specified tasks as per Work Order	PC12. check screen 'zero' position on the blanket for proper fabric printing before starting to print fabric PC13. Start the machine & adjust the squeeze pressure if registration is poor or uneven PC14. maintain synchronized & continuous feeding of fabric PC15. check for pin holes & other defects due to blockage of screen PC16. clean the screens if machine is stopped for longer periods PC17. make sure the fabric is dried properly after printing
Clean the machine on a regular basis and carryout preventive maintenance activities	PC18. keep the machine clean at all times PC19. follow the preventive maintenance schedule & ensure the machine is running smoothly PC20. check that all controls are functioning properly PC21. clean the printing blanket before changing to new design or new matching
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the	You need to know and understand: KA1. Standard operating procedure (SOP) and regulations in processing unit KA2. procedure followed to get the final output in processing unit

TSC/N 5211

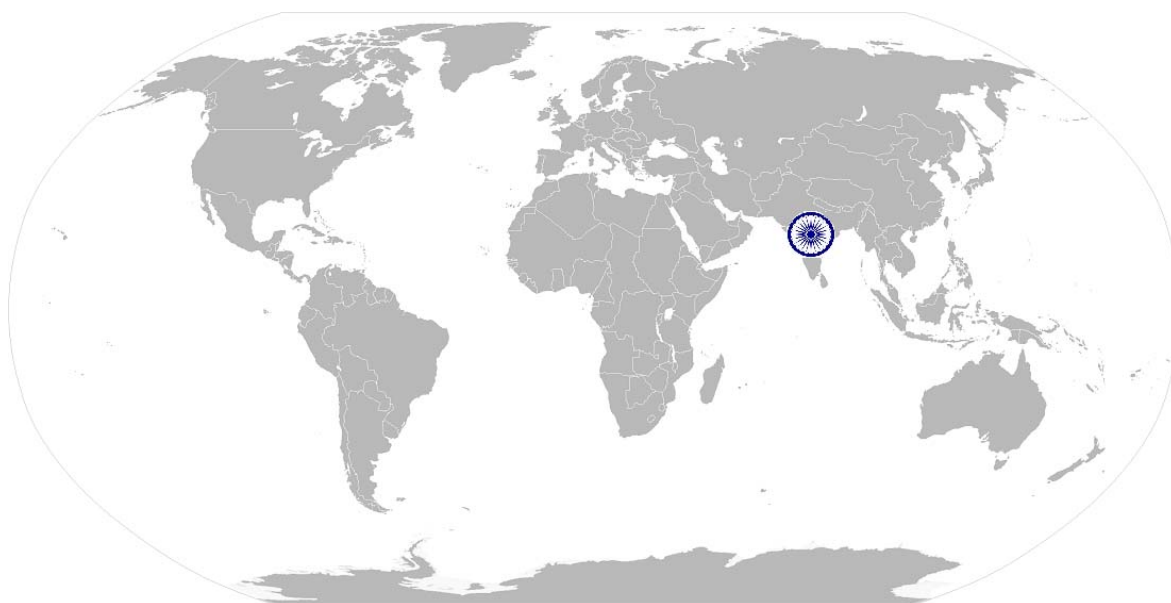
Operating The Printing Machine

company/ organization and its processes)	KA3. safe working practices to be adopted in processing unit KA4. how to report to the supervisor or higher authority about any grievances faced
B. Technical Knowledge	You need to know and understand: KB1. importance of discipline & punctuality KB2. importance of take over & handover in achieving quality & productivity KB3. Defects such as misprint, crease marks, lint or loose thread, colour smear, pin holes, glue streaks etc KB4. types of fiber, yarn and fabric KB5. process flow & types of print paste used KB6. to feed enough fabric in the scray / j –box for non- stop running of machine KB7. Knowledge about printing from lighter colour first to dark colour in the last head KB8. viscosity & quantity of glue to be applied KB9. about fluidity/ viscosity of print paste KB10. functioning of various control of machine KB11. To avoid creases in the fabric which will lead to misprint in the fabric KB12. Faster change over of design or colour matchings for better efficiency & productivity KB13. to avoid smearing & distortion of the print due to abrasion KB14. spare the machine when it's due for maintenance KB15. Adjustment of squeeze pressure for sharp registration of print design KB16. knowledge about the operations & functions of various controls of printing machine KB17. knowledge about operation of machine, repeat size & their setting
Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills
	You need to know and understand how to: SA1. write clear and short sentences
	Reading Skills
	You need to know and understand how to: SA2. comprehend written instructions SA3. read any application sent by other colleagues
	Oral Communication (Listening and Speaking skills)
	You need to know and understand how to: SA4. communicate with supervisor appropriately SA5. talk to others to convey information effectively
B. Professional Skills	Problem Solving
	You need to know and understand how to: SB1. identify the real reason of problem faced SB2. apply problem-solving approaches in different situations SB3. refer anomalies to the supervisor SB4. seek clarification on problems from others

TSC/N 5211

Operating The Printing Machine

	Attention to Detail
	<p>You need to know and understand how to:</p> <ul style="list-style-type: none"> SB5. apply good attention to detail SB6. check your work is complete and free from errors SB7. make sure every kind of communication is error free <p>You need to know and understand :</p> <ul style="list-style-type: none"> SB8. the various faults & their correction during printing SB9. use of correct tools for cleaning the machine SB10. use of expander rolls/ devices& tensioning devices SB11. mixing techniques of binder, thickeners & other auxiliaries SB12. operation & other control parameters of printing machine SB13. clean or replace the screens if it is blocked / damaged SB14. use of proper cleaning tools and methods

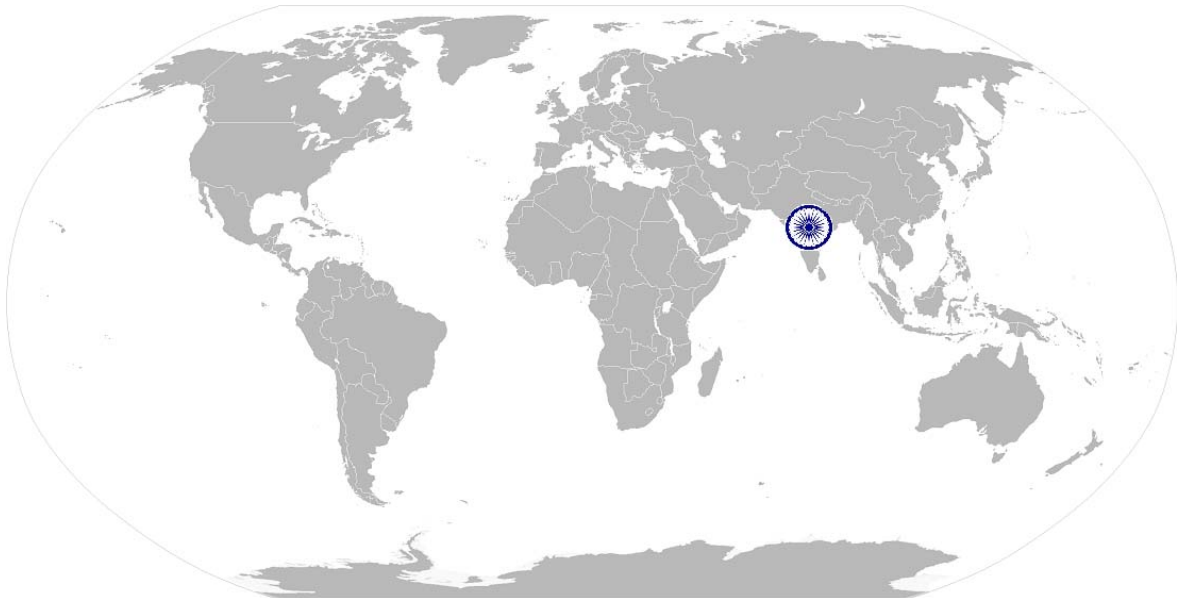


TSC/N 5211

Operating the Printing Machine

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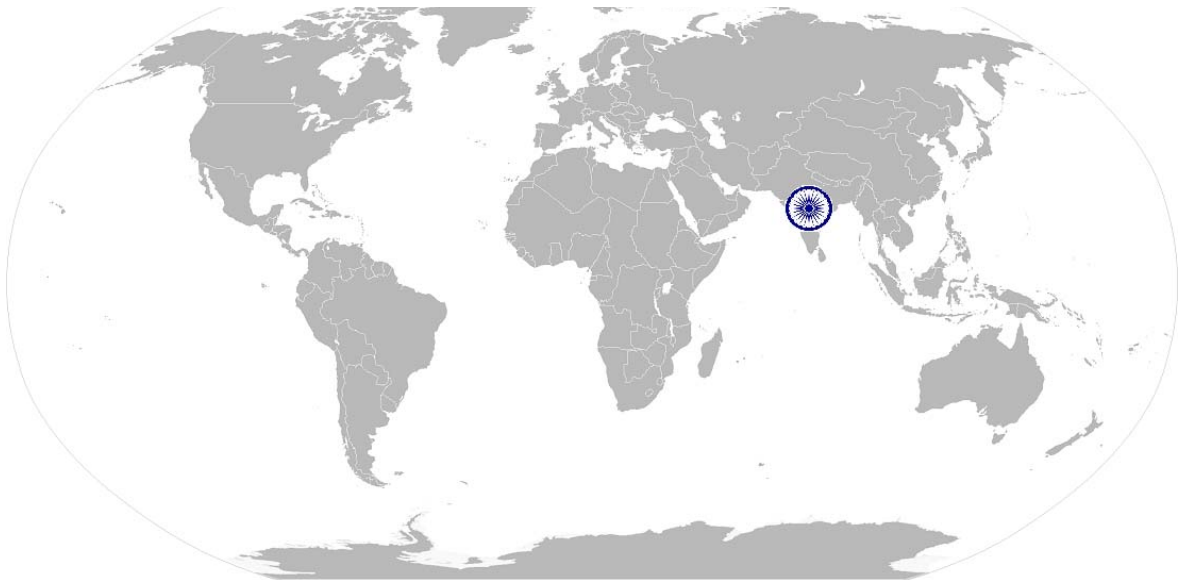
NOS Code	TSC/N 5211		
Credits (NSQF)	TBD	Version number	1.0
Industry	Textile	Drafted on	15/12/15
Industry Sub-sector	Processing	Last reviewed on	25/02/15
Occupation	Dyeing & Printing	Next review date	01/03/16



TSC/N 5212

Check the quality of a sample of the printed fabric

National Occupational Standard



Overview

This unit is about cutting & checking the sample with the standard

TSC/N 5212

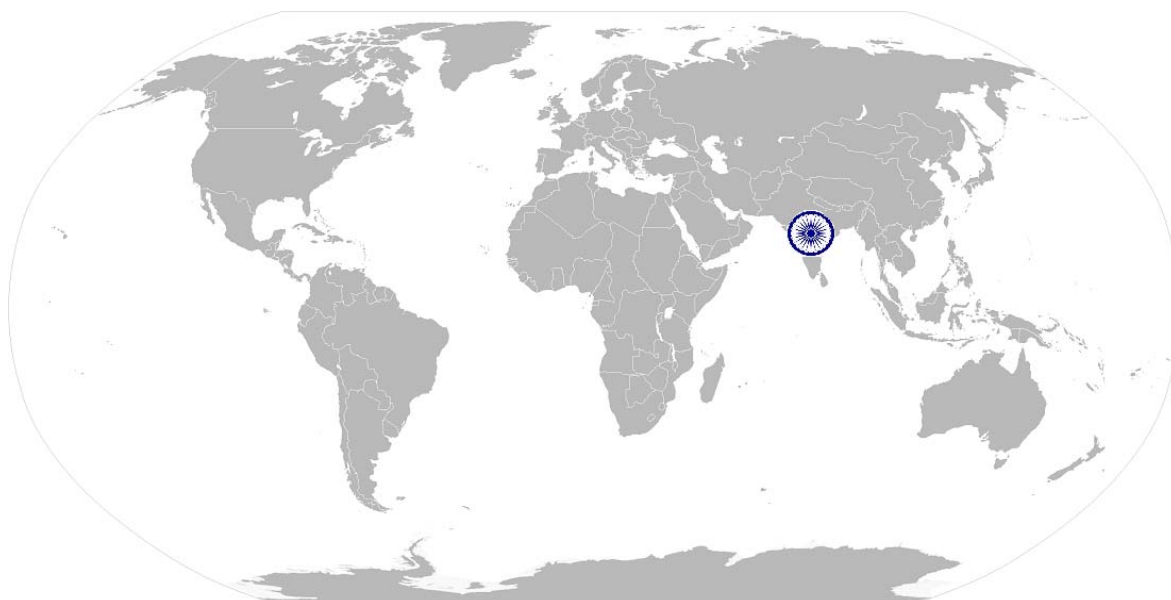
Check the quality of a sample of the printed fabric

Unit Code	TSC/N 5212
Unit Title (Task)	Check the quality of a sample of the printed fabric
Description	This unit is about cutting, developing & checking the sample
Scope	This unit/task covers the following: <ul style="list-style-type: none"> cutting the sample after dryer checking the sample with the standard
Performance Criteria (PC) w.r.t. the Scope	
Elements	Performance Criteria
Cutting the sample after dryer	To be competent, you must be able to: PC1. cut the sample after the dryer PC2. fix/ cure the printed sample in a steamer or oven PC3. wash the sample after curing & dry it
Checking the sample with the standard	PC4. compare the sample with standard as mentioned in the work order PC5. take the sample to supervisor if it's not matching to standard
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company/ organization and its processes)	You need to know and understand: KA1. procedure followed to get the final output in processing unit KA2. standard operating procedure (SOP) and regulations in processing unit KA3. safe working practices to be adopted in processing unit KA4. how to report to the supervisor or higher authority about any grievances faced
B. Technical Knowledge	You need to know and understand: KB1. about time, temp & other curing conditions KB2. how to take the sample to the supervisor immediately to avoid waste of time & production loss
Skills (S)	
A. Core Skills/ Generic Skills	Reading Skills
	You need to know and understand how to: SA1. comprehend written instructions SA2. read any application sent by other colleagues
	Oral Communication (Listening and Speaking skills)
	You need to know and understand how to: SA3. communicate with supervisor appropriately SA4. talk to others to convey information effectively
B. Professional Skills	Problem Solving
	You need to know and understand how to: SB1. identify the real reason of problem faced SB2. apply problem-solving approaches in different situations SB3. refer anomalies to the supervisor SB4. seek clarification on problems from others
	Attention to Detail
	You need to know and understand how to: SB5. apply good attention to detail SB6. check your work is complete and free from errors

TSC/N 5212

Check the quality of a sample of the printed fabric

	<p>SB7. make sure every kind of communication is error free</p> <p>You need to know and understand :</p> <p>SB8. good matching skills & knowledge about the colours</p> <p>SB9. curing & fixing techniques for various dyes</p>
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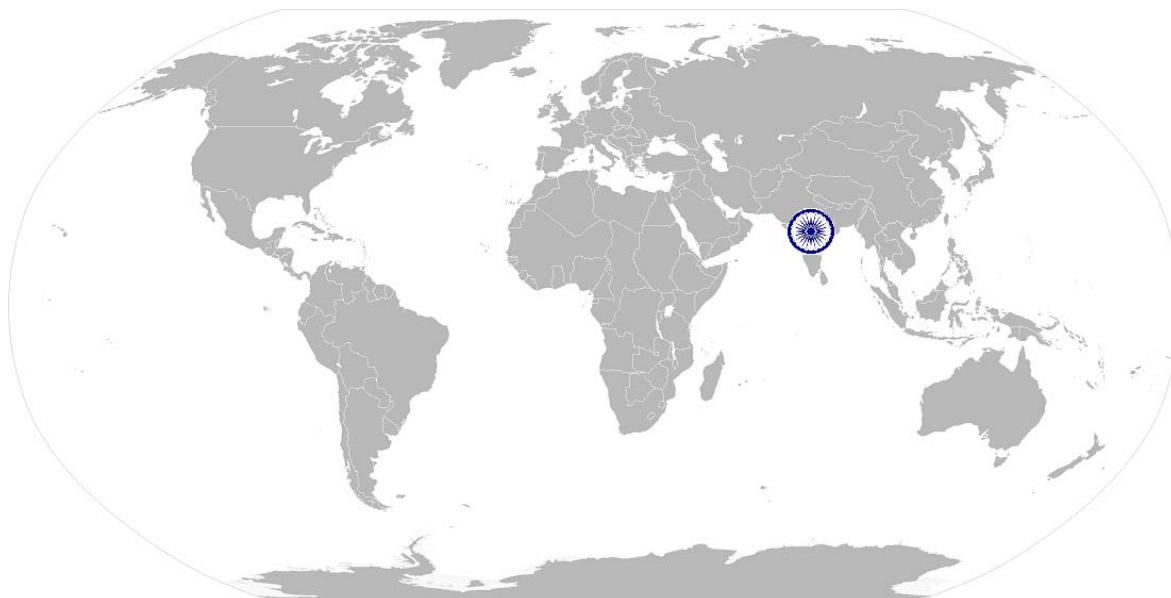


TSC/N 5212

Check the quality of a sample of the printed fabric

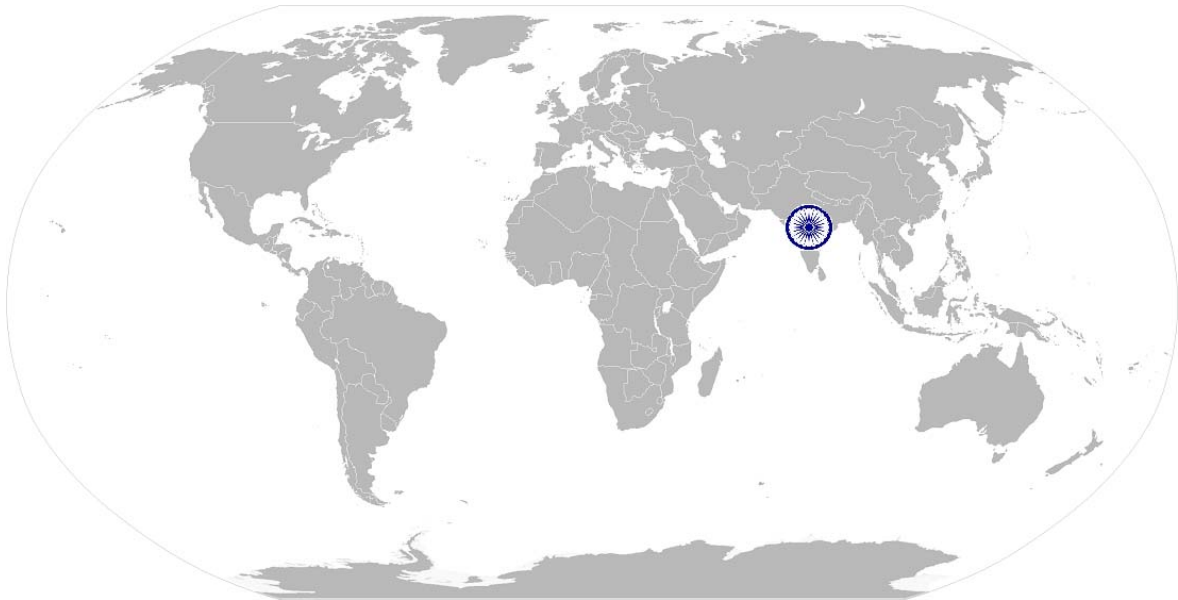
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NOS Code	TSC/N 5212		
Credits (NSQF) [OPTIONAL]	TBD	Version number	1.0
Industry	Textile	Drafted on	15/12/15
Industry Sub-sector	Processing	Last reviewed on	25/02/15
Occupation	Dyeing & Printing	Next review date	01/03/16



Maintain work area, tools and machines

National Occupational Standard



Overview

This unit is about maintaining work areas and activities to ensure tools and machines are maintained as per norms.

TSC/ N9001

Maintaining work area, tools and machines

Unit Code	TSC/N9001
Unit Title (Task)	Maintaining work area, tools and machines
Description	This unit provides performance criteria, knowledge & understanding and skills & abilities required to organise/ maintain work areas and activities to ensure tools and machines are maintained as per norms
Scope	This unit/task covers the following: <ul style="list-style-type: none"> Maintain the work area, tools and machines
Performance Criteria (PC) w.r.t. the Scope	
Elements	Performance Criteria
Maintain the work area, tools and machines	<p>To be competent, you must be able to:</p> <p>PC1. handle materials, machinery, equipment and tools with care and use them in the correct way</p> <p>PC2. use correct lifting and handling procedures</p> <p>PC3. use materials to minimize waste</p> <p>PC4. maintain a clean and hazard free working area</p> <p>PC5. maintain tools and equipment</p> <p>PC6. carry out running maintenance within agreed schedules</p> <p>PC7. carry out maintenance and/or cleaning within one's responsibility</p> <p>PC8. report unsafe equipment and other dangerous occurrences</p> <p>PC9. ensure that the correct machine guards are in place</p> <p>PC10. work in a comfortable position with the correct posture</p> <p>PC11. use cleaning equipment and methods appropriate for the work to be carried out</p> <p>PC12. dispose of waste safely in the designated location</p> <p>PC13. store cleaning equipment safely after use</p> <p>PC14. carry out cleaning according to schedules and limits of responsibility</p>
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company/ organization and its processes)	<p>You need to know and understand:</p> <p>KA1. personal hygiene and duty of care</p> <p>KA2. safe working practices and organisational procedures</p> <p>KA3. limits of your own responsibility</p> <p>KA4. ways of resolving problems within the work area</p> <p>KA5. the production process and the specific work activities that relate to the whole process</p> <p>KA6. the importance of effective communication with supervisors</p> <p>KA7. the lines of communication, authority and reporting procedures</p> <p>KA8. the organisation's rules, codes and standard operating procedure (including time keeping)</p> <p>KA9. the company's quality standards</p> <p>KA10. the importance of complying with written instructions</p> <p>KA11. equipment operating procedures / supervisor's instructions</p>
B. Technical Knowledge	<p>You need to know and understand:</p> <p>KB1. work instructions and specifications and interpret them accurately</p>

TSC/ N9001

Maintaining work area, tools and machines

	<p>KB2. relation between work role and the overall manufacturing process</p> <p>KB3. hazards likely to be encountered when conducting routine maintenance</p> <p>KB4. the importance of taking action when problems are identified</p> <p>KB5. different ways of minimizing waste</p> <p>KB6. the importance of running maintenance and regular cleaning</p> <p>KB7. effects of contamination on products i.e. machine oil, dirt, foreign materials</p> <p>KB8. common faults with equipment and the method to rectify</p> <p>KB9. maintenance procedures</p> <p>KB10. different types of cleaning equipment and substances and their use</p> <p>KB11. safe working practices for cleaning and the method of carrying them out</p>
Skills (S)	
A. Core Skills/ Generic Skills	Reading Skills
	You need to know and understand how to:
	SA1. read and comprehend written instructions
	SA2. read any application sent by other colleagues
	Oral Communication (Listening and Speaking skills)
	You need to know and understand how to:
	SA3. communicate in local language orally
	SA4. communicate with supervisor appropriately
	SA5. talk to others to convey information effectively
B1. Professional Skills	Problem Solving
	You need to know and understand how to:
	SB1. identify the real reason of problem faced
	SB2. apply problem-solving approaches in different situations
	SB3. refer anomalies to the supervisor
	SB4. seek clarification on problems from others
	Attention to Detail
	You need to know and understand how to:
	SB5. apply good attention to detail
	SB6. check your work is complete and free from errors
	SB7. make sure every kind of communication is error free
	You need to know and understand :
	SB8. communicate effectively
	SB9. apply leadership skills wherever required
	SB10. take initiative at the right place
	SB11. understand the requirement to be creative

TSC/ N9001

Maintaining work area, tools and machines

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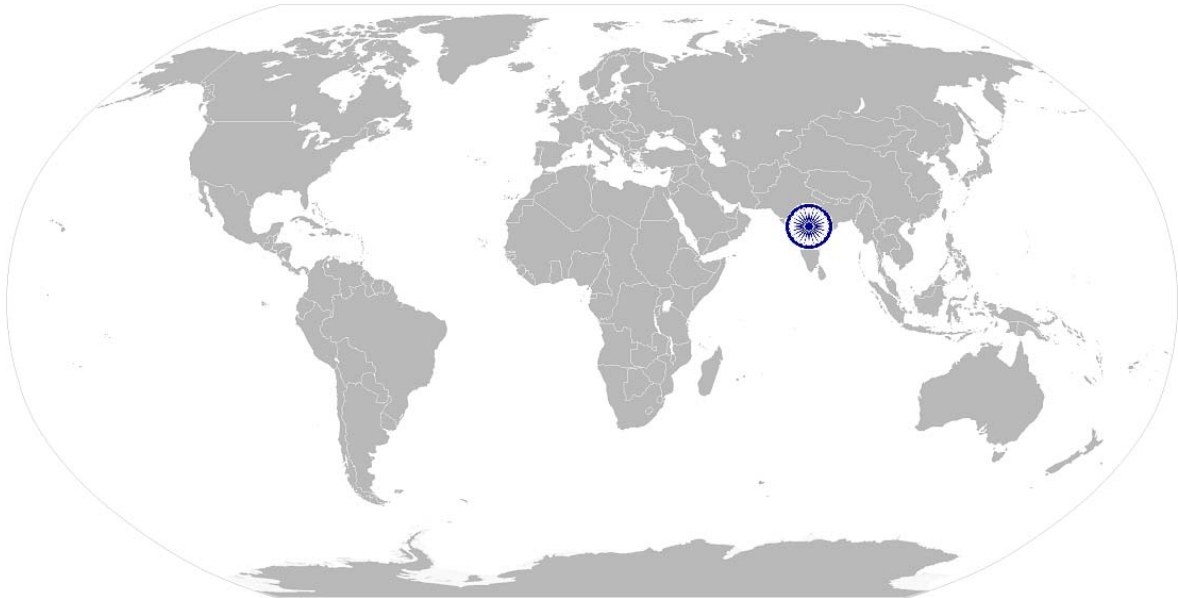
NOS Code	TSC/ N9001		
Credits (NSQF)	TBD	Version number	1.0
Industry	Textile	Drafted on	15/12/15
Industry Sub-sector	Processing	Last reviewed on	25/02/15
Occupation	Dyeing & Printing	Next review date	01/03/16



TSC/ N9002

Working in a team

National Occupational Standard



Overview

This unit is about working as part of a team in the textile industry.

TSC/ N9002

Working in a team

Unit Code	TSC/ N9002
Unit Title (Task)	Working in a team
Description	This unit is about working as a team member in the role of processing unit operator in the textile industry
Scope	This unit/task covers the following: <ul style="list-style-type: none"> Commitment and trust Communication Adaptability Creative freedom
Performance Criteria (PC) w.r.t. the Scope	
Elements	Performance Criteria
Commitment and trust	To be competent, you must be able to: PC1. be accountable to the own role in whole process PC2. perform all roles with full responsibility PC3. be effective and efficient at workplace
Communication	PC4. properly communicate about company policies PC5. report all problems faced during the process PC6. talk politely with other team members and colleagues PC7. submit daily report of own performance
Adaptability	PC8. adjust in different work situations PC9. give due importance to others' point of view PC10. avoid conflicting situations PC11. collaborate with colleagues performing the pre-required and post-required duty of processing unit operator
Creative freedom	PC12. develop new ideas for work procedures PC13. improve upon the existing techniques to increase process efficiency
Knowledge and Understanding (K)	
A. Organizational Context	You need to know and understand: KA1. standard operating procedure (SOP) and regulations in a textile mill KA2. procedure followed to get the final output in the textile mill KA3. safe working practices to be adopted in textile mill KA4. reporting to the supervisor or higher authority about any grievances faced
B. Technical Knowledge	KB1. the importance of the previous and next step of the process KB2. process flow in a processing unit and the concerned workers KB3. material flow in a processing unit and the required person KB4. functions of different parts of a processing unit machine KB5. tools and equipments used KB6. guidelines for operating the processing unit machine KB7. safety procedures to be followed in a processing unit machine
Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills You need to know and understand how to: SA1. write clear and short sentences

TSC/ N9002

Working in a team

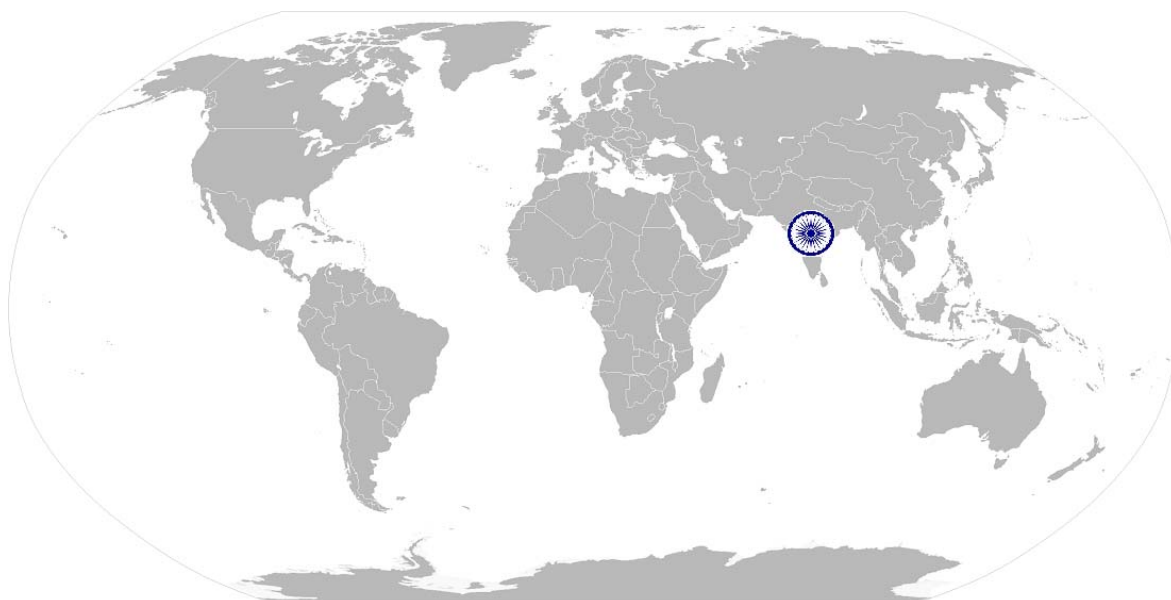
	SA2. write daily work report
	SA3. write grievance complaint application
	Reading Skills
	You need to know and understand how to: SA4. read and comprehend written instructions SA5. read any application sent by other colleagues
	Oral Communication (Listening and Speaking skills)
	You need to know and understand how to: SA6. communicate with supervisor appropriately SA7. talk to co-workers to convey information effectively
B. Professional Skills	Problem Solving
	You need to know and understand how to: SB1. identify the real reason of problem faced SB2. be able to find the most effective solution to the problems faced
	Attention to Detail
	You need to know and understand how to: SB3. apply good attention to detail SB4. ensure every kind of communication is error free
	You need to know and understand how to: SB5. communicate effectively SB6. apply leadership skills wherever required SB7. take initiative at the right place SB8. understand the requirement to be creative

TSC/ N9002

Working in a team

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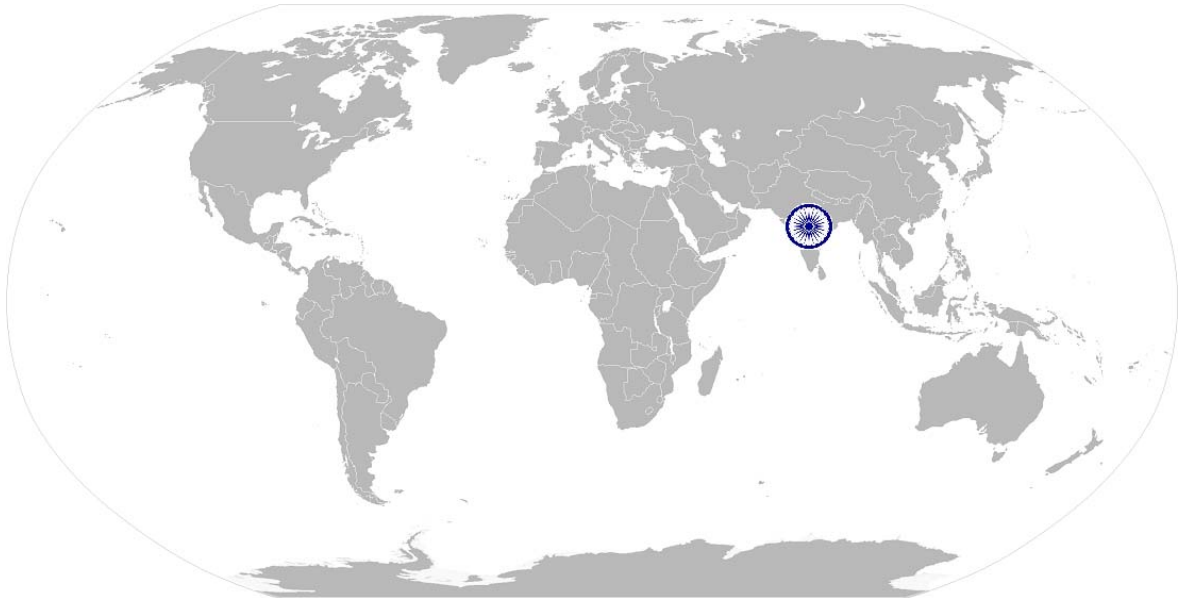
NOS Code	TSC/ N9002		
Credits (NSQF)	TBD	Version number	1.0
Industry	Textile	Drafted on	15/12/15
Industry Sub-sector	Processing	Last reviewed on	25/02/15
Occupation	Dyeing & Printing	Next review date	01/03/16



TSC/ N9003

Maintain health, safety and security at work place

National Occupational Standard



Overview

This unit is about maintaining health, safety, and security standards at workplace.

TSC/ N9003

Maintain health, safety and security at work place

Unit Code	TSC/ N9003
Unit Title (Task)	Maintain health, safety and security at work place
Description	This unit provides performance criteria, knowledge & understanding and skills & abilities required to comply with health, safety and security requirements at the workplace and covers procedures to prevent, control and minimize risk to self and others.
Scope	This unit/task covers the following: <ul style="list-style-type: none"> comply with health, safety and security requirements at work recognizing the hazards planning the safety techniques implementing the programs
Performance Criteria (PC) w.r.t. the Scope	
Elements	Performance Criteria
Comply with health, Safety and security requirements at work	<p>To be competent, operator must be able to:</p> <p>PC1. comply with health and safety related instructions applicable to the workplace</p> <p>PC2. use and maintain personal protective equipment such as “ear plug” “nose mask” “head cap” etc., as per protocol</p> <p>PC3. carry out own activities in line with approved guidelines and procedures</p> <p>PC4. maintain a healthy lifestyle and guard against dependency on intoxicants</p> <p>PC5. follow environment management system related procedures</p> <p>PC6. identify and correct (if possible) malfunctions in machinery and equipment</p> <p>PC7. report any service malfunctions that cannot be rectified</p> <p>PC8. store materials and equipment in line with organisational requirements</p> <p>PC9. safely handle and remove waste</p> <p>PC10. minimize health and safety risks to self and others due to own actions</p> <p>PC11. seek clarifications, from supervisors or other authorized personnel in case of perceived risks</p> <p>PC12. monitor the workplace and work processes for potential risks and threat</p> <p>PC13. carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned</p> <p>PC14. report hazards and potential risks/ threats to supervisors or other authorized personnel</p> <p>PC15. participate in mock drills/ evacuation procedures organized at the workplace</p> <p>PC16. undertake first aid, fire-fighting and emergency response training, if asked to do so</p> <p>PC17. take action based on instructions in the event of fire, emergencies or accidents</p> <p>PC18. follow organisation procedures for shutdown and evacuation when required</p>
Recognizing the hazards	<p>PC19. identify different kinds of possible hazards (environmental, personal, ergonomic, chemical) of the industry</p> <p>PC20. recognise other possible security issues existing in the workplace</p>
Planning the safety techniques	PC21. recognise different measures to curb the hazards

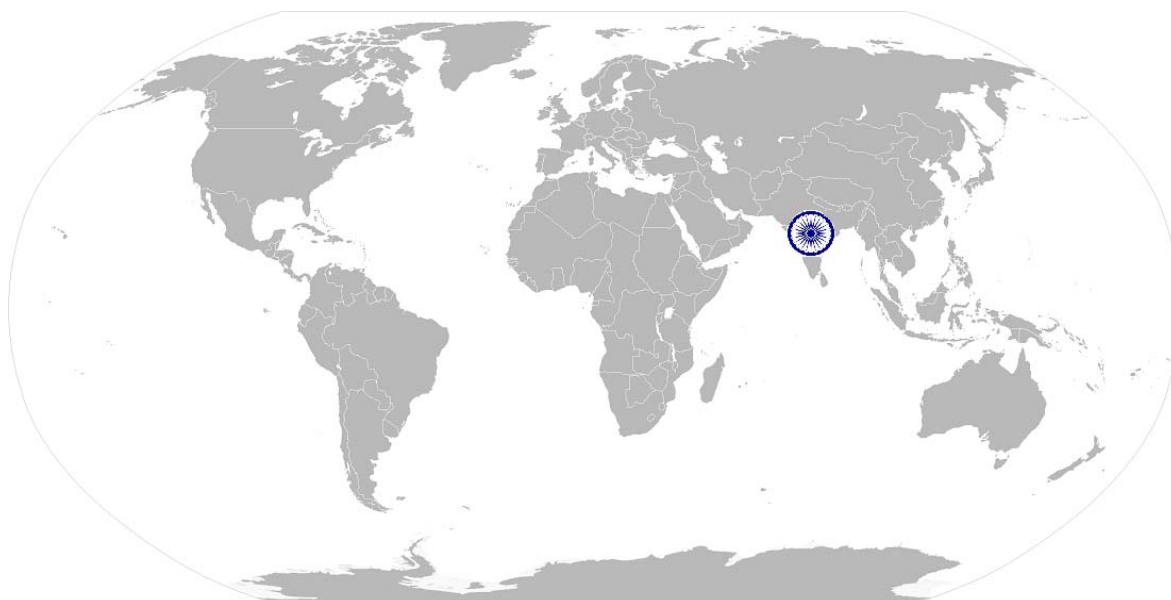
TSC/ N9003
Maintain health, safety and security at work place

Implementing the programs	PC22. communicate the safety plan to everyone PC23. attach disciplinary rules with the implementation
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company/ organization and its processes)	<p>You need to know and understand:</p> <p>KA1. standard operating procedure (SOP) and regulations in a textile mill</p> <p>KA2. safe working practices to be adopted in textile mill</p> <p>KA3. quality systems and other processes practiced in the textile mill</p> <p>KA4. health and safety related practices applicable at the workplace</p> <p>KA5. potential hazards, risks and threats based on nature of operations</p> <p>KA6. organizational procedures for safe handling of equipment and machine operations</p> <p>KA7. potential risks due to own actions and methods to minimize these</p> <p>KA8. environmental management system related procedures at the workplace</p> <p>KA9. layout of the plant and details of emergency exits, escape routes, emergency equipment and assembly points</p> <p>KA10. potential accidents and emergencies and response to these scenarios</p> <p>KA11. reporting protocol and documentation required</p> <p>KA12. details of personnel trained in first aid, fire-fighting and emergency response</p> <p>KA13. actions to take in the event of a mock drills/ evacuation procedures or actual accident, emergency or fire</p>
B. Technical Knowledge	<p>You need to know and understand:</p> <p>KB1. occupational health and safety risks and methods</p> <p>KB2. personal protective equipment and method of use</p> <p>KB3. identification, handling and storage of hazardous substances</p> <p>KB4. proper disposal system for waste and by-products</p> <p>KB5. signage related to health and safety and their meaning</p> <p>KB6. importance of sound health, hygiene and good habits</p> <p>KB7. ill-effects of alcohol, tobacco and drugs</p>
Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills
	You need to know and understand how to:
	SA1. write clear and short sentences
	Reading Skills
	You need to know how to:
	SA2. read and understand the company instructions SA3. read and understand the local language SA4. read and understand the safety guidelines
B. Professional Skills	Oral Communication (Listening and Speaking skills)
	SA5. listen to others attentively
	SA6. respond to emergencies, accidents or fire at the workplace
	SA7. evacuate the premises and help others in need while doing so
	SA8. the value of physical fitness, personal hygiene and good habits
	SA9. talk with others politely
B. Professional Skills	Decision Making
	SB1. identify correct safety measure for particular hazard

TSC/ N9003

Maintain health, safety and security at work place

	SB2. make required safety plans as and when required
	SB3. raise alarm in case of emergency
	Analytical Thinking
	SB4. know the use of correct safety measure whenever required
	Attention to Detail
	SB5. be attentive to details SB6. be careful to avoid occurrence of hazards you need to know and understand : SB7. maintain neatness at work SB8. procedure for reporting unwanted behavior

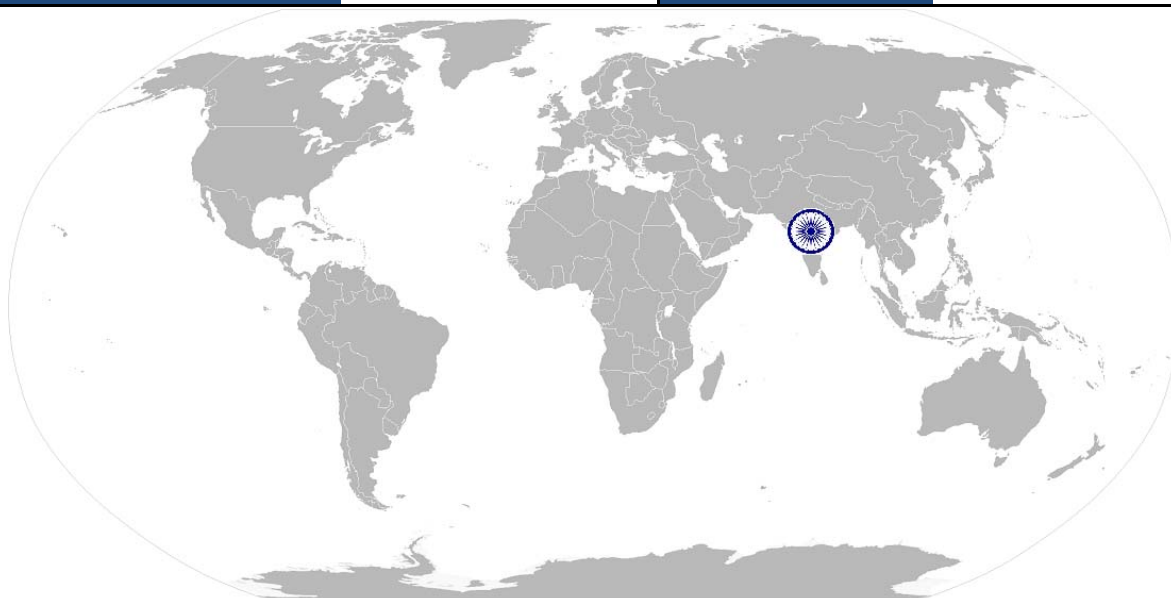


TSC/ N9003

Maintain health, safety and security at work place

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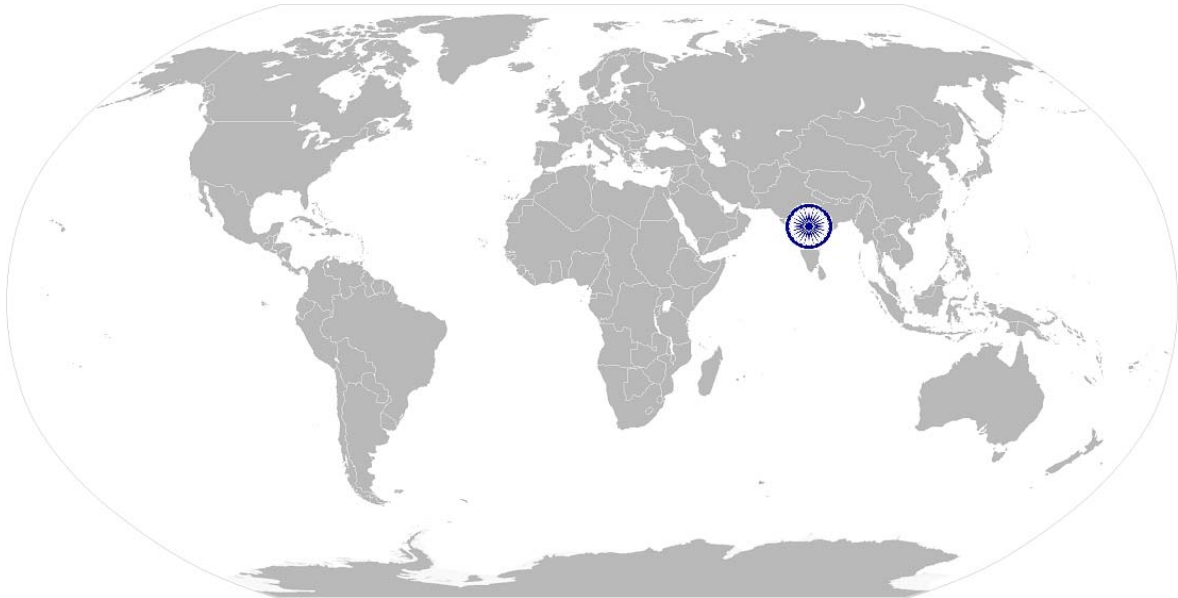
NOS Code	TSC/ N9003		
Credits (NSQF)	TBD	Version number	1.0
Industry	Textile	Drafted on	15/12/15
Industry Sub-sector	Processing	Last reviewed on	25/02/15
Occupation	Dyeing & Printing	Next review date	01/03/16



TSC/N9004

Comply with industry and organizational requirements

National Occupational Standard



Overview

This unit is about knowing, understanding, and complying with the requirements of the organization and the textile industry

TSC/N9004

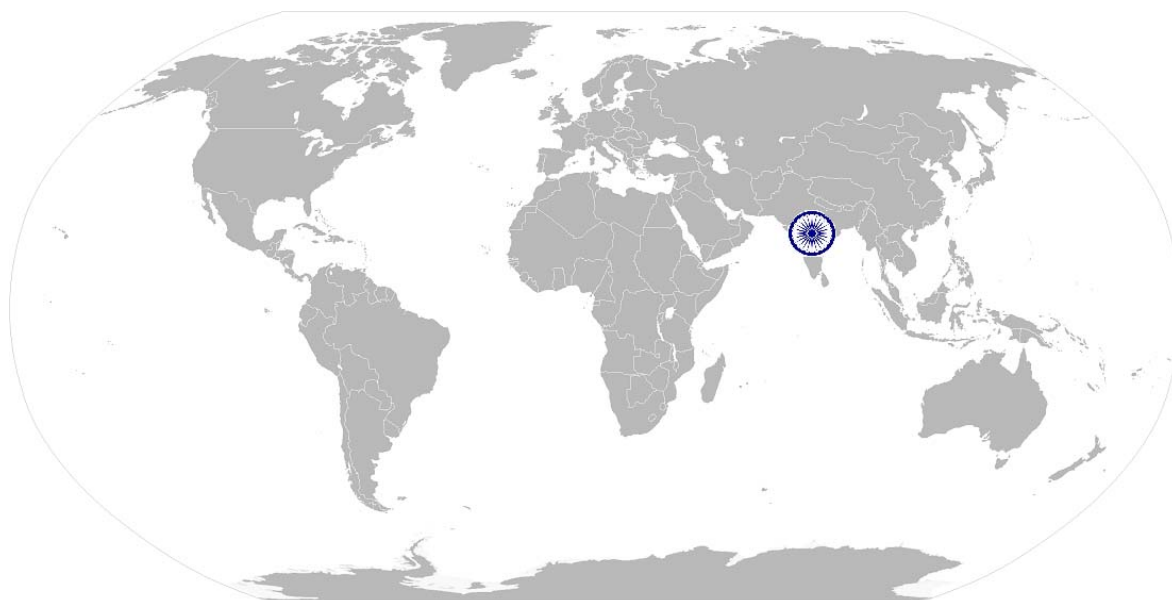
Comply with industry and organizational requirements

Unit Code	TSC/ N9004
Unit Title (Task)	Comply with industry and organizational requirements
Description	This unit is about knowing, understanding, and complying with the requirements of the organization and the textile industry
Scope	This unit/task covers the following: <ul style="list-style-type: none"> self development team work organizational standards industry standards
Performance Criteria (PC) w.r.t. the Scope	
Elements	Performance Criteria
Self- development	To be competent, you must be able to: PC1. perform own duties effectively PC2. take responsibility for own actions PC3. be accountable towards the job role and assigned duties PC4. take initiative and innovate the existing methods PC5. focus on self-learning and improvement
Team work	PC6. co-ordinate with all the team members and colleagues PC7. communicate politely PC8. avoid conflicts and miscommunication
Organisational standards	PC9. know the organisational standards PC10. implement them in your performance PC11. motivate others to follow them
Industry standards	PC12. know the industry standards PC13. align them with organisation standards
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company/ organization and its processes)	You need to know and understand: KA1. standard operating procedure (SOP) and regulations in a processing unit KA2. reporting to the supervisor or higher authority KA3. organisational standards KA4. industry standards
B. Technical Knowledge	KB1. process and material flow in a processing unit KB2. importance of complying with the standards KB3. guidelines for cleaning the various part of processing unit machine
Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills You need to know and understand how to: SA1. write reports SA2. write clear and short sentences Reading Skills

TSC/N9004

Comply with industry and organizational requirements

	<p>You need to know and understand how to:</p> <p>SA3. read the local language</p> <p>SA4. read one more language other than the local language</p> <p>SA5. read and comprehend the standards and rules</p>
	<p>Oral Communication (Listening and Speaking skills)</p> <p>You need to know and understand how to:</p> <p>SA6. talk effectively with others</p> <p>SA7. put forward your point</p> <p>SA8. listen to others</p> <p>SA9. procedure of preparing the industry standards</p> <p>SA10. procedure to follow the given standards</p> <p>SA11. procedure to comply with the standards</p>



TSC/N9004

Comply with industry and organizational requirements

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NOS Code	TSC/N 9004		
Credits (NSQF)	TBD	Version number	1.0
Industry	Textile	Drafted on	15/12/15
Industry Sub-sector	Processing	Last reviewed on	25/02/15
Occupation	Dyeing & Printing	Next review date	01/03/16



Job Role: Printing Machine Operator
Qualification Pack: Printing Machine Operator
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 evaluations for skill practical for every student at each examination/training centre (as per assessment criteria below).
4. To pass the qualification pack, every trainee should score a minimum of 80%.

National Occupational Standards (NOS)	Performance Criteria (PC)	Total Marks	Out Of	Marks Allocation		
				Theory	Skills Practical	Viva
1. TSC/N 5210 Taking charge of shift and handing over shift to Printing Machine Operator	PC1. come at least 10 - 15 minutes earlier to the work place	40	2	0	2	0
	PC2. bring the necessary operational tools to the department		1	0	1	0
	PC3. 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.		2	0	1	1
	PC4. understand the fabric being processed & process running on the machine		2	1	0	1
	PC5. ensure the technical details are mentioned on the job card display on the machine		3	1	1	1
	PC6. check for the availability of the spare trolley for unloading the fabric		1	0	1	0
	PC7. check the next batch to be processed is ready near the machine		1	0	1	0
	PC8. ensure the required dyes & chemicals are already weighed & prepared		1	0	1	0
	PC9. check the cleanliness of the machines & other work areas		2	0	2	0
	PC10. question the previous shift operator for any deviation in the above and should bring the same to the		2	0	2	0

PERFECTING SKILLS	knowledge of his/ her shift superior as well as that of the previous shift.				
	PC11. Take over the shift from the outgoing operator in a proper manner	1	0	1	0
	PC12. ensure in providing the details regarding fabric quality & the process running on the machine	3	1	1	1
	PC13. provide all relevant information regarding the stoppages or breakdown in the machine, any damage to the fabric or machine.	2	0	2	0
	PC14. ensure the empty trolley is near the machine for unloading the fabric	1	0	1	0
	PC15. ensure the next lot to be processed is ready near the machine already stitched & arranged properly	2	0	2	0
	PC16. ensure the required dyes & chemicals for the next lot or next process are weighed & prepared	2	0	2	0
	PC17. get clearance from the incoming counterpart before leaving the work spot	2	0	2	0
	PC18. 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	2	0	2	0
	PC19. ensure the shift has to be properly handed over to the incoming shift operator	2	0	2	0
	PC20. 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	3	1	1	1
	PC21. collect the wastes from waste collection bags, weigh them and transport to storage area	1	0	1	0
	PC22. ensure the machine and its work place is clean	2	0	2	0
	Total	40	4	31	5
	Weightage %		10%	78%	12%

2. TSC/N 5211 Operating the Printing Machine	PC1. understand the task mentioned in the work order	40	2	1	0	1
	PC2. ensure that the machine is empty & clean		2	0	2	0
	PC3. load the fabric from the batch/trolley in the center of the machine at the feeding point		1	0	1	0
	PC4. ensure fabric is crease-free and lint/dust free		2	0	2	0
	PC5. place the screens on the print station/ printing head according to the colours to be printed		3	0	2	1
	PC6. set the repeat according to the design to be printed		3	0	3	0
	PC7. apply glue /adhesive material to the printing blanket for sticking		1	0	1	0
	PC8. get all dyes & printing chemical / auxiliaries weighed		1	0	1	0
	PC9. mix the thickener , binder & other auxiliaries first to get the required viscosity		3	1	2	0
	PC10.add dyes/ pigments to the thickening paste according to the shade		2	0	2	0
	PC11.filter the print paste to avoid choke up of design screen		2	0	2	0
	PC12.check screen 'zero' position on the blanket for proper fabric printing before starting to print fabric		1	0	1	0
	PC13.Start the machine & adjust the squeeze pressure if registration is poor or uneven		1	0	1	0
	PC14.maintain synchronized & continuous feeding of fabric		2	0	2	0
	PC15.check for pin holes & other defects due to blockage of screen		2	0	2	0
	PC16.clean the screens if machine is stopped for longer periods		2	0	2	0
	PC17.make sure the fabric is dried properly after printing		2	0	2	0
	PC18.keep the machine clean at all times		1	0	1	0
	PC19.follow the preventive maintenance schedule & ensure the machine is running smoothly		2	0	2	0
	PC20.check that all controls are functioning properly		2	0	2	0
	PC21.clean the printing blanket before		3	0	3	0

	changing to new design or new matching					
	Total		40	2	36	2
		Weightage %		5%	90%	5%
3. TSC/N 5212 Check the quality of a sample of the printed fabric	PC1. cut the sample after the dryer	9	1	0	1	0
	PC2. fix/ cure the printed sample in a steamer or oven		3	0	2	1
	PC3. wash the sample after curing & dry it		2	0	2	0
	PC4. compare the sample with standard as mentioned in the work order		2	0	2	0
	PC5. take the sample to supervisor if it's not matching to standard		1	0	1	0
	Total		9	0	8	1
		Weightage %		0%	89%	11%
4. TSC/ N9001 Maintain work area, tools and machines	PC1. handle materials, machinery, equipment and tools with care and use them in the correct way	29	3	1	2	0
	PC2. use correct lifting and handling procedures		1	0	1	0
	PC3. use materials to minimize waste		2	1	1	0
	PC4. maintain a clean and hazard free working area		3	1	1	1
	PC5. maintain tools and equipment		3	1	2	0
	PC6. carry out running maintenance within agreed schedules		2	1	1	0
	PC7. carry out maintenance and/or cleaning within one's responsibility		1	0	1	0
	PC8. report unsafe equipment and other dangerous occurrences		1	1	0	0
	PC9. ensure that the correct machine guards are in place		2	1	1	0
	PC10. work in a comfortable position with the correct posture		3	1	2	0
	PC11. use cleaning equipment and methods appropriate for the work to be carried out		2	1	1	0
	PC12. dispose of waste safely in the designated location		2	0	2	0
	PC13. store cleaning equipment safely after use		2	0	2	0
	PC14. carry out cleaning according to schedules and limits of responsibility		2	1	1	0

	Total	Weightage %	29	10	18	1
				35%	62%	3%
5.TSC/ N9002 Working in a team	PC1.be accountable to the own role in whole process	26	2	1	1	0
	PC2.perform all roles with full responsibility		3	1	2	0
	PC3.be effective and efficient at workplace		4	1	2	1
	PC4.properly communicate about company policies		2	1	0	1
	PC5.report all problems faced during the process		1	1	0	0
	PC6.talk politely with other team members and colleagues		2	1	1	0
	PC7.submit daily report of own performance		1	0	1	0
	PC8.adjust in different work situations		2	0	2	0
	PC9.give due importance to others' point of view		2	1	0	1
	PC10. avoid conflicting situations		3	1	1	1
	PC11. collaborate with colleagues performing the pre-required and post-required duty of processing unit operator		2	1	1	0
	PC12. develop new ideas for work procedures		1	0	1	0
	PC13. improve upon the existing techniques to increase process efficiency		1	1	0	0
	Total		26	10	12	4
		Weightage %		39%	46%	15%
6. TSC/ N9003 Maintain health, safety and security at workplace	PC1. comply with health and safety related instructions applicable to the workplace	71	5	1	3	1
	PC2. use and maintain personal protective equipment such as " ear plug" " nose mask " " head cap" etc., as per protocol		5	1	3	1
	PC3. carry out own activities in line with approved guidelines and procedures		3	1	2	0
	PC4. maintain a healthy lifestyle and guard against dependency on intoxicants		2	1	0	1
	PC5. follow environment management		3	1	2	0

PERFECTING SKILLS	system related procedures				
	PC6. identify and correct (if possible) malfunctions in machinery and equipment	3	1	1	1
	PC7. report any service malfunctions that cannot be rectified	2	1	0	1
	PC8. store materials and equipment in line with organisational requirements	2	0	1	1
	PC9. safely handle and remove waste	2	0	2	0
	PC10. minimize health and safety risks to self and others due to own actions	3	1	1	1
	PC11. seek clarifications, from supervisors or other authorized personnel in case of perceived risks	3	1	1	1
	PC12. monitor the workplace and work processes for potential risks and threat	2	0	2	0
	PC13. carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned	3	2	0	1
	PC14. report hazards and potential risks/ threats to supervisors or other authorized personnel	3	2	0	1
	PC15. participate in mock drills/ evacuation procedures organized at the workplace	3	1	2	0
	PC16. undertake first aid, fire-fighting and emergency response training, if asked to do so	5	2	2	1
	PC17. take action based on instructions in the event of fire, emergencies or accidents	4	1	2	1
	PC18. follow organisation procedures for shutdown and evacuation when required	2	0	2	0
	PC19. identify different kinds of possible hazards (environmental, personal, ergonomic, chemical) of the industry	5	1	3	1
	PC20. recognise other possible security issues existing in the workplace	3	1	1	1
	PC21. recognise different measures to curb the hazards	3	1	2	0
	PC22. communicate the safety plan to everyone	3	2	0	1
	PC23. attach disciplinary rules with the implementation	2	1	1	0

	Total	Weightage %	71	23	33	15
				32%	47%	21%
7. TSC/ N9004 Comply with industry and organisational requirements	PC1. perform own duties effectively	39	4	1	2	1
	PC2. take responsibility for own actions		4	1	2	1
	PC3. be accountable towards the job role and assigned duties		3	1	1	1
	PC4. take initiative and innovate the existing methods		4	1	2	1
	PC5. focus on self-learning and improvement		3	1	1	1
	PC6. co-ordinate with all the team members and colleagues		3	1	2	0
	PC7. communicate politely		3	1	2	0
	PC8. avoid conflicts and miscommunication		3	1	2	0
	PC9. know the organisational standards		2	1	1	0
	PC10. implement them in your performance		3	1	2	0
	PC11. motivate others to follow them		3	1	2	0
	PC12. know the industry standards		2	1	0	1
	PC13. align them with organisation standards		2	0	2	0
	Total		39	12	21	6
		Weightage %		31%	54%	15%
Grand Total			254	61	159	34