



COMPETENCY STANDARD FOR QUALITY CONTROL FOR SPINNING

Level: 03

(RMG & Textile Sector)

Competency Standard Code: CS-RMGT-QCS-L3-EN-V1



**National Skills Development Authority
Prime Minister's Office
Government of the People's Republic of Bangladesh**

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This Competency Standard for Occupation is a document for the development of curricula, teaching and learning materials, and assessment tools. It also serves as the document for providing training consistent with the requirements of industry in order to meet the qualification of individuals who graduated through the established standard via competency-based assessment for a relevant job.

This document has been developed by NSDA in association with RMG & Textile Sector, industry representatives, academia, related specialist, trainer and related employee.

Public and private institutions may use the information contained in this standard for activities benefitting Bangladesh.

Introduction

The NSDA aims to enhance an individual's employability by certifying completeness with skills. NSDA works to expand the skilling capacity of identified public and private training providers qualitatively and quantitatively. It also aims to establish and operationalize a responsive skills ecosystem and delivery mechanism through a combination of well-defined set of mechanisms and necessary technical supports.

Key priority economic growth sectors identified by the government have been targeted by NSDA to improve current job skills along with existing workforce to ensure required skills to industry standards. Training providers are encouraged and supported to work with industry to address identified skills and knowledge to enable industry growth and increased employment through the provision of market responsive inclusive skills training program. "**Quality Control for Spinning**" is selected as one of the priority occupations of RMG & Textile Sector. This standard is developed to adopt a demand driven approach to training with effective inputs from Industry Skills Councils (ISC's), employer associations and employers.

Generally, a competency standard informs curriculum, learning materials, assessment and certification of trainees enrolled in Skills Training. Trainees who successfully pass the assessment will receive a qualification in the National Skills Qualification Framework (NSQF) under Bangladesh National Qualification Framework and will be listed on the NSDA's online portal.

This competency standard is developed to improve skills and knowledge in accordance with the job roles, duties and tasks of the occupation and ensure that the required skills and knowledge are aligned to industry requirements. A series of stakeholder consultations, workshops were held to develop this document.

The document also details the format, sequencing, wording and layout of the Competency Standard for an occupation which is comprised of Units of Competence and its corresponding Elements.

Overview

A competency standard is a written specification of the knowledge, skills and attitudes required for the performance of an occupation, trade or job corresponding to the industry standard of performance required in the workplace.

The purpose of a competency standards is to:

- provide a consistent and reliable set of components for training, recognising and assessing people's skills, and may also have optional support materials
- enable industry recognised qualifications to be awarded through direct assessment of workplace competencies
- encourage the development and delivery of flexible training which suits individual and industry requirements
- encourage learning and assessment in a work-related environment which leads to verifiable workplace outcomes

Competency standards are developed by a working group comprised of representative from NSDA, Key Institutions, ISC, and industry experts to identify the competencies required of an occupation in Informal Sector.

Competency standards describe the skills, knowledge and attitude needed to perform effectively in the workplace. CS acknowledge that people can achieve technical and vocational competency in many ways by emphasizing what the learner can do, not how or where they learned to do it.

With competency standards, training and assessment may be conducted at the workplace or at training institute or any combination of these.

Competency standards consist of a number of units of competency. A unit of competency describes a distinct work activity that would normally be undertaken by one person in accordance with industry standards.

Units of competency are documented in a standard format that comprises of:

- unit title
- nominal duration
- unit code
- unit descriptor
- elements and performance criteria
- variables and range statement
- curricular content guide
- assessment evidence guide

Together, all the parts of a unit of competency:

- describe a work activity
- guide the assessor to determine whether the candidate is competent or not yet competent

The ensuing sections of this document comprise of a description of the relevant occupation, trade or job with all the key components of a unit of competency, including:

- a chart with an overview of all Units of Competency for the relevant occupation, trade or job including the Unit Codes and the Unit of Competency titles and corresponding Elements
- the Competency Standard that includes the Unit of Competency, Unit Descriptor, Elements and Performance Criteria, Range of Variables, Curricular Content Guide and Assessment Evidence Guide.

**Competency Standards for National Skill Certificate, Level-03 in
Quality Control for Spinning in RMG & Textile Sector**

Level Descriptors of NSQF (BNQF 1-6)

Level & Job classification	Knowledge Domain	Skills Domain	Responsibility Domain
6-Mid-Level Manager/ Sub Assistant Engineer	Comprehensive actual and theoretical knowledge within a specific work or study area with an awareness of the validity and limits of that knowledge, able to analyse, compare, relate and evaluate.	Specialised and wider range of cognitive and practical skills required to provide leadership in the development of creative solutions to defined problems. Communicate professional issues and solutions to the team and to external partners/users.	Work under broad guidance and self-motivation to execute strategic and operational plan/s. Lead lower-level management. Diagnose and resolve problems within and among work groups.
5-Supervisor	Broad knowledge of the underlying, concepts, principles, and processes in a specific work or study area, able to scrutinize and break information into parts by identifying motives or causes.	Broad range of cognitive and practical skills required to generate solutions to specific problems in one or more work or study areas. Communicate practice-related problems and possible solutions to external partners.	Work under guidance of management and self-direction to resolve specific issues. Lead and take responsibility for the work and actions of group/team members. Bridge between management.
4-Highly Skilled Worker	Broader knowledge of the underlying, concepts, principles, and processes in a specific work or study area, able to solve problems to new situations by comparing and applying acquired knowledge.	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying the full range of methods, tools, materials and information. Communicate using technical terminology and IT technology with partners and users as per workplace requirements.	Work under minimal supervision in specific contexts in response to workplace requirements. Resolve technical issues in response to workplace requirements and lead/guide a team/ group.
3-Skilled Worker	Moderately broad knowledge in a specific work or study area, able to perceive ideas and abstract from drawing and design according to workplace requirements.	Basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools. Communicate with his team and limited external partners upholding the values, nature and culture of the workplace	Work or study under supervision with considerable autonomy. Participate in teams and responsible for group coordination.
2-Semi Skilled Worker	Basic understanding of underpinning knowledge in a specific work or study area, able to interpret and apply common occupational terms and instructions.	Skills required to carry out simple tasks, communicate with his team in the workplace presenting and discussing results of his work with required clarity.	Work or study under supervision in a structured context with limited scope of manipulation
1 –Basic Skilled Worker	Elementary understanding of ability to interpret the underpinning knowledge in a specific study area, able to interpret common occupational terms and instructions.	Specific Basic skills required to carry out simple tasks. Interpret occupational terms and present the results of own work within guided work environment/ under supervision.	Work under direct supervision in a structured context with limited range of responsibilities.

List of Abbreviations

CS	- Competency Standard
ISC	- Industry Skills Council
NSDA	- National Skills Development Authority
NSQF	- National Skills Qualifications Framework
OSH	- Occupational Safety and Health
PPE	- Personal Protective Equipment
SCVC	- Standards and Curriculum Validation Committee
STP	- Skills Training Provider
SOP	- Standard Operating Procedure
UoC	- Unit of Competency

Approved by

---th Executive Committee (EC) Meeting of NSDA

Held on -----

Deputy Director (Admin)

and

Officer of Secretarial Duties for EC meeting
National Skills Development Authority

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**Competency Standards for National Skill Certificate, Level-03 in
Quality Control for Spinning in RMG & Textile Sector**

Course Structure

SL No	Unit code and Title	UOC Level	Nominal (hours)
Generic Units of Competencies			
1.	GU002L2V1	Apply Occupational Safety and Health (OSH) Procedure in the Workplace	2 15
2.	GU008L2V1	Work In a Team Environment	2 20
3.	GU019L2V1	Participate in Workplace Communication	2 10
Sub Total			45
Sector Specific Units of Competencies			
4.	SU-RMGT-01-L2-V1	Explore the History of Textile Sector	2 15
5.	SU-RMGT-02-L2-V1	Perform Measurement and Calculations	2 15
6.	SU-RMGT-03-L2-V1	Apply Quality Procedures	2 20
Sub Total			50
Occupation Specific Units of Competencies			
7.	OU-RMGT-QCS-01-L3-V1	Interpret Quality Control Process for Spinning	3 45
8.	OU-RMGT-QCS-02-L3-V1	Identify Spinning Faults	3 20
9.	OU-RMGT-QCS-03-L3-V1	Perform Quality Tests	3 120
10.	OU-RMGT-QCS-04-L3-V1	Perform Quality Inspection	3 80
Sub Total			265
Total Duration			360

Units & Elements at Glance

Generic Competencies

Code	Unit of competency	Elements of competency	Duration (hours)
GU002L2V1	Apply Occupational Safety and Health (OSH) procedure In the Workplace	<ol style="list-style-type: none"> 1. Identify OSH policies and procedures 2. Follow OSH procedure 3. Report hazards and risks 4. Respond to emergencies 5. Maintain personal well-being 	15
GU008L2V1	Work in a Team Environment	<ol style="list-style-type: none"> 1. Define team role and scope 2. Identify individual role and responsibility 3. Participate in team discussions 4. Work as a team member 	20
GU019L2V1	Participate in Workplace Communication	<ol style="list-style-type: none"> 1. Obtain and convey workplace information 2. Speak English at a basic operational level 3. Participate in workplace meetings and discussions 4. Complete relevant work-related documents 	10
Total hours			45

Sector specific competencies

Code	Unit of competency	Elements of competency	Duration (hours)
SU-RMGT-01-L2-V1	Explore The History of Textile Sector	<ol style="list-style-type: none"> 1. Examine the background of textile sector 2. Identify main industries with in textile sector 3. Identify prime local and export markets 	15
SU-RMGT-02-L2-V1	Perform Measurement and Calculations	<ol style="list-style-type: none"> 1. Identify and check measuring instruments 2. Carry out measurements 3. Interpret simple calculations 4. Maintain measuring instruments 	15
SU-RMGT-03-L2-V1	Apply Quality Procedures	<ol style="list-style-type: none"> 1. Identify quality procedures 2. Follow quality procedures 3. Maintain standard procedures 	20
Total hours			50

Occupation specific competencies

Code	Unit of competency	Elements of competency	Duration (hours)
OU-RMGT-QCS-01-L3-V1	Interpret Quality Control Process for Spinning	<ol style="list-style-type: none"> 1. Identify raw materials 2. Identify yarns 3. Illustrate spinning process 4. Identify spinning machines 5. Interpret quality control system 	45
OU-RMGT-QCS-02-L3-V1	Identify Spinning Faults	<ol style="list-style-type: none"> 1. Identify raw materials faults 2. Identify sliver and roving faults 3. Identify yarn faults 4. Identify winding and package faults 	20
OU-RMGT-QCS-03-L3-V1	Perform Quality Tests	<ol style="list-style-type: none"> 1. Select and collect tools and equipment for testing 2. Interpret testing procedure 3. Perform raw materials test 4. Perform sliver and roving test 5. Perform yarn test 	120
OU-RMGT-QCS-04-L3-V1	Perform Quality Inspection	<ol style="list-style-type: none"> 1. Collect tools for inspection 2. Carry out raw material inspection 3. Carry out inspection in preparatory process 4. Carry out inspection for spinning process 5. Carry out inspection for finishing process 6. Carry out final inspection 	80
Total Hours			265

Generic Units of Competencies

Unit Code and Title	GU002L2V1: Apply Occupational Safety and Health (OSH) Procedure in the Workplace
Unit Descriptor	This unit covers the knowledge, skills and attitudes (KSA) required in applying occupational safety and health (OSH) procedure in the workplace. It specifically includes identify OSH policies and procedures, follow OSH procedure, report hazards and risks, respond to emergencies and maintain personal well-being.
Nominal Hours	15 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables
1. Identify OSH policies and procedures	1.1. <u>OSH policies</u> and <u>safe operating procedures</u> are accessed and stated 1.2. <u>Safety signs and symbols</u> are identified and followed 1.3. Emergency response, evacuation procedures and other contingency measures are determined according to workplace requirements
2. Follow OSH procedure	2.1 <u>Personal protective equipment (PPE)</u> is selected and collected as required 2.2 Personal protective equipment (PPE) is correctly used in accordance with organization OSH procedures and practices 2.3 A clear and tidy workplace is maintained as per workplace standard 2.4 PPE is maintained to keep them operational and compliant with OSH regulations
3. Report hazards and risks	3.1 <u>Hazards</u> and risks are identified, assessed and controlled 3.2 Incidents arising from hazards and risks are reported to designated authority
4. Respond to emergencies	4.1 Alarms and warning devices are responded 4.2 Workplace <u>emergency procedures</u> are followed 4.3 <u>Contingency measures</u> during workplace accidents, fire and other emergencies are recognized and followed in accordance with organization procedures 4.4 First aid procedures are applied during emergency situations
5. Maintain personal well-being	5.1 OSH policies and procedures are adhered to OSH awareness programs are participated in as per workplace guidelines and procedures.

	<p>5.2 Corrective actions are implemented to correct unsafe condition in the workplace</p> <p>5.3 <u>“Fit to work” records</u> are updated and maintained according to workplace requirements</p>
Range of Variables	
Variables	Range (may include but not limited to):
1. OSH policies	<p>1.1. Bangladesh standards for OSH</p> <p>1.2. Fire Safety Rules and Regulations</p> <p>1.3. Code of Practice</p> <p>1.4. Industry Guidelines</p>
2. Safe operating procedures	<p>2.1 Orientation on emergency exits, fire extinguishers, fire escape, etc.</p> <p>2.2 Emergency procedures</p> <p>2.3 First Aid procedures</p> <p>2.4 Tagging procedures</p> <p>2.5 Use of PPE</p> <p>2.6 Safety procedures for hazardous substances</p>
3. Safety signs and symbols	<p>3.1 Direction signs (exit, emergency exit, etc.)</p> <p>3.2 First aid signs</p> <p>3.3 Danger Tags</p> <p>3.4 Hazard signs</p> <p>3.5 Safety tags</p> <p>3.6 Warning signs</p>
4. Personal Protective Equipment (PPE)	<p>4.1 Gas Mask</p> <p>4.2 Gloves</p> <p>4.3 Safety boots</p> <p>4.4 Face mask</p> <p>4.5 Overalls</p> <p>4.6 Goggles and safety glasses</p> <p>4.7 Sun block</p> <p>4.8 Chemical/Gas detectors</p>
5. Hazards	<p>5.1 Chemical hazards</p> <p>5.2 Biological hazards</p> <p>5.3 Physical Hazards</p> <p>5.4 Mechanical and Electrical Hazard</p> <p>5.5 Mental hazard</p> <p>5.6 Ergonomic hazard</p>
6. Emergency procedures	<p>6.1 Fire fighting</p> <p>6.2 Earthquake</p> <p>6.3 Medical and first aid</p> <p>6.4 Evacuation</p>

7. Contingency measures	7.1 Evacuation 7.2 Isolation 7.1 Decontamination
8. "Fit to Work" records	8.1 Medical Certificate every year 8.2 Accident reports, if any 8.3 Eye vision certificate
Evidence Guide	
The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency	
1. Critical aspects of competency	Assessment required evidence that the candidate: 1.1 stated OSH policies and safe operating procedures 1.2 followed safety signs and symbols 1.3 used personal protective equipment (PPE) 1.4 maintained workplace clear and tidy 1.5 assessed and Controlled hazards 1.6 followed emergency procedures 1.7 followed contingency measures 1.8 implemented corrective actions
2. Underpinning knowledge	2.1 Define OSH 2.2 OSH Workplace Policies and Procedures 2.3 Work Safety Procedures 2.4 Emergency Procedures 2.5 Hazard control procedure 2.6 Different types of Hazards 2.7 PPE and there uses 2.8 Personal Hygiene Practices 2.9 OSH Awareness
3. Underpinning skills	3.1 Accessing OSH policies 3.2 Handling of PPE 3.3 Handling cleaning tools and equipment 3.4 Writing report 3.5 Responding to emergency procedures
4. Required attitude	4.1 Commitment to occupational health and safety 4.2 Sincere and honest to duties 4.3 Promptness in carrying out activities 4.4 Environmental concerns 4.5 Eagerness to learn 4.6 Tidiness and timeliness 4.7 Respect of peers and seniors in workplace 4.8 Communicate with peers and seniors in workplace
5. Resource implications	5.1 Workplace

	5.2 Equipment and outfits appropriate in applying safety measures 5.3 Tools, equipment, materials and documentation required 5.4 OSH Policies and Procedures
6. Methods of assessment	Competency should be assessed by: 6.1 Written test 6.2 Demonstration 6.3 Oral Questioning
7. Context of assessment	7.1 Competency assessment must be done in NSDA accredited assessment centre 7.2 Assessment should be done by a NSDA certified/nominated assessor
<p>Accreditation Requirements</p> <p>Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under NSQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	

Unit Code and Title	GU008L2V1: Work in a Team Environment
Unit Descriptor	This unit covers the knowledge, skills and attitudes (KSAs) required in working in a team environment. It includes define team role and scope, identify individual role and responsibility, participate in team discussions and work as a team member.
Nominal Hours	20 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables
1. Define team role and scope	1.1. Role and objectives of the team are defined 1.2. Team structure, responsibilities and reporting relations are identified from team discussions and other external sources
2. Identify individual role and responsibility	2.1 Individual roles and responsibilities of <u>team members</u> are identified 2.2 Reporting relationships among team members are defined and clarified 2.3 Reporting relationships external to the team are defined and clarified
3. Participate in team discussions	3.1 Ideas related to team plans are contributed 3.2 Recommendations for improving team work are put forward
4. Work as a team member	4.1 Effective forms of communication are used to interact with team members 4.2 Communication channels are followed 4.3 OHS practices are followed
Range of Variables	
Variables	Range (may include but not limited to):
1. Team Members	1.1 Coach/mentor 1.2 Supervisor/Manager 1.3 Peers/Colleagues 1.4 Employee representative
Evidence Guide The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency	
1. Critical aspects of competency	Assessment required evidence that the candidate: 1.1 demonstrated knowledge in working in a team environment. 1.2 satisfied the requirements mentioned in the 1.3 Performance Criteria and Range of Variables

2. Underpinning knowledge	<ul style="list-style-type: none"> 2.1 Team Structure, Role and Responsibility 2.2 Individual Members' Roles and Responsibilities 2.3 Communication Flow and Reporting Structures 2.4 Team Planning 2.5 Interpersonal Communication Skills 2.6 Team Meeting Procedures 2.7 OHS Practices
3. Underpinning skills	<ul style="list-style-type: none"> 3.1 Identifying the role and responsibility of the team 3.2 Identifying roles and responsibilities of individual members 3.3 Participating in team discussions 3.4 Working as a team member
4. Required attitude	<ul style="list-style-type: none"> 4.1 Commitment to occupational health and safety 4.2 Sincere and honest to duties 4.3 Promptness in carrying out activities 4.4 Environmental concerns 4.5 Eagerness to learn 4.6 Tidiness and timeliness 4.7 Respect of peers and seniors in workplace 4.8 Communicate with peers and seniors in workplace
5. Resource implications	<ul style="list-style-type: none"> 1.1 Pens 1.2 Telephone 1.3 Computer 1.4 Writing materials 1.5 Online communication
6. Methods of assessment	<p>Competency should be assessed by:</p> <ul style="list-style-type: none"> 6.1 Written test 6.2 Demonstration 6.3 Oral Questioning
7. Context of assessment	<ul style="list-style-type: none"> 7.1 Competency assessment must be done in NSDA accredited assessment centre 7.2 Assessment should be done by a NSDA certified/nominated assessor
<p>Accreditation Requirements</p> <p>Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under NSQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	

Unit Code and Title	GU019L2V1: Participate in Workplace Communication
Unit Descriptor	<p>This unit covers the knowledge, skills and attitudes required to participate in workplace communication.</p> <p>It specifically includes obtain and convey workplace information, speak English at a basic operational level, Participate in workplace meetings and discussions and complete relevant work-related documents</p>
Nominal Hours	10 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables
1. Obtain and convey workplace information	<p>1.1 Specific and relevant information is accessed from <u>appropriate sources</u></p> <p>1.2 Effective questioning, active listening and speaking skills are used to gather and convey information</p> <p>1.3 Appropriate <u>medium</u> is used to transfer information and ideas</p> <p>1.4 Appropriate non- verbal communication is used</p> <p>1.5 Appropriate lines of communication with supervisors and colleagues are identified and followed</p> <p>1.6 Defined workplace procedures for the location and <u>storage</u> of information is used</p> <p>1.7 Personal interaction is carried out clearly and concisely</p>
2. Speak English at a basic operational level	<p>2.1 Simple conversations on familiar topics with work colleagues are participated</p> <p>2.2 Simple verbal instructions or requests are responded to simple requests are made</p> <p>2.3 Routine procedures are described</p> <p>2.4 Likes, dislikes and preferences are expressed</p> <p>2.5 Different <u>forms</u> of expression in English are identified</p>
3. Participate in workplace meetings and discussions	<p>3.1 Team meetings are attended on time</p> <p>3.2 Own opinions are clearly expressed and those of others are listened to without interruption</p> <p>3.3 Meeting inputs are consistent with the meeting purpose and established <u>protocols</u></p> <p>3.4 <u>Workplace interactions</u> are conducted in a courteous manner</p> <p>3.5 Questions about simple routine workplace procedures and matters concerning working conditions of employment are asked and responded to</p> <p>3.6 Meeting's outcomes are interpreted and implemented</p>

4. Complete relevant work-related documents	4.1 Range of forms related to conditions of employment are completed accurately and legibly 4.2 Workplace data is recorded on standard workplace forms and documents 4.3 Basic mathematical processes are used for routine Calculations 4.4 Errors in recording information on forms/ documents are identified and corrected as required 4.5 Reporting requirements to supervisor are completed according to work place guidelines
Range of Variables	
Variables	Range (may include but not limited to):
1. Appropriate sources	1.1 Suppliers 1.2 Trade personnel 1.3 Local government/Authority 1.4 Industry bodies
2. Medium	2.1 Memorandum 2.2 Circular 2.3 Notice 2.4 Information discussion 2.5 Follow-up or verbal instructions 2.6 Face to face communication
3. Storage	3.1 Manual filing system 3.2 Computer-based filing system
4. Forms	4.1 Personnel forms 4.2 Telephone message forms 4.3 Safety reports forms 4.4 Collateral forms
5. Protocols	5.1 Observing meeting 5.2 Compliance with meeting decisions
6. Workplace interactions	6.1 Face to face 6.2 Telephone 6.3 Social Network Service (SNS) 6.4 Electronic and two-way radio
Evidence Guide The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency	

1. Critical aspects of competency	<p>Assessment required evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 prepared written communication following standard format of work place 1.2 accessed information using communication equipment 1.3 spoken English at a basic operational level 1.4 made use of relevant terms as an aid to transfer information effectively 1.5 conveyed information effectively adopting the formal or informal communication
2. Underpinning knowledge	<ul style="list-style-type: none"> 2.1 Effective communication 2.2 Different modes of communication 2.3 Written communication 2.4 Work place policies 2.5 Communication procedures and systems 2.6 Technology relevant to the work place 2.7 Individual's work responsibilities
3. Underpinning skills	<ul style="list-style-type: none"> 3.1 Speaking with simple spoken English 3.2 Performing routine workplace duties following simple written notices 3.3 Participating in workplace meetings and discussions 3.4 Completing work related documents 3.5 Estimating, calculating and recording routine workplace measures 3.6 Applying basic mathematical processes of addition, subtraction, division and multiplication 3.7 Building good relation to people of social range in the workplace 3.8 Gathering and providing information in response to workplace requirements
4. Required attitude	<ul style="list-style-type: none"> 4.1 Commitment to occupational health and safety 4.2 Sincere and honest to duties 4.3 Promptness in carrying out activities 4.4 Environmental concerns 4.5 Eagerness to learn 4.6 Tidiness and timeliness 4.7 Respect of peers and seniors in workplace 4.8 Communicate with peers and seniors in workplace
5. Resource implications	<ul style="list-style-type: none"> 5.1. Computer/Laptop 5.2. Telephone 5.3. Relevant tools, Equipment, software and facilities needed to perform the activities. 5.4. Required learning materials

6. Methods of assessment	Competency should be assessed by: 6.1 Written test 6.2 Demonstration 6.3 Oral Questioning
7. Context of assessment	7.1 Competency assessment must be done in NSDA accredited assessment centre 7.2 Assessment should be done by a NSDA certified/nominated assessor

Accreditation Requirements

Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under NSQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

Sector Specific Units of Competencies

Unit Code and Title	SU-RMGT-01-L2-V1: Explore the History of Textile Sector
Unit Descriptor	This unit covers the knowledge, skill and attitude required in explore the history of textile sector. It specifically includes examine the background of textile sector, identify main industries with in textile sector and prime local and export markets.
Nominal Hours	15 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables
1. Examine the background of textile sector	1.1 The historical background of textile sector is examined and described 1.2 <u>Steps of textile processing</u> are clearly identified 1.3 Backward and forward linkages are identified
2. Identify main industries with in textile sector	2.1 Main industries of the textile sector are identified 2.2 Importance of textile sector and main industries is explored and analyzed
3. Identify prime local and export markets	3.1 Prime <u>local markets</u> and <u>export markets</u> are identified 3.2 Local and export markets are listed
Range of Variables	
Variables	Range (may include but not limited to):
1. Steps of textile processing	1.1 Spinning 1.2 Weaving 1.3 Dying 1.4 Printing 1.5 Finishing 1.6 Apparel manufacture
2. Local markets	2.1 Processing mills 2.2 Processing factories 2.3 Wholesale markets 2.4 Wholesale retailers
3. Export markets	3.1 Europe 3.2 United states 3.3 Australia
Evidence Guide	
The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency	
1. Critical aspects of competency	Assessment required evidence that the candidate: 1.1 illustrated history of Textile sector

	1.2 identified basic steps of textile processing 1.3 identified prime local and export markets
2. Underpinning knowledge	2.1 History of textile sector 2.2 Steps of textile processing 2.3 Prime local and export markets
3. Underpinning skills	3.1. Describing the history of textile sector 3.2. Identifying steps of textile processing 3.3. Identifying prime local and export markets
4. Required attitude	4.1 Commitment to occupational health and safety 4.2 Sincere and honest to duties 4.3 Promptness in carrying out activities 4.4 Environmental concerns 4.5 Eagerness to learn 4.6 Tidiness and timeliness 4.7 Respect of peers and seniors in workplace 4.8 Communicate with peers and seniors in workplace
5. Resource implications	5.1. Manuals 5.2. Drawings 5.3. Specifications
6. Methods of assessment	Competency should be assessed by: 6.1 Written test 6.2 Demonstration 6.3 Oral Questioning
7. Context of assessment	7.1 Competency assessment must be done in NSDA accredited assessment centre 7.2 Assessment should be done by a NSDA certified/nominated assessor

Accreditation Requirements

Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under NSQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

Unit Code and Title	SU-RMGT-02-L2-V1: Perform Measurement and Calculations
Unit Descriptor	<p>This unit covers the knowledge, skills and attitudes required for performing measurement and calculations.</p> <p>It specially includes Identify & check measuring instruments, carry out measurements, interpret simple calculations, and maintain measuring instruments.</p>
Nominal Hours	15 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables
1. Identify and check measuring instruments	<p>1.1. Work instructions are confirmed and applied</p> <p>1.2. Materials to be measured are identified and classified</p> <p>1.3. Appropriate <u>measuring devices</u> are selected based on materials to be measured</p> <p>1.4. Specifications are obtained from relevant <u>documents</u></p> <p>1.5. Tolerance and clearance limits are identified and adjusted according to job requirements</p>
2. Carry out measurements	<p>2.1 Accurate <u>measurements</u> are obtained in accordance with job requirements</p> <p>2.2 Systems of measurements are identified and measurement conversions done as per requirement</p> <p>2.3 Measurements are confirmed and recorded in the given company format</p>
3. Interpret simple calculations	<p>3.1 Simple calculations involving <u>basic operations</u> are carried out</p> <p>3.2 <u>Other operations</u> are used to complete tasks</p> <p>3.3 Appropriate formulas for calculating quantities of materials are selected</p> <p>3.4 <u>calculations</u> are performed and verified</p> <p>3.5 Material quantities are calculated and shared with team as per requirement</p>
4. Maintain measuring instruments	<p>4.1 Cleaning equipment and materials are collected</p> <p>4.2 Measuring devices are cleaned, maintained and stored</p>
Range of Variables	
Variables	Range (may include but not limited to):
1. Measuring device	<p>1.1. Measuring Tape</p> <p>1.2. Steel rule</p> <p>1.3. Calculator</p>

	1.4. Sets square
2. Documents	2.1 Technical Manuals 2.2 Specifications 2.3 Sketches 2.4 Charts 2.5 Photographs
3. Measurements	3.1 Length 3.2 Width 3.3 Weight 3.4 Tolerance
4. Basic operation	4.1 Addition 4.2 Subtraction 4.3 Multiplication 4.4 Division
5. Other operations	5.1 Fractions 5.2 Percentages 5.3 Mixed numbers 5.4 Conversions 5.5 Scales
6. Calculations	6.1 Area 6.2 Volume 6.3 Circumference 6.4 CBM 6.5 Volumetric Weight
Evidence Guide	
The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency	
1. Critical aspects of competency	Assessment required evidence that the candidate: 1.1 selected measuring devices based on materials to be measured 1.2 identified systems of measurements 1.3 obtained measurements as per job requirements 1.4 carried out calculations for quantities of materials 1.5 confirmed and recorded measurements as per standard 1.6 maintained measuring devices
2. Underpinning knowledge	2.1 Information on measuring devices 2.2 Units of Measurement 2.3 Units of Conversion 2.4 Selection technique of appropriate measuring devices 2.5 Measurement and calculation technique for apparel merchandising 2.6 Techniques of recording measurements 2.7 Way to allowance and Tolerance

	<p>2.8 Presentation of data and information</p> <p>2.9 Instructions to use of measuring devices</p>
3. Underpinning skills	<p>3.1 Identifying measuring devices based on materials to be measured</p> <p>3.2 Obtaining specification of measuring devices from relevant document</p> <p>3.3 Taking measurement according to the job requirements</p> <p>3.4 Identifying tolerance and clearance limits and adjusting according to the job requirements</p> <p>3.5 Interpret calculations for quantities of materials</p> <p>3.6 Conforming and recording measurements as per standard</p> <p>3.7 Maintaining measuring devices</p>
4. Required attitude	<p>4.1 Commitment to occupational health and safety</p> <p>4.2 Sincere and honest to duties</p> <p>4.3 Promptness in carrying out activities</p> <p>4.4 Environmental concerns</p> <p>4.5 Eagerness to learn</p> <p>4.6 Tidiness and timeliness</p> <p>4.7 Respect of peers and seniors in workplace</p> <p>4.8 Communicate with peers and seniors in workplace</p>
5. Resource implications	<p>5.1 Work instructions</p> <p>5.2 Relevant Documents</p> <p>5.3 Measuring instruments & other tools, equipment and physical facilities appropriate to perform activities.</p> <p>5.4 Materials to be measured</p>
6. Methods of assessment	<p>Competency should be assessed by:</p> <p>6.1 Written test</p> <p>6.2 Demonstration</p> <p>6.3 Oral Questioning</p>
7. Context of assessment	<p>7.1 Competency assessment must be done in NSDA accredited assessment centre</p> <p>7.2 Assessment should be done by a NSDA certified/nominated assessor</p>
<p>Accreditation Requirements</p> <p>Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under NSQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	

Unit Code and Title	SU-RMGT-03-L2-V1: Apply Quality Procedures
Unit Descriptor	This unit covers the knowledge, skills and attitude required for applying quality procedures. It specially includes Identify & follow quality procedures & maintain standard procedures.
Nominal Hours	20 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables
1. Identify quality procedures	1.1. <u>Manuals</u> are collected as per sample 1.2. Importance of manuals is recognized 1.3. Instructions and procedures are identified 1.4. Required information are collected from manuals 1.5. Performance measurement systems are identified
2. Follow quality procedures	2.1 Instructions and procedures are followed strictly and duties are performed in accordance with demand of <u>quality improvement system</u> 2.2 Concept of supplying product or service to meet the <u>customer quality requirements</u> is understood and accordingly applied 2.3 Conformance to specifications is ensured 2.4 Defects are detected and reported to authority according to standard operating procedures
3. Maintain standard procedures	3.1 Performance is assessed at regular interval 3.2 Specifications and standard operating procedures are established 3.3 Quality of product is checked and verified 3.4 Quality control and quality assurance system procedures for each job are followed 3.5 Conformance to specification is ensured in every case at all situations
Range of Variables	
Variables	Range (may include but not limited to):
1. Manuals	1.1 Buyers specification manual 1.2 Compliance manual 1.3 Maintenance procedure manual 1.4 Periodic maintenance manual 1.5 Quality manual 1.6 Signs and symbols, instruction manuals

2. quality improvement system	<ul style="list-style-type: none"> 2.1 Quality inspection 2.2 Testing 2.3 Quality control 2.4 Quality assurance 2.5 Total Quality Management
3. Customer quality requirements	<ul style="list-style-type: none"> 3.1 Performance 3.2 Features 3.3 Reliability 3.4 Conformance 3.5 Aesthetics 3.6 Durability
<p>Evidence Guide The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency</p>	
1. Critical aspects of competency	<p>Assessment required evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 followed instructions and procedures strictly 1.2 performed duties in accordance with demand of quality system 1.3 ensured conformance to specifications 1.4 detected defects and reported to authority in accordance to standard operating procedures 1.5 understood concept of supplying product or service to meet the customer quality requirements 1.6 held responsible for quality work 1.7 followed quality control and quality assurance system procedures for each job
2. Underpinning knowledge	<ul style="list-style-type: none"> 2.1 Importance of maintaining quality 2.2 quality, quality assurance, quality control, quality inspection, quality improvement and total quality control 2.3 Process and procedures for improving and maintaining quality 2.4 Procedures for addressing defects. 2.5 Record keeping within the quality improvement system in workplace 2.6 Factors, which affect successful implementation of the quality systems and procedures
3. Underpinning skills	<ul style="list-style-type: none"> 3.1 Maintaining good quality 3.2 Eliminating poor quality 3.3 Understanding the meaning of the key terms - quality, quality assurance, quality control, quality inspection, quality improvement and total quality control. 3.4 Improving and maintaining quality 3.5 Addressing defects and procedures

	<p>3.6 Recording within the quality improvement system in workplace.</p> <p>3.7 Implementing quality systems and procedures</p>
4. Required attitude	<p>4.1 Commitment to occupational health and safety</p> <p>4.2 Sincere and honest to duties</p> <p>4.3 Promptness in carrying out activities</p> <p>4.4 Environmental concerns</p> <p>4.5 Eagerness to learn</p> <p>4.6 Tidiness and timeliness</p> <p>4.7 Respect of peers and seniors in workplace</p> <p>4.8 Communicate with peers and seniors in workplace</p>
5. Resource implications	<p>5.1 Tools, equipment and physical facilities appropriate to perform activities.</p> <p>5.2 Materials, consumables to perform activities</p>
6. Methods of assessment	<p>Competency should be assessed by:</p> <p>6.1 Written test</p> <p>6.2 Demonstration</p> <p>6.3 Oral Questioning</p>
7. Context of assessment	<p>7.1 Competency assessment must be done in NSDA accredited assessment centre</p> <p>7.2 Assessment should be done by a NSDA certified/nominated assessor</p>
<p>Accreditation Requirements</p> <p>Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under NSQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	

Occupation Specific Units of Competencies

Unit Code and Title	OU-RMGT-QCS-01-L3-V1: Interpret Quality Control Process for Spinning
Unit Descriptor	<p>This unit covers the knowledge, skills and attitudes required to interpreting quality control process for spinning.</p> <p>It specifically includes identify raw materials, yarn, illustrate spinning process, identify spinning machines, and interpret quality control system.</p>
Nominal Hours	45 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables
1. Identify raw materials	1.1 <u>Raw materials</u> are identified as per job requirement 1.2 Raw materials are listed for the spinning process
2. Identify yarns	2.1. <u>Yarns</u> are identified as per job requirement 2.2. Yarns are listed for the spinning process
3. Illustrate Spinning Process	3.1 <u>Spinning terminologies</u> are explained 3.2 <u>Types of spinning</u> are identified and defined 3.3 <u>Steps of spinning process</u> are explained
4. Identify spinning machines	4.1 <u>Spinning machines</u> are identified and listed as per job requirement 4.2 Functions of spinning machines are stated as required
5. Interpret quality control system	5.1. <u>Quality terms</u> are defined as required 5.2. <u>Methods of quality control</u> are interpreted as per job requirement 5.3. <u>Quality control systems</u> are illustrated 5.4. <u>Quality control tools</u> are defined as required 5.5. Quality control tools are identified as per job requirement
Range of Variables	
Variables	Range (may include but not limited to):
1. Raw materials	1.1 Natural fiber 1.2 Manmade fiber 1.3 Regenerated fiber
2. Yarns	2.1 Ring spun yarn 2.1.1.1 Carded yarn 2.1.1.2 Combed yarn 2.1.1.3 Blended 2.2 Open End (OE) yarn 2.3 Fancy Yarn 2.3.1.1 Slub 2.3.1.2 Siro

	<ul style="list-style-type: none"> 2.3.1.3 Inject 2.3.1.4 Mélange 2.3.1.5 Neppy 2.3.1.6 Lurex 2.3.1.7 Core spun 2.3.1.8 Compact Yarn 2.4 Recycle Yarn 2.5 Vortex yarn
3. Spinning terminologies	<ul style="list-style-type: none"> 3.1 Bale management 3.2 Origin of fiber 3.3 Yarn count 3.4 Lot number 3.5 Spinning consistency index 3.6 Fiber Strength 3.7 Maturity ratio 3.8 Micronaire (MIC) 3.9 Color Grade (CGr) 3.10 Length and Uniformity 3.11 Contamination 3.12 Neps Removal Efficiency (NRE%) 3.13 Coefficient of variation (CV%) 3.14 Cross canning 3.15 Block Creeling 3.16 Auto-leveler 3.17 Twist Per Inch (TPI) 3.18 Single yarn strength 3.19 Count Strength Product (CSP) 3.20 Ends breakage rate 3.21 Off standard spindle 3.22 Electronic Yarn Clearer (EYC) 3.23 Waste management
4. Types of spinning	<ul style="list-style-type: none"> 4.1 Ring 4.2 Open end (Rotor) 4.3 Air Vortex 4.4 Two for one twister (TFO)
5. Steps of spinning process	<p>Carded process:</p> <ul style="list-style-type: none"> 5.1 Blow room 5.2 Carding 5.3 Breaker drawing 5.4 Finisher drawing 5.5 Simplex 5.6 Ring 5.7 Winding

	5.8 Conditioning 5.9 Packing Combed process: 5.10 Blow room 5.11 Carding 5.12 Breaker drawing 5.13 Lap former 5.14 Comber 5.15 Finisher drawing 5.16 Simplex 5.17 Ring 5.18 Winding 5.19 Conditioning 5.20 Packing
6. Spinning machines	6.1. Blow room machines 6.2. Carding 6.3. Breaker draw frame 6.4. Lap former 6.5. Comber 6.6. Finisher draw frame 6.7. Simplex 6.8. Ring frame 6.9. Auto coner 6.10. Rotor machine 6.11. Vortex machine 6.12. Heat setting machine 6.13. Doubler machine 6.14. Twister
7. Quality terms	7.1 Quality 7.2 Quality Control 7.3 Quality Assurance
8. Methods of quality control	8.1 Inspection 8.2 Testing
9. Quality control systems	9.1 Inspection 9.2 On-line quality control system 9.3 Off-line quality control system
10. Quality control tools	10.1 Check sheet 10.2 Root Cause Analysis (RCA) 10.3 Corrective Action & Preventive Action (CAPA)
Evidence Guide The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency	

1. Critical aspects of competency	<p>Assessment required evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Identified raw materials 1.2 Identified yarns 1.3 Illustrated spinning process 1.4 Identified spinning machines 1.5 Interpreted quality control system
2. Underpinning knowledge	<ul style="list-style-type: none"> 2.1 Types of raw materials 2.2 Types of yarn 2.3 Spinning terminologies 2.4 Types of spinning and spinning process 2.5 Spinning machineries 2.6 Cleaning points 2.7 Major parts of spinning machine 2.8 Quality terms 2.9 Methods of quality control 2.10 Quality control systems 2.11 Quality assurance tools
3. Underpinning skills	<ul style="list-style-type: none"> 3.1 Identifying types of raw materials 3.2 Identifying types of yarn 3.3 Listing spinning terminologies 3.4 Explaining steps of spinning process 3.5 Identifying and listed spinning machineries 3.6 Explained machine functions 3.7 Defining quality terms 3.8 Illustrating quality control systems 3.9 Defining quality assurance tools
4. Required attitude	<ul style="list-style-type: none"> 4.1 Commitment to occupational health and safety 4.2 Sincere and honest to duties 4.3 Promptness in carrying out activities 4.4 Environmental concerns 4.5 Eagerness to learn 4.6 Tidiness and timeliness 4.7 Respect of peers and seniors in workplace 4.8 Communicate with peers and seniors in workplace
5. Resource implications	<ul style="list-style-type: none"> 5.1. Workplace (simulated or actual) 5.2. Relevant materials 5.3. Work instruction 5.4. Pens 5.5. Paper
6. Methods of assessment	<p>Competency should be assessed by:</p> <ul style="list-style-type: none"> 6.1 Written test 6.2 Demonstration 6.3 Oral Questioning

7. Context of assessment	<p>7.1 Competency assessment must be done in NSDA accredited assessment centre</p> <p>7.2 Assessment should be done by a NSDA certified/nominated assessor</p>
<p>Accreditation Requirements</p> <p>Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under NSQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	

Unit Code and Title	OU-RMGT-QCS-02-L3-V1: Identify Spinning Faults
Unit Descriptor	This unit covers the knowledge, skills, and attitudes required to identify spinning faults. It specifically includes identify raw materials faults, sliver and roving faults, yarn faults, winding and package faults.
Nominal Hours	20 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables
1. Identify raw materials faults	1.1 <u>Raw material faults</u> are identified 1.2 Raw material faults are listed
2. Identify sliver and roving faults	2.1 <u>Sliver and roving faults</u> are identified 2.2 Sliver and roving faults are listed as required 2.3 Causes of sliver and roving faults are identified
3. Identify yarn faults	3.1 <u>Yarn faults</u> are identified 3.2 Yarn faults are listed as required 3.3 Causes of yarn faults are identified
4. Identify winding and package faults	4.1 <u>Winding and Package faults</u> are identified 4.2 Winding and Package faults are listed as required 4.3 Causes of winding and package faults are identified
Range of Variables	
Variables	Range (may include but not limited to):
1. Raw material faults	1.1 Contamination 1.2 Fiber lot mixing 1.3 Fiber length variation 1.4 Fibre strength variation 1.5 Fiber maturity 1.6 MIC variation 1.7 Color grade variation 1.8 +b variation 1.9 Damaged bale 1.10 Dirty bale 1.11 Stickiness
2. Sliver and roving faults	2.1 Neps generation 2.2 Hank variation 2.3 Thick and thin place 2.4 Slub 2.5 Over filled can 2.6 Improper coiling 2.7 Bad piecing

	<ul style="list-style-type: none"> 2.8 Undrafted sliver and roving 2.9 Stretch roving 2.10 Unequal tappers of roving 2.11 Damage surface of sliver and roving
3. Yarn faults	<ul style="list-style-type: none"> 3.1 Unevenness (U%) 3.2 Coefficient of Variation (CV%) 3.3 Thin place/Km 3.4 Thick place/Km 3.5 Neps/Km 3.6 Imperfection Index (IPI) 3.7 Hairiness 3.8 Periodic fault 3.9 Count variation 3.10 Twist variation 3.11 Slubby yarn 3.12 Snarl 3.13 Crackers 3.14 Double yarn 3.15 Fly in yarn 3.16 Over piecing 3.17 Count mixed 3.18 Contamination
4. Winding and Package faults	<ul style="list-style-type: none"> 4.1 Winding: <ul style="list-style-type: none"> 4.1.1 Bad splice 4.1.2 Stitch problem 4.1.3 Stepped cone 4.1.4 Ribbon fault 4.2 Package <ul style="list-style-type: none"> 4.2.1 Lot and count mix 4.2.2 Sticker missing 4.2.3 Wrong sticker 4.2.4 Stain 4.2.5 Package weight variation 4.2.6 Soft package 4.2.7 Hard package 4.2.8 Deform package 4.2.9 Fluff on package 4.2.10 Tail missing 4.2.11 Paper cone damage
Evidence Guide	
The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency	
1. Critical aspects of competency	<p>Assessment required evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Identified raw materials faults

	<ul style="list-style-type: none"> 1.2 Identified sliver and roving faults 1.3 Identified yarn faults 1.4 Identified winding and package faults
2. Underpinning knowledge	<ul style="list-style-type: none"> 2.1 Raw material faults 2.2 Solution of raw material faults 2.3 Sliver and roving faults 2.4 Solution of sliver and roving faults 2.5 Yarn faults 2.6 Solutions of yarn faults 2.7 Winding and package faults 2.8 Solution of winding and package faults
3. Underpinning skills	<ul style="list-style-type: none"> 3.1 Identifying raw material faults 3.2 Listing raw material faults 3.3 Identifying sliver and roving faults 3.4 Listing sliver and roving faults 3.5 Identifying yarn faults 3.6 Listing yarn faults 3.7 Identifying winding and package faults 3.8 Listing winding and package faults
4. Required attitude	<ul style="list-style-type: none"> 4.1 Commitment to occupational health and safety 4.2 Sincere and honest to duties 4.3 Promptness in carrying out activities 4.4 Environmental concerns 4.5 Respect of peers and seniors in workplace 4.6 Communicate with peers and seniors in workplace
5. Resource implications	<ul style="list-style-type: none"> 5.1. Calculator 5.2. Sample yarn 5.3. Paper 5.4. Pen
6. Methods of assessment	<p>Competency should be assessed by:</p> <ul style="list-style-type: none"> 6.1 Written test 6.2 Demonstration 6.3 Oral Questioning
7. Context of assessment	<ul style="list-style-type: none"> 7.1 Competency assessment must be done in NSDA accredited assessment centre 7.2 Assessment should be done by a NSDA certified/nominated assessor
<p>Accreditation Requirements</p> <p>Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under NSQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	

Unit Code and Title	OU-RMGT-QCS-03-L3-V1: Perform Quality Tests
Unit Descriptor	<p>This unit covers the knowledge, skills, and attitudes required to perform quality tests.</p> <p>It specifically includes select and collect tools and equipment for testing, interpret testing procedure, perform raw materials test, sliver and roving test and yarn test.</p>
Nominal Hours	120 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables
1. Select and collect tools and equipment for testing	<p>1.1 Appropriate <u>personal protective equipment (PPE)</u> is selected and used as per job requirement</p> <p>1.2 <u>Tools and equipment</u> for testing are identified</p> <p>1.3 Tools and equipment for testing are selected and collected</p>
2. Interpret testing procedure	<p>2.1 Standard testing procedure is identified and described</p> <p>2.2 Standard testing <u>conditions</u> are described</p>
3. Perform raw materials test	<p>3.1 <u>Raw materials test</u> is described</p> <p>3.2 Raw materials are selected for testing</p> <p>3.3 Raw material testing machine are identified and selected as per testing requirements</p> <p>3.4 Sampling is performed as per standard testing procedure</p> <p>3.5 Raw materials tests are carried out according to standard testing procedure</p> <p>3.6 Test results are recorded and reported as per standard procedure</p>
4. Perform sliver and roving test	<p>4.1 <u>Sliver and roving testing machine</u> are described</p> <p>4.2 Sliver and roving are selected for testing</p> <p>4.3 Sampling is performed as per standard testing procedure</p> <p>4.4 Sliver and roving tests are carried out according to standard testing procedure</p> <p>4.5 Test results are recorded and reported as per standard procedure</p>
5. Perform yarn test	<p>5.1 <u>Yarn test</u> are described</p> <p>5.2 <u>Yarn testing machine</u> are identified</p> <p>5.3 Yarn test and testing machine is selected</p> <p>5.4 Yarns are selected for testing</p> <p>5.5 Sampling is performed as per standard testing procedure</p> <p>5.6 Yarn testing is carried out according to standard testing procedure</p>

	5.7 Test results are recorded and reported as per standard procedure
Range of Variables	
Variables	Range (may include but not limited to):
1. Personal Protective Equipment (PPE)	1.1 Apron 1.2 Mask 1.3 Hand Gloves 1.4 Ear plugs 1.5 Safety glasses 1.6 Safety Shoe 1.7 Safety helmet
2. Tools and equipment	2.1 Moisture meter 2.2 Electronic balance 2.3 Calculator 2.4 Tachometer 2.5 Stroboscope 2.6 Hygrometer 2.7 Measuring scale 2.8 High volume instrument (HVI) 2.9 Advanced fiber information system (AFIS) 2.10 Wrap block machine 2.11 Wrap reel machine 2.12 Lea strength tester 2.13 Single yarn strength tester 2.14 Evenness tester 2.15 Twist tester 2.16 Auto winder 2.17 Splice scanner
3. Conditions	3.1 Temperature 3.2 Relative humidity
4. Raw material test	4.1 Spinning consistency index 4.2 Fiber length 4.3 Fiber fineness 4.4 Fiber maturity 4.5 Fiber maturity ratio 4.6 Fiber strength 4.7 Moisture content 4.8 Uniformity 4.9 Elongation 4.10 Short Fiber Index 4.11 Color grade 4.12 +b

	4.13 Rd 4.14 Trash content 4.15 Trash grade 4.16 Neps 4.17 Neps size 4.18 Seed coat neps 4.19 Seed coat neps size 4.20 Immature fiber content
5. Sliver and roving testing machine	6.1 Wrap block 6.2 Evenness tester 6.3 Advanced fiber information system (AFIS)
6. Yarn test	7.1 Yarn count 7.2 Twist per inch 7.3 Yarn strength 7.4 Co-efficient of variance (CV%) 7.5 Imperfection Index (IPI) 7.6 Yarn hairiness 7.7 Unevenness
7. Yarn testing machine	8.1 Wrap reel 8.2 Auto sorter 8.3 Ordinary/modern twist tester 8.4 Yarn strength tester 8.5 Evenness tester 8.6 Auto winder
Evidence Guide	
The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency	
1. Critical aspects of competency	Assessment required evidence that the candidate: 1.1 selected and collected tools and equipment for testing 1.2 interpreted testing procedure 1.3 performed raw materials test 1.4 performed sliver and roving test 1.5 performed yarn test
2. Underpinning knowledge	2.1 Standard testing procedure 2.2 Standard testing conditions 2.3 Personal Protective Equipment (PPE) 2.4 Tools and equipment 2.5 Types of fiber test 2.6 Fiber testing machine 2.7 Sampling procedure 2.8 Testing procedure 2.9 Sliver and roving testing machine 2.10 Types of yarn test 2.11 Yarn testing machine

	2.12 Reporting procedure
3. Underpinning skills	3.1 Selecting and collecting tools and equipment 3.2 Selecting fiber test and testing machine 3.3 Selecting raw materials for testing 3.4 Carrying out raw materials testing according to standard testing procedure 3.5 Selecting sliver and roving 3.6 Performed sampling 3.7 Carrying out sliver and roving testing 3.8 Selecting yarn test and yarn testing machine 3.9 Carrying out yarn testing 3.10 Preparing testing reports
4. Required attitude	4.1 Commitment to occupational health and safety 4.2 Sincere and honest to duties 4.3 Promptness in carrying out activities 4.4 Environmental concerns 4.5 Eagerness to learn 4.6 Tidiness and timeliness 4.7 Respect of peers and seniors in workplace 4.8 Communicate with peers and seniors in workplace
5. Resource implications	5.1. Personal Protective Equipment (PPE) 5.2. Tools and equipment 5.3. Fibre testing machine 5.4. Sliver and roving testing machine 5.5. Yarn testing machine
6. Methods of assessment	Competency should be assessed by: 6.1 Written test 6.2 Demonstration 6.3 Oral Questioning
7. Context of assessment	7.1 Competency assessment must be done in NSDA accredited assessment centre 7.2 Assessment should be done by a NSDA certified/nominated assessor
<p>Accreditation Requirements</p> <p>Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under NSQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	

Unit Code and Title	OU-RMGT-QCS-04-L3-V1: Perform Quality Inspection
Unit Descriptor	<p>This unit covers the knowledge, skills, and attitudes required to perform quality inspection.</p> <p>It specifically includes collect tools for inspection, carry out raw material inspection, carryout inspection in preparatory process, carryout inspection for spinning process, carryout inspection for finishing process and carryout final inspection.</p>
Nominal Hours	80 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables
1. Collect tools for inspection	<p>1.1 Personal Protective Equipment (PPE) is collected and worn as per job requirement</p> <p>1.2 <u>Tools and equipment</u> for inspection are identified</p> <p>1.3 Tools and equipment are collected as per job requirement.</p>
2. Carry out raw material Inspection	<p>2.1 Raw materials are selected and collected as per the workplace standard.</p> <p>2.2 Raw material inspection is performed as per job requirement</p> <p>2.3 Raw material faults are identified and recorded as per standard procedure Inspection results are prepared and reported as per standard procedure</p>
3. Carry out inspection in preparatory process	<p>3.1 <u>Preparatory processes</u> are selected as per the industry standard</p> <p>3.2 Inspection is performed as per job requirement</p> <p>3.3 Sample is collected and submitted for lab test</p> <p>3.4 <u>Faults in preparatory process</u> are identified as per test report</p> <p>3.5 <u>Machine parameters for preparatory process</u> are checked and adjusted as per test report</p> <p>3.6 Inspection results are recorded and reported as per standard procedure</p>
4. Carry out inspection for spinning process	<p>4.1 Spinning process is selected as per job requirement.</p> <p>4.2 Inspection is performed as per job requirement.</p> <p>4.3 Sample is collected and submitted for lab test</p> <p>4.4 <u>Faults in spinning</u> are identified as per the job requirement.</p> <p>4.5 <u>Machine parameters for spinning</u> are checked and adjusted as per the job requirement</p>

	4.6 Inspection results are recorded and reported as per standard procedure
5. Carry out inspection for finishing process	5.1 <u>Finishing process</u> is selected as per job requirement. 5.2 Inspection is performed as per job requirement. 5.3 Faults in finishing are identified as per the job requirement. 5.4 <u>Machine parameters for finishing process</u> are checked as per the job requirement 5.5 Inspection results are recorded and reported as per standard procedure
6. Carry out final inspection	6.1 Yarn package is collected and selected for inspection 6.2 <u>Final inspection checklists</u> are identified and collected 6.3 Final inspection is performed as per job checklist 6.4 Final inspection results are recorded and reported as per standard procedure
Range of Variables	
Variables	Range (may include but not limited to):
1. Tools and Equipment	1.1 Moisture meter 1.2 Stroboscope 1.3 Tachometer 1.4 Splice check / board 1.5 Electronic balance 1.6 Calculator 1.7 Measuring scale 1.8 Torch light 1.9 Splice scanner
2. Preparatory processes	2.1 Blow room 2.2 Carding 2.3 Drawing 2.4 Lap former 2.5 Comber 2.6 Simplex
3. Faults in Preparatory process	3.1 Contamination 3.2 Cake cotton 3.3 Stain cotton 3.4 Draft deviation 3.5 Unclean machine 3.6 Damage parts 3.7 Hank variation
4. Machine parameters of preparatory process	4.1 Speed 4.2 Hank 4.3 A%

	<ul style="list-style-type: none"> 4.4 Leveling Action Point (LAP) 4.5 Levelling Intensity (LI) 4.6 Coefficient of Variation (CV%) 4.7 Thick places 4.8 Spectrogram
5. Faults in spinning	<ul style="list-style-type: none"> 5.1 Count and lot mix 5.2 Spacer missing 5.3 Damage parts 5.4 Wrong ring traveler 5.5 Wrong bobbin 5.6 Unclean machine 5.7 Speed variation 5.8 Twist variation 5.9 Dust deposit in rotor 5.10 Improper relative humidity 5.11 Off standard spindle
6. Machine parameters of spinning	<ul style="list-style-type: none"> 6.1. Speed 6.2. Count 6.3. Twist per Inch (TPI) 6.4. Draft 6.5. Ring traveler
7. Finishing process	<ul style="list-style-type: none"> 7.1 Winding 7.2 Heat setting
8. Machine parameters of finishing process	<ul style="list-style-type: none"> 8.1 Count and lot number 8.2 Speed 8.3 Clearer setting 8.4 Package weight 8.5 Winding tension 8.6 Time & temperature for heat setting
9. Final inspection checklist	<ul style="list-style-type: none"> 9.1 Shade variation 9.2 Contamination 9.3 Count and lot 9.4 Sticker check 9.5 Label check 9.6 Tail end check 9.7 Weight check 9.8 Bag information check
Evidence Guide	
The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency	
1. Critical aspects of competency	<p>Assessment required evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Collected tools for inspection. 1.2 Carried out raw material inspection. 1.3 Carried out inspection in preparatory process.

	<ul style="list-style-type: none"> 1.4 Carried out inspection for spinning process 1.5 Carried out inspection for finishing process. 1.6 Carried out final inspection
2. Underpinning knowledge	<ul style="list-style-type: none"> 2.1 Tools and equipment 2.2 Raw materials faults 2.3 Preparatory process 2.4 Machine parameters of preparatory process 2.5 Faults in Preparatory process 2.6 Machine parameters of spinning 2.7 Faults in spinning 2.8 Finishing process 2.9 Machine parameters of finishing 2.10 Faults in finishing 2.11 Final inspection checklist
3. Underpinning skills	<ul style="list-style-type: none"> 3.1 Following OSH 3.2 Handling tools and equipment 3.3 Collecting and inspecting raw materials 3.4 Identifying raw materials faults 3.5 Performing inspection in preparatory process 3.6 Collecting and submitting sample. 3.7 Checking machine parameters 3.8 Identifying faults in preparatory process, spinning and finishing 3.9 Identifying final inspection checklist 3.10 Performing final inspection
4. Required attitude	<ul style="list-style-type: none"> 4.1 Commitment to occupational health and safety 4.2 Sincere and honest to duties 4.3 Promptness in carrying out activities 4.4 Environmental concerns 4.5 Eagerness to learn 4.6 Tidiness and timeliness 4.7 Respect of peers and seniors in workplace 4.8 Communicate with peers and seniors in workplace
5. Resource implications	<ul style="list-style-type: none"> 5.1. Personal Protective Equipment (PPE) 5.2. Tools and equipment 5.3. Rotor pinning machineries 5.4. Rotor machine parts 5.5. Paper 5.6. Pen
6. Methods of assessment	<p>Competency should be assessed by:</p> <ul style="list-style-type: none"> 6.1 Written test 6.2 Demonstration 6.3 Oral Questioning

7. Context of assessment	<p>7.1 Competency assessment must be done in NSDA accredited assessment centre</p> <p>7.2 Assessment should be done by a NSDA certified/nominated assessor</p>
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Accreditation Requirements

Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under NSQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

Development of Competency Standard

The Competency Standards for National Skills Certificate in Quality Control of Spinning, Level-03 is developed by RTISC and SEIP.

List of Members

SI No	Name and Address	Position in the committee
1.	Mr. Mohammad Nasir, Chairperson, RTISC	Chairperson
2.	Mr. Sultan Al Maruf, QAO, SEIP	Member
3.	Md. Rubel Khan, Assistant Professor, BUTEX	Member
4.	Md. Riazul Haque, Quality Control Manager, Maksons Spinning Mills Limited	Member
5.	Md. Shariful Islam, Quality & Production AGM, Mehmud Industries (PVT) limited	Member
6.	Md. Din Islam, Quality Assurance Manager, Badsha Textile Mills Limited	Member
7.	Md. Habibullah Bilali, Monitoring and Evaluation Coordinator, BTMA-SEIP	Member
8.	Mr. Syed Azharul Haque, CEO, Skills Zone	Member
9.	Md. Amir Hossain, Consultant, DPDS Consulting Support,	Member
10.	Wg, Cdr Zaglul Hayder (Rtd), CEO, RTISC.	Member
11.	Mr. Md. Sharif Nowaz, Executive (Curriculum Development & training) RTISC.	Member
12.	Mr. Md. Moniruzzaman, Executive (Assessment & Certification), RTISC.	Member

Validation of Competency Standard

The Competency Standards for National Skills Certificate in Quality Control for Spinning, Level-03 is validated by NSDA on 18th July 2022.

List of Members

SI No	Name and Address	Position in the committee	Signature
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