









Incoming QC Technician

QP Code: ELE/Q4401

Version: 3.0

NSQF Level: 5

Electronics Sector Skills Council of India || 155, 2nd Floor, ESC House Okhla Industrial Area-Phase 3 New Delhi- 110020 || email:rakhi@essc-india.org









Contents

Brief Job Description3Applicable National Occupational Standards (NOS)3Compulsory NOS3Qualification Pack (QP) Parameters3ELE/N4401: Perform incoming quality check5ELE/N1002: Apply health and safety practices at the workplace13DGT/VSQ/N0102: Employability Skills (60 Hours)21Assessment Guidelines and Weightage28Assessment Weightage28Acronyms30Glossary31	ELE/Q4401: Incoming QC Technician	
Applicable National Occupational Standards (NOS) 3 Compulsory NOS 3 Qualification Pack (QP) Parameters 3 ELE/N4401: Perform incoming quality check 5 ELE/N1002: Apply health and safety practices at the workplace 13 DGT/VSQ/N0102: Employability Skills (60 Hours) 21 Assessment Guidelines and Weightage 28 Assessment Guidelines 28 Assessment Weightage 29 Acronyms 30	Brief Job Description	3
Qualification Pack (QP) Parameters3ELE/N4401: Perform incoming quality check5ELE/N1002: Apply health and safety practices at the workplace13DGT/VSQ/N0102: Employability Skills (60 Hours)21Assessment Guidelines and Weightage28Assessment Guidelines28Assessment Weightage29Acronyms30		
ELE/N4401: Perform incoming quality check5ELE/N1002: Apply health and safety practices at the workplace13DGT/VSQ/N0102: Employability Skills (60 Hours)21Assessment Guidelines and Weightage28Assessment Guidelines28Assessment Weightage29Acronyms30	Compulsory NOS	3
ELE/N1002: Apply health and safety practices at the workplace 13 DGT/VSQ/N0102: Employability Skills (60 Hours) 21 Assessment Guidelines and Weightage 28 Assessment Guidelines 28 Assessment Weightage 29 Acronyms 30		
DGT/VSQ/N0102: Employability Skills (60 Hours) 21 Assessment Guidelines 28 Assessment Guidelines 28 Assessment Weightage 29 Acronyms 30	ELE/N4401: Perform incoming quality check	5
Assessment Guidelines and Weightage 28 Assessment Guidelines 28 Assessment Weightage 29 Acronyms 30	ELE/N1002: Apply health and safety practices at the workplace	13
Assessment Guidelines	DGT/VSQ/N0102: Employability Skills (60 Hours)	21
Assessment Weightage	Assessment Guidelines and Weightage	28
Acronyms 30	Assessment Guidelines	28
·	Assessment Weightage	29
Glossary	Acronyms	30
	Glossary	31









ELE/Q4401: Incoming QC Technician

Brief Job Description

The individual at work is responsible for checking quality check on the components and modules procured from suppliers for production of hardware equipment. The individual performs physical and functional quality check processes on the components and modules and ensure QC passed components is used for hardware assembling

Personal Attributes

The job requires the individual to have: attention to details, good eye sight, with good finger dexterity, comply with and follow standard procedures and target orientation. The individual must be able to handle tools and equipment with precision and safety measure

Applicable National Occupational Standards (NOS)

Compulsory NOS:

- 1. ELE/N4401: Perform incoming quality check
- 2. ELE/N1002: Apply health and safety practices at the workplace
- 3. DGT/VSQ/N0102: Employability Skills (60 Hours)

Qualification Pack (QP) Parameters

Sector	Electronics
Sub-Sector	PCB Design and Manufacturing
Occupation	Quality Assurance
Country	India
NSQF Level	5
Credits	26
Aligned to NCO/ISCO/ISIC Code	NCO-2015/1213.0101









Minimum Educational Qualification & Experience	Diploma (After 10th (Electrical/Electronics/Mechanical)) with 1 Year of experience Relevant Experience OR 12th grade pass with 1 year NTC/ NAC with 1 Year of experience Relevant Experience OR 12th grade Pass with 2 Years of experience Relevant Experience OR Previous relevant Qualification of NSQF Level (4) with 3 Years of experience Relevant Experience OR 10th grade pass with 4 Years of experience Relevant Experience
Minimum Level of Education for Training in School	10th Class
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	NA
Next Review Date	24/02/2025
NSQC Approval Date	24/02/2022
Version	3.0
Reference code on NQR	QG-05-EH-01333-2023-V1.1-ESSC
NQR Version	1.0

Remarks:

NA









ELE/N4401: Perform incoming quality check

Description

This OS unit is about receiving the components and modules at the stores and checking for physical and functional quality to ensure that defect-free materials are sent for production

Elements and Performance Criteria

Understanding work requirement

To be competent, the user/individual on the job must be able to:

- **PC1.** understand the monthly or quarterly targets for the number of assemblies to be completed
- **PC2.** identify the product and models for which targets are fixed
- **PC3.** identify the number of components and modules to be checked as per standard sampling procedure
- **PC4.** understand the supplier specification sheet of the materials to be tested
- **PC5.** record/ document the number of components and modules received and confirm with stores

Performing quality check on PCBs, subassemblies or modules

To be competent, the user/individual on the job must be able to:

- **PC6.** read the supplier specification sheet and check against product specification required
- **PC7.** check for alternate specifications
- **PC8.** understand the requirement of quality check and comply with standards of the company
- **PC9.** perform sample testing or 100 per cent testing as per company policy for each PCB, subassembly or module
- **PC10.** perform functional checks on the sub-assemblies, for example in motor, rpm and voltage input and output
- **PC11.** check dimensions of the components as relevant
- PC12. fix the sub-assemblies or modules on the testing jig and check performance
- **PC13.** record the output of the tests and check against specifications to approve the module as QC passed
- **PC14.** ensure all lots are checked and specifications complied with
- **PC15.** take anti-static precautions before work and wear ESD wrist straps or aprons

Assembling and checking sample product

To be competent, the user/individual on the job must be able to:

- **PC16.** assemble one or specific sample number of product using PCBs, subassemblies and modules received from suppliers
- **PC17.** fix the modules as per product specification
- **PC18.** ensure there are no missing modules or components in the assembly
- **PC19.** switch on, operate and check

Completing QC process

To be competent, the user/individual on the job must be able to:

PC20. identify any concerns and diagnose the cause









- **PC21.** inform the product development department or procurement department about faulty PCBs, sub-assemblies or modules received from the suppliers
- PC22. place stickers such as QC passed or Ok on the modules for quality passed ones
- **PC23.** resend to store for issue to production
- PC24. document the quality test details as per check sheets

Interacting with supervisor and other departments

To be competent, the user/individual on the job must be able to:

- **PC25.** understand the work requirement from superior, periodically
- **PC26.** report to superior on the work completed
- PC27. seek assistance from superior on specific component / module testing
- **PC28.** report the recurring problems to product development department or procurement department to take corrective actions
- **PC29.** escalate unresolved problems to senior management
- PC30. record the work completed on the company ERP software for tracking and future reference

Achieving productivity and quality standards

To be competent, the user/individual on the job must be able to:

- PC31. achieve 100% daily targets on number of sub-assemblies and modules to be tested
- **PC32.** ensure that only defect-free modules are sent to production
- PC33. maintain accurate documentation on the PCBs, sub-assemblies and modules received
- **PC34.** select correct sampling for each module or sub-assembly
- **PC35.** interpret specifications to be tested
- **PC36.** accurately assess quality as per standard QC procedure
- **PC37.** maintain zero-material defect during material handling by following standard operating procedure
- PC38. select right jigs and tools for checking or testing
- **PC39.** correctly identify all the modules and connect accurately
- PC40. clearly identify defective module and document as per company policy

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** companys policies on: incentives, delivery standards, and personnel management
- KU2. companys sales and after sales support policy
- KU3. importance of the individuals role in the workflow
- **KU4.** reporting structure
- **KU5.** companys policy on products warranty and other terms and conditions
- **KU6.** companys line of business and product portfolio
- **KU7.** different products assembled in the plant and their module requirement
- **KU8.** basic electronics involved in the hardware
- **KU9.** input, output and functions of sub-assemblies and modules of the product









- **KU10.** voltage and power requirement for different hardware devices
- **KU11.** memory, input, output and storage devices
- **KU12.** different modules in hardware equipment for example SMPS, drivers, hard disk, battery, mother board in case of a desktop
- **KU13.** testing methods followed for checking different components and modules in a hardware
- **KU14.** use of different test jigs and their purposes
- **KU15.** standard specifications and quality requirements of modules as per specification sheet
- **KU16.** physical testing on parameters such as measurement, shape, dimensions
- **KU17.** functional tests to be performed
- **KU18.** use of tools such as electronic screwdrivers, multimeter, vernier calipre, etc
- **KU19.** Electrostatic Discharge (ESD) and precautionary steps
- **KU20.** how to document the material movement note and capture all the action performed
- **KU21.** all safety rules, policies and procedures
- KU22. quality standards to be followed

Generic Skills (GS)

User/individual on the job needs to know how to:

- **GS1.** read job sheet
- **GS2.** document the completed work on material movement note
- **GS3.** read and interpret the supplier specification sheet and the specifications of components and modules
- **GS4.** to read assembling procedures for different models
- **GS5.** to share work load as required
- **GS6.** achieve the targets given on assembling of equipment
- **GS7.** basics of different types of IT hardware equipment such as Desktop, Laptop, Printer, Scanner, Networking device, servers, EPABX
- **GS8.** identify all the components and modules in the equipment
- GS9. different modules function in specific equipment
- **GS10.** how to capture disk image and usage of disk duplicating software
- **GS11.** operate the different software
- **GS12.** operate the internal ERP software to record material movement, completion of work, raise for spares
- **GS13.** to use test jigs to test sub-assemblies and modules in the hardware
- **GS14.** to assemble different products for final-assembly sample testing
- **GS15.** to use testing tools and equipment such as multi-meter, test boards, voltage meter, vernier calipers, jigs
- **GS16.** to use electronic screw drivers for assembling and disassembling of modules
- **GS17.** to use power on self test (POST) cards to diagnose issues in module
- **GS18.** to improve work processes
- **GS19.** to reduce repetition of errors









GS20. to spot process disruptions and delays

GS21. to report on any concerns to superiors without delay









Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Understanding work requirement	5	10	-	-
PC1. understand the monthly or quarterly targets for the number of assemblies to be completed	1	2	-	-
PC2. identify the product and models for which targets are fixed	1	2	-	-
PC3. identify the number of components and modules to be checked as per standard sampling procedure	1	2	-	-
PC4. understand the supplier specification sheet of the materials to be tested	1	2	-	-
PC5. record/ document the number of components and modules received and confirm with stores	1	2	-	-
Performing quality check on PCBs, subassemblies or modules	10	20	-	-
PC6. read the supplier specification sheet and check against product specification required	1	2	-	-
PC7. check for alternate specifications	1	2	-	-
PC8. understand the requirement of quality check and comply with standards of the company	1	2	-	-
PC9. perform sample testing or 100 per cent testing as per company policy for each PCB, subassembly or module	1	2	-	-
PC10. perform functional checks on the subassemblies, for example in motor, rpm and voltage input and output	1	2	-	-
PC11. check dimensions of the components as relevant	1	2	-	-
PC12. fix the sub-assemblies or modules on the testing jig and check performance	1	2	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. record the output of the tests and check against specifications to approve the module as QC passed	1	2	-	-
PC14. ensure all lots are checked and specifications complied with	1	2	-	-
PC15. take anti-static precautions before work and wear ESD wrist straps or aprons	1	2	-	-
Assembling and checking sample product	4	8	-	-
PC16. assemble one or specific sample number of product using PCBs, subassemblies and modules received from suppliers	1	2	-	-
PC17. fix the modules as per product specification	1	2	-	-
PC18. ensure there are no missing modules or components in the assembly	1	2	-	-
PC19. switch on, operate and check	1	2	-	-
Completing QC process	5	6	-	-
PC20. identify any concerns and diagnose the cause	1	2	-	-
PC21. inform the product development department or procurement department about faulty PCBs, sub-assemblies or modules received from the suppliers	1	1	-	-
PC22. place stickers such as QC passed or Ok on the modules for quality passed ones	1	1	-	-
PC23. resend to store for issue to production	1	1	-	-
PC24. document the quality test details as per check sheets	1	1	-	-
Interacting with supervisor and other departments	6	6	-	-
PC25. understand the work requirement from superior, periodically	1	1	-	-
PC26. report to superior on the work completed	1	1	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC27. seek assistance from superior on specific component / module testing	1	1	-	-
PC28. report the recurring problems to product development department or procurement department to take corrective actions	1	1	-	-
PC29. escalate unresolved problems to senior management	1	1	-	-
PC30. record the work completed on the company ERP software for tracking and future reference	1	1	-	-
Achieving productivity and quality standards	10	10	-	-
PC31. achieve 100% daily targets on number of sub-assemblies and modules to be tested	1	1	-	-
PC32. ensure that only defect-free modules are sent to production	1	1	-	-
PC33. maintain accurate documentation on the PCBs, sub-assemblies and modules received	1	1	-	-
PC34. select correct sampling for each module or sub-assembly	1	1	-	-
PC35. interpret specifications to be tested	1	1	-	-
PC36. accurately assess quality as per standard QC procedure	1	1	-	-
PC37. maintain zero-material defect during material handling by following standard operating procedure	1	1	-	-
PC38. select right jigs and tools for checking or testing	1	1	-	-
PC39. correctly identify all the modules and connect accurately	1	1	-	-
PC40. clearly identify defective module and document as per company policy	1	1	-	-
NOS Total	40	60	-	-









National Occupational Standards (NOS) Parameters

NOS Code	ELE/N4401
NOS Name	Perform incoming quality check
Sector	Electronics
Sub-Sector	Consumer Electronics & IT Hardware
Occupation	Manufacturing
NSQF Level	5
Credits	TBD
Version	1.0
Last Reviewed Date	24/02/2022
Next Review Date	24/02/2025
NSQC Clearance Date	24/02/2022









ELE/N1002: Apply health and safety practices at the workplace

Description

This OS unit is about knowledge and practices relating to health, safety and security that candidates need to use in the workplace.

Scope

The scope covers the following:

- Deal with workplace hazards
- Apply fire safety practices
- Follow emergencies, rescue and first-aid procedures
- Effective waste management/recycling practices

Elements and Performance Criteria

Deal with workplace hazards

To be competent, the user/individual on the job must be able to:

- **PC1.** identify job-site hazards and possible causes of accident in the workplace
- **PC2.** perform work complying to organizational safe working practices and observing hazard signs displayed on containers, equipment and in various work areas such as inside buildings, in open areas and public spaces, etc.
- **PC3.** use appropriate personal protective equipment (PPE) for specific tasks and work conditions, contaminant (concentration w.r.t air) requirements and severity of hazard while conforming to the Indian/International standards
- **PC4.** follow standard safety procedures while handling tool/ ,equipment, hazardous substances and while working in hazardous environments
- **PC5.** dispose electronic waste (such as toxins; metals such as lead, cadmium, barium; flame retardant plastics, welding slag etc.) as per industry approved techniques
- PC6. avoid damage of components due to negligence in electrostatic discharge (ESD) procedures
- **PC7.** locate general health and safety equipment in the workplace such as fire extinguishers; first aid equipment; safety instruments, clothing and installations (fire exits, exhaust fans)
- **PC8.** maintain appropriate posture while handling heavy objects
- PC9. apply good housekeeping practices at all times

Apply fire safety practices

To be competent, the user/individual on the job must be able to:

- **PC10.** take preventive measures to prevent fire hazards
- **PC11.** use appropriate fire extinguishers for different types of fires
 - Types of fires: Class A: e.g. ordinary solid combustibles, such as wood, paper, cloth, plastic, charcoal, etc.; Class B: flammable liquids and gases, such as gasoline, propane, diesel fuel, tar, cooking oil, and similar substances; Class C: e.g. electrical equipment such as appliances, wiring, breaker panels, etc. (These categories of fires become Class A, B, and D fires when the electrical equipment that initiated the fire is no I
- **PC12.** exhibit rescue and first-aid techniques in case of fire or electrocution









Follow emergencies, rescue and first-aid procedures

To be competent, the user/individual on the job must be able to:

- **PC13.** administer appropriate first aid to victims in case of bleeding, burns, choking, electric shock, poisoning etc.
- **PC14.** administer first aid to victims in case of a heart attack or cardiac arrest due to electric shock,
- **PC15.** participate regularly in emergency procedures such as raising alarm, safe/efficient, evacuation, correct means of taking shelter and escaping, correct assembly point, roll call, correct return to work
- **PC16.** use correct method to move injured people and others during an emergency

Effective waste management/recycling practices

To be competent, the user/individual on the job must be able to:

- PC17. identify recyclable and non-recyclable, and hazardous waste generated
- **PC18.** segregate waste into different categories
- **PC19.** ensure disposal of non-recyclable waste appropriately
- **PC20.** deposit non-recyclable and reusable material at identified location
- PC21. follow processes specified for disposal of hazardous waste

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** importance of working in clean and safe work environment following safety practices and procedures
- **KU2.** health and safety roles and responsibilities of relevant personnel within and outside the organisation
- **KU3.** key internal and external sources of health and safety information
- **KU4.** basic knowledge of electronic devices and related health risks
- **KU5.** meaning of hazards and risks
- **KU6.** various types of health and safety hazards commonly present in the work environment such as physical hazards, electrical hazards, chemical hazards, fire hazards, equipment related hazards, health hazards, etc.
- **KU7.** methods of accident prevention
- **KU8.** importance of using protective clothing/equipment while working
- **KU9.** general principles for identifying and controlling health and safety risks
- **KU10.** main hazards and preventive as well as control measures while working with different types of equipment
- **KU11.** importance of carrying out electrical and non-electrical isolation to prevent hazards from loss of machine/system/process control
- **KU12.** main hazards and preventive as well as control measures when working with electrical systems or using electrical equipment
- **KU13.** forms and classifications of hazardous substances
- **KU14.** safe working practices while working at various hazardous sites
- **KU15.** prevention and control measures to reduce risks from exposure to hazardous substances









- **KU16.** health effects associated with exposure to noise and vibration and the appropriate control measures
- **KU17.** precautionary activities to prevent the fire accident
- **KU18.** various causes of fire such as heating of metal, spontaneous ignition, sparking, electrical eating, loose fires (smoking, welding, etc.) chemical fires etc.
- **KU19.** techniques of using the different fire extinguishers
- **KU20.** different methods and material to extinguish fires
- KU21. different materials used for extinguishing fire such as sand, water, foam, CO2, dry powder
- KU22. rescue techniques used during a fire hazard
- **KU23.** various types of safety signs and their meaning
- **KU24.** basic first aid treatment relevant to the common work place injuries e.g. shock, electrical shock, bleeding, breaks to bones, minor burns, resuscitation, poisoning, eye injuries
- **KU25.** contents of written accident report
- **KU26.** potential injuries and ill health associated with incorrect handing of tools and equipment
- **KU27.** safe lifting and carrying practices
- **KU28.** potential impact to a person who is moved incorrectly
- **KU29.** personal safety, health and dignity issues relating to the movement of a person by others
- **KU30.** ESD measures and 5S
- **KU31.** efficient utilization and management of material and water
- **KU32.** ways to recognize common electrical problems and practices of conserving electricity
- **KU33.** usage of different colours of dustbins, categorization of waste into dry, wet, recyclable, nonrecyclable and items of single-use plastics
- KU34. organization's procedure for minimizing waste
- **KU35.** waste management and methods of waste disposal
- KU36. common sources of pollution and ways to minimize it
- **KU37.** names, contact information and location of people responsible for health and safety in the workplace
- **KU38.** location of documents and equipment for health and safety compliance/practices in the workplace
- **KU39.** safety notices, signs and instructions at workplace

Generic Skills (GS)

User/individual on the job needs to know how to:

- **GS1.** interpret general health and safety guidelines labels, charts, signages
- **GS2.** read operation manuals
- **GS3.** write health and safety compliance report
- **GS4.** write an accident/incident report in local language or English
- **GS5.** provide an emergency or safety incident brief to seniors or relevant authorities in a calm, clear and to-the-point manner
- **GS6.** communicate general health and safety guidelines to colleagues/co-workers









- **GS7.** communicate appropriately with co-workers in order to clarify instructions and other issues
- **GS8.** act in case of any potential hazards observed in the work place
- **GS9.** plan and organize their own work schedule, work area, tools, equipment in compliance with organizational policies for health, safety and security
- **GS10.** take adequate measures to ensure the safety of clients and visitors at the workplace
- **GS11.** identify immediate or temporary solutions to resolve delays
- **GS12.** evaluate the work area for health and safety risks or hazards
- **GS13.** use cause and effect relations to anticipate potential issues, problems and their solution in the work area related to safety
- **GS14.** recognise emergency and potential emergency situations
- **GS15.** protect self and others from a health and safety risk or hazard
- **GS16.** communicate and collaborate to incorporate sustainable practices (greening) in workplace processes
- **GS17.** record data on waste disposal at workplace









Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Deal with workplace hazards	20	31	-	-
PC1. identify job-site hazards and possible causes of accident in the workplace	2	3	-	-
PC2. perform work complying to organizational safe working practices and observing hazard signs displayed on containers, equipment and in various work areas such as inside buildings, in open areas and public spaces, etc.	3	4	-	-
PC3. use appropriate personal protective equipment (PPE) for specific tasks and work conditions, contaminant (concentration w.r.t air) requirements and severity of hazard while conforming to the Indian/International standards	3	4	-	-
PC4. follow standard safety procedures while handling tool/ ,equipment, hazardous substances and while working in hazardous environments	3	4	-	-
PC5. dispose electronic waste (such as toxins; metals such as lead, cadmium, barium; flame retardant plastics, welding slag etc.) as per industry approved techniques	2	4	-	-
PC6. avoid damage of components due to negligence in electrostatic discharge (ESD) procedures	2	3	-	-
PC7. locate general health and safety equipment in the workplace such as fire extinguishers; first aid equipment; safety instruments, clothing and installations (fire exits, exhaust fans)	2	3	-	-
PC8. maintain appropriate posture while handling heavy objects	1	3	-	-
PC9. apply good housekeeping practices at all times	2	3	-	<u>-</u>
Apply fire safety practices	4	9	-	-
PC10. take preventive measures to prevent fire hazards	2	3	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
 PC11. use appropriate fire extinguishers for different types of fires Types of fires: Class A: e.g. ordinary solid combustibles, such as wood, paper, cloth, plastic, charcoal, etc.; Class B: flammable liquids and gases, such as gasoline, propane, diesel fuel, tar, cooking oil, and similar substances; Class C: e.g. electrical equipment such as appliances, wiring, breaker panels, etc. (These categories of fires become Class A, B, and D fires when the electrical equipment that initiated the fire is no l 	1	3	-	-
PC12. exhibit rescue and first-aid techniques in case of fire or electrocution	1	3	-	-
Follow emergencies, rescue and first-aid procedures	6	13	-	-
PC13. administer appropriate first aid to victims in case of bleeding, burns, choking, electric shock, poisoning etc.	1	3	-	-
PC14. administer first aid to victims in case of a heart attack or cardiac arrest due to electric shock,	1	2	-	-
PC15. participate regularly in emergency procedures such as raising alarm, safe/efficient, evacuation, correct means of taking shelter and escaping, correct assembly point, roll call, correct return to work	2	4	-	-
PC16. use correct method to move injured people and others during an emergency	2	4	-	-
Effective waste management/recycling practices	5	12	-	-
PC17. identify recyclable and non-recyclable, and hazardous waste generated	1	3	-	-
PC18. segregate waste into different categories	1	2	-	-
PC19. ensure disposal of non-recyclable waste appropriately	1	2	-	-
PC20. deposit non-recyclable and reusable material at identified location	1	3	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC21. follow processes specified for disposal of hazardous waste	1	2	-	-
NOS Total	35	65	-	-









National Occupational Standards (NOS) Parameters

NOS Code	ELE/N1002
NOS Name	Apply health and safety practices at the workplace
Sector	Electronics
Sub-Sector	Generic
Occupation	Generic - Health Safety
NSQF Level	4
Credits	TBD
Version	3.0
Last Reviewed Date	24/02/2022
Next Review Date	24/02/2025
NSQC Clearance Date	24/02/2022









DGT/VSQ/N0102: Employability Skills (60 Hours)

Description

This unit is about employability skills, Constitutional values, becoming a professional in the 21st Century, digital, financial, and legal literacy, diversity and Inclusion, English and communication skills, customer service, entrepreneurship, and apprenticeship, getting ready for jobs and career development.

Scope

The scope covers the following:

- Introduction to Employability Skills
- Constitutional values Citizenship
- Becoming a Professional in the 21st Century
- Basic English Skills
- Career Development & Goal Setting
- Communication Skills
- Diversity & Inclusion
- Financial and Legal Literacy
- Essential Digital Skills
- Entrepreneurship
- Customer Service
- Getting ready for Apprenticeship & Jobs

Elements and Performance Criteria

Introduction to Employability Skills

To be competent, the user/individual on the job must be able to:

- **PC1.** identify employability skills required for jobs in various industries
- PC2. identify and explore learning and employability portals

Constitutional values - Citizenship

To be competent, the user/individual on the job must be able to:

- **PC3.** recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.
- PC4. follow environmentally sustainable practices

Becoming a Professional in the 21st Century

To be competent, the user/individual on the job must be able to:

- **PC5.** recognize the significance of 21st Century Skills for employment
- **PC6.** practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life

Basic English Skills

To be competent, the user/individual on the job must be able to:









- **PC7.** use basic English for everyday conversation in different contexts, in person and over the telephone
- **PC8.** read and understand routine information, notes, instructions, mails, letters etc. written in English
- **PC9.** write short messages, notes, letters, e-mails etc. in English

Career Development & Goal Setting

To be competent, the user/individual on the job must be able to:

- **PC10.** understand the difference between job and career
- PC11. prepare a career development plan with short- and long-term goals, based on aptitude

Communication Skills

To be competent, the user/individual on the job must be able to:

- **PC12.** follow verbal and non-verbal communication etiquette and active listening techniques in various settings
- **PC13.** work collaboratively with others in a team

Diversity & Inclusion

To be competent, the user/individual on the job must be able to:

- PC14. communicate and behave appropriately with all genders and PwD
- PC15. escalate any issues related to sexual harassment at workplace according to POSH Act

Financial and Legal Literacy

To be competent, the user/individual on the job must be able to:

- **PC16.** select financial institutions, products and services as per requirement
- **PC17.** carry out offline and online financial transactions, safely and securely
- **PC18.** identify common components of salary and compute income, expenses, taxes, investments etc
- **PC19.** identify relevant rights and laws and use legal aids to fight against legal exploitation *Essential Digital Skills*

To be competent, the user/individual on the job must be able to:

- **PC20.** operate digital devices and carry out basic internet operations securely and safely
- PC21. use e- mail and social media platforms and virtual collaboration tools to work effectively
- PC22. use basic features of word processor, spreadsheets, and presentations

Entrepreneurship

To be competent, the user/individual on the job must be able to:

- **PC23.** identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research
- **PC24.** develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion
- **PC25.** identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity

Customer Service

To be competent, the user/individual on the job must be able to:

- **PC26.** identify different types of customers
- PC27. identify and respond to customer requests and needs in a professional manner.









PC28. follow appropriate hygiene and grooming standards

Getting ready for apprenticeship & Jobs

To be competent, the user/individual on the job must be able to:

- PC29. create a professional Curriculum vitae (Résumé)
- **PC30.** search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively
- **PC31.** apply to identified job openings using offline /online methods as per requirement
- **PC32.** answer questions politely, with clarity and confidence, during recruitment and selection
- PC33. identify apprenticeship opportunities and register for it as per guidelines and requirements

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** need for employability skills and different learning and employability related portals
- **KU2.** various constitutional and personal values
- **KU3.** different environmentally sustainable practices and their importance
- **KU4.** Twenty first (21st) century skills and their importance
- **KU5.** how to use English language for effective verbal (face to face and telephonic) and written communication in formal and informal set up
- **KU6.** importance of career development and setting long- and short-term goals
- **KU7.** about effective communication
- KU8. POSH Act
- **KU9.** Gender sensitivity and inclusivity
- **KU10.** different types of financial institutes, products, and services
- **KU11.** how to compute income and expenditure
- **KU12.** importance of maintaining safety and security in offline and online financial transactions
- KU13. different legal rights and laws
- **KU14.** different types of digital devices and the procedure to operate them safely and securely
- **KU15.** how to create and operate an e- mail account and use applications such as word processors, spreadsheets etc.
- **KU16.** how to identify business opportunities
- **KU17.** types and needs of customers
- **KU18.** how to apply for a job and prepare for an interview
- **KU19.** apprenticeship scheme and the process of registering on apprenticeship portal

Generic Skills (GS)

User/individual on the job needs to know how to:

- **GS1.** read and write different types of documents/instructions/correspondence
- GS2. communicate effectively using appropriate language in formal and informal settings









- **GS3.** behave politely and appropriately with all
- **GS4.** how to work in a virtual mode
- **GS5.** perform calculations efficiently
- **GS6.** solve problems effectively
- **GS7.** pay attention to details
- **GS8.** manage time efficiently
- **GS9.** maintain hygiene and sanitization to avoid infection









Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Introduction to Employability Skills	1	1	-	-
PC1. identify employability skills required for jobs in various industries	-	-	-	-
PC2. identify and explore learning and employability portals	-	-	-	-
Constitutional values - Citizenship	1	1	-	-
PC3. recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.	-	-	-	-
PC4. follow environmentally sustainable practices	-	-	-	-
Becoming a Professional in the 21st Century	2	4	-	-
PC5. recognize the significance of 21st Century Skills for employment	-	-	-	-
PC6. practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life	-	-	-	-
Basic English Skills	2	3	-	-
PC7. use basic English for everyday conversation in different contexts, in person and over the telephone	-	-	-	-
PC8. read and understand routine information, notes, instructions, mails, letters etc. written in English	-	-	-	-
PC9. write short messages, notes, letters, e-mails etc. in English	-	-	-	-
Career Development & Goal Setting	1	2	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. understand the difference between job and career	-	-	-	-
PC11. prepare a career development plan with short- and long-term goals, based on aptitude	-	-	-	-
Communication Skills	2	2	-	-
PC12. follow verbal and non-verbal communication etiquette and active listening techniques in various settings	-	-	-	-
PC13. work collaboratively with others in a team	-	-	-	-
Diversity & Inclusion	1	2	-	-
PC14. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC15. escalate any issues related to sexual harassment at workplace according to POSH Act	-	-	-	-
Financial and Legal Literacy	2	3	-	-
PC16. select financial institutions, products and services as per requirement	-	-	-	-
PC17. carry out offline and online financial transactions, safely and securely	-	-	-	-
PC18. identify common components of salary and compute income, expenses, taxes, investments etc	-	-	-	-
PC19. identify relevant rights and laws and use legal aids to fight against legal exploitation	-	-	-	-
Essential Digital Skills	3	4	-	-
PC20. operate digital devices and carry out basic internet operations securely and safely	-	-	-	-
PC21. use e- mail and social media platforms and virtual collaboration tools to work effectively	-	-	-	-
PC22. use basic features of word processor, spreadsheets, and presentations	-	-	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Entrepreneurship	2	3	-	-
PC23. identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research	-	-	-	-
PC24. develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion	-	-	-	-
PC25. identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity	-	-	-	-
Customer Service	1	2	-	-
PC26. identify different types of customers	-	-	-	-
PC27. identify and respond to customer requests and needs in a professional manner.	-	-	-	-
PC28. follow appropriate hygiene and grooming standards	-	-	-	-
Getting ready for apprenticeship & Jobs	2	3	-	-
PC29. create a professional Curriculum vitae (Résumé)	-	-	-	-
PC30. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively	-	-	-	-
PC31. apply to identified job openings using offline /online methods as per requirement	-	-	-	-
PC32. answer questions politely, with clarity and confidence, during recruitment and selection	-	-	-	-
PC33. identify apprenticeship opportunities and register for it as per guidelines and requirements	-	-	-	-
NOS Total	20	30	-	•









National Occupational Standards (NOS) Parameters

NOS Code	DGT/VSQ/N0102
NOS Name	Employability Skills (60 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	4
Credits	2
Version	1.0
Last Reviewed Date	30/11/2023
Next Review Date	30/11/2026
NSQC Clearance Date	30/11/2023

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

- 1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Element/ Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each Element/ PC.
- 2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
- 3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
- 4. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
- 5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.
- 6. To pass the Qualification Pack assessment, every trainee should score the Recommended Pass % aggregate for the QP.
- 7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.









Minimum Aggregate Passing % at QP Level: 70

(**Please note**: Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
ELE/N4401.Perform incoming quality check	40	60	-	-	100	70
ELE/N1002.Apply health and safety practices at the workplace	35	65	-	-	100	15
DGT/VSQ/N0102.Employability Skills (60 Hours)	20	30	-	-	50	15
Total	95	155	-	-	250	100









Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training









Glossary

Sector	Sector is a conglomeration of different business operations having similar business 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.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
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 (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC)	Performance Criteria (PC) 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 (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by 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 a 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 quality of performance required.









Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.
Organisational Context	Organisational context includes the way the organisation 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 (GS)	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment 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.
Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.