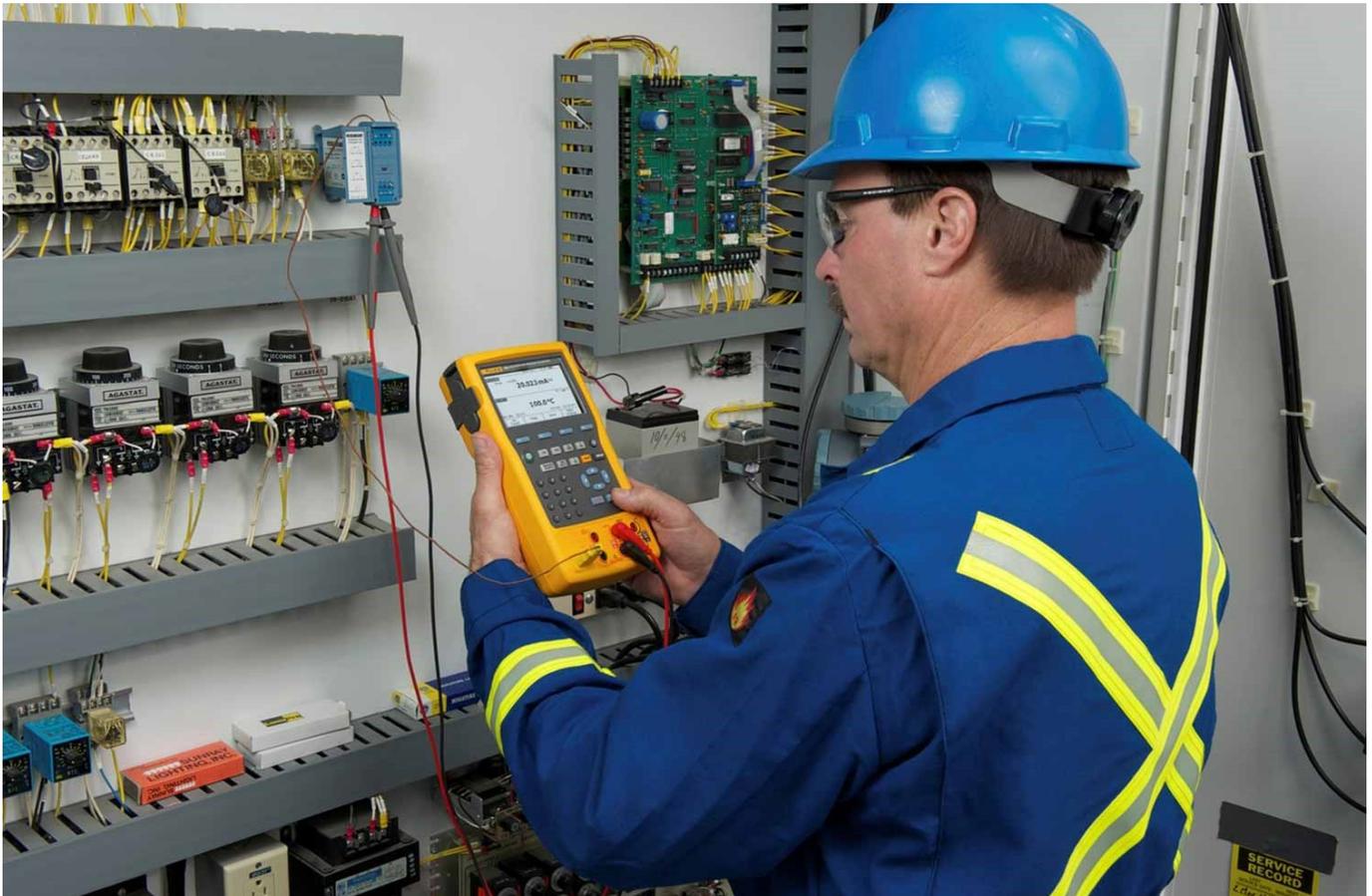


Qualification Pack



Calibration Technician

QP Code: CSC/Q0801

Version: 3.0

NSQF Level: 4

Capital Goods & Strategic Skill Council || 1st Floor, L-29, Outer Circle, Connaught Place
New Delhi - 110001 || email: coo@cgsc.in



Qualification Pack

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CSC/Q0801: Calibration Technician

Brief Job Description

A Calibration Technician is responsible for setting, adjusting, validating mechanical, pneumatic, hydraulic, electrical, electronic measuring and control instruments using the relevant reference standards as per the applicable procedures.

Personal Attributes

The individual must be physically fit to work for long durations with concentration. The person must have basic numerical abilities along with basic oral and written communication skills. The individual must be able to take decisions independently and work in coordination with others. The ability to identify and resolve problems quickly is another important requirement in the job role.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

- [CSC/N0801: Calibrate hydraulic, pneumatic and mechanical measuring and control equipment](#)
- [CSC/N0802: Calibrate electrical and electronic measuring and control equipment](#)
- [CSC/N1335: Follow the health and safety practices at the work](#)
- [CSC/N1336: Coordinate with co-workers to achieve work efficiency](#)
- [DGT/VSQ/N0102: Employability Skills \(60 Hours\)](#)

Qualification Pack (QP) Parameters

Sector	Capital Goods
Sub-Sector	Machine Tools, Plastics Manufacturing Machinery, Textile Manufacturing Machinery, Process Plant Machinery, Electrical and Power Machinery, Light Engineering Goods
Occupation	Calibration and Instrumentation
Country	India
NSQF Level	4
Credits	16



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Aligned to NCO/ISCO/ISIC Code	NCO-2015/7311.1001
Minimum Educational Qualification & Experience	10th grade pass with 2 Years of experience OR 11th grade pass with 1 Year of experience OR 10th grade pass and pursuing continuous schooling OR 8th grade pass with 2 year NTC plus 1 year NAC plus 1 year CITS OR 10th grade pass (with two years of any combination of NTC/NAC/CITS or equivalent) OR Completed 2nd year of the 3-year diploma after 10 (OR Pursuing 2nd year of 3-year regular Diploma (after 10th) OR 12th grade Pass (OR Operator - Calibration and Instrumentation of NSQF Level 3.0 with 3 years of relevant experience)
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	NA
Next Review Date	31/03/2025
NSQC Approval Date	31/03/2022
Version	3.0
Reference code on NQR	QG-04-CG-00175-2023-V1.1-CGSC
NQR Version	1



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CSC/N0801: Calibrate hydraulic, pneumatic and mechanical measuring and control equipment

Description

This OS unit is about the setting, adjusting and validating mechanical, pneumatic, hydraulic, electrical and electronic measuring and control instruments using the appropriate reference standards and following the approved standard procedures.

Scope

The scope covers the following :

- Prepare the testing equipment
- Test the measuring and control equipment
- Carry out fault management
- Calibrate the measuring and control equipment

Elements and Performance Criteria

Prepare the testing equipment

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

- PC1.** check various components in the testing equipment for faults, wear and tear or damage
- PC2.** repair or replace the faulty/ worn-out/ damaged components, as appropriate

Test the measuring and control equipment

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

- PC3.** determine the test requirements, following the standard procedure
- PC4.** plan the testing/calibration activities and prepare the appropriate schedules
- PC5.** check the relevant equipment such as leads and fasteners for faults, wear and tear or damage
- PC6.** repair or replace the equipment, as appropriate
- PC7.** inspect the instruments to ensure they are free from damage and unwanted foreign objects
- PC8.** carry out standard serviceability tests and calibration; special-to-type tests; operational/function checks, and gauge repeatability and reliability tests
- PC9.** perform the operational/function checks
- PC10.** conduct the gauge repeatability and reliability tests
- PC11.** follow the relevant statistical process control methods during the calibration/ testing activities
- PC12.** inspect and test the operation of instruments and systems using the relevant testing devices to diagnose faults
- PC13.** select the appropriate test application method and testing equipment after the inspection of instrumentation systems and equipment/components
- PC14.** determine the device isolation requirements and follow the appropriate device isolation methods



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- PC15.** follow the appropriate test procedures and application principles to assess the operation of instrumentation systems and equipment/components
- PC16.** identify the instances when testing/calibration activities cannot be completed or defects outside the planned schedule, and report it to the relevant personnel
- PC17.** use the relevant Industry 4.0 manufacturing technologies to ensure interconnectivity, automation, machine learning, and real-time data collection and analysis
- PC18.** carry out relevant documentation manually and/ or electronically with respect to the testing/calibration activities

Carry out fault management

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

- PC19.** analyse and verify the test results against the operational specifications to identify and localise faults
- PC20.** identify the existing and potential faults following the applicable standard procedure, and report to the relevant personnel as per the SOP
- PC21.** determine the faulty conditions and plan corrective action
- PC22.** prepare and document an action plan as per the applicable procedures, including all the relevant information

Calibrate the measuring and control equipment

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

- PC23.** check the calibration of measuring and control equipment to ensure it is as per the manufacturers' specifications
- PC24.** calibrate the measuring and control equipment as per the applicable physical standards using the appropriate calibration tools, equipment and techniques
- PC25.** perform the zero span and range checks on indicators/controllers using the recommended configuration
- PC26.** carry out appropriate adjustments to the operational specifications using the relevant calibration devices and procedures
- PC27.** recommission the equipment according to the standard procedure
- PC28.** coordinate with the relevant personnel to resolve any issues beyond own area of competence or experience
- PC29.** monitor the problem and update the supervisor about the progress or any delays in resolving the problem
- PC30.** carry out relevant documentation as per the organisational procedure

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the concepts and benefits of Industry 4.0 and Industrial Internet of Things (IIoT)
- KU2.** the SOP for calibrating the measuring equipment and the relevant tools and equipment required for that
- KU3.** the SOP for commissioning the measuring equipment
- KU4.** the relevant calibration records to be maintained



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- KU5.** the recommended specifications for measuring equipment and components for their optimum functioning
- KU6.** the use of relevant tools and equipment for checking measuring equipment for faults
- KU7.** the use of appropriate techniques to check the calibration of the measuring equipment for conformance to specifications
- KU8.** the process of calibrating the measuring equipment according to the appropriate physical standard
- KU9.** the process of recommissioning the measuring equipment
- KU10.** the appropriate checks to be made on the measuring equipment and the use of relevant tools and equipment for the purpose
- KU11.** how to resolve the common faults found in the measuring equipment
- KU12.** the impact of faults on the performance/accuracy of the measuring equipment
- KU13.** the hazards and controls relevant to calibrating the measuring equipment
- KU14.** the functionality of the measuring equipment and the recommended tolerance levels for calibration
- KU15.** the applicable instrumentation principles such as controlling density, level, flow, temperature, composition and arrangement of materials
- KU16.** the principles of hydraulic and pneumatic flow
- KU17.** the application principles for assessing the operation of instrumentation systems and equipment/components
- KU18.** the procedure and use of relevant equipment for inspecting and testing instrumentation system
- KU19.** the calibration procedures for instrumentation systems and equipment/ components
- KU20.** the purpose and functions of instrumentation system
- KU21.** the specifications of different types of instrumentation system and the acceptable deviations from specifications
- KU22.** the procedure for repairing faulty instrumentation system
- KU23.** the relevant techniques for dismantling, testing and reassembling an instrumentation system
- KU24.** the correct operation of the instrumentation system and the procedure for isolating instrumentation systems
- KU25.** different types of faults found in an instrumentation system and equipment components
- KU26.** the process for checking and verifying the operational function of the instrumentation system and equipment
- KU27.** the process of recording and completing service reports
- KU28.** the operational specifications of the instrumentation system and equipment
- KU29.** how to resolve variations between test results and operational specifications
- KU30.** the causes of common faults found in the instrumentation system and equipment components
- KU31.** the appropriate corrective action to be taken to rectify the causes of faults in the instrumentation systems and equipment
- KU32.** the process of correcting faults in the instrumentation system and equipment components
- KU33.** the importance and process of reporting the unresolved faults



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- KU34.** the difference between real and potential faults
- KU35.** the process for documenting test and calibration results
- KU36.** the function and process of carrying out zero-and-span checks on instrumentation systems and equipment
- KU37.** the relevant equipment required to carry out the calibration of instrumentation systems and equipment
- KU38.** the instrumentation control equipment to be checked for weight, such as mechanical system, load cells/strain gauges, transducers, etc.
- KU39.** the speed measurement and control equipment to be checked, such as mechanical governors, valves and valve mechanisms including control valves, valve actuators and positioners, etc.
- KU40.** use of various and testing and calibration tools such as pressure gauge, standard test gauge, micrometre, jigs and fixtures, insulation testers, calibrated weights, Vernier calliper, deadweight tester, manometer, gyroscope, etc.
- KU41.** the relevant documentation to be completed such as job card, progress report, incident report, calibration labels, test reports, nonconforming calibration reports, calibration certificates, etc.
- KU42.** the relevant calibration records to be maintained
- KU43.** the measuring equipment specifications, their use, connections and components

Generic Skills (GS)

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

- GS1.** maintain work-related notes and records
- GS2.** read the relevant literature to get the latest updates about the field of work
- GS3.** communicate politely and professionally
- GS4.** listen attentively to understand the information being shared
- GS5.** plan and schedule tasks for efficient time management
- GS6.** identify possible disruptions to work and take appropriate preventive measures
- GS7.** take quick decisions to deal with workplace emergencies/ accidents
- GS8.** evaluate all possible solutions to a problem to select the best one

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Prepare the testing equipment</i>	2	4	-	-
PC1. check various components in the testing equipment for faults, wear and tear or damage	1	2	-	-
PC2. repair or replace the faulty/ worn-out/ damaged components, as appropriate	1	2	-	-
<i>Test the measuring and control equipment</i>	16	48	-	-
PC3. determine the test requirements, following the standard procedure	1	3	-	-
PC4. plan the testing/calibration activities and prepare the appropriate schedules	1	3	-	-
PC5. check the relevant equipment such as leads and fasteners for faults, wear and tear or damage	1	3	-	-
PC6. repair or replace the equipment, as appropriate	1	3	-	-
PC7. inspect the instruments to ensure they are free from damage and unwanted foreign objects	1	3	-	-
PC8. carry out standard serviceability tests and calibration; special-to-type tests; operational/function checks, and gauge repeatability and reliability tests	1	3	-	-
PC9. perform the operational/function checks	1	3	-	-
PC10. conduct the gauge repeatability and reliability tests	1	3	-	-
PC11. follow the relevant statistical process control methods during the calibration/ testing activities	1	3	-	-
PC12. inspect and test the operation of instruments and systems using the relevant testing devices to diagnose faults	1	3	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. select the appropriate test application method and testing equipment after the inspection of instrumentation systems and equipment/components	1	3	-	-
PC14. determine the device isolation requirements and follow the appropriate device isolation methods	1	3	-	-
PC15. follow the appropriate test procedures and application principles to assess the operation of instrumentation systems and equipment/components	1	3	-	-
PC16. identify the instances when testing/calibration activities cannot be completed or defects outside the planned schedule, and report it to the relevant personnel	1	3	-	-
PC17. use the relevant Industry 4.0 manufacturing technologies to ensure interconnectivity, automation, machine learning, and real-time data collection and analysis	1	3	-	-
PC18. carry out relevant documentation manually and/ or electronically with respect to the testing/calibration activities	1	3	-	-
<i>Carry out fault management</i>	4	8	-	-
PC19. analyse and verify the test results against the operational specifications to identify and localise faults	1	2	-	-
PC20. identify the existing and potential faults following the applicable standard procedure, and report to the relevant personnel as per the SOP	1	2	-	-
PC21. determine the faulty conditions and plan corrective action	1	2	-	-
PC22. prepare and document an action plan as per the applicable procedures, including all the relevant information	1	2	-	-
<i>Calibrate the measuring and control equipment</i>	8	10	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC23. check the calibration of measuring and control equipment to ensure it is as per the manufacturers' specifications	1	1	-	-
PC24. calibrate the measuring and control equipment as per the applicable physical standards using the appropriate calibration tools, equipment and techniques	1	1	-	-
PC25. perform the zero span and range checks on indicators/controllers using the recommended configuration	1	1	-	-
PC26. carry out appropriate adjustments to the operational specifications using the relevant calibration devices and procedures	1	1	-	-
PC27. recommission the equipment according to the standard procedure	1	1	-	-
PC28. coordinate with the relevant personnel to resolve any issues beyond own area of competence or experience	1	1	-	-
PC29. monitor the problem and update the supervisor about the progress or any delays in resolving the problem	1	2	-	-
PC30. carry out relevant documentation as per the organisational procedure	1	2	-	-
NOS Total	30	70	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CSC/N0801
NOS Name	Calibrate hydraulic, pneumatic and mechanical measuring and control equipment
Sector	Capital Goods
Sub-Sector	Machine Tools, Plastics Manufacturing Machinery, Textile Manufacturing Machinery, Process Plant Machinery, Electrical and Power Machinery, Light Engineering Goods
Occupation	Calibration and Instrumentation
NSQF Level	4
Credits	5
Version	3.0
Last Reviewed Date	NA
Next Review Date	31/03/2025
NSQ Clearance Date	31/03/2022



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CSC/N0802: Calibrate electrical and electronic measuring and control equipment

Description

This OS unit is about setting, adjusting and validating electrical and electronic measuring and control equipment using appropriate reference standards according to the applicable procedures.

Scope

The scope covers the following :

- Plan and carry out the testing activities
- Analyse and report the test results
- Calibrate the measuring and control equipment

Elements and Performance Criteria

Plan and carry out the testing activities

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

- PC1.** identify the testing requirements following the standard procedure
- PC2.** plan and prepare the schedules for carrying out testing/calibration activities
- PC3.** select the appropriate testing tools and equipment according to the requirement
- PC4.** perform visual inspection of the measuring and control equipment to ensure they are free from wear and tear/ damage and any foreign objects
- PC5.** conduct the relevant tests such as gauge repeatability and reliability tests; special-to-type tests; etc.
- PC6.** follow the applicable statistical process control techniques
- PC7.** check the calibration of measuring and control equipment against the manufacturer specifications
- PC8.** test the operation of instruments and systems to diagnose faults using the appropriate testing devices
- PC9.** follow the appropriate device isolation methods as per the requirement
- PC10.** test various components such as sensors, transmitters, converters, indicators, analysers, controllers, circuit boards to determine faults/ wear and tear/ damage
- PC11.** test the sensor units associated with determining/controlling density, level, flow, temperature, the composition of a range of materials, for the correct functioning
- PC12.** follow the appropriate testing procedures and sequence of activities along with application principles while carrying out testing activities on measuring and control equipment
- PC13.** ensure adherence to the applicable timescales to ensure testing activities are completed on time
- PC14.** coordinate with the supervisor or other relevant personnel to resolve any issues/ defects identified with the testing/ calibration activities which are out of scope or the planned schedule
- PC15.** carry out relevant documentation regarding the testing activities



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Analyse and report the test results

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

- PC16.** analyse and verify the test results against the operational specifications to identify and localize faults
- PC17.** follow the organisational procedure to report potential and real faults
- PC18.** evaluate the faulty conditions and plan corrective action
- PC19.** document the action plan following the SOP

Calibrate the measuring and control equipment

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

- PC20.** calibrate the control and measuring equipment according to the applicable physical standards and manufacturer specifications
- PC21.** use the relevant calibration tools and equipment such as oscilloscope, pressure gauge, current injection device, voltmeter, analogue and digital meter appropriately
- PC22.** follow the calibration techniques recommended by the Original Equipment Manufacturer (OEM)
- PC23.** perform zero and span check on indicators/controllers, using the recommended configuration
- PC24.** follow the appropriate methods of adjustment, using relevant calibration devices and document the prescribed procedures and operational specifications
- PC25.** recommission the equipment following the applicable procedures
- PC26.** coordinate with an expert to resolve calibration issues beyond own area of expertise
- PC27.** monitor the process of problem resolution and update the supervisor regarding the progress
- PC28.** carry out appropriate documentation such as job cards, progress records, incident reports, calibration and test reports as per the organizational procedures

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** relevant documentation to be carried out in the job role
- KU2.** applicable standards and regulations with respect to the electrical and electronic measuring and control equipment and their calibration
- KU3.** the standard procedures for testing and calibrating the electrical and electronic measuring and control equipment, and the use of relevant tools and equipment
- KU4.** the process of commissioning and recommissioning electrical and electronic measuring and control equipment
- KU5.** recommended electrical and electronic measuring and control equipment specifications to be maintained
- KU6.** the process of testing and calibrating various components such as sensors, transmitters, converters, indicators, analysers, controllers, power supply units, removable circuit boards, sensor units, etc
- KU7.** functions of various sensor units that determine/control density, level, flow, temperature, composition etc.



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- KU8.** the appropriate techniques to be used to check the calibration of measuring and control equipment and ensure their conformance to the recommended/ manufacturer specifications and physical standards
- KU9.** common faults found in the electrical and electronic measuring and control equipment, their effects on the performance/accuracy on equipment performance, and how to rectify them
- KU10.** various hazards associated with calibration of electrical and electronic measuring and control equipment and how to minimise them
- KU11.** appropriate tolerance levels for calibration of electrical and electronic measuring and control equipment
- KU12.** effects of resistance, capacitance, inductance and impedance upon electrical circuit including Resistance-Inductance-Capacitance (RLC) series circuit
- KU13.** how to interpret schematics, wiring and block diagrams
- KU14.** the principles of electrical flow
- KU15.** the purpose/operational functions of instrumentation system
- KU16.** the process for inspecting, testing, calibrating and repairing instrumentation systems and equipment/ components
- KU17.** the recommended specifications for the relevant instrumentation system and acceptable deviations
- KU18.** the applicable dismantling, reassembly and testing techniques
- KU19.** the process of isolating instrumentation systems
- KU20.** various faults found in instrumentation system/equipment components, their causes and how to rectify them
- KU21.** the procedure for checking and verifying the operational function of the instrumentation system/equipment
- KU22.** how to deal with variations between test results and operational specifications of the instrumentation system
- KU23.** various errors indicated by built-in devices and how to rectify them
- KU24.** the process for documenting test and calibration results
- KU25.** the function and process of conducting zero and span check on instrumentation systems/equipment

Generic Skills (GS)

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

- GS1.** maintain work-related notes and records
- GS2.** read the relevant literature to learn about the latest developments in the field of work
- GS3.** listen attentively to understand the information or instructions being shared
- GS4.** perform work-related calculation
- GS5.** use the appropriate measuring techniques and measuring units
- GS6.** communicate politely and professionally
- GS7.** organise and analyse work-related information
- GS8.** plan and prioritise tasks to ensure timely completion



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- GS9.** take prompt decisions to deal with workplace emergencies and accidents
- GS10.** identify possible disruptions to work and take appropriate preventive measures
- GS11.** evaluate all possible solutions to a problem to select the best one
- GS12.** coordinate with co-workers to achieve the work objectives

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Plan and carry out the testing activities</i>	15	30	-	-
PC1. identify the testing requirements following the standard procedure	1	2	-	-
PC2. plan and prepare the schedules for carrying out testing/calibration activities	1	2	-	-
PC3. select the appropriate testing tools and equipment according to the requirement	1	2	-	-
PC4. perform visual inspection of the measuring and control equipment to ensure they are free from wear and tear/ damage and any foreign objects	1	2	-	-
PC5. conduct the relevant tests such as gauge repeatability and reliability tests; special-to-type tests; etc.	1	2	-	-
PC6. follow the applicable statistical process control techniques	1	2	-	-
PC7. check the calibration of measuring and control equipment against the manufacturer specifications	1	2	-	-
PC8. test the operation of instruments and systems to diagnose faults using the appropriate testing devices	1	2	-	-
PC9. follow the appropriate device isolation methods as per the requirement	1	2	-	-
PC10. test various components such as sensors, transmitters, converters, indicators, analysers, controllers, circuit boards to determine faults/ wear and tear/ damage	1	2	-	-
PC11. test the sensor units associated with determining/controlling density, level, flow, temperature, the composition of a range of materials, for the correct functioning	1	2	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. follow the appropriate testing procedures and sequence of activities along with application principles while carrying out testing activities on measuring and control equipment	1	2	-	-
PC13. ensure adherence to the applicable timescales to ensure testing activities are completed on time	1	2	-	-
PC14. coordinate with the supervisor or other relevant personnel to resolve any issues/ defects identified with the testing/ calibration activities which are out of scope or the planned schedule	1	2	-	-
PC15. carry out relevant documentation regarding the testing activities	1	2	-	-
<i>Analyse and report the test results</i>	4	12	-	-
PC16. analyse and verify the test results against the operational specifications to identify and localize faults	1	3	-	-
PC17. follow the organisational procedure to report potential and real faults	1	3	-	-
PC18. evaluate the faulty conditions and plan corrective action	1	3	-	-
PC19. document the action plan following the SOP	1	3	-	-
<i>Calibrate the measuring and control equipment</i>	11	28	-	-
PC20. calibrate the control and measuring equipment according to the applicable physical standards and manufacturer specifications	2	4	-	-
PC21. use the relevant calibration tools and equipment such as oscilloscope, pressure gauge, current injection device, voltmeter, analogue and digital meter appropriately	2	3	-	-
PC22. follow the calibration techniques recommended by the Original Equipment Manufacturer (OEM)	1	3	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC23. perform zero and span check on indicators/controllers, using the recommended configuration	1	3	-	-
PC24. follow the appropriate methods of adjustment, using relevant calibration devices and document the prescribed procedures and operational specifications	1	3	-	-
PC25. recommission the equipment following the applicable procedures	1	3	-	-
PC26. coordinate with an expert to resolve calibration issues beyond own area of expertise	1	3	-	-
PC27. monitor the process of problem resolution and update the supervisor regarding the progress	1	3	-	-
PC28. carry out appropriate documentation such as job cards, progress records, incident reports, calibration and test reports as per the organizational procedures	1	3	-	-
NOS Total	30	70	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CSC/N0802
NOS Name	Calibrate electrical and electronic measuring and control equipment
Sector	Capital Goods
Sub-Sector	Machine Tools, Plastics Manufacturing Machinery, Textile Manufacturing Machinery, Process Plant Machinery, Electrical and Power Machinery, Light Engineering Goods
Occupation	Calibration and Instrumentation
NSQF Level	4
Credits	4
Version	3.0
Last Reviewed Date	NA
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



Qualification Pack

CSC/N1335: Follow the health and safety practices at the work

Description

This OS unit is about following the appropriate health and safety practices at work. It covers responsibilities towards self and others to ensure a safe work environment.

Scope

The scope covers the following :

- Maintain personal health and safety
- Assist in hazard management
- Check the first aid box, firefighting and safety equipment
- Assist in waste management
- Follow the fire safety guidelines
- Follow the emergency and first-aid procedures
- Carry out relevant documentation and review

Elements and Performance Criteria

Maintain personal health and safety

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

- PC1.** follow the recommended practices to ensure protection from infections and transmission to others, such as the use of hand sanitiser and face mask
- PC2.** check the work conditions, assess the potential health and safety risks, and take appropriate measures to mitigate them
- PC3.** select and use the appropriate Personal Protective Equipment (PPE) relevant to the task and work conditions
- PC4.** follow the recommended techniques while lifting and moving heavy objects to avoid injury
- PC5.** follow the manufacturer's instructions and workplace safety guidelines while working on heavy machinery, tools and equipment

Assist in hazard management

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

- PC6.** identify existing and potential hazards at work
- PC7.** assess the potential risks and injuries associated with the identified hazards
- PC8.** coordinate with the supervisor or other relevant personnel to prevent or minimise the identified hazards
- PC9.** handle hazardous materials safely and store them in the designated storage

Check the first aid box, firefighting and safety equipment

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

- PC10.** check the first aid box to ensure it is updated with the relevant first aid supplies
- PC11.** check and test the firefighting and various safety equipment to ensure they are in usable condition

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PC12. coordinate with the supervisor for the repair and replacement of firefighting and safety equipment

Assist in waste management

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

PC13. segregate waste into appropriate categories

PC14. recycle the recyclable waste appropriately

PC15. dispose of the non-recyclable waste in an environment-friendly manner, complying with the applicable regulations

Follow the fire safety guidelines

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

PC16. use the appropriate type of fire extinguisher to extinguish different types of fires safely

PC17. follow the recommended practices for a safe rescue during a fire emergency

PC18. coordinate with the fire department to request assistance to extinguish a serious fire

Follow the emergency and first-aid procedures

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

PC19. follow the organisational health and safety guidelines during workplace emergencies to ensure own and co-workers' safety

PC20. follow the recommended practices to minimise loss to organisational property during an emergency

PC21. follow the recommended procedure to free a person from electrocution

PC22. administer appropriate first aid to the injured personnel

PC23. perform Cardiopulmonary Resuscitation (CPR) on a potential victim of cardiac arrest

PC24. coordinate with the emergency services to request medical assistance for seriously injured/ ill personnel requiring professional medical attention or hospitalisation

Carry out relevant documentation and review

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

PC25. carry out appropriate documentation following a health and safety incident at work, including all the required information

PC26. coordinate with the relevant personnel to review health and safety conditions at work regularly or following an incident

PC27. assist in implementing appropriate changes to improve the health and safety conditions at work

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. the recommended practices to be followed to ensure protection from infections and transmission to others, such as the use of hand sanitiser and face mask

KU2. the importance and process of checking the work conditions, assessing the potential health and safety risks, and take appropriate measures to mitigate them

KU3. the importance and process of selecting and using the appropriate PPE relevant to the task and work conditions



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- KU4.** the recommended techniques to be followed while lifting and moving heavy objects to avoid injury
- KU5.** the importance of following the manufacturer's instructions and workplace safety guidelines while working on heavy machinery, tools and equipment
- KU6.** the importance and process of identifying existing and potential hazards at work
- KU7.** the process of assessing the potential risks and injuries associated with the various hazards
- KU8.** how to prevent or minimise different types of hazards
- KU9.** how to handle and store hazardous materials safely
- KU10.** the importance of ensuring the first aid box is updated with the relevant first aid supplies
- KU11.** the process of checking and testing the firefighting and various safety equipment to ensure they are in a usable condition
- KU12.** the criteria for segregating waste into appropriate categories
- KU13.** the appropriate methods for recycling the recyclable waste
- KU14.** the process of disposing of the non-recyclable waste safely and the applicable regulations
- KU15.** Use of different types of fire extinguishers to extinguish different types of fires
- KU16.** the recommended practices to be followed for a safe rescue during a fire emergency
- KU17.** how to request assistance from the fire department to extinguish a serious fire
- KU18.** the appropriate practices to be followed during workplace emergencies to ensure safety and minimise loss to organisational property
- KU19.** common health and safety hazards present in a work environment, associated risks, and how to mitigate them
- KU20.** safe working practices to be followed while working at various hazardous sites and using electrical equipment
- KU21.** the importance of ensuring easy access to firefighting and safety equipment
- KU22.** the appropriate preventative and remedial actions to be taken in the case of exposure to toxic materials, such as poisonous chemicals and gases
- KU23.** various causes of fire in different work environments and the recommended precautions to be taken to prevent fire accidents
- KU24.** different methods of extinguishing fire
- KU25.** different materials used for extinguishing fire, such as sand, water, foam, CO₂, dry powder, etc.
- KU26.** the applicable rescue techniques to be followed during a fire emergency
- KU27.** the importance of placing safety signs and instructions at strategic locations in a workplace and following them
- KU28.** different types of first aid treatment to be provided for different types of injuries
- KU29.** potential injuries associated with incorrect manual handling
- KU30.** how to move an injured person safely
- KU31.** various hazards associated with the use of various machinery, tools, implements, equipment and materials
- KU32.** the importance of ensuring no obstruction and free access to fire exits
- KU33.** how to free a person from electrocution safely
- KU34.** how to administer appropriate first aid to an injured person



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- KU35.** how to perform Cardiopulmonary Resuscitation (CPR)
- KU36.** the importance of coordinating with the emergency services to request urgent medical assistance for persons requiring professional medical attention or hospitalisation
- KU37.** the appropriate documentation to be carried out following a health and safety incident at work, and the relevant information to be included
- KU38.** the importance and process of reviewing the health and safety conditions at work regularly or following an incident
- KU39.** the importance and process of implementing appropriate changes to improve the health and safety conditions at work

Generic Skills (GS)

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

- GS1.** maintain work-related notes and records
- GS2.** communicate clearly and politely with co-workers and clients
- GS3.** read the relevant literature to get the latest updates about the field of work
- GS4.** listen attentively to understand the information being shared
- GS5.** plan and prioritise tasks to ensure timely completion
- GS6.** take quick decisions to deal with workplace emergencies and accidents
- GS7.** identify possible disruptions to work and take appropriate preventive measures
- GS8.** coordinate with the co-workers to achieve the work objectives
- GS9.** evaluate all possible solutions to a problem to select the best one

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Maintain personal health and safety</i>	7	12	-	-
PC1. follow the recommended practices to ensure protection from infections and transmission to others, such as the use of hand sanitiser and face mask	2	3	-	-
PC2. check the work conditions, assess the potential health and safety risks, and take appropriate measures to mitigate them	1	2	-	-
PC3. select and use the appropriate Personal Protective Equipment (PPE) relevant to the task and work conditions	1	2	-	-
PC4. follow the recommended techniques while lifting and moving heavy objects to avoid injury	1	3	-	-
PC5. follow the manufacturer's instructions and workplace safety guidelines while working on heavy machinery, tools and equipment	2	2	-	-
<i>Assist in hazard management</i>	4	10	-	-
PC6. identify existing and potential hazards at work	1	1	-	-
PC7. assess the potential risks and injuries associated with the identified hazards	1	3	-	-
PC8. coordinate with the supervisor or other relevant personnel to prevent or minimise the identified hazards	1	3	-	-
PC9. handle hazardous materials safely and store them in the designated storage	1	3	-	-
<i>Check the first aid box, firefighting and safety equipment</i>	3	7	-	-
PC10. check the first aid box to ensure it is updated with the relevant first aid supplies	1	2	-	-
PC11. check and test the firefighting and various safety equipment to ensure they are in usable condition	1	3	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. coordinate with the supervisor for the repair and replacement of firefighting and safety equipment	1	2	-	-
<i>Assist in waste management</i>	3	8	-	-
PC13. segregate waste into appropriate categories	1	3	-	-
PC14. recycle the recyclable waste appropriately	1	3	-	-
PC15. dispose of the non-recyclable waste in an environment-friendly manner, complying with the applicable regulations	1	2	-	-
<i>Follow the fire safety guidelines</i>	3	12	-	-
PC16. use the appropriate type of fire extinguisher to extinguish different types of fires safely	1	4	-	-
PC17. follow the recommended practices for a safe rescue during a fire emergency	1	4	-	-
PC18. coordinate with the fire department to request assistance to extinguish a serious fire	1	4	-	-
<i>Follow the emergency and first-aid procedures</i>	7	12	-	-
PC19. follow the organisational health and safety guidelines during workplace emergencies to ensure own and co-workers' safety	1	2	-	-
PC20. follow the recommended practices to minimise loss to organisational property during an emergency	1	3	-	-
PC21. follow the recommended procedure to free a person from electrocution	1	2	-	-
PC22. administer appropriate first aid to the injured personnel	1	2	-	-
PC23. perform Cardiopulmonary Resuscitation (CPR) on a potential victim of cardiac arrest	1	2	-	-
PC24. coordinate with the emergency services to request medical assistance for seriously injured/ ill personnel requiring professional medical attention or hospitalisation	2	1	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Carry out relevant documentation and review</i>	3	9	-	-
PC25. carry out appropriate documentation following a health and safety incident at work, including all the required information	1	3	-	-
PC26. coordinate with the relevant personnel to review health and safety conditions at work regularly or following an incident	1	3	-	-
PC27. assist in implementing appropriate changes to improve the health and safety conditions at work	1	3	-	-
NOS Total	30	70	-	-



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	CSC/N1335
NOS Name	Follow the health and safety practices at the work
Sector	Capital Goods
Sub-Sector	Machine Tools, Process Plant Machinery, Dies, Moulds and Press Tools, Electrical and Power Machinery, Plastics Manufacturing Machinery, Light Engineering Goods, Textile Manufacturing Machinery
Occupation	Machining
NSQF Level	3
Credits	TBD
Version	2.0
Last Reviewed Date	26/05/2022
Next Review Date	31/03/2024
NSQC Clearance Date	31/03/2021



Qualification Pack

CSC/N1336: Coordinate with co-workers to achieve work efficiency

Description

This OS unit is about working in coordination with co-workers to achieve the work objectives efficiently. It also covers practising inclusion at work.

Scope

The scope covers the following :

- Work effectively with co-workers
- Communicate effectively with co-workers
- Practice inclusion at work

Elements and Performance Criteria

Work effectively with co-workers

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

- PC1.** plan daily tasks at work to ensure their timely completion and efficient use of time
- PC2.** carry out work responsibilities adhering to the limits of authority
- PC3.** follow the supervisor's instructions to ensure adherence to the applicable quality standards and timescales
- PC4.** coordinate with the co-workers to achieve the work objectives efficiently
- PC5.** prepare the relevant documents and reports as per the supervisor's instructions, providing appropriate information clearly and systematically
- PC6.** coordinate with the supervisor or relevant personnel to deal with out of authority tasks and concerns
- PC7.** mentor and assist subordinates in the execution of their work responsibilities
- PC8.** identify possible disruptions to work through coordination with the relevant stakeholders and take appropriate preventive measures
- PC9.** use various resources efficiently to ensure maximum utilisation and minimum wastage
- PC10.** follow the recommended practices to avoid and resolve conflicts at work
- PC11.** follow the relevant organisational policies to ensure disciplined behaviour with maximum productivity at work

Communicate effectively with co-workers

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

- PC12.** follow the organisational policy for the efficient and timely dissemination of information to the authorised personnel
- PC13.** communicate clearly and politely to ensure effective communication with co-workers
- PC14.** follow the appropriate techniques for active listening during interactions

Practice inclusion at work

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

- PC15.** empathise with Persons with Disabilities (PwD)



Qualification Pack

PC16. adopt gender-neutral behaviour at work

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the importance and process of effective communication in the workplace
- KU2.** the barriers to effective communication and how to overcome them
- KU3.** the importance of teamwork in an organisation's and individual's success
- KU4.** the importance of active listening in the work environment
- KU5.** the appropriate techniques to be followed for active listening
- KU6.** importance of avoiding casual expletives and unpleasant terms while communicating professional circles
- KU7.** the importance of maintaining discipline and ethical behaviour at work
- KU8.** the common reasons for interpersonal conflict and how to resolve them
- KU9.** the importance of developing effective work relationships for professional success
- KU10.** how expressing and addressing grievances appropriately and effectively
- KU11.** the importance and process of planning daily tasks to ensure their timely completion and efficient use of time
- KU12.** the importance of adhering to the limits of authority at work
- KU13.** the importance of following the applicable quality standards and timescales at work
- KU14.** the importance of coordinating with the co-workers to achieve the work objectives efficiently
- KU15.** the relevant documentation requirements
- KU16.** the importance of providing appropriate information clearly and systematically in work documents
- KU17.** the escalation matrix to be followed to deal with out of authority tasks and concerns
- KU18.** the importance and process of mentoring and assisting subordinates in the execution of their work responsibilities
- KU19.** how to identify possible disruptions to work prevent them
- KU20.** how to use various resources efficiently to ensure maximum utilisation and minimum wastage
- KU21.** the recommended practices to be followed at work to avoid and resolve conflicts at work
- KU22.** the importance and process of efficient and timely dissemination of information to the authorised personnel
- KU23.** how to communicate clearly and politely to ensure effective communication
- KU24.** the importance of following the recommended practices to ensure an inclusive environment for PwD and all genders at work

Generic Skills (GS)

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

- GS1.** maintain work-related notes and records



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- GS2.** read work-related and other relevant literature
- GS3.** communicate politely and -professionally
- GS4.** listen attentively to understand the information or instructions being shared
- GS5.** plan and prioritise tasks to ensure timely completion
- GS6.** take prompt decisions to deal with workplace emergencies and accidents
- GS7.** evaluate all possible solutions to a problem to select the best one

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Work effectively with co-workers</i>	20	43	-	-
PC1. plan daily tasks at work to ensure their timely completion and efficient use of time	2	4	-	-
PC2. carry out work responsibilities adhering to the limits of authority	2	4	-	-
PC3. follow the supervisor's instructions to ensure adherence to the applicable quality standards and timescales	2	4	-	-
PC4. coordinate with the co-workers to achieve the work objectives efficiently	2	4	-	-
PC5. prepare the relevant documents and reports as per the supervisor's instructions, providing appropriate information clearly and systematically	2	4	-	-
PC6. coordinate with the supervisor or relevant personnel to deal with out of authority tasks and concerns	2	4	-	-
PC7. mentor and assist subordinates in the execution of their work responsibilities	2	4	-	-
PC8. identify possible disruptions to work through coordination with the relevant stakeholders and take appropriate preventive measures	2	4	-	-
PC9. use various resources efficiently to ensure maximum utilisation and minimum wastage	2	4	-	-
PC10. follow the recommended practices to avoid and resolve conflicts at work	1	4	-	-
PC11. follow the relevant organisational policies to ensure disciplined behaviour with maximum productivity at work	1	3	-	-
<i>Communicate effectively with co-workers</i>	6	15	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. follow the organisational policy for the efficient and timely dissemination of information to the authorised personnel	2	5	-	-
PC13. communicate clearly and politely to ensure effective communication with co-workers	2	5	-	-
PC14. follow the appropriate techniques for active listening during interactions	2	5	-	-
<i>Practice inclusion at work</i>	4	12	-	-
PC15. empathise with Persons with Disabilities (PwD)	2	6	-	-
PC16. adopt gender-neutral behaviour at work	2	6	-	-
NOS Total	30	70	-	-



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	CSC/N1336
NOS Name	Coordinate with co-workers to achieve work efficiency
Sector	Capital Goods
Sub-Sector	Machine Tools, Dies, Moulds and Press Tools, Plastics Manufacturing Machinery, Textile Manufacturing Machinery, Process Plant Machinery, Electrical and Power Machinery, Light Engineering Goods
Occupation	Machining
NSQF Level	3
Credits	TBD
Version	2.0
Last Reviewed Date	26/05/2022
Next Review Date	31/03/2024
NSQC Clearance Date	31/03/2021



Qualification Pack

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:



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- 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.



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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



Qualification Pack

- 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

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Introduction to Employability Skills</i>	1	1	-	-
PC1. identify employability skills required for jobs in various industries	-	-	-	-
PC2. identify and explore learning and employability portals	-	-	-	-
<i>Constitutional values - Citizenship</i>	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	-	-	-	-
<i>Becoming a Professional in the 21st Century</i>	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	-	-	-	-
<i>Basic English Skills</i>	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	-	-	-	-
<i>Career Development & Goal Setting</i>	1	2	-	-

Qualification Pack

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	-	-	-	-
<i>Communication Skills</i>	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	-	-	-	-
<i>Diversity & Inclusion</i>	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	-	-	-	-
<i>Financial and Legal Literacy</i>	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	-	-	-	-
<i>Essential Digital Skills</i>	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	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Entrepreneurship</i>	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	-	-	-	-
<i>Customer Service</i>	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	-	-	-	-
<i>Getting ready for apprenticeship & Jobs</i>	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	-	-



Qualification Pack

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	31/08/2023
Next Review Date	31/08/2026
NSQC Clearance Date	31/08/2023

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for the Qualification Pack will be created by CGSC.
2. Performance Criteria (PC) have been assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
3. The assessment for the theory part will/may be based on knowledge bank of questions approved CGSC.
4. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
5. Assessment Agencies will create Assessor Guides comprising of Theory and Practical Assessment Set and Guidelines for each examination/training centre (as per assessment criteria below). The same will be approved by CGSC for adequacy.
6. To successfully attain Certification on the Qualification Pack, the trainee must score a minimum of 70% in each Core NOS and minimum of 70% in all non-core NOS. In addition, a candidate needs to attain a minimum overall pass percentage of 70% for certification.
7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.



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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
CSC/N0801.Calibrate hydraulic, pneumatic and mechanical measuring and control equipment	30	70	0	0	100	30
CSC/N0802.Calibrate electrical and electronic measuring and control equipment	30	70	0	0	100	30
CSC/N1335.Follow the health and safety practices at the work	30	70	-	-	100	15
CSC/N1336.Coordinate with co-workers to achieve work efficiency	30	70	-	-	100	15
DGT/VSQ/N0102.Employability Skills (60 Hours)	20	30	0	0	50	10
Total	140	310	0	0	450	100



Qualification Pack

Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training
AC/ DC	Alternating Current/ Direct Current
RLC	Units Of Resistance, Inductance And Capacitance Respectively
CO₂	Carbon Dioxide
CPR	Cardiac Pulmonary Resuscitation
PPE	Personal Protective Equipment

Qualification Pack

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.

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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.