

Qualification Pack



Analytical Instruments Operator (Chemical & Petrochemical)

QP Code: RSC/Q7201

Version: 1.0

NSQF Level: 4

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RSC/Q7201: Analytical Instruments Operator (Chemical & Petrochemical)

Brief Job Description

The individual at work is responsible for carrying out analytical tests using analytical instruments such as GC-MS (Gas Chromatography-Mass Spectrometry), HPLC (High performance liquid chromatography), LC-MS (Liquid Chromatography-Mass Spectrometry), ICP-OES (Inductively Coupled Plasma-Optical Emission Spectrometry), Karl-Fischer auto titrator, Abel's flashpoint apparatus, etc. as per SOP.

Personal Attributes

The individual at work should be hard working, and result oriented along with good communication, problem-solving, analytical, and organizing skills.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [RSC/N7201: Perform chemical instrumental analysis](#)
2. [RSC/N5610: Coordinate and communicate effectively at the workplace](#)
3. [RSC/N5001: Carry out housekeeping](#)
4. [RSC/N5002: Carry out reporting and documentation](#)
5. [RSC/N5007: Carry out health and safety](#)
6. [RSC/N5614: Manage chemical hazards in the workplace](#)
7. [RSC/N5603: Follow ethical and sustainable practices at the workplace](#)
8. [DGT/VSQ/N0102: Employability Skills \(60 Hours\)](#)

Qualification Pack (QP) Parameters

Sector	Rubber
Sub-Sector	Chemical & Petrochemical
Occupation	Research and development
Country	India

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NSQF Level	4
Credits	18
Aligned to NCO/ISCO/ISIC Code	NCO-2015/ 2113.0500
Minimum Educational Qualification & Experience	<p>Completed 2nd year of the 3-year diploma after 10 (pursuing regular diploma in science stream) OR 12th Class (Science) OR 10th grade pass with 2 year NTC plus 1 year NAC (plus CITS) OR 8th grade pass with 2 year NTC plus 1 year NAC plus 1 year CITS OR Certificate-NSQF (Level 3-Chemical Plant Assistant Operator/Chemical Maintenance Plant Assistant Operator) with minimum education as 8th grade pass) with 3 Years of experience</p>
Minimum Level of Education for Training in School	Not Applicable
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	NA
Next Review Date	29/03/2026
NSQC Approval Date	29/03/2023
Version	1.0
Reference code on NQR	QG-04-RI-00395-2023-V1-RCPSDC
NQR Version	1

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RSC/N7201: Perform chemical instrumental analysis

Description

This OS unit is about preparing for pre-chemical analysis activities and performing chemical instrumentation analysis as per standards.

Scope

The scope covers the following :

- Perform pre-chemical analysis activities
- Perform chemical instrumentation analysis

Elements and Performance Criteria

Perform pre-chemical analysis activities

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

- PC1.** obtain the work schedule and other relevant details from the supervisor
- PC2.** interpret documents related to the chemicals or substances to identify test requirement
- PC3.** identify process and analytical instruments required to conduct test
- PC4.** select appropriate test method such as qualitative or quantitative
- PC5.** determine sampling plan for choosing the sample for testing
- PC6.** inspect analytical testing equipment for proper functioning to achieve desired accuracy and precision
- PC7.** obtain lab glassware, lab test equipment, lab chemicals required for test
- PC8.** clean and maintain the analytical instrument used for the test
- PC9.** calibrate test equipment as per the standards
- PC10.** prepare the sample for testing as per the instructions
- PC11.** set the test parameters required for carrying the analytical test

Perform chemical instrumentation analysis

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

- PC12.** perform chemical testing using analytical instrumentation including HPLC, LC-MS, ICP-OES, Karl-Fischer auto titrator, Abel's flashpoint apparatus, etc.
- PC13.** weigh, mix and measure chemical ingredients before adding into machine
- PC14.** make use of suitable test equipment to hold the concentration range of the analyte
- PC15.** operate and maintain sophisticated computer-controlled analytical instrumentation for chemical analysis
- PC16.** conduct experiments under defined conditions to verify/reject various types of hypotheses using refined scientific methods
- PC17.** troubleshoot instrument and scientific methodology problems to ensure efficient operation of the instruments
- PC18.** monitor and analyze data from analytical tests

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- PC19.** compile and interpret results of tests and analyses
- PC20.** record operation data, including test results, processing times, pressures and temperatures for all pieces of equipment, and log that data into the digital filing system
- PC21.** maintain accurate lab notebooks and complete all related analytical reports, write summaries, and keep proper documentation in compliance with SOPs
- PC22.** maintain, clean, or sterilize testing instruments or equipment
- PC23.** troubleshoot instrumentation and administer simple repairs as needed
- PC24.** notify the supervisor in case of any issue with instruments

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** methods to interpret production schedule, other relevant detail related
- KU2.** sampling techniques
- KU3.** SOP to draw and prepare samples
- KU4.** different analytical methods and instruments such as GC-MS, HPLC, etc.
- KU5.** SOP to clean and maintain the analytical instrument used for the test
- KU6.** how to perform the analytical measurement
- KU7.** data analysis techniques
- KU8.** methods of safe storage of samples, analytical instruments etc.
- KU9.** hazards and safety aspects involved with analytical testing
- KU10.** type of records to be maintained and applicable format used for the same
- KU11.** standard procedure to notify seniors in case any issue with instruments

Generic Skills (GS)

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

- GS1.** read job requirements from the job specification document
- GS2.** interact and communicate with the supervisor or other authorized personnel as per requirement
- GS3.** write log sheets, forms, information, and details regarding water treatment

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Perform pre-chemical analysis activities</i>	14	21	-	-
PC1. obtain the work schedule and other relevant details from the supervisor	1	1	-	-
PC2. interpret documents related to the chemicals or substances to identify test requirement	1	2	-	-
PC3. identify process and analytical instruments required to conduct test	1	2	-	-
PC4. select appropriate test method such as qualitative or quantitative	1	2	-	-
PC5. determine sampling plan for choosing the sample for testing	1	2	-	-
PC6. inspect analytical testing equipment for proper functioning to achieve desired accuracy and precision	1	2	-	-
PC7. obtain lab glassware, lab test equipment, lab chemicals required for test	1	2	-	-
PC8. clean and maintain the analytical instrument used for the test	1	2	-	-
PC9. calibrate test equipment as per the standards	2	2	-	-
PC10. prepare the sample for testing as per the instructions	2	2	-	-
PC11. set the test parameters required for carrying the analytical test	2	2	-	-
<i>Perform chemical instrumentation analysis</i>	26	39	-	-
PC12. perform chemical testing using analytical instrumentation including HPLC, LC-MS, ICP-OES, Karl-Fischer auto titrator, Abel's flashpoint apparatus, etc.	2	3	-	-
PC13. weigh, mix and measure chemical ingredients before adding into machine	2	3	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. make use of suitable test equipment to hold the concentration range of the analyte	2	3	-	-
PC15. operate and maintain sophisticated computer-controlled analytical instrumentation for chemical analysis	2	3	-	-
PC16. conduct experiments under defined conditions to verify/reject various types of hypotheses using refined scientific methods	2	3	-	-
PC17. troubleshoot instrument and scientific methodology problems to ensure efficient operation of the instruments	2	3	-	-
PC18. monitor and analyze data from analytical tests	2	3	-	-
PC19. compile and interpret results of tests and analyses	2	3	-	-
PC20. record operation data, including test results, processing times, pressures and temperatures for all pieces of equipment, and log that data into the digital filing system	2	3	-	-
PC21. maintain accurate lab notebooks and complete all related analytical reports, write summaries, and keep proper documentation in compliance with SOPs	2	3	-	-
PC22. maintain, clean, or sterilize testing instruments or equipment	2	3	-	-
PC23. troubleshoot instrumentation and administer simple repairs as needed	2	3	-	-
PC24. notify the supervisor in case of any issue with instruments	2	3	-	-
NOS Total	40	60	-	-

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National Occupational Standards (NOS) Parameters

NOS Code	RSC/N7201
NOS Name	Perform chemical instrumental analysis
Sector	Rubber
Sub-Sector	Chemical & Petrochemical
Occupation	Research and development
NSQF Level	4
Credits	7
Version	1.0
Last Reviewed Date	NA
Next Review Date	29/03/2026
NSQC Clearance Date	29/03/2023

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RSC/N5610: Coordinate and communicate effectively at the workplace

Description

This OS unit is about communicating effectively with seniors, colleagues and others, coordinating with cross-functional teams at workplace as per standards.

Scope

The scope covers the following :

- Communicate effectively with colleagues and seniors
- Coordinate with cross-functional teams

Elements and Performance Criteria

Communicate effectively with colleagues and seniors

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

- PC1.** interact with colleagues and senior in a polite and professional manner
- PC2.** listen actively to the issues or requirements of colleagues and respond timely and appropriately
- PC3.** exhibit trust, support and respect to all colleagues and seniors
- PC4.** pass on essential information to the colleagues timely
- PC5.** maintain clarity, honesty and transparency while communicating with the seniors and colleagues
- PC6.** coordinate with seniors on work-related and behavioral feedback
- PC7.** comply with organization's policies and procedures for team work
- PC8.** seek clarification on the information provided by seniors, if needed
- PC9.** respect the personal and professional space of colleagues and superiors
- PC10.** report status of work as per the schedule to seniors and inform about any deviations or anomalies
- PC11.** provide information in the desired format and frequency

Coordinate with cross-functional teams

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

- PC12.** support colleagues of other departments for smooth work process, as required
- PC13.** coordinate with maintenance/engineering team for preventive and corrective maintenance, break down and calibration errors
- PC14.** provide inputs to the concerned stakeholders in periodic fence line review to detect non-compliance
- PC15.** coordinate with health and safety team for incident or authorized personnel, accident and emergency, if any

Knowledge and Understanding (KU)

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The individual on the job needs to know and understand:

- KU1.** organizational policies on behavioural etiquette and professionalism
- KU2.** organizational policies on gender sensitive service practices at workplace
- KU3.** organizational hierarchy and reporting structure
- KU4.** importance of communicating clearly with other
- KU5.** effective ways of team coordination
- KU6.** key helpline numbers

Generic Skills (GS)

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

- GS1.** note down instructions received from the seniors
- GS2.** read and interpret written instructions

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Communicate effectively with colleagues and seniors</i>	28	44	-	-
PC1. interact with colleagues and senior in a polite and professional manner	2	4	-	-
PC2. listen actively to the issues or requirements of colleagues and respond timely and appropriately	2	4	-	-
PC3. exhibit trust, support and respect to all colleagues and seniors	2	4	-	-
PC4. pass on essential information to the colleagues timely	2	4	-	-
PC5. maintain clarity, honesty and transparency while communicating with the seniors and colleagues	2	4	-	-
PC6. coordinate with seniors on work-related and behavioral feedback	3	4	-	-
PC7. comply with organization's policies and procedures for team work	3	4	-	-
PC8. seek clarification on the information provided by seniors, if needed	3	4	-	-
PC9. respect the personal and professional space of colleagues and superiors	3	4	-	-
PC10. report status of work as per the schedule to seniors and inform about any deviations or anomalies	3	4	-	-
PC11. provide information in the desired format and frequency	3	4	-	-
<i>Coordinate with cross-functional teams</i>	12	16	-	-
PC12. support colleagues of other departments for smooth work process, as required	3	4	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. coordinate with maintenance/engineering team for preventive and corrective maintenance, break down and calibration errors	3	4	-	-
PC14. provide inputs to the concerned stakeholders in periodic fence line review to detect non-compliance	3	4	-	-
PC15. coordinate with health and safety team for incident or authorized personnel, accident and emergency, if any	3	4	-	-
NOS Total	40	60	-	-

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National Occupational Standards (NOS) Parameters

NOS Code	RSC/N5610
NOS Name	Coordinate and communicate effectively at the workplace
Sector	Rubber
Sub-Sector	Generic
Occupation	Generic
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	31/03/2022
Next Review Date	29/03/2026
NSQC Clearance Date	29/03/2023

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RSC/N5001: Carry out housekeeping

Description

This NOS unit is about implementing housekeeping practices

Scope

The scope covers the following :

- Prepare for housekeeping practices
- Carry out housekeeping operations
- Perform post housekeeping activities

Elements and Performance Criteria

Prepare for housekeeping activities

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

- PC1.** inspect the area/s to identify the different types of surfaces that require cleaning
- PC2.** determine the material requirements for cleaning the areas inspected considering risk, time, efficiency and type of stain
- PC3.** ensure that cleaning equipment is in proper working condition
- PC4.** ensure that the suitable alternatives are selected for cleaning the areas, in case the appropriate equipment and materials are not available
- PC5.** ensure that the correct sequence/steps are followed for cleaning the area to avoid re-soiling clean areas and surfaces
- PC6.** ensure the usage of appropriate signage to inform about the cleaning activity being carried out
- PC7.** ensure adequate ventilation for the work being carried out
- PC8.** wear personal protective equipment suitable for the cleaning method and cleaning materials being used

Carry out housekeeping operations

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

- PC9.** ensure that the cleaning activity is carried out as per SOP
- PC10.** manage accidental damage, as per the workplace procedure, caused while carrying out the work
- PC11.** report to the appropriate person regarding difficulties in carrying out the work
- PC12.** identify and report to the appropriate person if any additional cleaning required that is outside one's responsibility or skill

Perform post housekeeping activities

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

- PC13.** ensure that housekeeping equipment and supplies are stored and maintained as per company standards
- PC14.** ensure that, on completion of the work, the area is left clean and dry as per the requirements

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- PC15.** ensure that the equipment, materials and personal protective equipment that were used, are returned to their respective places in appropriate manner
- PC16.** ensure appropriate disposal of the waste garnered from the cleaning activity
- PC17.** ensure that all necessary supplies or consumables are replenished as per the requirement

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the different factors to determine what type of cleaning is required as per the surface
- KU2.** the level of hygiene required by workplace and why it is important to maintain them during your work
- KU3.** the methods and materials used for cleaning variety of surfaces
- KU4.** the types of cleansing agents that are not advisable to be mixed together
- KU5.** the importance of following manufacturer's instructions on cleaning agents
- KU6.** the most appropriate place to carry out test cleaning and why this should be done before using any new cleaning agents
- KU7.** the importance of attending trouble shooting
- KU8.** the importance of learning proper procedures and techniques
- KU9.** the correct sequence of cleaning activities for the work area
- KU10.** the implications of not following the organizational requirement of prior approval for undertaking the specific task
- KU11.** the importance of team work
- KU12.** knowledge of do's and don'ts (company's HR instructions)
- KU13.** health, safety and environment guidelines, legislation and regulations as applicable
- KU14.** the importance of Personal Protective Equipment (PPE)
- KU15.** the appropriate PPE for the work area, cleaning equipment, tools, materials and chemicals used
- KU16.** the implications of not following the defined procedures/work instructions
- KU17.** interpret coding/signage used in the organisation
- KU18.** the importance of optimal utilization of resources
- KU19.** the process of cleaning the surfaces without causing injury or damage
- KU20.** the importance of providing feedback for improvement
- KU21.** the escalation procedures for soils or stains that could not be removed
- KU22.** the rectification/solution of problems/conflicts for the smooth functioning of the organization
- KU23.** the procedures for reporting any unidentified soiling
- KU24.** the impact of poor practices on the individual's and organization's performance
- KU25.** the method to check the treated surface and equipment on completion of the cleaning process
- KU26.** the importance of completing the activities as per the schedule
- KU27.** the time taken in the cleaning activities
- KU28.** the procedures for disposing off or storing personal protective equipment

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KU29. the procedures for disposing off waste

KU30. the correct method for cleaning equipment and/or machinery used for the cleaning activities

Generic Skills (GS)

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

GS1. read and understand documentation clearly

GS2. apply problem-solving approach prior to resolve difficulties

GS3. communicate with all stakeholders in a polite and courteous manner using effective communication skills

GS4. write in English or any regional language

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Prepare for housekeeping activities</i>	22	31	-	-
PC1. inspect the area/s to identify the different types of surfaces that require cleaning	2	4	-	-
PC2. determine the material requirements for cleaning the areas inspected considering risk, time, efficiency and type of stain	4	4	-	-
PC3. ensure that cleaning equipment is in proper working condition	2	4	-	-
PC4. ensure that the suitable alternatives are selected for cleaning the areas, in case the appropriate equipment and materials are not available	3	4	-	-
PC5. ensure that the correct sequence/steps are followed for cleaning the area to avoid re-soiling clean areas and surfaces	4	5	-	-
PC6. ensure the usage of appropriate signage to inform about the cleaning activity being carried out	2	3	-	-
PC7. ensure adequate ventilation for the work being carried out	2	3	-	-
PC8. wear personal protective equipment suitable for the cleaning method and cleaning materials being used	3	4	-	-
<i>Carry out housekeeping operations</i>	9	13	-	-
PC9. ensure that the cleaning activity is carried out as per SOP	3	4	-	-
PC10. manage accidental damage, as per the workplace procedure, caused while carrying out the work	2	3	-	-
PC11. report to the appropriate person regarding difficulties in carrying out the work	2	3	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. identify and report to the appropriate person if any additional cleaning required that is outside one's responsibility or skill	2	3	-	-
<i>Perform post housekeeping activities</i>	9	16	-	-
PC13. ensure that housekeeping equipment and supplies are stored and maintained as per company standards	2	3	-	-
PC14. ensure that, on completion of the work, the area is left clean and dry as per the requirements	2	4	-	-
PC15. ensure that the equipment, materials and personal protective equipment that were used, are returned to their respective places in appropriate manner	2	4	-	-
PC16. ensure appropriate disposal of the waste garnered from the cleaning activity	1	3	-	-
PC17. ensure that all necessary supplies or consumables are replenished as per the requirement	2	2	-	-
NOS Total	40	60	-	-

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National Occupational Standards (NOS) Parameters

NOS Code	RSC/N5001
NOS Name	Carry out housekeeping
Sector	Rubber
Sub-Sector	Generic
Occupation	Generic
NSQF Level	4
Credits	TBD
Version	3.0
Last Reviewed Date	31/03/2022
Next Review Date	29/03/2026
NSQC Clearance Date	29/03/2023

Qualification Pack

RSC/N5002: Carry out reporting and documentation

Description

This NOS unit is about carrying out reporting and documentation.

Scope

The scope covers the following :

- Maintain records and documents
- Provide reports and information

Elements and Performance Criteria

Maintain records and documents

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

- PC1.** identify documentation to be completed as applicable to one's role
- PC2.** record details accurately in an appropriate format
- PC3.** complete all documentation within stipulated time as per standard operating procedure (SOP)
- PC4.** ensure documents are available for all the appropriate authorities for inspection

Provide reports and information

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

- PC5.** report data/problems/incidents, as applicable, to the appropriate authority in a timely manner
- PC6.** follow respective reporting procedures as prescribed by the company's SOP
- PC7.** respond to requests for information in an appropriate manner as per organizational procedures
- PC8.** inform the appropriate authority regarding the requests for information received

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** various documents that need to be maintained
- KU2.** different methods of recording information
- KU3.** the company procedure for filling/ maintaining the documents
- KU4.** the procedures for recording damage, breakages etc.
- KU5.** the importance of complete and accurate documentation
- KU6.** how to maintain complete documentation accurately and within agreed time-scales
- KU7.** the importance of ensuring that the documents are correct
- KU8.** the actions to be taken if the documents are not correct
- KU9.** the importance of maintaining the security and confidentiality of recorded information
- KU10.** the procedures for reporting to the appropriate authority

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- KU11.** the process of reporting incidents where standard operating procedures are not followed
- KU12.** the procedures to maintain confidentiality of information
- KU13.** the appropriate method for responding to the requests for the information
- KU14.** the reporting procedures to be followed before disclosing the information to any outside party
- KU15.** the formats for carrying out reporting and documentation
- KU16.** the reporting time based on company's SOP
- KU17.** how to identify abnormalities in the documentation

Generic Skills (GS)

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

- GS1.** read and understand documentation clearly
- GS2.** suggest ways to improve work processes
- GS3.** communicate with supervisor and other team members appropriately
- GS4.** apply problem solving approach to resolve issues, if any
- GS5.** write in English or any regional language

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Maintain records and documents</i>	21	31	-	-
PC1. identify documentation to be completed as applicable to one's role	5	6	-	-
PC2. record details accurately in an appropriate format	6	10	-	-
PC3. complete all documentation within stipulated time as per standard operating procedure (SOP)	6	10	-	-
PC4. ensure documents are available for all the appropriate authorities for inspection	4	5	-	-
<i>Provide reports and information</i>	19	29	-	-
PC5. report data/problems/incidents, as applicable, to the appropriate authority in a timely manner	5	9	-	-
PC6. follow respective reporting procedures as prescribed by the company's SOP	5	8	-	-
PC7. respond to requests for information in an appropriate manner as per organizational procedures	5	8	-	-
PC8. inform the appropriate authority regarding the requests for information received	4	4	-	-
NOS Total	40	60	-	-

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National Occupational Standards (NOS) Parameters

NOS Code	RSC/N5002
NOS Name	Carry out reporting and documentation
Sector	Rubber
Sub-Sector	Generic
Occupation	Generic
NSQF Level	4
Credits	TBD
Version	3.0
Last Reviewed Date	30/12/2021
Next Review Date	29/03/2026
NSQC Clearance Date	29/03/2023

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RSC/N5007: Carry out health and safety

Description

This unit is about maintaining health and safety of self and others at workplace.

Scope

The scope covers the following :

- Maintain safe and efficient workplace
- Follow appropriate emergency procedures
- Comply with standard safety procedures
- Participate in safety awareness campaigns

Elements and Performance Criteria

Maintain safe and efficient workplace

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

- PC1.** perform basic safety checks before operation of all machinery and equipment
- PC2.** report hazards identified during safety checks to the appropriate supervisor
- PC3.** use appropriate protective clothing/equipment/safety gear to carry out the related duties in accordance with the workplace policy
- PC4.** assess the risk prior to performing the jobs which involve manual handling
- PC5.** carry out work according to the recommended safe practices while ensuring minimum environmental damage
- PC6.** return the equipment and materials to the designated storage after every use
- PC7.** dispose off the waste safely as per the procedure in the designated area
- PC8.** plan and implement actions to reduce the risk to bystanders
- PC9.** monitor all the procedures and work instructions for controlling the risk

Follow appropriate emergency procedures

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

- PC10.** report accidents, incidents or problems, if any, without delay to an appropriate person
- PC11.** perform immediate necessary action as required to reduce the damage
- PC12.** follow procedures for dealing with accidents, fires and emergencies as per the company standards and workplace requirements
- PC13.** operate emergency equipment in accordance with manufacturers' specifications and workplace requirements
- PC14.** provide appropriate treatment to the patient's injuries in accordance with approved first aid techniques
- PC15.** clean, inspect/ test, refurbish, replace and store the first aid equipment as appropriate
- PC16.** report details of first aid administered in accordance with the workplace procedures

Comply with standard safety procedures

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

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- PC17.** comply with standard safety procedures while handling heavy/hazardous material, chemicals, machine, equipment, or sharp tool to avoid accidents
- PC18.** perform preventive actions to protect from leakages, water logging, pests, fire, pollution, etc.
- PC19.** ensure zero accidents, damages, or breach of company safety procedure
- PC20.** maintain the workplace organized, clean and hazard free

Participate in safety awareness campaigns

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

- PC21.** participate in the fire drills and other safety related workshops organized at the workplace
- PC22.** create awareness about first aid, evacuation and emergency procedures

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** which personal protective equipment and clothing should be worn and how it is maintained
- KU2.** the methods for minimizing environmental damage during work
- KU3.** how to use machines as per standard operating procedure
- KU4.** the correct and safe way to use materials and equipment required for work
- KU5.** the risks to health and safety and the measures to be taken to control those risks at workplace
- KU6.** how to contact local emergency services
- KU7.** the process of reporting accidents, incidents and problems to appropriate authorities
- KU8.** the emergency evacuation process and first aid procedures to be followed
- KU9.** the workplace procedures and requirements for the handling of workplace injuries/ illnesses
- KU10.** basic emergency first aid procedure
- KU11.** safe disposal methods for waste
- KU12.** how to handle hazardous materials, tools and equipment
- KU13.** importance of good housekeeping at the workplace
- KU14.** how to maintain work area safe and secure
- KU15.** general duties under the relevant health and safety legislation

Generic Skills (GS)

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

- GS1.** communicate with all stakeholders in a polite and courteous manner
- GS2.** read and understand documentation clearly
- GS3.** adopt problem-solving approach
- GS4.** suggest solutions to improve work processes
- GS5.** write in English/regional language
- GS6.** seek clarification as and when required

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Maintain safe and efficient workplace</i>	9	32	-	-
PC1. perform basic safety checks before operation of all machinery and equipment	1	4	-	-
PC2. report hazards identified during safety checks to the appropriate supervisor	1	4	-	-
PC3. use appropriate protective clothing/equipment/safety gear to carry out the related duties in accordance with the workplace policy	1	3	-	-
PC4. assess the risk prior to performing the jobs which involve manual handling	1	4	-	-
PC5. carry out work according to the recommended safe practices while ensuring minimum environmental damage	1	4	-	-
PC6. return the equipment and materials to the designated storage after every use	1	4	-	-
PC7. dispose off the waste safely as per the procedure in the designated area	1	3	-	-
PC8. plan and implement actions to reduce the risk to bystanders	1	3	-	-
PC9. monitor all the procedures and work instructions for controlling the risk	1	3	-	-
<i>Follow appropriate emergency procedures</i>	12	22	-	-
PC10. report accidents, incidents or problems, if any, without delay to an appropriate person	2	4	-	-
PC11. perform immediate necessary action as required to reduce the damage	2	4	-	-
PC12. follow procedures for dealing with accidents, fires and emergencies as per the company standards and workplace requirements	2	4	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. operate emergency equipment in accordance with manufacturers' specifications and workplace requirements	2	3	-	-
PC14. provide appropriate treatment to the patient's injuries in accordance with approved first aid techniques	1	2	-	-
PC15. clean, inspect/ test, refurbish, replace and store the first aid equipment as appropriate	2	3	-	-
PC16. report details of first aid administered in accordance with the workplace procedures	1	2	-	-
<i>Comply with standard safety procedures</i>	5	12	-	-
PC17. comply with standard safety procedures while handling heavy/hazardous material, chemicals, machine, equipment, or sharp tool to avoid accidents	1	3	-	-
PC18. perform preventive actions to protect from leakages, water logging, pests, fire, pollution, etc.	2	3	-	-
PC19. ensure zero accidents, damages, or breach of company safety procedure	1	3	-	-
PC20. maintain the workplace organized, clean and hazard free	1	3	-	-
<i>Participate in safety awareness campaigns</i>	4	4	-	-
PC21. participate in the fire drills and other safety related workshops organized at the workplace	2	2	-	-
PC22. create awareness about first aid, evacuation and emergency procedures	2	2	-	-
NOS Total	30	70	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	RSC/N5007
NOS Name	Carry out health and safety
Sector	Rubber
Sub-Sector	Generic
Occupation	Generic
NSQF Level	4
Credits	TBD
Version	3.0
Last Reviewed Date	31/03/2022
Next Review Date	29/03/2026
NSQC Clearance Date	29/03/2023

Qualification Pack

RSC/N5614: Manage chemical hazards in the workplace

Description

This unit is about following the correct procedures to prevent, control, minimise and deal with chemical hazards.

Scope

The scope covers the following :

- Follow safety measures while handling chemicals

Elements and Performance Criteria

Follow safety measures while handling chemicals

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

- PC1.** identify the hazards and risks associated with chemicals with the help of safety data sheet
- PC2.** use appropriate Personal Protective Equipment (PPE) as per work requirements
- PC3.** recognise the labels on the chemical containers
- PC4.** carryout risk assessment and work according to the recommended safe practices
- PC5.** follow hierarchical control measures to mitigate risks
- PC6.** follow guidelines to handle chemicals
- PC7.** ensure workplace has well-ventilated and safe chemical storage areas with safety cabinets suited to each substance
- PC8.** isolate hazardous substances in separate storage areas
- PC9.** follow guidelines to collect, segregate and dispose chemicals waste into appropriate containers based on their toxicity or hazardous nature
- PC10.** follow organisational guidelines to protect self and others from chemical hazards
- PC11.** follow safe evacuation and emergency procedure in the event of chemical accidents/emergencies
- PC12.** identify and report any chemical hazards, risks or breaches in site safety to the appropriate authority

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** organisation guidelines to handle chemicals
- KU2.** safety data sheet
- KU3.** types of chemicals hazards and levels of risks
- KU4.** risk assessment procedure and principle of risk control hierarchy
- KU5.** types of PPE like overalls and aprons, gloves, chemical resistant glasses, respiratory protection, boots etc.

Qualification Pack

- KU6.** different types of labels, like dangerous to the environment, explosive, toxic, flammable, corrosive etc.
- KU7.** importance of safe chemical storage areas
- KU8.** safe disposal of chemical wastes
- KU9.** reporting procedures in cases of breaches or hazards, accidents, and emergency situations as per guidelines
- KU10.** procedure for responding to chemical accidents and other emergencies at workplace

Generic Skills (GS)

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

- GS1.** read and understand documentation clearly
- GS2.** adopt problem-solving approach
- GS3.** suggest solutions to improve work processes
- GS4.** write in English/regional language
- GS5.** seek clarification as and when required

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Follow safety measures while handling chemicals</i>	40	60	-	-
PC1. identify the hazards and risks associated with chemicals with the help of safety data sheet	4	5	-	-
PC2. use appropriate Personal Protective Equipment (PPE) as per work requirements	4	5	-	-
PC3. recognise the labels on the chemical containers	4	5	-	-
PC4. carryout risk assessment and work according to the recommended safe practices	4	5	-	-
PC5. follow hierarchical control measures to mitigate risks	3	5	-	-
PC6. follow guidelines to handle chemicals	3	5	-	-
PC7. ensure workplace has well-ventilated and safe chemical storage areas with safety cabinets suited to each substance	3	5	-	-
PC8. isolate hazardous substances in separate storage areas	3	5	-	-
PC9. follow guidelines to collect, segregate and dispose chemicals waste into appropriate containers based on their toxicity or hazardous nature	3	5	-	-
PC10. follow organisational guidelines to protect self and others from chemical hazards	3	5	-	-
PC11. follow safe evacuation and emergency procedure in the event of chemical accidents/emergencies	3	5	-	-
PC12. identify and report any chemical hazards, risks or breaches in site safety to the appropriate authority	3	5	-	-
NOS Total	40	60	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	RSC/N5614
NOS Name	Manage chemical hazards in the workplace
Sector	Rubber
Sub-Sector	Chemical & Petrochemical
Occupation	Generic
NSQF Level	4
Credits	1
Version	1.0
Last Reviewed Date	NA
Next Review Date	29/03/2026
NSQC Clearance Date	29/03/2023

Qualification Pack

RSC/N5603: Follow ethical and sustainable practices at the workplace

Description

This unit is about Greening of Jobs, PwD, and Behavioural Skills

Scope

The scope covers the following :

- Adopt resource conservation practices (Greening)
- Follow effective waste management practices
- Display behavioural Skills at workplace
- Adopt workplace practices and policies respecting gender and ability differences

Elements and Performance Criteria

Adopt resource conservation practices (Greening)

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

- PC1.** follow organizational policies for usage of alternate energy source, such as solar energy, for the site
- PC2.** ensure proper usage of fuels (such as diesel) to minimise pollution and conserve energy
- PC3.** use resources in a responsible manner
- PC4.** ensure water conservation practices at the workplace
- PC5.** carry out processes to prevent soil erosion during plantation and other related activities

Follow effective waste management practices

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

- PC6.** identify and segregate different types of waste such as recyclable, non-recyclable, and hazardous waste generated
- PC7.** store waste into different types of bins/containers or appropriate areas based on their categorisation
- PC8.** undertake disposal of non-recyclable waste appropriately as per the prescribed procedure
- PC9.** organise storage of recyclable and reusable material at identified location
- PC10.** ensure proper disposal of hazardous waste as per specified processes

Display behavioural Skills at workplace

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

- PC11.** ensure timely execution of the assigned tasks.
- PC12.** exhibit proper etiquette and emotional behaviour at workplace and among team members

Adopt workplace practices and policies respecting gender and ability differences

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

- PC13.** follow appropriate non verbal communications taking gender and disability of the person into consideration
- PC14.** communicate in a polite and appropriate manner irrespective of the ability and gender of the person

Qualification Pack

- PC15.** ensure to provide work assistance/support to PwD team members and coordinate with them if needed or requested

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** alternate energy sources (such as solar and wind energy) and their advantages
- KU2.** alternate fuels (such as bio-fuel), their production and consumption for cluster sites
- KU3.** harmful effect (such as pollution) of using fuel such as diesel on the environment and ways to prevent it
- KU4.** efficient utilisation of resources
- KU5.** water harvesting techniques and common practices of conserving water
- KU6.** what is soil erosion and how to prevent it
- KU7.** different types of waste and the ways to categorize waste into dry, wet, recyclable, non-recyclable and items of single-use plastics
- KU8.** usage of different colours of dustbins for proper waste management and waste disposal methods
- KU9.** feedback from supervisor and deal in constructive manner
- KU10.** gender based and PwD concepts, issues and legislation and statutory laws, acts, and provisions defined for PwD
- KU11.** various medical conditions associated with PwD and rights and duties at the workplace with respect to PwD

Generic Skills (GS)

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

- GS1.** make timely decisions for efficient utilization of resources
- GS2.** write in English/regional language and complete written work with attention to detail
- GS3.** communicate effectively with colleagues
- GS4.** identify cause and effect of greening of jobs
- GS5.** maintain data on waste disposal at workplace
- GS6.** ensure punctuality, proper utilization of time and management workload efficiently
- GS7.** interact with all stakeholders in a polite and courteous manner
- GS8.** provide support in dealing with stress and anxiety help colleagues to work efficiently
- GS9.** create awareness about maintaining hygiene at workplace

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Adopt resource conservation practices (Greening)</i>	11	26	-	-
PC1. follow organizational policies for usage of alternate energy source, such as solar energy, for the site	3	3	-	-
PC2. ensure proper usage of fuels (such as diesel) to minimise pollution and conserve energy	2	6	-	-
PC3. use resources in a responsible manner	2	6	-	-
PC4. ensure water conservation practices at the workplace	2	5	-	-
PC5. carry out processes to prevent soil erosion during plantation and other related activities	2	6	-	-
<i>Follow effective waste management practices</i>	13	17	-	-
PC6. identify and segregate different types of waste such as recyclable, non-recyclable, and hazardous waste generated	3	4	-	-
PC7. store waste into different types of bins/containers or appropriate areas based on their categorisation	3	4	-	-
PC8. undertake disposal of non-recyclable waste appropriately as per the prescribed procedure	3	4	-	-
PC9. organise storage of recyclable and reusable material at identified location	2	3	-	-
PC10. ensure proper disposal of hazardous waste as per specified processes	2	2	-	-
<i>Display behavioural Skills at workplace</i>	5	5	-	-
PC11. ensure timely execution of the assigned tasks.	4	2	-	-
PC12. exhibit proper etiquette and emotional behaviour at workplace and among team members	1	3	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Adopt workplace practices and policies respecting gender and ability differences</i>	11	12	-	-
PC13. follow appropriate non verbal communications taking gender and disability of the person into consideration	4	4	-	-
PC14. communicate in a polite and appropriate manner irrespective of the ability and gender of the person	3	4	-	-
PC15. ensure to provide work assistance/support to PwD team members and coordinate with them if needed or requested	4	4	-	-
NOS Total	40	60	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	RSC/N5603
NOS Name	Follow ethical and sustainable practices at the workplace
Sector	Rubber
Sub-Sector	Generic
Occupation	Generic
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	31/03/2022
Next Review Date	29/03/2026
NSQC Clearance Date	29/03/2023

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.

Qualification Pack

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	-	-

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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	NA
Next Review Date	28/02/2026
NSQC Clearance Date	28/02/2023

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 70% aggregate for the QP.
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
RSC/N7201.Perform chemical instrumental analysis	40	60	-	-	100	30
RSC/N5610.Coordinate and communicate effectively at the workplace	40	60	-	-	100	10
RSC/N5001.Carry out housekeeping	40	60	-	-	100	10
RSC/N5002.Carry out reporting and documentation	40	60	-	-	100	10
RSC/N5007.Carry out health and safety	30	70	-	-	100	10
RSC/N5614.Manage chemical hazards in the workplace	40	60	-	-	100	10
RSC/N5603.Follow ethical and sustainable practices at the workplace	40	60	-	-	100	10
DGT/VSQ/N0102.Employability Skills (60 Hours)	20	30	-	-	50	10
Total	290	460	-	-	750	100

Qualification Pack

Acronyms

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

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.