



Qualification Pack



Lifting & Rigging Supervisor (Safety)

QP Code: SSD/VSQ/Q0303

Version: 1.0

NSQF Level: 4.5

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SSD/VSQ/Q0303: Lifting & Rigging Supervisor (Safety)

Brief Job Description

The Lifting Supervisor (Safety) is responsible for executing the lifting work in a safe manner on the site. The Lifting Supervisor (Safety) co-ordinates and supervises all lifting activities in accordance with the Lifting Plan as well as briefing all lifting team members. (i.e. crane operators, riggers, and signal operators) on the Lifting operation. The Rigging Supervisor (Safety) oversees the rigging team, with responsibility for the mechanics of all support rigging scaffolding, ropes, pulleys and lifting equipment.

Personal Attributes

He should be physically & mentally fit and should be able to ensure compliances required as per safety and health requirements. He should also be able to provide correct & timely advice on safety and health issues of construction workers to the management.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [SSD/VSQ/N0319: Introduction to Lifting & Rigging Safety Protocols](#)
2. [SSD/VSQ/N0320: Safety, Legal and Regulatory Compliance for Lifting & Rigging Operations](#)
3. [SSD/VSQ/N0321: Load Planning, Stability Control & Process Requirements](#)
4. [SSD/VSQ/N0322: Hazard Identification, Risk Assessment, Safety of Plant & Machinery in Lifting & Rigging Operations](#)
5. [SSD/VSQ/N0323: Lifting and Rigging Operations with Safety](#)
6. [SSD/VSQ/N0324: Inspection, Maintenance, and Certification of Lifting Equipments](#)
7. [SSD/VSQ/N0325: Plan, Organise, Communication & Emergency Protocols in Lifting & Rigging](#)
8. [SSD/VSQ/N0326: Health, Hygiene, Environmental, and Psychological Health Protocols \(Lifting & Rigging\)](#)
9. [DGT/VSQ/N0102: Employability Skills \(60 Hours\)](#)

Qualification Pack (QP) Parameters

Sector	Cross Sectoral
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Sub-Sector	Hydrocarbon, Iron & steel, Mining, Power, Automotive, Construction, Chemicals & Petrochemicals, and others.
Occupation	Lifting & Rigging Engineering & Management
Country	India
NSQF Level	4.5
Credits	18
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7215.0100
Minimum Educational Qualification & Experience	Completed 3 year diploma after 10th with 1-2 Years of experience (1.5 Years) OR 12th grade Pass (or Equivalent) with 1-2 Years of experience (1.5 Years) OR Previous relevant Qualification of NSQF Level (4) with 1-2 Years of experience (1.5 Years)
Minimum Level of Education for Training in School	10th Class
Pre-Requisite License or Training	Nil
Minimum Job Entry Age	18 Years
Last Reviewed On	NA
Next Review Date	22/10/2027
NSQF Approval Date	22/10/2024
Version	1.0
Reference code on NQR	QC-4.5-CO-03362-2024-V1-SSDF
NQR Version	1.0

Remarks:

NA



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SSD/VSQ/N0319: Introduction to Lifting & Rigging Safety Protocols

Description

This NOS provides the knowledge & skills to identify hazards in lifting & rigging, safety procedures, compliances and preventive measures to reduce risks. It also introduces safety protocols and best practices required for lifting and rigging operations to foster a safety-first culture, reduce workplace accidents, and comply with industry safety standards.

Scope

The scope covers the following :

- Introduction to essential safety principles in lifting and rigging operations.
- Identifying hazards and risks at worksites.
- Understanding compliance with national and international safety regulations.
- Promoting the correct use of personal protective equipment (PPE).
- Fostering teamwork and communication in lifting operations.

Elements and Performance Criteria

Identify Safety Risks and Hazards

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

- PC1.** Recognize potential hazards related to lifting and rigging operations at worksites.
- PC2.** Assess safety risks related to lifting and rigging operations and report to management.
- PC3.** Identify environmental factors that may increase risks (e.g., high winds or uneven surfaces).

Follow Lifting and Rigging Safety Protocols

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

- PC4.** Demonstrate knowledge of relevant lifting plans and safety procedures.
- PC5.** Ensure briefing on safety protocols before starting operations.
- PC6.** Monitor team compliance with safety regulations throughout the operation.

Use Personal Protective Equipment (PPE)

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

- PC7.** Select and use appropriate PPE as required for specific lifting operations.
- PC8.** Ensure all team members are wearing PPE correctly before the operation begins.
- PC9.** Maintain PPE equipment in good working condition and replace as necessary.

Comply with Regulatory and Organizational Standards

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

- PC10.** Identify and follow applicable national and international safety laws (e.g., ISO 45001, OSHA).
- PC11.** Comply with organizational health and safety policies.
- PC12.** Document and report non-compliance incidents to supervisors for corrective action.

Knowledge and Understanding (KU)



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The individual on the job needs to know and understand:

- KU1.** Company safety policies, procedures, and emergency protocols.
- KU2.** The roles and responsibilities of different personnel in lifting operations.
- KU3.** National and international safety standards (e.g., ISO 45001, OSHA, LOLER).
- KU4.** Legal requirements related to PPE usage and equipment certification.
- KU5.** Common hazards associated with lifting operations (e.g., falling loads, equipment failure).
- KU6.** Methods to assess risks and prioritize safety measures.
- KU7.** Principles of safe lifting, including load balancing and stability control.
- KU8.** Importance of pre-operation safety briefings and team communication.
- KU9.** Different types of PPE used in lifting and rigging operations (e.g., gloves, helmets, harnesses).
- KU10.** Procedures for inspecting, maintaining, and replacing PPE.

Generic Skills (GS)

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

- GS1.** Reading & writing in the language of communication.
- GS2.** Effective verbal communication in local language.
- GS3.** Basic mathematics and calculations.
- GS4.** Planning, organizing & resource optimization.
- GS5.** Administration, decision making & conflict resolution.
- GS6.** Planning & monitoring tools, software operation.
- GS7.** Understanding & adherence to instructions.
- GS8.** Understanding safety and adherence to safety related protocols.
- GS9.** Conduct of Professional behavior with co-workers and employees.
- GS10.** Use of personal protective equipment.
- GS11.** Work site rules & security, fire safety protocols, first aid & procedure under emergency conditions.
- GS12.** Housekeeping and disposal of waste materials.
- GS13.** Organizational hierarchy for availability of tools, equipment and material & its security.



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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Identify Safety Risks and Hazards</i>	14	14	-	-
PC1. Recognize potential hazards related to lifting and rigging operations at worksites.	5	5	-	-
PC2. Assess safety risks related to lifting and rigging operations and report to management.	5	5	-	-
PC3. Identify environmental factors that may increase risks (e.g., high winds or uneven surfaces).	4	4	-	-
<i>Follow Lifting and Rigging Safety Protocols</i>	12	12	-	-
PC4. Demonstrate knowledge of relevant lifting plans and safety procedures.	4	4	-	-
PC5. Ensure briefing on safety protocols before starting operations.	4	4	-	-
PC6. Monitor team compliance with safety regulations throughout the operation.	4	4	-	-
<i>Use Personal Protective Equipment (PPE)</i>	12	12	-	-
PC7. Select and use appropriate PPE as required for specific lifting operations.	4	4	-	-
PC8. Ensure all team members are wearing PPE correctly before the operation begins.	4	4	-	-
PC9. Maintain PPE equipment in good working condition and replace as necessary.	4	4	-	-
<i>Comply with Regulatory and Organizational Standards</i>	12	12	-	-
PC10. Identify and follow applicable national and international safety laws (e.g., ISO 45001, OSHA).	4	4	-	-
PC11. Comply with organizational health and safety policies.	4	4	-	-
PC12. Document and report non-compliance incidents to supervisors for corrective action.	4	4	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
NOS Total	50	50	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	SSD/VSQ/N0319
NOS Name	Introduction to Lifting & Rigging Safety Protocols
Sector	Cross Sectoral
Sub-Sector	
Occupation	Lifting & Rigging Engineering & Management
NSQF Level	4.5
Credits	2
Version	1.0
Last Reviewed Date	22/10/2024
Next Review Date	22/10/2027
NSQC Clearance Date	22/10/2024



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SSD/VSQ/N0320: Safety, Legal and Regulatory Compliance for Lifting & Rigging Operations

Description

The NOS for Safety, Legal, and Regulatory Compliance in Lifting and Rigging Operations deals with the guidelines and standards for ensuring safe practices, legal adherence, and compliance with regulatory frameworks in the workplace, particularly in industries that involve heavy lifting and rigging tasks.

Scope

The scope covers the following :

- Understanding national and international legal frameworks for lifting operations.
- Ensuring compliance with safety regulations (e.g., OSHA, ISO, and LOLER).
- Monitoring and maintaining operational compliance with organizational policies.
- Reporting incidents, non-compliance, and corrective actions.
- Preparing for and managing regulatory audits and inspections.

Elements and Performance Criteria

Legal Frameworks

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

- PC1.** Identify applicable relevant national and international regulations for lifting operations (e.g., OSHA, LOLER, ISO 45001).
- PC2.** Ensure lifting operations align with applicable legal standards.
- PC3.** Monitor team compliance with statutory requirements throughout the operation.

Compliance with Organizational Safety Policies

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

- PC4.** Ensure that operational procedures comply with company safety policies.
- PC5.** Conduct regular audits to identify non-compliance issues.
- PC6.** Update policies and procedures to align with regulatory changes.

Incidents and Non-Compliance

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

- PC7.** Document any incidents or violations of legal standards.
- PC8.** Report non-compliance to relevant authorities and management.
- PC9.** Implement corrective actions to prevent future violations.

Regulatory Audits and Inspections

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

- PC10.** Maintain records of inspections, certifications, and incident reports for audits.
- PC11.** Coordinate with auditors and inspectors during regulatory audits.
- PC12.** Address audit findings and implement corrective measures promptly.

Knowledge and Understanding (KU)



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The individual on the job needs to know and understand:

- KU1.** Key national and international regulations governing lifting operations (e.g., OSHA, ISO 45001, LOLER).
- KU2.** Requirements for compliance with safety standards and certifications.
- KU3.** Company policies for lifting operations and occupational safety.
- KU4.** Procedures for auditing operations and identifying non-compliance.
- KU5.** Processes for documenting and reporting incidents.
- KU6.** Steps for conducting root-cause analysis and implementing corrective actions.
- KU7.** Procedures for preparing for regulatory audits and inspections.
- KU8.** Coordination with auditors and handling inspection findings.
- KU9.** Monitoring regulatory changes and updating procedures accordingly.
- KU10.** Communicating changes in policies to team members.

Generic Skills (GS)

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

- GS1.** Reading & writing in the language of communication.
- GS2.** Effective verbal communication in local language.
- GS3.** Basic mathematics and calculations.
- GS4.** Planning, organizing & resource optimization.
- GS5.** Administration, decision making & conflict resolution.
- GS6.** Planning & monitoring tools, software operation.
- GS7.** Understanding & adherence to instructions.
- GS8.** Understanding safety and adherence to safety related protocols.
- GS9.** Conduct of Professional behavior with co-workers and employees.
- GS10.** Use of personal protective equipment.
- GS11.** Work site rules & security, fire safety protocols, first aid & procedure under emergency conditions.
- GS12.** Housekeeping and disposal of waste materials.
- GS13.** Organizational hierarchy for availability of tools, equipment & material & its security.
- GS14.** Learn, understand, find solutions & conflict resolution.



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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Legal Frameworks</i>	12	12	-	-
PC1. Identify applicable relevant national and international regulations for lifting operations (e.g., OSHA, LOLER, ISO 45001).	4	4	-	-
PC2. Ensure lifting operations align with applicable legal standards.	4	4	-	-
PC3. Monitor team compliance with statutory requirements throughout the operation.	4	4	-	-
<i>Compliance with Organizational Safety Policies</i>	12	12	-	-
PC4. Ensure that operational procedures comply with company safety policies.	4	4	-	-
PC5. Conduct regular audits to identify non-compliance issues.	4	4	-	-
PC6. Update policies and procedures to align with regulatory changes.	4	4	-	-
<i>Incidents and Non-Compliance</i>	12	12	-	-
PC7. Document any incidents or violations of legal standards.	4	4	-	-
PC8. Report non-compliance to relevant authorities and management.	4	4	-	-
PC9. Implement corrective actions to prevent future violations.	4	4	-	-
<i>Regulatory Audits and Inspections</i>	14	14	-	-
PC10. Maintain records of inspections, certifications, and incident reports for audits.	4	4	-	-
PC11. Coordinate with auditors and inspectors during regulatory audits.	5	5	-	-
PC12. Address audit findings and implement corrective measures promptly.	5	5	-	-
NOS Total	50	50	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	SSD/VSQ/N0320
NOS Name	Safety, Legal and Regulatory Compliance for Lifting & Rigging Operations
Sector	Cross Sectoral
Sub-Sector	
Occupation	Lifting & Rigging Engineering & Management
NSQF Level	4.5
Credits	3
Version	1.0
Last Reviewed Date	22/10/2024
Next Review Date	22/10/2027
NSQC Clearance Date	22/10/2024



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SSD/VSQ/N0321: Load Planning, Stability Control & Process Requirements

Description

This NOS focuses on the technical aspects of load planning, weight calculations, stability control, sling angles, load distribution in lifting and rigging operations. It also deals with essential process requirements involved in lifting and rigging operations.

Scope

The scope covers the following :

- Planning and balancing loads for lifting operations.
- Calculating load weights and sling angles and load stability during operations.
- Overload and operational risks.
- Selecting appropriate equipment and tools for lifting and rigging tasks.
- Planning operations according to load characteristics, site conditions, and project timelines.
- Understanding load management techniques and calculating load capacity.
- Identifying environmental and site-specific factors influencing operations.
- Ensuring compliance with regulatory requirements and safety protocols.

Elements and Performance Criteria

Plan Loads for Lifting Operations

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

- PC1.** Assess the weight, size, and shape of the load to plan the operation effectively.
- PC2.** Determine the center of gravity to ensure proper load distribution.
- PC3.** Select appropriate equipment based on load characteristics (e.g., slings, cranes, hooks).

Weight and Sling Angles

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

- PC4.** Calculate the weight of the load to ensure it is within the equipment's capacity.
- PC5.** Determine the correct sling angles to ensure safe lifting.
- PC6.** Use load charts and formulas to perform accurate calculations.

Load and Equipment Stability

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

- PC7.** Monitor the stability of the load during lifting to avoid accidents.
- PC8.** Adjust the equipment setup if instability is observed during operations.
- PC9.** Ensure that the load does not exceed the equipment's rated capacity.
- PC10.** Monitor load indicators to prevent overload conditions.

Select Equipment for Lifting & Rigging Operations

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

- PC11.** Select appropriate lifting tools and equipment based on load type and weight.
- PC12.** Ensure equipment such as cranes, slings, ropes, and pulleys meet safety and operational standards.



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PC13. Verify that all equipment is certified, maintained, and ready for use.

Plan Operations According to Load Requirements

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

PC14. Assess load characteristics (e.g., weight, size, center of gravity) to determine lifting requirements.

PC15. Calculate load limits and capacity of equipment to ensure safe operation.

PC16. Develop lifting plans based on the operational requirements and timelines.

PC17. Assess environmental factors like wind, surface conditions, and site layout, identify site-specific hazards (e.g., power lines, unstable ground) and address them, adjust the lifting plan to accommodate environmental changes during operations.

Implement Regulatory and Organizational Standards

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

PC18. Ensure compliance with national and international standards (e.g., LOLER, OSHA, ISO 45001).

PC19. Follow organizational policies and guidelines for safe lifting operations.

PC20. Document lifting plans and report deviations from standards to supervisors.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. Methods for assessing load characteristics, including size, shape, and weight.

KU2. Techniques for determining the center of gravity and balancing loads.

KU3. Use of load charts, sling angle calculators, and weight formulas.

KU4. Importance of accurate weight calculation for safe lifting operations.

KU5. Identifying factors that affect stability, such as load shifts and environmental conditions.

KU6. Techniques to maintain equipment and load stability during operations.

KU7. Equipment load ratings, capacity limits, and load indicators to prevent overload.

KU8. Role of teamwork in ensuring smooth and safe operations.

KU9. Types of lifting equipment and tools (e.g., cranes, forklifts, hoists, slings) and criteria for selecting equipment based on load characteristics.

KU10. Techniques to assess load weight, size, and center of gravity.

KU11. Calculating sling angles, load limits, and stability for safe operations.

KU12. Developing lifting plans considering site conditions, project timelines & contingency plans.

KU13. Identifying site-specific hazards environmental factors like wind, weather, and surface conditions and adapting operations accordingly,

KU14. LOLER, OSHA, and ISO 45001 safety regulations, and compliance with organizational safety standards.

KU15. Maintaining accurate records of lifting plans, inspections, and reports including.

KU16. Reporting of any non-compliance or deviations from lifting plans.

Generic Skills (GS)

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



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- GS1.** Reading & writing in the language of communication.
- GS2.** Effective verbal communication in local language.
- GS3.** Basic mathematics and calculations.
- GS4.** Planning, organizing & resource optimization.
- GS5.** Administration, decision making & conflict resolution.
- GS6.** Planning & monitoring tools, software operation.
- GS7.** Understanding & adherence to instructions.
- GS8.** Understanding of safety and adherence to safety related protocols.
- GS9.** Conduct of Professional behavior with co-workers and employees.
- GS10.** Use of personal protective equipment.
- GS11.** Work site rules & security, fire safety protocols, first aid & procedure under emergency conditions.
- GS12.** Housekeeping and disposal of waste materials.
- GS13.** Organizational hierarchy for availability of tools, equipment & material & its security.
- GS14.** Learn, understand, find solutions & conflict resolution.



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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Plan Loads for Lifting Operations</i>	7	7	-	-
PC1. Assess the weight, size, and shape of the load to plan the operation effectively.	2	2	-	-
PC2. Determine the center of gravity to ensure proper load distribution.	2	2	-	-
PC3. Select appropriate equipment based on load characteristics (e.g., slings, cranes, hooks).	3	3	-	-
<i>Weight and Sling Angles</i>	8	8	-	-
PC4. Calculate the weight of the load to ensure it is within the equipment's capacity.	3	3	-	-
PC5. Determine the correct sling angles to ensure safe lifting.	2	2	-	-
PC6. Use load charts and formulas to perform accurate calculations.	3	3	-	-
<i>Load and Equipment Stability</i>	12	12	-	-
PC7. Monitor the stability of the load during lifting to avoid accidents.	3	3	-	-
PC8. Adjust the equipment setup if instability is observed during operations.	3	3	-	-
PC9. Ensure that the load does not exceed the equipment's rated capacity.	3	3	-	-
PC10. Monitor load indicators to prevent overload conditions.	3	3	-	-
<i>Select Equipment for Lifting & Rigging Operations</i>	8	8	-	-
PC11. Select appropriate lifting tools and equipment based on load type and weight.	3	3	-	-
PC12. Ensure equipment such as cranes, slings, ropes, and pulleys meet safety and operational standards.	3	3	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. Verify that all equipment is certified, maintained, and ready for use.	2	2	-	-
<i>Plan Operations According to Load Requirements</i>	9	9	-	-
PC14. Assess load characteristics (e.g., weight, size, center of gravity) to determine lifting requirements.	2	2	-	-
PC15. Calculate load limits and capacity of equipment to ensure safe operation.	3	3	-	-
PC16. Develop lifting plans based on the operational requirements and timelines.	2	2	-	-
PC17. Assess environmental factors like wind, surface conditions, and site layout, identify site-specific hazards (e.g., power lines, unstable ground) and address them, adjust the lifting plan to accommodate environmental changes during operations.	2	2	-	-
<i>Implement Regulatory and Organizational Standards</i>	6	6	-	-
PC18. Ensure compliance with national and international standards (e.g., LOLER, OSHA, ISO 45001).	2	2	-	-
PC19. Follow organizational policies and guidelines for safe lifting operations.	2	2	-	-
PC20. Document lifting plans and report deviations from standards to supervisors.	2	2	-	-
NOS Total	50	50	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	SSD/VSQ/N0321
NOS Name	Load Planning, Stability Control & Process Requirements
Sector	Cross Sectoral
Sub-Sector	
Occupation	Lifting & Rigging Engineering & Management
NSQF Level	4.5
Credits	3
Version	1.0
Last Reviewed Date	22/10/2024
Next Review Date	22/10/2027
NSQC Clearance Date	22/10/2024



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SSD/VSQ/N0322: Hazard Identification, Risk Assessment, Safety of Plant & Machinery in Lifting & Rigging Operations

Description

The NOS provides a comprehensive approach to managing risks and ensuring safety in lifting operations by identifying potential hazards, assessing risks, maintaining the integrity of machinery and equipment, and adhering to safety regulations, these standards aim to prevent accidents, protect personnel, and ensure operational efficiency in industries that rely on heavy lifting and rigging operations.

Scope

The scope covers the following :

- Comprehensive Identification of Potential Hazards
- Assessment of Potential Risks
- Safety of Plant & Machinery
- Legal and Regulatory Compliance
- Control Measures and Risk Mitigation
- Worksite and Operational Safety
- Incident Reporting and Investigation
- Technological Integration

Elements and Performance Criteria

Hazard Identification, Risk assessment & Mitigation During Operations

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

- PC1.** Identify physical, environmental, and operational hazards during lifting operations.
- PC2.** Assess equipment-related hazards, such as wear and tear or faulty machinery.
- PC3.** Perform risk assessments to evaluate the likelihood and impact of potential hazards.
- PC4.** Implement preventive measures to mitigate identified risks.

Report Incidents, Conduct Root-Cause Analysis & Records

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

- PC5.** Document incidents, near-misses, and safety violations promptly.
- PC6.** Report incidents to management and relevant authorities as per company policies.
- PC7.** Conduct root-cause analysis to determine the underlying reasons for incidents.
- PC8.** Maintain detailed records of hazards, risk assessments, and incident reports.

Conduct Pre-Operation Inspections

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

- PC9.** Check machinery and vehicle condition before use to ensure they meet safety requirements.
- PC10.** Verify that operational components (e.g., brakes, steering, safety devices) are functional.
- PC11.** Document any maintenance or repairs needed and inform relevant personnel.

Operate Plant, Machinery, and Vehicles Safely

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



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- PC12.** Follow standard operating procedures while using machinery and vehicles.
- PC13.** Ensure equipment is operated within the specified limits to avoid overloading or malfunctions.
- PC14.** Monitor site conditions and adjust operations to ensure safety and efficiency.

Identify and Manage Hazards

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

- PC15.** Identify potential hazards related to machinery and vehicle operations (e.g., blind spots, unstable loads).
- PC16.** Implement immediate corrective actions to mitigate identified hazards.
- PC17.** Report hazards or near-miss incidents to supervisors for further action.

Ensure Compliance with Safety and Traffic Management Protocols

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

- PC18.** Follow national and international safety standards (e.g., OSHA, ISO) during operations.
- PC19.** Ensure compliance with traffic management protocols and safety signage on-site.
- PC20.** Coordinate with site personnel to prevent accidents and maintain smooth operations.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** Types of hazards related to lifting operations (e.g., physical, environmental, equipment-related).
- KU2.** Methods for identifying hazards before and during operations.
- KU3.** Techniques for conducting risk assessments, including risk matrices and scoring.
- KU4.** Techniques for mitigating risks and ensuring safe operations.
- KU5.** Strategies for implementing preventive and corrective measures.
- KU6.** Documentation requirements for incident reporting, legal requirement of reporting and near-miss reporting.
- KU7.** Steps for conducting root-cause analysis and identifying corrective actions.
- KU8.** Importance of maintaining safety records for audits and compliance.
- KU9.** National and international safety standards and compliance with safety standards (e.g., ISO 45001, OSHA, ISO).
- KU10.** Types of machinery and vehicles used at worksites and their specific functions.
- KU11.** Procedures for conducting pre-operation checks and routine maintenance.
- KU12.** Common hazards related to the use of plant, machinery, and vehicles.
- KU13.** Guidelines for traffic management and site safety protocols.
- KU14.** Importance of teamwork and coordination during machinery operations.
- KU15.** Use of hand signals, signage, and communication devices to manage operations.
- KU16.** Emergency protocols and reporting procedures for incidents.

Generic Skills (GS)

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



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- GS1.** Reading & writing in the language of communication.
- GS2.** Effective verbal communication in local language.
- GS3.** Basic mathematics and calculations.
- GS4.** Planning, organizing & resource optimization.
- GS5.** Administration, decision making & conflict resolution.
- GS6.** Planning & monitoring tools, software operation.
- GS7.** Understanding & adherence to instructions.
- GS8.** Understanding of safety and adherence to safety related protocols.
- GS9.** Conduct of Professional behavior with co-workers and employees.
- GS10.** Use of personal protective equipment.
- GS11.** Work site rules & security, fire safety protocols, first aid & procedure under emergency conditions.
- GS12.** Housekeeping and disposal of waste materials.
- GS13.** Knowledge of organizational hierarchy for availability of tools, equipment & material & its security.
- GS14.** Learn, understand, find solutions & conflict resolution.



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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Hazard Identification, Risk assessment & Mitigation During Operations</i>	11	11	-	-
PC1. Identify physical, environmental, and operational hazards during lifting operations.	3	3	-	-
PC2. Assess equipment-related hazards, such as wear and tear or faulty machinery.	3	3	-	-
PC3. Perform risk assessments to evaluate the likelihood and impact of potential hazards.	3	3	-	-
PC4. Implement preventive measures to mitigate identified risks.	2	2	-	-
<i>Report Incidents, Conduct Root-Cause Analysis & Records</i>	9	9	-	-
PC5. Document incidents, near-misses, and safety violations promptly.	2	2	-	-
PC6. Report incidents to management and relevant authorities as per company policies.	2	2	-	-
PC7. Conduct root-cause analysis to determine the underlying reasons for incidents.	3	3	-	-
PC8. Maintain detailed records of hazards, risk assessments, and incident reports.	2	2	-	-
<i>Conduct Pre-Operation Inspections</i>	8	8	-	-
PC9. Check machinery and vehicle condition before use to ensure they meet safety requirements.	3	3	-	-
PC10. Verify that operational components (e.g., brakes, steering, safety devices) are functional.	3	3	-	-
PC11. Document any maintenance or repairs needed and inform relevant personnel.	2	2	-	-
<i>Operate Plant, Machinery, and Vehicles Safely</i>	7	7	-	-
PC12. Follow standard operating procedures while using machinery and vehicles.	3	3	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. Ensure equipment is operated within the specified limits to avoid overloading or malfunctions.	2	2	-	-
PC14. Monitor site conditions and adjust operations to ensure safety and efficiency.	2	2	-	-
<i>Identify and Manage Hazards</i>	7	7	-	-
PC15. Identify potential hazards related to machinery and vehicle operations (e.g., blind spots, unstable loads).	2	2	-	-
PC16. Implement immediate corrective actions to mitigate identified hazards.	3	3	-	-
PC17. Report hazards or near-miss incidents to supervisors for further action.	2	2	-	-
<i>Ensure Compliance with Safety and Traffic Management Protocols</i>	8	8	-	-
PC18. Follow national and international safety standards (e.g., OSHA, ISO) during operations.	3	3	-	-
PC19. Ensure compliance with traffic management protocols and safety signage on-site.	3	3	-	-
PC20. Coordinate with site personnel to prevent accidents and maintain smooth operations.	2	2	-	-
NOS Total	50	50	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	SSD/VSQ/N0322
NOS Name	Hazard Identification, Risk Assessment, Safety of Plant & Machinery in Lifting & Rigging Operations
Sector	Cross Sectoral
Sub-Sector	
Occupation	Lifting & Rigging Engineering & Management
NSQF Level	4.5
Credits	2
Version	1.0
Last Reviewed Date	22/10/2024
Next Review Date	22/10/2027
NSQC Clearance Date	22/10/2024



Qualification Pack

SSD/VSQ/N0323: Lifting and Rigging Operations with Safety

Description

The NOS on Lifting and Rigging Operations with Safety provide a detailed framework that outlines the essential competencies, skills, and knowledge required to perform lifting and rigging tasks safely and efficiently with compliance, legal and regulatory requirements. These standards are vital in industries like construction, oil and gas, manufacturing, shipping, and energy, where lifting heavy loads using cranes, hoists, and rigging equipment is a common practice.

Scope

The scope covers the following :

- Lifting and Rigging Operations: Planning of Lifting Operations, Rigging Techniques, and Execution of Lifting Operations.
- Safety and Risk Management: Hazard Identification, Risk Assessment and Control, Inspection and Maintenance, Emergency Preparedness.
- Legal and Regulatory Compliance: Compliance with Legal Requirements, Equipment Certification, Personnel Certification, Documentation and Reporting.
- Technological Integration: Advanced Lifting Technologies & Automation and Robotics.
- Incident Reporting and Continuous Improvement: Accident and Near-Miss Reporting & Continuous Improvement.

Elements and Performance Criteria

Prepare for Lifting and Rigging Operations

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

- PC1.** Verify that the lifting plan and operational procedures are understood and followed.
- PC2.** Ensure all lifting equipment (e.g., slings, cranes, pulleys) is ready and operational.
- PC3.** Confirm that the load is properly secured and balanced before the operation begins.

Execute Lifting and Rigging Operations Safely

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

- PC4.** Operate cranes, hoists, or other lifting devices within their specified limits.
- PC5.** Monitor the load during the operation to ensure stability and prevent hazards.
- PC6.** Use appropriate hand signals and communication tools to coordinate the team.

Identify and Address Hazards

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

- PC7.** Identify any hazards during the operation, such as load imbalance or environmental risks.
- PC8.** Implement immediate corrective actions to mitigate identified hazards.
- PC9.** Report any incidents or near-misses to supervisors for further action.

Ensure Compliance with Safety Standards

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

- PC10.** Monitor team compliance with safety standards and protocols.



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PC11. Ensure the correct use of PPE throughout the operation.

PC12. Conduct post-operation inspections and report any equipment issues.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. Standard operating procedures for lifting and rigging tasks.

KU2. Methods for developing and implementing lifting plans.

KU3. Proper use and handling of cranes, hoists, slings, and other equipment.

KU4. Load balancing techniques and safe lifting practices.

KU5. Common hazards during lifting operations and how to address them.

KU6. Methods for conducting risk assessments and implementing preventive measures.

KU7. National and international safety regulations (e.g., OSHA, LOLER).

KU8. Importance of post-operation checks and incident reporting.

KU9. Use of hand signals and communication tools during operations.

KU10. Importance of teamwork and coordination in lifting tasks.

Generic Skills (GS)

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

GS1. Reading & writing in the language of communication.

GS2. Effective verbal communication in local language.

GS3. Basic mathematics and calculating tools.

GS4. Planning, organizing & resource optimization.

GS5. Administration, decision making & conflict resolution.

GS6. Planning & monitoring tools, software operation.

GS7. Understanding & adherence to instructions.

GS8. Understanding of safety and adherence to safety related protocols.

GS9. Conduct of Professional behavior with co-workers and employees.

GS10. Use of personal protective equipment.

GS11. Work site rules & security, fire safety protocols, first aid & procedure under emergency conditions.

GS12. Housekeeping and disposal of waste materials.

GS13. Knowledge of organizational hierarchy for availability of tools, equipment & material & its security.

GS14. Learn, understand, find solutions & conflict resolution.



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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Prepare for Lifting and Rigging Operations</i>	14	14	-	-
PC1. Verify that the lifting plan and operational procedures are understood and followed.	5	5	-	-
PC2. Ensure all lifting equipment (e.g., slings, cranes, pulleys) is ready and operational.	5	5	-	-
PC3. Confirm that the load is properly secured and balanced before the operation begins.	4	4	-	-
<i>Execute Lifting and Rigging Operations Safely</i>	12	12	-	-
PC4. Operate cranes, hoists, or other lifting devices within their specified limits.	4	4	-	-
PC5. Monitor the load during the operation to ensure stability and prevent hazards.	4	4	-	-
PC6. Use appropriate hand signals and communication tools to coordinate the team.	4	4	-	-
<i>Identify and Address Hazards</i>	12	12	-	-
PC7. Identify any hazards during the operation, such as load imbalance or environmental risks.	4	4	-	-
PC8. Implement immediate corrective actions to mitigate identified hazards.	4	4	-	-
PC9. Report any incidents or near-misses to supervisors for further action.	4	4	-	-
<i>Ensure Compliance with Safety Standards</i>	12	12	-	-
PC10. Monitor team compliance with safety standards and protocols.	4	4	-	-
PC11. Ensure the correct use of PPE throughout the operation.	4	4	-	-
PC12. Conduct post-operation inspections and report any equipment issues.	4	4	-	-
NOS Total	50	50	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	SSD/VSQ/N0323
NOS Name	Lifting and Rigging Operations with Safety
Sector	Cross Sectoral
Sub-Sector	
Occupation	Lifting & Rigging Engineering & Management
NSQF Level	4.5
Credits	2
Version	1.0
Last Reviewed Date	22/10/2024
Next Review Date	22/10/2027
NSQC Clearance Date	22/10/2024



Qualification Pack

SSD/VSQ/N0324: Inspection, Maintenance, and Certification of Lifting Equipments

Description

The NOS on Inspection, Maintenance, and Certification of Lifting Equipment defines the competencies, procedures, and safety practices required to ensure that lifting equipment is maintained in safe and operational condition. These standards apply to all types of lifting equipment, such as cranes, hoists, slings, shackles, and other rigging gear used in industries like construction, oil and gas, manufacturing, and shipping. The goal is to prevent equipment failure, ensure compliance with safety regulations, and extend the lifespan of the equipment through proper care.

Scope

The scope covers the following :

- Inspection of Lifting Equipment: Types of Inspections & Inspection Procedures.
- Maintenance of Lifting Equipment: Preventive Maintenance & Corrective Maintenance.
- Certification and Re-Certification.
- Risk Management and Safety: Risk Assessments & Emergency Procedures.
- Technology Integration: Digital Systems for Inspection and Maintenance & Non-Destructive Testing (NDT) Techniques.
- Continuous Improvement and Incident Reporting: Incident Investigation & Audits and Reviews.

Elements and Performance Criteria

Inspect Lifting Equipment for Safety and Performance

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

- PC1.** Conduct pre-use inspections of equipment, including slings, chains, hooks, and cranes.
- PC2.** Identify defects, wear and tear, or other signs of equipment malfunction.
- PC3.** Document inspection findings and inform relevant personnel of any issues.

Perform Routine Maintenance and Repairs

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

- PC4.** Carry out scheduled maintenance according to manufacturer's guidelines.
- PC5.** Perform minor repairs and adjustments to ensure equipment safety.
- PC6.** Coordinate with specialized technicians for major repairs.

Ensure Compliance with Certification Standards

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

- PC7.** Verify that all equipment is certified and complies with national and international standards (e.g., LOLER, OSHA).
- PC8.** Maintain records of equipment certifications and inspection reports.
- PC9.** Report non-compliance issues to management for corrective action.

Maintain Inspection and Maintenance Records

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



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- PC10.** Maintain detailed records of all inspections, repairs, and maintenance activities.
- PC11.** Ensure records are up-to-date and easily accessible for audits and certifications.
- PC12.** Prepare reports on equipment status and recommend actions to management.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** Methods for inspecting cranes, slings, hooks, chains, and other equipment.
- KU2.** Importance of pre-use and post-use inspections.
- KU3.** Routine maintenance procedures based on manufacturer guidelines.
- KU4.** Techniques for identifying wear and tear, corrosion, or equipment failure.
- KU5.** National and international standards for lifting equipment (e.g., LOLER, OSHA).
- KU6.** Procedures for maintaining certification and ensuring compliance.
- KU7.** Importance of maintaining accurate inspection and maintenance records.
- KU8.** Steps for preparing reports and communicating findings to management.
- KU9.** Working with specialized technicians for major repairs.
- KU10.** Procedures for communicating maintenance needs to the appropriate personnel.

Generic Skills (GS)

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

- GS1.** Ability to communicate effectively during emergency situations.
- GS2.** Use of clear instructions to guide team members and coordinate with emergency services.
- GS3.** Identifying and addressing risks proactively.
- GS4.** Implementing solutions during emergencies to control damage and prevent injury.
- GS5.** Encouraging collaboration among team members during emergencies.
- GS6.** Coordinating with external agencies, such as fire services and medical personnel.
- GS7.** Monitoring equipment and operations to identify potential risks.
- GS8.** Ensuring all protocols are followed during drills and real emergencies.
- GS9.** Staying updated with the latest emergency management protocols.
- GS10.** Continuously improving emergency plans based on feedback and drill outcomes.



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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Inspect Lifting Equipment for Safety and Performance</i>	13	13	-	-
PC1. Conduct pre-use inspections of equipment, including slings, chains, hooks, and cranes.	5	5	-	-
PC2. Identify defects, wear and tear, or other signs of equipment malfunction.	5	5	-	-
PC3. Document inspection findings and inform relevant personnel of any issues.	3	3	-	-
<i>Perform Routine Maintenance and Repairs</i>	13	13	-	-
PC4. Carry out scheduled maintenance according to manufacturer's guidelines.	5	5	-	-
PC5. Perform minor repairs and adjustments to ensure equipment safety.	5	5	-	-
PC6. Coordinate with specialized technicians for major repairs.	3	3	-	-
<i>Ensure Compliance with Certification Standards</i>	12	12	-	-
PC7. Verify that all equipment is certified and complies with national and international standards (e.g., LOLER, OSHA).	4	4	-	-
PC8. Maintain records of equipment certifications and inspection reports.	4	4	-	-
PC9. Report non-compliance issues to management for corrective action.	4	4	-	-
<i>Maintain Inspection and Maintenance Records</i>	12	12	-	-
PC10. Maintain detailed records of all inspections, repairs, and maintenance activities.	4	4	-	-
PC11. Ensure records are up-to-date and easily accessible for audits and certifications.	4	4	-	-
PC12. Prepare reports on equipment status and recommend actions to management.	4	4	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
NOS Total	50	50	-	-



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	SSD/VSQ/N0324
NOS Name	Inspection, Maintenance, and Certification of Lifting Equipments
Sector	Cross Sectoral
Sub-Sector	
Occupation	Lifting & Rigging Engineering & Management
NSQF Level	4.5
Credits	1
Version	1.0
Last Reviewed Date	22/10/2024
Next Review Date	22/10/2027
NSQC Clearance Date	22/10/2024



Qualification Pack

SSD/VSQ/N0325: Plan, Organise, Communication & Emergency Protocols in Lifting & Rigging

Description

The NOS on Plan, Organise, Communication & Emergency Protocols in Lifting & Rigging establishes a comprehensive framework for managing lifting operations safely and effectively. By emphasizing thorough planning, clear organization, effective communication, and robust emergency protocols, these standards help to reduce risks, enhance operational efficiency, and ensure compliance with safety regulations. Implementing these standards is essential for fostering a safety culture and ensuring that all personnel are equipped to respond appropriately in emergency situations during lifting operations.

Scope

The scope covers the following :

- Developing and implementing emergency response plans.
- Conducting risk assessments and safety drills.
- Coordinating with emergency services and site personnel.
- Documenting and reporting incidents.
- Training personnel to respond effectively to emergencies.

Elements and Performance Criteria

Develop and Implement Emergency Plans

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

- PC1.** Identify potential emergencies related to lifting and rigging operations (e.g., equipment failure, load instability).
- PC2.** Develop site-specific emergency response plans for various scenarios.
- PC3.** Ensure that all team members are familiar with the emergency protocols.

Conduct Risk Assessments and Drills

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

- PC4.** Perform regular risk assessments to identify vulnerabilities in lifting operations.
- PC5.** Organize safety drills to simulate emergency scenarios and assess preparedness.
- PC6.** Evaluate the outcomes of drills and update emergency plans accordingly.

Coordinate with Emergency Services

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

- PC7.** Establish clear communication with emergency services (e.g., fire brigade, medical personnel).
- PC8.** Coordinate with site personnel to manage evacuations or other emergency responses.
- PC9.** Ensure that emergency equipment (e.g., fire extinguishers, first aid kits) is accessible and functional.

Document and Report Incidents

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



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PC10. Maintain records of emergency drills and response evaluations.

PC11. Document any incidents or accidents and report them to the relevant authorities.

PC12. Conduct root-cause analysis to identify corrective actions and prevent future occurrences.

Train Personnel in Emergency Response

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

PC13. Provide training sessions on emergency protocols and equipment handling.

PC14. Ensure workers understand their specific roles during an emergency.

PC15. Teamwork and coordination to handle emergencies efficiently.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. Techniques for developing site-specific emergency response plans.

KU2. Importance of involving all stakeholders in emergency planning.

KU3. Methods for conducting risk assessments in lifting and rigging operations.

KU4. Identification of common vulnerabilities and mitigation strategies.

KU5. Coordination with emergency services and site personnel.

KU6. Communication protocols during emergencies, including evacuation procedures.

KU7. Procedures for maintaining records of drills and incidents.

KU8. Steps for conducting root-cause analysis and implementing corrective actions.

KU9. Importance of regular safety drills and emergency training.

Generic Skills (GS)

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

GS1. Reading & writing in the language of communication.

GS2. Effective verbal communication in local language.

GS3. Basic mathematics and calculations.

GS4. Planning, organizing & resource optimization.

GS5. Administration, decision making & conflict resolution.

GS6. Planning & monitoring tools, software operation.

GS7. Understanding & adherence to instructions.

GS8. Understanding of safety and adherence to safety related protocols.

GS9. Conduct of Professional behavior with co-workers and employees.

GS10. Use of personal protective equipment.

GS11. Work site rules & security, fire safety protocols, first aid & procedure under emergency conditions.

GS12. Housekeeping and disposal of waste materials.

GS13. Organizational hierarchy for availability of tools, equipment & material & its security.

GS14. Ready to learn, understand, find solutions & conflict resolution.



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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Develop and Implement Emergency Plans</i>	10	10	-	-
PC1. Identify potential emergencies related to lifting and rigging operations (e.g., equipment failure, load instability).	4	4	-	-
PC2. Develop site-specific emergency response plans for various scenarios.	3	3	-	-
PC3. Ensure that all team members are familiar with the emergency protocols.	3	3	-	-
<i>Conduct Risk Assessments and Drills</i>	10	10	-	-
PC4. Perform regular risk assessments to identify vulnerabilities in lifting operations.	4	4	-	-
PC5. Organize safety drills to simulate emergency scenarios and assess preparedness.	3	3	-	-
PC6. Evaluate the outcomes of drills and update emergency plans accordingly.	3	3	-	-
<i>Coordinate with Emergency Services</i>	10	10	-	-
PC7. Establish clear communication with emergency services (e.g., fire brigade, medical personnel).	4	4	-	-
PC8. Coordinate with site personnel to manage evacuations or other emergency responses.	3	3	-	-
PC9. Ensure that emergency equipment (e.g., fire extinguishers, first aid kits) is accessible and functional.	3	3	-	-
<i>Document and Report Incidents</i>	10	10	-	-
PC10. Maintain records of emergency drills and response evaluations.	4	4	-	-
PC11. Document any incidents or accidents and report them to the relevant authorities.	3	3	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. Conduct root-cause analysis to identify corrective actions and prevent future occurrences.	3	3	-	-
<i>Train Personnel in Emergency Response</i>	10	10	-	-
PC13. Provide training sessions on emergency protocols and equipment handling.	4	4	-	-
PC14. Ensure workers understand their specific roles during an emergency.	3	3	-	-
PC15. Teamwork and coordination to handle emergencies efficiently.	3	3	-	-
NOS Total	50	50	-	-



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	SSD/VSQ/N0325
NOS Name	Plan, Organise, Communication & Emergency Protocols in Lifting & Rigging
Sector	Cross Sectoral
Sub-Sector	
Occupation	Lifting & Rigging Engineering & Management
NSQF Level	4.5
Credits	2
Version	1.0
Last Reviewed Date	22/10/2024
Next Review Date	22/10/2027
NSQC Clearance Date	22/10/2024



Qualification Pack

SSD/VSQ/N0326: Health, Hygiene, Environmental, and Psychological Health Protocols (Lifting & Rigging)

Description

The NOS on Health, Hygiene, Environmental, and Psychological Health Protocols in Lifting & Rigging provide a comprehensive framework aimed at safeguarding the well-being of personnel involved in lifting and rigging operations. These standards focus on promoting physical health, ensuring hygiene practices, minimizing environmental impacts, and addressing psychological health to create a safe and supportive work environment.

Scope

The scope covers the following :

- Promoting personal hygiene and workplace cleanliness.
- Ensuring environmental safety and minimizing the impact of operations.
- Monitoring the psychological health and well-being of personnel.
- Addressing ergonomic risks and promoting safe work practices.
- Complying with occupational health, safety, and environmental standards.

Elements and Performance Criteria

Health Protocols

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

- PC1.** Workers must use correct body mechanics to prevent musculoskeletal injuries (e.g., lifting with legs, not the back).
- PC2.** Ensure workstations and equipment are ergonomically designed to reduce strain, with tools like adjustable lifting devices.

Hygiene Protocols

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

- PC3.** Ensure proper use of PPE such as gloves, masks, and protective clothing to prevent exposure to harmful substances.
- PC4.** Encourage workers to maintain personal hygiene, especially when handling hazardous materials or chemicals.

Environmental Protocols

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

- PC5.** Promote the use of energy-efficient lifting equipment, such as electric-powered cranes, to reduce carbon emissions.
- PC6.** Store and handle chemicals and other hazardous materials safely, preventing spills and leaks.

Safety Protocols (Cross-cutting)

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

- PC7.** Conduct a Job Safety Analysis (JSA) or risk assessment before each lifting operation to identify and mitigate hazards.



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- PC8.** Ensure all workers are properly trained and certified in lifting and rigging techniques, safety procedures, and emergency response.
- PC9.** Implement emergency response protocols, including evacuation plans and immediate access to first aid kits and spill control equipment.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** Common health hazards associated with lifting and rigging, including musculoskeletal injuries, exposure to hazardous materials, and ergonomic risks.
- KU2.** Familiarity with techniques for safe lifting, such as maintaining a straight back, using legs for lifting, and avoiding twisting movements during load handling.
- KU3.** Personal hygiene practices that minimize the risk of contamination and illness, such as regular handwashing and using clean clothing.
- KU4.** Awareness of industry standards and regulations related to health and hygiene, ensuring compliance in all operations.
- KU5.** Familiarity with safe handling, storage, and disposal of hazardous materials and chemicals used in lifting and rigging operations.
- KU6.** How to conduct effective risk assessments before lifting and rigging tasks, identifying hazards, and implementing control measures.
- KU7.** Familiarity with required training and certification programs for lifting and rigging, ensuring that all personnel are adequately qualified to perform their tasks safely.
- KU8.** Emergency response protocols, including evacuation procedures, communication plans, and first aid kit locations.

Generic Skills (GS)

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

- GS1.** Reading & writing in the language of communication.
- GS2.** Effective verbal communication in local language.
- GS3.** Basic mathematics and calculations.
- GS4.** Planning, organizing & resource optimization.
- GS5.** Administration, decision making & conflict resolution.
- GS6.** Planning & monitoring tools, software operation.
- GS7.** Understanding & adherence to instructions.
- GS8.** Understanding of safety and adherence to safety related protocols.
- GS9.** Conduct of Professional behavior with co-workers and employees.
- GS10.** Use of personal protective equipment.
- GS11.** Work site rules & security, fire safety protocols, first aid & procedure under emergency conditions.
- GS12.** Housekeeping and disposal of waste materials.
- GS13.** Organizational hierarchy for availability of tools, equipment & material & its security.



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GS14. Ready to learn, understand, find solutions & conflict resolution.



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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Health Protocols</i>	11	11	-	-
PC1. Workers must use correct body mechanics to prevent musculoskeletal injuries (e.g., lifting with legs, not the back).	6	6	-	-
PC2. Ensure workstations and equipment are ergonomically designed to reduce strain, with tools like adjustable lifting devices.	5	5	-	-
<i>Hygiene Protocols</i>	11	11	-	-
PC3. Ensure proper use of PPE such as gloves, masks, and protective clothing to prevent exposure to harmful substances.	6	6	-	-
PC4. Encourage workers to maintain personal hygiene, especially when handling hazardous materials or chemicals.	5	5	-	-
<i>Environmental Protocols</i>	11	11	-	-
PC5. Promote the use of energy-efficient lifting equipment, such as electric-powered cranes, to reduce carbon emissions.	5	5	-	-
PC6. Store and handle chemicals and other hazardous materials safely, preventing spills and leaks.	6	6	-	-
<i>Safety Protocols (Cross-cutting)</i>	17	17	-	-
PC7. Conduct a Job Safety Analysis (JSA) or risk assessment before each lifting operation to identify and mitigate hazards.	6	6	-	-
PC8. Ensure all workers are properly trained and certified in lifting and rigging techniques, safety procedures, and emergency response.	6	6	-	-
PC9. Implement emergency response protocols, including evacuation plans and immediate access to first aid kits and spill control equipment.	5	5	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
NOS Total	50	50	-	-



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	SSD/VSQ/N0326
NOS Name	Health, Hygiene, Environmental, and Psychological Health Protocols (Lifting & Rigging)
Sector	Cross Sectoral
Sub-Sector	
Occupation	Lifting & Rigging Engineering & Management
NSQF Level	4.5
Credits	1
Version	1.0
Last Reviewed Date	22/10/2024
Next Review Date	22/10/2027
NSQC Clearance Date	22/10/2024



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



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- 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



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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	-	-	-	-



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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	-	-



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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	29/09/2022
Next Review Date	29/09/2027
NSQC Clearance Date	29/09/2022

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. The assessment criteria given in the Qualification Pack Lifting & Rigging Supervisor (Safety) by the SSDF.
2. Assessments can be carried out with pen-paper as well as online.
3. Assessment will be carried by certified assessor and affiliated Assessment Agency only.
4. Each NOS for its Performance Criteria (PC) has been assigned marks proportional to its importance. Proportion of marks for Theory and Practical has been marked NOS wise.
5. Questions on practical & theory will be formed in such a way as to provide outcome on maximum Performance Criteria and in proportional way within the NOS.
6. The assessment for the theory part will be based on written questions (short question, multiple choice & viva, or a combination of them) created/approved by the SSDF.
7. The assessment for the practical part will be based on practical conducted for trainees. In case of remote/on-line assessments, the practical's can be carried through proctors or practical questions formulated based on pictorially represented logical questions (based on pictures of practical & logical



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steps) created/approved by the SSDF.

8. The passing and grading criteria of each NOS & cumulative for QP will be as follows:-

a. 70% or more than 70% - Grade A

b. 60% or more than 60% but less than 70% - Grade B

c. 50% or more than 50% but less than 60% - Grade C

d. Less than 50% - Grade Fail

e. If an individual gets less than 50% and 35% or more in one NOS and; overall, 50% or more; individual will be considered pass with grade "C" irrespective of overall marks.

f. Individuals getting less than 50% in more than one NOS and getting overall marks 50% or more in QP will be put in grade Fail.

9. Assessment will be for complete QP and the trainees can be given additional chance to appear in re-assessment for improvements, based on decision by SSDF.

10. In case a trainee fails in one or two NOSs, re-assessments in the failing NOSs can be allowed in the next 3 months from the date of publication of results. Otherwise, the failed candidate will have to re-appear in all NOSs.

11. Minimum overall duration of assessment will be six hours.

Minimum Aggregate Passing % at QP Level : 50

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

Minimum Passing % at NOS Level: 50

(Please note: A Trainee must score the minimum percentage for each NOS separately as well as on the QP as a whole.)

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
SSD/VSQ/N0319.Introduction to Lifting & Rigging Safety Protocols	50	50	0	0	100	11



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National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
SSD/VSQ/N0320.Safety, Legal and Regulatory Compliance for Lifting & Rigging Operations	50	50	0	0	100	17
SSD/VSQ/N0321.Load Planning, Stability Control & Process Requirements	50	50	0	0	100	17
SSD/VSQ/N0322.Hazard Identification, Risk Assessment, Safety of Plant & Machinery in Lifting & Rigging Operations	50	50	0	0	100	11
SSD/VSQ/N0323.Lifting and Rigging Operations with Safety	50	50	0	0	100	11
SSD/VSQ/N0324.Inspection, Maintenance, and Certification of Lifting Equipments	50	50	0	0	100	6
SSD/VSQ/N0325.Plan, Organise, Communication & Emergency Protocols in Lifting & Rigging	50	50	0	0	100	11
SSD/VSQ/N0326.Health, Hygiene, Environmental, and Psychological Health Protocols (Lifting & Rigging)	50	50	0	0	100	6
DGT/VSQ/N0102.Employability Skills (60 Hours)	20	30	-	-	50	10
Total	420	430	-	-	850	100



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Acronyms

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



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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.