

## Qualification Pack



# Junior Mechanic (Engine)

QP Code: IES/Q1102

Version: 2.0

NSQF Level: 3

Infrastructure Equipment Skill Council || Avik Royale - First Floor (Next of Vijaya Bank), No.6, 50 feet  
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## Qualification Pack

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## Qualification Pack

### IES/Q1102: Junior Mechanic (Engine)

#### Brief Job Description

The primary role of a Junior Mechanic (engine) is to provide assistance to Mechanic (engine) in breakdown repair & preventive maintenance in issues related to engines of the equipment.

#### Personal Attributes

This job requires the individual to work independently as well as in teams. He should have analytical skills, problem solving attitude, high concentration levels. Junior Mechanic Engine should have good hand-eye coordination, good eye-sight, no colour-blindness and should be able to complete precise and detailed work.

#### Applicable National Occupational Standards (NOS)

##### Compulsory NOS:

1. [IES/N1102: Assist in repairs and maintenance of the equipment's engine and power train system](#)
2. [IES/N7801: Maintain the work area, tools and machine to support the operations](#)
3. [IES/N7602: Comply with workshop, health and safety guidelines](#)

#### Qualification Pack (QP) Parameters

<b>Sector</b>	Infrastructure Equipment
<b>Sub-Sector</b>	Equipment Service and spares
<b>Occupation</b>	Equipment Maintenance
<b>Country</b>	India
<b>NSQF Level</b>	3
<b>Aligned to NCO/ISCO/ISIC Code</b>	NCO-2015/ 7233.0701
<b>Minimum Educational Qualification &amp; Experience</b>	8th Class (OR 10th class without experience) with 1 Year of experience
<b>Minimum Level of Education for Training in School</b>	

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<b>Pre-Requisite License or Training</b>	NA
<b>Minimum Job Entry Age</b>	18 Years
<b>Last Reviewed On</b>	26/05/2022
<b>Next Review Date</b>	26/05/2025
<b>NSQC Approval Date</b>	26/05/2022
<b>Version</b>	2.0
<b>Reference code on NQR</b>	2022/IS/IESC/05898
<b>NQR Version</b>	1.0

## Qualification Pack

# IES/N1102: Assist in repairs and maintenance of the equipment's engine and power train system

## Description

This unit provides Performance Criteria, Knowledge & Understanding and Skills & Ability for activities that need to be carried out for assisting mechanic (Engine) in testing, diagnosing, repairing and maintaining engines.

## Scope

The scope covers the following :

- This unit / task covers the following: Breakdown Repair Assistance Maintenance Work Assistance

## Elements and Performance Criteria

### *Breakdown Repair Assistance*

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

- PC1.** inspect the work area and ensure it is safe and clean with adequate lighting and ventilation and as per the safety regulations, to enable repairs to be carried out efficiently
- PC2.** ensure availability and serviceability of standard tools and equipment including supporting workshop facilities ; consumables needed for engine and power train repair work
- PC3.** assist in inspecting the machine sequentially for visible damages /deficiencies and leaks in the engine and and power train systems; report as necessary
- PC4.** check all levels of fuel, coolant and oils in engine, hydraulic and transmission systems; top up if necessary
- PC5.** assist in starting the machine as per procedure and checking the defect/fault reported in the engine and and power train systems
- PC6.** select and position all tools and equipment needed to remove the defective parts as identified during the fault diagnosis
- PC7.** remove , as instructed , defective parts of the engine and power train system without damaging surrounding components and assemblies
- PC8.** disassemble the parts, laying it out sequentially, as per procedure to facilitate re-assembly later
- PC9.** assist in inspecting the removed/disassembled parts and identifying those that can be reused/repaired/ replaced as applicable
- PC10.** assist in preparing the list of parts for procurement including consumables, preliminary work order and time schedule
- PC11.** clean all the disassembled parts using the appropriate tools and consumables as per manufacturers guidelines
- PC12.** replace or repair the affected parts, test functionality on bench as applicable and refit / reassemble the same as per the manufacturers guidelines
- PC13.** assist in starting the machine as per procedure and testing to confirm the defect/fault has been rectified

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- PC14.** assist in starting the machine as per procedure and testing for leakages, unusual noises and general performance to corroborate with operators feedback on the equipment
- PC15.** ascertain the availability of necessary parts and consumables and assist in preparing tentative maintenance plan including approximate costing and time schedule
- PC16.** assist in carrying out all maintenance/service tasks as applicable on the equipments engine and and power train systems as per manufacturers specifications and procedures, ensuring only genuine and approved parts and consumables are used.
- PC17.** assist in starting the machine, post repairs and service, and conducting trial runs to check the performance of engine and and power train systems
- PC18.** store the tools and equipment, post usage, at the designated places and ensure they are not left behind in the repair bay
- PC19.** dispose the defective parts, consumables and waste as per the organizational policies & environmental regulations
- PC20.** assist in completing and submitting the requisite reports and documents as per the organizational policies and procedures

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the organizations policies, guidelines and procedures related to breakdown repairs & maintenance services including reporting structure and escalation matrix
- KU2.** the organizations policies, guidelines and procedures related to workshop safety, personal health, security and environment including contact details during emergency
- KU3.** the facilities in the workshop to include location of standard and special tools, diagnostic and test equipment; and their serviceability
- KU4.** the identification and application, correct and safe usage of various hand and power tools; special tools and equipment
- KU5.** the methodology to check all the tools and equipment to be used are tested / calibrated, serviceable and in safe condition
- KU6.** the general functioning of an engine and its various subsystems like fuel - air, lubrication, cooling and transmission/ power train; hydraulic and electrical systems
- KU7.** the broad techniques used to identify faults such as sensory information - sight, sound, smell, touch; aural, visual and functional tests and checks
- KU8.** the procedure to remove components from the engine and power train systems; without damaging it as well as the surrounding ones as per the manufacturers guidelines
- KU9.** the technique to lay the removed components out in a logical sequence to aid re-assembly and check them for wear and tear
- KU10.** the procedure for cleaning the dis assembled parts and components as per manufacturers guidelines
- KU11.** the procedure for carrying out repairs and service of the affected components as per the manufacturers guidelines
- KU12.** the procedure for checking the correct specs of the replacement parts like seals, gaskets, O rings, filters, belts and consumables such as grease and lubricants before usage/fitment

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- KU13.** the procedure for reassembly of components, their fitment on to the equipment and assisting in their serviceability trials/tests
- KU14.** the procedure for carrying out all the tasks as specified in the maintenance/service schedule of the equipment for the engine, related subsystems; and power train
- KU15.** the procedure for disposal of replaced parts/components and waste material as per organisational policy and environmental regulations
- KU16.** the general overview of various reports and documents that are to be completed and submitted post breakdown repairs and servicing, as per organizational policies and procedures
- KU17.** the review mechanism for obtaining / giving feedback from/to the supervisor / customer on the standard and quality of work executed

## Generic Skills (GS)

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

- GS1.** read and interpret signs, symbols, diagrams and decals both on the equipment and in the work-shop
- GS2.** read the maintenance manual for understanding the basic specs of the systems and service procedures to be undertaken
- GS3.** record basic details of all repairs and servicing carried out as recommended by the manufacturer, on the prescribed format
- GS4.** use correct terms/phrases while interacting with co-workers, supervisor and customers
- GS5.** interact regularly with team members to enable tasks to be carried out efficiently and within the time schedule
- GS6.** interact confidently with customers to understand the problems and to seek clarifications as necessary
- GS7.** plan, prioritize and sequence operations to ensure completion within the laid down time schedule
- GS8.** evaluate progress of work regularly to assess delays and initiate remedial measures including timely escalation if beyond one's scope or ability
- GS9.** ensure quality service is delivered as committed to achieve high levels of customer satisfaction
- GS10.** follow up with supervisors / superiors on any unfavorable feedback received from customer

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Breakdown Repair Assistance</i>	<b>15</b>	<b>50</b>	-	-
<b>PC1.</b> inspect the work area and ensure it is safe and clean with adequate lighting and ventilation and as per the safety regulations, to enable repairs to be carried out efficiently	1	2	-	-
<b>PC2.</b> ensure availability and serviceability of standard tools and equipment including supporting workshop facilities ; consumables needed for engine and power train repair work	1	3	-	-
<b>PC3.</b> assist in inspecting the machine sequentially for visible damages /deficiencies and leaks in the engine and and power train systems; report as necessary	1	2	-	-
<b>PC4.</b> check all levels of fuel, coolant and oils in engine, hydraulic and transmission systems; top up if necessary	1	3	-	-
<b>PC5.</b> assist in starting the machine as per procedure and checking the defect/fault reported in the engine and and power train systems	1	2	-	-
<b>PC6.</b> select and position all tools and equipment needed to remove the defective parts as identified during the fault diagnosis	1	3	-	-
<b>PC7.</b> remove , as instructed , defective parts of the engine and power train system without damaging surrounding components and assemblies	1	4	-	-
<b>PC8.</b> disassemble the parts, laying it out sequentially, as per procedure to facilitate re-assembly later	-	4	-	-
<b>PC9.</b> assist in inspecting the removed/disassembled parts and identifying those that can be reused/repared/ replaced as applicable	-	2	-	-
<b>PC10.</b> assist in preparing the list of parts for procurement including consumables, preliminary work order and time schedule	1	2	-	-



### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC11.</b> clean all the disassembled parts using the appropriate tools and consumables as per manufacturers guidelines	1	3	-	-
<b>PC12.</b> replace or repair the affected parts, test functionality on bench as applicable and refit / reassemble the same as per the manufacturers guidelines	-	3	-	-
<b>PC13.</b> assist in starting the machine as per procedure and testing to confirm the defect/fault has been rectified	-	2	-	-
<b>PC14.</b> assist in starting the machine as per procedure and testing for leakages, unusual noises and general performance to corroborate with operators feedback on the equipment	1	2	-	-
<b>PC15.</b> ascertain the availability of necessary parts and consumables and assist in preparing tentative maintenance plan including approximate costing and time schedule	1	2	-	-
<b>PC16.</b> assist in carrying out all maintenance/service tasks as applicable on the equipments engine and and power train systems as per manufacturers specifications and procedures, ensuring only genuine and approved parts and consumables are used.	1	4	-	-
<b>PC17.</b> assist in starting the machine, post repairs and service, and conducting trial runs to check the performance of engine and and power train systems	1	2	-	-
<b>PC18.</b> store the tools and equipment, post usage, at the designated places and ensure they are not left behind in the repair bay	-	2	-	-
<b>PC19.</b> dispose the defective parts, consumables and waste as per the organizational policies & environmental regulations	1	2	-	-
<b>PC20.</b> assist in completing and submitting the requisite reports and documents as per the organizational policies and procedures	1	1	-	-
<b>NOS Total</b>	<b>15</b>	<b>50</b>	-	-

## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	IES/N1102
<b>NOS Name</b>	Assist in repairs and maintenance of the equipment's engine and power train system
<b>Sector</b>	Infrastructure Equipment
<b>Sub-Sector</b>	Equipment Service and spares
<b>Occupation</b>	Equipment Maintenance
<b>NSQF Level</b>	3
<b>Credits</b>	TBD
<b>Version</b>	2.0
<b>Last Reviewed Date</b>	26/05/2022
<b>Next Review Date</b>	26/05/2025
<b>NSQC Clearance Date</b>	26/05/2022

## Qualification Pack

# IES/N7801: Maintain the work area, tools and machine to support the operations

## Description

This unit provides Performance Criteria, Knowledge & Understanding and Skills & Ability for activities that are needed to Maintain the work area, tools and machine to support the operations.

## Scope

The scope covers the following :

- This unit/task covers the following: Work area / tools / machinery maintenance at work

## Elements and Performance Criteria

### *Work area / tools / machinery maintenance at work*

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

- PC1.** inspect the work area and ensure it is safe from hazards and clean with adequate lighting and ventilation as applicable, to enable repairs to be carried out efficiently
- PC2.** comply with all latest work area safety, security and environmental regulations and guidelines
- PC3.** maintain tools and equipment as per organizational guidelines and manufacturers instructions
- PC4.** select tools and equipment as appropriate to the various tasks and utilize them correctly as per the manufacturers /workshop service manual
- PC5.** lift or haul as necessary, various tools and equipment safely from stowage area to repair bay as per the laid down procedures
- PC6.** store the tools and equipment, post usage, at the designated places and ensure they are not left behind in the repair bay
- PC7.** ensure the condition of tools and equipment including machine guards is serviceable, report immediately if unserviceable or unsafe for use
- PC8.** ensure adequate stocks of various types of cleaning agents and materials, as needed, are available at all times
- PC9.** keep the work area free from clutter and spillage on a regular basis to maintain basic hygiene and cleanliness at all times
- PC10.** report the need for maintenance and / or cleaning outside your area of responsibility
- PC11.** handle the storage and disposal of waste including hazardous materials as per the safety, health and environmental regulations

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

## Qualification Pack

- KU1.** organizations standard operating procedures and guidelines for work area maintenance and upkeep
- KU2.** organizations reporting structure and contact details of personnel for queries/escalating unresolved problems
- KU3.** various types of safety signs and warnings in the work area facility including on tools and equipment and their meaning
- KU4.** types of common hazards and risks at the work area including fire, mechanical and electrical related
- KU5.** procedure for safe lockdown / shutdown of machinery in case of an emergency in the work area
- KU6.** location of workshop stores for tools and equipment; procedure for issue and return of specialist tools
- KU7.** procedure for operation and maintenance of various tools and equipment as per manufacturers guidelines
- KU8.** procedure for correct handling and transporting of tools and equipment from stowage area to repair bay and back
- KU9.** selection and correct usage of various types of cleaning agents and related tools and equipment
- KU10.** guidelines for storage and disposal of waste including hazardous materials

## Generic Skills (GS)

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

- GS1.** read and interpret signs, symbols, diagrams and decals both on the equipment and in the work area
- GS2.** read and understand instructions and guidelines related to operation and maintenance of tools and equipment
- GS3.** interact with mechanic and supervisor to understand the tasks and seek clarification if required
- GS4.** use correct terms / phrases while interacting with team members and supervisor
- GS5.** organize own work area to include tools and equipment; time plan to minimize any risks related to health and safety
- GS6.** monitor progress of work regularly to assess delays and initiate remedial measures including timely escalation if beyond one's scope or ability
- GS7.** give clear and concise information and advisories as applicable to team members to enable tasks to be completed safely and in time
- GS8.** build and maintain congenial and positive relationships with all team members and other stake holders
- GS9.** follow up with supervisors/superiors on any unfavorable feedback related to operations and maintenance issues
- GS10.** provide quality and timely service of the highest order to ensure customer satisfaction

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Work area / tools / machinery maintenance at work</i>	<b>5</b>	<b>10</b>	-	-
<b>PC1.</b> inspect the work area and ensure it is safe from hazards and clean with adequate lighting and ventilation as applicable, to enable repairs to be carried out efficiently	-	1	-	-
<b>PC2.</b> comply with all latest work area safety, security and environmental regulations and guidelines	1	1	-	-
<b>PC3.</b> maintain tools and equipment as per organizational guidelines and manufacturers instructions	-	1	-	-
<b>PC4.</b> select tools and equipment as appropriate to the various tasks and utilize them correctly as per the manufacturers /workshop service manual	1	1	-	-
<b>PC5.</b> lift or haul as necessary, various tools and equipment safely from stowage area to repair bay as per the laid down procedures	-	1	-	-
<b>PC6.</b> store the tools and equipment, post usage, at the designated places and ensure they are not left behind in the repair bay	-	1	-	-
<b>PC7.</b> ensure the condition of tools and equipment including machine guards is serviceable, report immediately if unserviceable or unsafe for use	-	1	-	-
<b>PC8.</b> ensure adequate stocks of various types of cleaning agents and materials, as needed, are available at all times	1	1	-	-
<b>PC9.</b> keep the work area free from clutter and spillage on a regular basis to maintain basic hygiene and cleanliness at all times	-	1	-	-
<b>PC10.</b> report the need for maintenance and / or cleaning outside your area of responsibility	1	-	-	-
<b>PC11.</b> handle the storage and disposal of waste including hazardous materials as per the safety, health and environmental regulations	1	1	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>NOS Total</b>	<b>5</b>	<b>10</b>	<b>-</b>	<b>-</b>

## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	IES/N7801
<b>NOS Name</b>	Maintain the work area, tools and machine to support the operations
<b>Sector</b>	Infrastructure Equipment
<b>Sub-Sector</b>	Equipment Service and spares
<b>Occupation</b>	Equipment Maintenance
<b>NSQF Level</b>	3
<b>Credits</b>	TBD
<b>Version</b>	2.0
<b>Last Reviewed Date</b>	26/05/2022
<b>Next Review Date</b>	26/05/2025
<b>NSQC Clearance Date</b>	26/05/2022

## Qualification Pack

### IES/N7602: Comply with workshop, health and safety guidelines

#### Description

This unit is about adhering to health and safety requirements at the service workshop during equipment maintenance.

#### Scope

The scope covers the following :

- Service workshop health and safety

#### Elements and Performance Criteria

##### *Service workshop health and safety*

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

- PC1.** comply with all latest/current workshop safety, personal health, security and environmental related regulations and guidelines
- PC2.** inspect the work area and ensure it is safe from hazards, clean and with adequate lighting and ventilation as applicable, to enable repairs to be carried out efficiently
- PC3.** use appropriate personal protective clothing and equipment for various tasks and work conditions as per regulations
- PC4.** lift or haul as necessary, various tools and equipment safely from stowage area to repair bay as per the laid down procedures
- PC5.** carry out all repairs and maintenance tasks safely and correctly as per the manufacturers workshop procedures and guidelines
- PC6.** store the tools and equipment, post usage, at the designated places and ensure they are not left behind in the repair bay
- PC7.** keep the work area free from clutter and spillage on a regular basis to maintain basic hygiene and cleanliness at all times
- PC8.** handle the storage and disposal of waste including hazardous materials as per the safety, health and environmental regulations
- PC9.** operate various types and grades of fire extinguishers, as per the laid down procedures
- PC10.** support in administering basic first aid at the spot and report to supervisor, as required, in case of an accident needing evacuation
- PC11.** respond promptly and appropriately to any accident / incident or emergency, within the limits of ones roles and responsibilities
- PC12.** report and record, as applicable, details related to operations, incidents or accidents, in a factually correct manner

#### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:



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- KU1.** organisations latest/current workshop safety, personal health, security and environmental related policies, regulations and guidelines
- KU2.** organisations reporting structure and contact details of personnel responsible for health, safety and environmental related matters
- KU3.** location of workshop stores for tools and equipment, first aid station and safe assembly points/areas in case of an emergency
- KU4.** contact details of personnel to be reached out to in case of emergencies or accidents/incidents including civic agencies like police, fire and hospital services
- KU5.** types, use and importance of personal protective equipment and clothing
- KU6.** various types of safety signs and warnings and their meaning
- KU7.** types of common hazards and risks at the workshop including fire, mechanical and electrical related
- KU8.** safe working practices with various workshop tools and equipment, and other facilities
- KU9.** safe working practices while carrying out various maintenance operations adhering to the manufacturers guidelines and procedures
- KU10.** procedure for safe lockdown/shutdown of machinery in case of an emergency in the workshop
- KU11.** guidelines for transport, storage and disposal of hazardous materials and waste
- KU12.** types of various fire extinguishers, their application and operating procedure
- KU13.** basic first aid treatment for common injuries in the workshop like cuts and bleeding, sprains and fractures, minor burns, eye injuries and electrical shock
- KU14.** reporting and documentation procedures related to health, safety, environmental and security matters
- KU15.** the ways to optimize the usage of materials and conservation of electricity
- KU16.** respect everyone without any personal bias like gender, disability, caste, religion, colour, sexual orientation and culture

## Generic Skills (GS)

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

- GS1.** read and interpret signs, symbols, diagrams and decals both on the equipment and in the workshop
- GS2.** read and understand all safety manuals related to equipment service and repairs; and workshop equipment including facilities operation
- GS3.** read and understand all health and safety guidelines; environmental regulations and bulletins issued from time to time
- GS4.** use correct terms/phrases while interacting with team members and supervisor
- GS5.** give clear and concise instructions and advisories as applicable to team members and others to enable tasks to be completed safely and in time
- GS6.** organize own work area to include tools and equipment; time plan to minimize any risks related to health and safety
- GS7.** monitor progress of work regularly to assess delays and initiate remedial measures including timely escalation if beyond one's scope or ability

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- GS8.** build and maintain congenial and positive relationships with all team members and other stake holders
- GS9.** follow up with supervisors/superiors on any unfavorable feedback related to safety and health issues

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Service workshop health and safety</i>	<b>5</b>	<b>15</b>	-	-
<b>PC1.</b> comply with all latest/current workshop safety, personal health, security and environmental related regulations and guidelines	1	1	-	-
<b>PC2.</b> inspect the work area and ensure it is safe from hazards, clean and with adequate lighting and ventilation as applicable, to enable repairs to be carried out efficiently	1	2	-	-
<b>PC3.</b> use appropriate personal protective clothing and equipment for various tasks and work conditions as per regulations	1	1	-	-
<b>PC4.</b> lift or haul as necessary, various tools and equipment safely from stowage area to repair bay as per the laid down procedures	-	1	-	-
<b>PC5.</b> carry out all repairs and maintenance tasks safely and correctly as per the manufacturers workshop procedures and guidelines	1	2	-	-
<b>PC6.</b> store the tools and equipment, post usage, at the designated places and ensure they are not left behind in the repair bay	-	1	-	-
<b>PC7.</b> keep the work area free from clutter and spillage on a regular basis to maintain basic hygiene and cleanliness at all times	-	1	-	-
<b>PC8.</b> handle the storage and disposal of waste including hazardous materials as per the safety, health and environmental regulations	-	1	-	-
<b>PC9.</b> operate various types and grades of fire extinguishers, as per the laid down procedures	1	1	-	-
<b>PC10.</b> support in administering basic first aid at the spot and report to supervisor, as required, in case of an accident needing evacuation	-	1	-	-
<b>PC11.</b> respond promptly and appropriately to any accident / incident or emergency, within the limits of ones roles and responsibilities	-	2	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC12.</b> report and record, as applicable, details related to operations, incidents or accidents, in a factually correct manner	-	1	-	-
<b>NOS Total</b>	<b>5</b>	<b>15</b>	-	-

## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	IES/N7602
<b>NOS Name</b>	Comply with workshop, health and safety guidelines
<b>Sector</b>	Infrastructure Equipment
<b>Sub-Sector</b>	Equipment Service and spares
<b>Occupation</b>	Equipment Maintenance
<b>NSQF Level</b>	4
<b>Credits</b>	TBD
<b>Version</b>	2.0
<b>Last Reviewed Date</b>	26/05/2022
<b>Next Review Date</b>	26/05/2025
<b>NSQC Clearance Date</b>	26/05/2022

## 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.

## Qualification Pack

### Minimum Aggregate Passing % at QP Level : 70

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

### Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
IES/N1102.Assist in repairs and maintenance of the equipment's engine and power train system	15	50	0	0	65	65
IES/N7801.Maintain the work area, tools and machine to support the operations	5	10	0	0	15	15
IES/N7602.Comply with workshop, health and safety guidelines	5	15	0	0	20	20
<b>Total</b>	<b>25</b>	<b>75</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>100</b>

## Qualification Pack

### Acronyms

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

## Qualification Pack

### Glossary

<b>Sector</b>	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.
<b>Sub-sector</b>	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
<b>Occupation</b>	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
<b>Job role</b>	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
<b>Occupational Standards (OS)</b>	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.
<b>Performance Criteria (PC)</b>	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
<b>National Occupational Standards (NOS)</b>	NOS are occupational standards which apply uniquely in the Indian context.
<b>Qualifications Pack (QP)</b>	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.
<b>Unit Code</b>	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
<b>Unit Title</b>	Unit title gives a clear overall statement about what the incumbent should be able to do.
<b>Description</b>	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.
<b>Scope</b>	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.



## Qualification Pack

<b>Knowledge and Understanding (KU)</b>	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.
<b>Organisational Context</b>	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.
<b>Technical Knowledge</b>	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
<b>Core Skills/ Generic Skills (GS)</b>	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.
<b>Electives</b>	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.
<b>Options</b>	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.