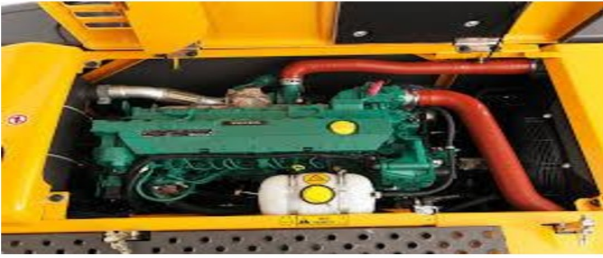


## Qualification Pack



# Junior Mechanic (Engine)

QP Code: IES/Q1102

NSQF Level: 3

Infrastructure Equipment Skill Council || Infrastructure Equipment Skill Council, Avik Royale-First Floor  
(Next of Vijaya Bank), No.6, 50 feet Main Road, Avalahalli Extension, Girinagar  
Bengaluru 560026

## 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 repair and maintenance of equipments engine parts](#)
2. [IES/N7602: Comply with workshop health and safety guidelines](#)
3. [IES/N7801: Maintain the work area, tools and machine to support the operations](#)

#### 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-2004/NIL
<b>Minimum Educational Qualification &amp; Experience</b>	8th Class
<b>Minimum Level of Education for Training in School</b>	
<b>Pre-Requisite License or Training</b>	NA
<b>Minimum Job Entry Age</b>	18 Years
<b>Last Reviewed On</b>	31/03/2015



## Qualification Pack

<b>Next Review Date</b>	30/06/2020
<b>NSQC Approval Date</b>	18/06/2015
<b>Version</b>	1.0

## Qualification Pack

### IES/N1102: Assist in repair and maintenance of equipments engine parts

#### 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

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.** ensure availability of tools, spare parts, equipment and supplies for repair work
- PC2.** carry out visual inspection for leakage as per the mechanics instruction
- PC3.** disassemble broken or defective engine part to facilitate repair as per standard operating procedure
- PC4.** reassemble when repairs are complete as per standard operating procedure
- PC5.** ensure appropriate positioning of equipment, machinery, physical structures, and other objects for assembly or installation, using hand tools, ensure appropriate positioning of equipment, machinery, physical structures, and other objects for assembly or installation, using hand tools,
- PC6.** ensure appropriate condition of tools, equipment, and machines as per standard operating procedure
- PC7.** ensure cleaning or lubrication of engine components, equipment, instruments, tools, work areas, and other objects, using hand tools, power tools, and cleaning equipment as per the manufacturers manual
- PC8.** assist the mechanic in preparing parts list for procurement
- PC9.** work safely at all times, complying with health and safety and other relevant regulations, directives and guidelines
- PC10.** handle and dispose waste based on environmental guidelines at the work place
- PC11.** follow the maintenance schedule as per manufacturers manual
- PC12.** assist in replacing the scheduled spare parts as per mechanics instruction
- PC13.** assist in replenish / change the consumables
- PC14.** perform visual inspection to verify in appropriate sequence, for the engine, as per service manual, the following leakage from parts breakage of parts unusual noise under-rated performance
- PC15.** check the engine indication as per manufacturers manual
- PC16.** check air filter as per manufacturers manual
- PC17.** clean air filter as per manufacturers manual
- PC18.** check engine oil & coolant level as per manufacturers manual

## Qualification Pack

- PC19.** report any instances where the parts need to be changed/repared as per companys guidelines
- PC20.** report any instances where the parts need to be changed/repared as per companys guidelines
- PC21.** assist in post repair trials as per mechanics instructions

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the organizations procedures and guidelines related to breakdown & maintenance services
- KU2.** the performance standards & procedures followed in the company
- KU3.** reporting structure in the company
- KU4.** escalation matrix for reporting unresolved problems
- KU5.** timeframe in which the complaint/problem should be resolved
- KU6.** work target and review mechanism with supervisor for obtaining/ giving feedback related to performance process
- KU7.** location of tools
- KU8.** contact person in case of queries on procedure or products
- KU9.** location and process for storage and disposal of waste material
- KU10.** safety policy of the company
- KU11.** manufacturers specification of the engine in use
- KU12.** techniques used to diagnose the faults through visual inspection
- KU13.** methods to remove component from engine system without damage to the components or surrounding structure
- KU14.** usage of various hand tools (such as spanners, sockets, screwdrivers, pliers, torque wrenches)
- KU15.** methods to check that the tools and equipment to be used are correctly calibrated, and are in a safe, tested and serviceable condition
- KU16.** method to use all tools correctly, check and store after use
- KU17.** methods to lay the removed components out in a logical sequence to aid re-assembly,
- KU18.** methods that can be used to keep component parts together or in the order that they were removed
- KU19.** usage of tools in the rectification operations (such as alignment tools, torque wrenches, presses)
- KU20.** usage of sealants and lubricants of the correct specification for the vehicle
- KU21.** techniques to clean/service different parts of engine
- KU22.** the hazards associated with diagnosing and rectifying engine faults
- KU23.** usage of tools and equipment to minimize & reduce any risk

## Generic Skills (GS)

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

## Qualification Pack

- GS1.** write, as required, in english or vernacular language
- GS2.** record and document the basic details of repairs and maintenance performed on various aggregates/ components
- GS3.** read work orders, specifications etc. related to the job role
- GS4.** read the maintenance manual for understanding basic specifications of the equipment/ process to be undertaken sa5. refer to operator and maintenance manuals to support work tasks
- GS5.** refer to operator and maintenance manuals to support work tasks
- GS6.** interact with the mechanic/ supervisors, as required, to seek clarifications and understand issues
- GS7.** evaluate the situation to decide on seeking assistance from manager/ peers
- GS8.** plan, prioritize and sequence work operations as per required schedule and location
- GS9.** organize and analyze information relevant to work
- GS10.** provide service of the highest order to ensure customer satisfaction
- GS11.** assist in repair and maintenance of equipment under the supervision of the mechanic
- GS12.** bring any noticeable issue in the component/sub-assemblies currently working on or otherwise to the attention of the mechanic
- GS13.** evaluate the complexity of the tasks to determine if any assistance required from manager/ peers
- GS14.** analyse, evaluate and apply the information gathered from observation, experience, reasoning to act efficiently and effectively
- GS15.** write, as required, in english or vernacular language
- GS16.** record and document the basic details of repairs and maintenance performed on various aggregates/ components
- GS17.** read work orders, specifications etc. related to the job role
- GS18.** read the maintenance manual for understanding basic specifications of the equipment/ process to be undertaken sa5. refer to operator and maintenance manuals to support work tasks
- GS19.** refer to operator and maintenance manuals to support work tasks
- GS20.** interact with the mechanic/ supervisors, as required, to seek clarifications and understand issues
- GS21.** evaluate the situation to decide on seeking assistance from manager/ peers
- GS22.** plan, prioritize and sequence work operations as per required schedule and location
- GS23.** organize and analyze information relevant to work
- GS24.** provide service of the highest order to ensure customer satisfaction
- GS25.** assist in repair and maintenance of equipment under the supervision of the mechanic
- GS26.** bring any noticeable issue in the component/sub-assemblies currently working on or otherwise to the attention of the mechanic
- GS27.** evaluate the complexity of the tasks to determine if any assistance required from manager/ peers
- GS28.** analyse, evaluate and apply the information gathered from observation, experience, reasoning to act efficiently and effectively



## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Breakdown Repair Assistance</i>	9	25	-	-
<b>PC1.</b> ensure availability of tools, spare parts, equipment and supplies for repair work	1	1	-	-
<b>PC2.</b> carry out visual inspection for leakage as per the mechanics instruction	1	1	-	-
<b>PC3.</b> disassemble broken or defective engine part to facilitate repair as per standard operating procedure	-	1	-	-
<b>PC4.</b> reassemble when repairs are complete as per standard operating procedure	1	1	-	-
<b>PC5.</b> ensure appropriate positioning of equipment, machinery, physical structures, and other objects for assembly or installation, using hand tools, ensure appropriate positioning of equipment, machinery, physical structures, and other objects for assembly or installation, using hand tools,	-	1	-	-
<b>PC6.</b> ensure appropriate condition of tools, equipment, and machines as per standard operating procedure	-	1	-	-
<b>PC7.</b> ensure cleaning or lubrication of engine components, equipment, instruments, tools, work areas, and other objects, using hand tools, power tools, and cleaning equipment as per the manufacturers manual	1	3	-	-
<b>PC8.</b> assist the mechanic in preparing parts list for procurement	-	1	-	-
<b>PC9.</b> work safely at all times, complying with health and safety and other relevant regulations, directives and guidelines	1	1	-	-
<b>PC10.</b> handle and dispose waste based on environmental guidelines at the work place	-	1	-	-
<b>PC11.</b> follow the maintenance schedule as per manufacturers manual	-	1	-	-



### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC12.</b> assist in replacing the scheduled spare parts as per mechanics instruction	-	1	-	-
<b>PC13.</b> assist in replenish / change the consumables	-	1	-	-
<b>PC14.</b> perform visual inspection to verify in appropriate sequence, for the engine, as per service manual, the following leakage from parts breakage of parts unusual noise under-rated performance	1	3	-	-
<b>PC15.</b> check the engine indication as per manufacturers manual	-	1	-	-
<b>PC16.</b> check air filter as per manufacturers manual	-	1	-	-
<b>PC17.</b> clean air filter as per manufacturers manual	1	1	-	-
<b>PC18.</b> check engine oil & coolant level as per manufacturers manual	1	1	-	-
<b>PC19.</b> report any instances where the parts need to be changed/repared as per companys guidelines	1	1	-	-
<b>PC20.</b> report any instances where the parts need to be changed/repared as per companys guidelines	-	1	-	-
<b>PC21.</b> assist in post repair trials as per mechanics instructions	-	1	-	-
<b>NOS Total</b>	<b>9</b>	<b>25</b>	-	-

## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	IES/N1102
<b>NOS Name</b>	Assist in repair and maintenance of equipments engine parts
<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>	1.0
<b>Last Reviewed Date</b>	31/03/2015
<b>Next Review Date</b>	31/03/2017
<b>NSQC Clearance Date</b>	18/06/2015

## Qualification Pack

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

#### Description

This unit provides Performance Criteria, Knowledge & Understanding and Skills & Ability for adhering to health and safety requirements at the service workshop during equipment maintenance.

#### Scope

This unit/task 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 safety, health, security and environment related regulations/ guidelines as per organizational/ manufacturers policy
- PC2.** carry out maintenance operations as per the manufacturers and workshop related health and safety guidelines/ standard operating procedures
- PC3.** follow safety regulations and procedures with regard to service workshop hazards and risks
- PC4.** use appropriate protective clothing/ equipment for specific tasks and work conditions as per service manual
- PC5.** lift and carry tools/equipment/components safely using correct procedure as per the service manual
- PC6.** use appropriate tools in a proper manner as given in the service manual
- PC7.** keep the work area free from clutter and spillage
- PC8.** store equipment and tools back at designated place post use and inspect to make sure they are not left behind
- PC9.** handle the storage and disposal of hazardous materials and waste in compliance with health, safety and environmental guidelines
- PC10.** operate various grades of fire extinguishers, as applicable
- PC11.** support in administering basic first aid and report to concerned team members, as required, in case of an accident
- PC12.** respond promptly and appropriately to an accident/ incident or emergency situation, within limits of your role and responsibility
- PC13.** record and report details related to operations, incidents or accidents, as applicable

#### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** health, safety, environmental(hse) and security related policies/ guidelines of the organization
- KU2.** the importance of complying with health, safety, environmental and security guidelines during workshop operations

## Qualification Pack

- KU3.** contact details of personnel responsible for health, safety and environment (she) related matters
- KU4.** location of workshop store, first aid station and safe assembly points
- KU5.** concerned personnel to reach out in case of emergencies and accidents/ incidents
- KU6.** reporting and documentation procedures for hse and security matters
- KU7.** manufacturers guidelines related to health and safety requirements
- KU8.** common types of health, safety, environment and security risks related to maintenance operations
- KU9.** types, use and importance of personal protective equipment (ppe) and other safety clothing
- KU10.** safe working practices to avoid common hazards and risks
- KU11.** safe working practices when working with tools and machines
- KU12.** safe working practices while working in different processes/ confined spaces
- KU13.** various dangers associated with the use of electrical equipment
- KU14.** various types of safety signs/ warnings and their meaning
- KU15.** guidelines for transport, storage and disposal of hazardous materials and waste
- KU16.** types of common hazards and risks at the workshop including fire, electrical, equipment related
- KU17.** knowledge of safe lockdown/ stop of machinery use in case of emergencies and incidents/ accidents
- KU18.** types of fire extinguishers and their use
- KU19.** common injuries and appropriate basic first aid treatment eg. electrical shock, bleeding, wounds, fractures, minor burns, eye injuries

## Generic Skills (GS)

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

- GS1.** document and report any health and safety related incidents/ accidents
- GS2.** read all organizational and equipment related health and safety manuals and documents
- GS3.** read instructions, guidelines/procedures/rules
- GS4.** give clear instructions to coworkers, subordinates and others
- GS5.** make decisions on a suitable course of action or response in the event of any emergency, health and safety related incidents/accidents
- GS6.** plan and organize own work schedule, work area, tools, equipment and materials to minimise any risk for health and safety related incident/accident
- GS7.** build and maintain positive and effective relationships with colleagues and customers
- GS8.** identify immediate or temporary solutions to resolve delays
- GS9.** seek appropriate assistance from other sources to resolve problems
- GS10.** identify 'cause and effect' relations in own area of work
- GS11.** apply balanced judgment to different situations
- GS12.** document and report any health and safety related incidents/ accidents
- GS13.** read all organizational and equipment related health and safety manuals and documents

## Qualification Pack

- GS14.** read instructions, guidelines/procedures/rules
- GS15.** give clear instructions to coworkers, subordinates and others
- GS16.** make decisions on a suitable course of action or response in the event of any emergency, health and safety related incidents/accidents
- GS17.** plan and organize own work schedule, work area, tools, equipment and materials to minimise any risk for health and safety related incident/accident
- GS18.** build and maintain positive and effective relationships with colleagues and customers
- GS19.** identify immediate or temporary solutions to resolve delays
- GS20.** seek appropriate assistance from other sources to resolve problems
- GS21.** identify 'cause and effect' relations in own area of work
- GS22.** apply balanced judgment to different situations

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Service workshop health and safety</i>	<b>7</b>	<b>19</b>	-	-
<b>PC1.</b> comply with safety, health, security and environment related regulations/ guidelines as per organizational/ manufacturers policy	1	1	-	-
<b>PC2.</b> carry out maintenance operations as per the manufacturers and workshop related health and safety guidelines/ standard operating procedures	-	3	-	-
<b>PC3.</b> follow safety regulations and procedures with regard to service workshop hazards and risks	1	1	-	-
<b>PC4.</b> use appropriate protective clothing/ equipment for specific tasks and work conditions as per service manual	1	1	-	-
<b>PC5.</b> lift and carry tools/equipment/components safely using correct procedure as per the service manual	1	3	-	-
<b>PC6.</b> use appropriate tools in a proper manner as given in the service manual	1	3	-	-
<b>PC7.</b> keep the work area free from clutter and spillage	1	1	-	-
<b>PC8.</b> store equipment and tools back at designated place post use and inspect to make sure they are not left behind	-	1	-	-
<b>PC9.</b> handle the storage and disposal of hazardous materials and waste in compliance with health, safety and environmental guidelines	-	1	-	-
<b>PC10.</b> operate various grades of fire extinguishers, as applicable	1	1	-	-
<b>PC11.</b> support in administering basic first aid and report to concerned team members, as required, in case of an accident	-	1	-	-
<b>PC12.</b> respond promptly and appropriately to an accident/ incident or emergency situation, within limits of your role and responsibility	-	1	-	-

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. record and report details related to operations, incidents or accidents, as applicable	-	1	-	-
<b>NOS Total</b>	<b>7</b>	<b>19</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>	3
<b>Credits</b>	TBD
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	31/03/2015
<b>Next Review Date</b>	31/03/2017
<b>NSQC Clearance Date</b>	18/06/2015

## 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

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.** ensure safe handling of materials, machinery, equipment and tools
- PC2.** assist in carrying out checks to ensure the environmental conditions required are met
- PC3.** follow correct lifting and handling procedures
- PC4.** follow instructions with regard to materials to minimize waste
- PC5.** ensure a clean and hazard free working area
- PC6.** maintain tools and equipment as per organization guidelines and manufacturers instructions
- PC7.** report the need for maintenance and/or cleaning outside your area of responsibility
- PC8.** report unsafe equipment and other dangerous occurrences
- PC9.** ensure good condition of the appropriate machine guards for equipment
- PC10.** ensure use of appropriate cleaning equipment and methods appropriate for the work to be carried out
- PC11.** carry out cleaning according to schedules and limits of responsibility
- PC12.** ensure safe disposal of waste.

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the organizations procedures and guidelines related to breakdown & maintenance services
- KU2.** the performance standards & procedures followed in the company
- KU3.** reporting structure in the company
- KU4.** escalation matrix for reporting unresolved problems
- KU5.** timeframe in which the complaint/problem should be resolved
- KU6.** work target and review mechanism with supervisor for obtaining/ giving feedback related to performance process
- KU7.** location of tools
- KU8.** contact person in case of queries on procedure or products

## Qualification Pack

- KU9.** location and process for storage and disposal of waste material
- KU10.** safety policy of the company the user/individual on the job needs to know and understand:
- KU11.** work instructions and specifications and interpret them accurately
- KU12.** lifting and handling procedures
- KU13.** the importance of taking action when problems are identified
- KU14.** different ways of minimizing waste
- KU15.** different types of machine guards for equipment
- KU16.** the importance of running maintenance and regular cleaning
- KU17.** effects of contamination on products i.e. machine oil, dirt
- KU18.** maintenance procedures and manufacturers instructions
- KU19.** different types of cleaning equipment/ substances and their use

## Generic Skills (GS)

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

- GS1.** write, as required, in english or vernacular language
- GS2.** read instructions, guidelines/procedures/rules
- GS3.** interact with the mechanic/ supervisors, as required, to seek clarifications and understand issues
- GS4.** evaluate the situation to decide on seeking assistance from superiors/ peers
- GS5.** organize and analyze information relevant to work
- GS6.** plan and organize work area, tools, equipment and materials to minimise any risk for health and safety related incident/accident
- GS7.** ensure that the service provided is of the highest order to ensure customer satisfaction
- GS8.** seek appropriate assistance from other sources to resolve problems
- GS9.** identify cause and effect relations in their area of work
- GS10.** write, as required, in english or vernacular language
- GS11.** read instructions, guidelines/procedures/rules
- GS12.** interact with the mechanic/ supervisors, as required, to seek clarifications and understand issues
- GS13.** evaluate the situation to decide on seeking assistance from superiors/ peers
- GS14.** organize and analyze information relevant to work
- GS15.** plan and organize work area, tools, equipment and materials to minimise any risk for health and safety related incident/accident
- GS16.** ensure that the service provided is of the highest order to ensure customer satisfaction
- GS17.** seek appropriate assistance from other sources to resolve problems
- GS18.** identify cause and effect relations in their area of work

## 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>7</b>	<b>16</b>	-	-
<b>PC1.</b> ensure safe handling of materials, machinery, equipment and tools	1	1	-	-
<b>PC2.</b> assist in carrying out checks to ensure the environmental conditions required are met	-	3	-	-
<b>PC3.</b> follow correct lifting and handling procedures	1	1	-	-
<b>PC4.</b> follow instructions with regard to materials to minimize waste	1	1	-	-
<b>PC5.</b> ensure a clean and hazard free working area	1	1	-	-
<b>PC6.</b> maintain tools and equipment as per organization guidelines and manufacturers instructions	1	3	-	-
<b>PC7.</b> report the need for maintenance and/or cleaning outside your area of responsibility	1	1	-	-
<b>PC8.</b> report unsafe equipment and other dangerous occurrences	-	1	-	-
<b>PC9.</b> ensure good condition of the appropriate machine guards for equipment	-	1	-	-
<b>PC10.</b> ensure use of appropriate cleaning equipment and methods appropriate for the work to be carried out	1	1	-	-
<b>PC11.</b> carry out cleaning according to schedules and limits of responsibility	-	1	-	-
<b>PC12.</b> ensure safe disposal of waste.	-	1	-	-
<b>NOS Total</b>	<b>7</b>	<b>16</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>	1.0
<b>Last Reviewed Date</b>	31/03/2015
<b>Next Review Date</b>	31/03/2017
<b>NSQC Clearance Date</b>	18/06/2015

## Qualification Pack

### Assessment Guidelines and Assessment Weightage

#### Assessment Guidelines

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

**Recommended Pass % : 70**

#### Assessment Weightage

##### Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
IES/N1102.Assist in repair and maintenance of equipments engine parts	9	25	-	-	34	41
IES/N7602.Comply with workshop health and safety guidelines	7	19	-	-	26	31
IES/N7801.Maintain the work area, tools and machine to support the operations	7	16	-	-	23	28



### Qualification Pack

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
<b>Total</b>	<b>23</b>	<b>60</b>	<b>-</b>	<b>-</b>	<b>83</b>	<b>100</b>



## 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.