

## Qualification Pack



# Junior Excavator Operator

QP Code: IES/Q0104

Version: 3.0

NSQF Level: 3

Infrastructure Equipment Skill Council || Jubilee Building – 2nd Floor, No.45, Museum Road  
Bengaluru - 560025



## Qualification Pack

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## Qualification Pack

### IES/Q0104: Junior Excavator Operator

#### Brief Job Description

A junior excavator operator assists an excavator operator to drive and control the excavator operations the movement and angle of the arm and the equipment. He assists in determining the angle and speed of the movements of the arm and bucket along the vertical axis.

#### Personal Attributes

This job requires the individual to have good hand eye coordination as also comply with industry regulations. Willingness to work, strong work ethics, and courteous behavior with co workers are equally desirable. He should also be physically agile, strong, have good eye sight and not suffer from colour-blindness.

#### Applicable National Occupational Standards (NOS)

##### Compulsory NOS:

1. [IES/N0110: Assist in carrying out pre-checks of an excavator](#)
2. [IES/N0111: Assist in operating an excavator](#)
3. [IES/N0112: Assist in regular maintenance of an excavator](#)
4. [IES/N7601: Comply with worksite health and safety](#)
5. [DGT/VSQ/N0101: Employability Skills \(30 Hours\)](#)

#### Qualification Pack (QP) Parameters

<b>Sector</b>	Infrastructure Equipment
<b>Sub-Sector</b>	Equipment Operations
<b>Occupation</b>	Operator
<b>Country</b>	India
<b>NSQF Level</b>	3
<b>Credits</b>	10
<b>Aligned to NCO/ISCO/ISIC Code</b>	NCO-2015/ 8342.2001

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<b>Minimum Educational Qualification &amp; Experience</b>	Ability to read and write with 5 Years of experience Relevant OR 5th Class with 4 Years of experience Relevant OR 8th Class with 1 Year of experience Relevant OR 8th grade pass with 1 year NTC plus 1 year NAC OR 8th grade pass and pursuing continuous schooling in regular school with vocational subject
<b>Minimum Level of Education for Training in School</b>	Not Applicable
<b>Pre-Requisite License or Training</b>	NA
<b>Minimum Job Entry Age</b>	18 Years
<b>Last Reviewed On</b>	NA
<b>Next Review Date</b>	17/11/2025
<b>NSQC Approval Date</b>	17/11/2022
<b>Version</b>	3.0
<b>Reference code on NQR</b>	2022/IS/IESC/06793
<b>NQR Version</b>	3.0

## Qualification Pack

### IES/N0110: Assist in carrying out pre-checks of an excavator

#### Description

This unit provides Performance Criteria, Knowledge & Understanding and Skills & Ability for activities that need to be carried out to prepare the excavator for a shift.

#### Scope

The scope covers the following :

- Assist in conducting pre-operation checks

#### Elements and Performance Criteria

##### *Assist in conducting pre operation checks*

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

- PC1.** abide with the supervisor's time limitations
- PC2.** assist in visual inspection of the body components for cracks and bearing wear
- PC3.** assist in checking the sprocket for worn or cracked teeth
- PC4.** assist in inspecting the boom, bucket and the stick for dents and cracked welds
- PC5.** grease all the pins, bushings and pivots points
- PC6.** inspect all ground engaging tools to ensure stability
- PC7.** assist in checking that oil levels of engine and radiant coolant are as per manufacturer's indicators
- PC8.** assist in checking hydraulic oil levels
- PC9.** assist in checking for leaks in the hydraulic hose and ram
- PC10.** carry out inspections to verify that the horn and worklights are in proper working order
- PC11.** check battery electrolyte level and terminal tightness
- PC12.** visually inspect the different controls, gauges, warning lights, and confirm that all safety and maintenance stickers are present
- PC13.** as needed, double-check and place any essential work signs
- PC14.** clean the footplates and steps to maintain them clean and free of mud, dirt, and grease
- PC15.** assist with the inspection and cleaning of the circle turn gear if necessary
- PC16.** ensure that the air filter dust bowls are clean, and that the gasket and inner filter are in good condition
- PC17.** drain water and sediment from the fuel tank
- PC18.** top up coolant and oil in engine if necessary, as per manufacturer's indicators
- PC19.** check fan belt tension

#### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

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- KU1.** the organization's breakdown and maintenance procedures and guidelines
- KU2.** the company's performance criteria and processes
- KU3.** reporting structure in the company
- KU4.** escalation matrix for reporting unresolved problems
- KU5.** schedule for resolving the complaint/problem
- KU6.** work goal and review mechanism with supervisor for obtaining/giving feedback on 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.** various excavators and their uses and functions
- KU12.** introduction to the engine and transmission, as well as their use and purpose
- KU13.** different types of hydraulic mechanisms
- KU14.** principles of friction
- KU15.** steering techniques and the proper technique to steer on a slope
- KU16.** the relevance of greasing and oiling excavator components that require routine lubrication
- KU17.** instrument panel / cabin controls, their location and operation
- KU18.** controls, levers and switches in order to operate the excavator properly
- KU19.** excavator components, such as the hoist, propel system, power train, hoist, boom & stick, and other attachments, must be in good operating order
- KU20.** optimal engine oil pressure, radiator coolant temperature
- KU21.** visual inspections are performed ahead of time to detect damage, flaws, cracks, or leaks

## Generic Skills (GS)

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

- GS1.** keep a note of any deviations or occurrences that do not conform to the established criteria
- GS2.** read and comprehend basic english to read manuals of operations
- GS3.** read instructions, guidelines/procedures/rules related to the worksite and equipment operations
- GS4.** give clear instructions to co-workers, subordinates and other personnel
- GS5.** when talking with your operator, utilize the right technical words
- GS6.** decide when to conduct maintenance checks
- GS7.** work with supervisors/ team mates to carry out work related tasks
- GS8.** plan work according to the required schedule and location
- GS9.** plan for cleaning and lubricating the excavator every day
- GS10.** examine, evaluate, and apply knowledge acquired from observation, experience, logic, or communication in order to act efficiently
- GS11.** problems that you are unable to address should be reported to the proper authority



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- GS12.** identify sources of support that can be availed for problem solving for various kinds of problems
- GS13.** evaluate the complexity of the tasks to determine for any assistance required from superior

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### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Assist in conducting pre operation checks</i>	<b>7</b>	<b>23</b>	-	-
<b>PC1.</b> abide with the supervisor's time limitations	-	1	-	-
<b>PC2.</b> assist in visual inspection of the body components for cracks and bearing wear	1	1	-	-
<b>PC3.</b> assist in checking the sprocket for worn or cracked teeth	-	2	-	-
<b>PC4.</b> assist in inspecting the boom, bucket and the stick for dents and cracked welds	1	1	-	-
<b>PC5.</b> grease all the pins, bushings and pivots points	-	2	-	-
<b>PC6.</b> inspect all ground engaging tools to ensure stability	-	1	-	-
<b>PC7.</b> assist in checking that oil levels of engine and radiant coolant are as per manufacturer's indicators	-	1	-	-
<b>PC8.</b> assist in checking hydraulic oil levels	-	1	-	-
<b>PC9.</b> assist in checking for leaks in the hydraulic hose and ram	1	1	-	-
<b>PC10.</b> carry out inspections to verify that the horn and worklights are in proper working order	1	1	-	-
<b>PC11.</b> check battery electrolyte level and terminal tightness	1	1	-	-
<b>PC12.</b> visually inspect the different controls, gauges, warning lights, and confirm that all safety and maintenance stickers are present	1	1	-	-
<b>PC13.</b> as needed, double-check and place any essential work signs	-	1	-	-
<b>PC14.</b> clean the footplates and steps to maintain them clean and free of mud, dirt, and grease	-	1	-	-
<b>PC15.</b> assist with the inspection and cleaning of the circle turn gear if necessary	-	1	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC16.</b> ensure that the air filter dust bowls are clean, and that the gasket and inner filter are in good condition	1	1	-	-
<b>PC17.</b> drain water and sediment from the fuel tank	-	2	-	-
<b>PC18.</b> top up coolant and oil in engine if necessary, as per manufacturer's indicators	-	2	-	-
<b>PC19.</b> check fan belt tension	-	1	-	-
<b>NOS Total</b>	<b>7</b>	<b>23</b>	-	-

## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	IES/N0110
<b>NOS Name</b>	Assist in carrying out pre-checks of an excavator
<b>Sector</b>	Infrastructure Equipment
<b>Sub-Sector</b>	Equipment Operations
<b>Occupation</b>	Operator
<b>NSQF Level</b>	3
<b>Credits</b>	2
<b>Version</b>	3.0
<b>Last Reviewed Date</b>	NA
<b>Next Review Date</b>	17/11/2025
<b>NSQF Clearance Date</b>	17/11/2022

## Qualification Pack

### IES/N0111: Assist in operating an excavator

#### Description

This unit provides Performance Criteria, Knowledge & Understanding and Skills & Ability for activities that are required for assisting in operating an excavator.

#### Scope

The scope covers the following :

- Assist in performing excavation and loading of the material.
- Assist in dumping of the material.

#### Elements and Performance Criteria

##### *Assist in performing loading and hauling of the load*

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

- PC1.** assist in examining the jobsite for loose soil, concealed deep ditches, or marshy spots where the excavator might become trapped
- PC2.** assist in identifying and choosing the proper attachment to be required for the task at hand on the job site
- PC3.** report any issues/problems encountered while operating the excavator to the supervisor
- PC4.** assist in taking precaution for hazards such as trenches, potholes and cables
- PC5.** abide with the supervisor's time limitations
- PC6.** make sure that no other operators travel on or near the excavator
- PC7.** maintain a safe distance from other plants and vehicles
- PC8.** ensure that excavator is always parked on firm, level ground and drive controls disengaged
- PC9.** assist the operator to look out for people working and hazards such as trenches, potholes and cables

#### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the organization's breakdown and maintenance procedures and guidelines
- KU2.** the company's performance criteria and processes
- KU3.** reporting structure in the company
- KU4.** escalation matrix for reporting unresolved problems
- KU5.** schedule for resolving the complaint / problem
- KU6.** work goal and review mechanism with supervisor for obtaining/giving feedback on performance process
- KU7.** location of tools
- KU8.** contact person in case of queries on procedure or products

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- KU9.** location and process for storage and disposal of waste material
- KU10.** safety policy of the company
- KU11.** various excavators and their uses and functions
- KU12.** appropriate usage of various attachments such as excavation bucket, extreme excavation bucket, skeleton bucket, ditch cleaning bucket, tiltable ditch cleaning bucket, trapezoidal bucket, quick couplers, pin grabber plus quick coupler, hammers, rock breaker, contractors grapples, demolition and sorting grapples, orange peel grapples direct fit, breakers, teeth and adapters etc.
- KU13.** differentiate between several attachment types
- KU14.** introduction to the engine and transmission, as well as their use and purpose
- KU15.** different types of hydraulic mechanisms
- KU16.** principles of friction
- KU17.** steering mechanisms and correct way of steering on slopes
- KU18.** significance of greasing and oiling, parts if excavator that need routine lubrication
- KU19.** instrument panel / cabin controls, their location and operation
- KU20.** controls, levers and switches in order to operate the excavator properly
- KU21.** excavator components, such as the boom, stick, bucket and other attachments must be in good operating order
- KU22.** optimal engine oil pressure, radiator coolant temperature
- KU23.** visual inspections are performed ahead of time to detect damage, flaws, cracks, or leaks
- KU24.** the location and procedure of using the emergency stop button
- KU25.** the risks of excavating in the vicinity of misfired shots
- KU26.** all safety signs and other emergency signals
- KU27.** correct maintenance procedures for excavator
- KU28.** response to emergencies e.g. correct way to use fire extinguisher

## Generic Skills (GS)

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

- GS1.** record of any deviations or occurrences that do not conform to the specified standards
- GS2.** read and comprehend basic english to read manuals of operations
- GS3.** understand stakes and signs on the road and on the job site
- GS4.** read instructions, guidelines / procedures / rules related to the worksite and equipment operations
- GS5.** communicate efficiently with operators to explain instructions and other concerns
- GS6.** when talking with your supervisor, utilize the right technical words
- GS7.** examine the excavator for any damage or defective components and take appropriate measures
- GS8.** carry out job duties in accordance with the operator's / supervisor's directions and deadlines
- GS9.** plan work according to the required schedule and location



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- GS10.** examine, evaluate, and apply knowledge acquired from observation, experience, logic, or communication in order to act efficiently
- GS11.** report problems that you cannot resolve to appropriate authority
- GS12.** Identify sources of support that may be used to solve challenges of various types
- GS13.** evaluate the complexity of the tasks to determine if he/she needs any assistance from the senior

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Assist in performing loading and hauling of the load</i>	<b>5</b>	<b>15</b>	-	-
<b>PC1.</b> assist in examining the jobsite for loose soil, concealed deep ditches, or marshy spots where the excavator might become trapped	1	1	-	-
<b>PC2.</b> assist in identifying and choosing the proper attachment to be required for the task at hand on the job site	2	2	-	-
<b>PC3.</b> report any issues/problems encountered while operating the excavator to the supervisor	-	2	-	-
<b>PC4.</b> assist in taking precaution for hazards such as trenches, potholes and cables	-	2	-	-
<b>PC5.</b> abide with the supervisor's time limitations	-	2	-	-
<b>PC6.</b> make sure that no other operators travel on or near the excavator	1	1	-	-
<b>PC7.</b> maintain a safe distance from other plants and vehicles	-	2	-	-
<b>PC8.</b> ensure that excavator is always parked on firm, level ground and drive controls disengaged	-	2	-	-
<b>PC9.</b> assist the operator to look out for people working and hazards such as trenches, potholes and cables	1	1	-	-
<b>NOS Total</b>	<b>5</b>	<b>15</b>	-	-

## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	IES/N0111
<b>NOS Name</b>	Assist in operating an excavator
<b>Sector</b>	Infrastructure Equipment
<b>Sub-Sector</b>	Equipment Operations
<b>Occupation</b>	Operator
<b>NSQF Level</b>	3
<b>Credits</b>	4
<b>Version</b>	3.0
<b>Last Reviewed Date</b>	NA
<b>Next Review Date</b>	17/11/2025
<b>NSQF Clearance Date</b>	17/11/2022

## Qualification Pack

### IES/N0112: Assist in regular maintenance of an excavator

#### Description

This unit provides Performance Criteria, Knowledge & Understanding and Skills & Ability for activities that are required for assisting in performing routine maintenance and troubleshooting on the excavator.

#### Scope

The scope covers the following :

- Assist in routine maintenance.
- Assist in basic diagnostics and troubleshooting.
- Documentation and Reporting

#### Elements and Performance Criteria

##### *Assist in routine maintenance*

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

- PC1.** assist in monitoring machine working hours allows you to determine the best service plan
- PC2.** at regular intervals, clean the air filter dust bowls
- PC3.** at regular intervals, clean the footplates, pedals, and stairs of mud, grime, ice, and snow
- PC4.** at regular interval, drain the water and debris from the fuel tank
- PC5.** replenish coolants, lubricants and fluids everyday
- PC6.** grease all greasing pins and pivot points everyday
- PC7.** check battery levels and terminal condition, and make small changes as needed
- PC8.** if a fault is found that is outside the scope of his duty, notify the supervisor immediately
- PC9.** before performing any repair, be certain that the machine is on firm and level ground
- PC10.** assist in timely completion of daily/ weekly maintenance sheets as provided by the company

##### *Maintenance Work assistance*

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

- PC11.** while doing maintenance, be sure that appropriate props / support devices are utilized and that the bucket is not lifted
- PC12.** make sure that no engine repair is conducted while the engine is running or remains hot
- PC13.** when a situation is beyond his capabilities, he should analyze it and report it to appropriately skilled and competent individuals
- PC14.** handle and dispose waste based on environmental guidelines at the work place
- PC15.** adhere to the reporting procedures established by the employer

#### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the organization's breakdown and repair processes and guidelines



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- KU2.** the company's performance criteria and processes
- KU3.** reporting structure in the company
- KU4.** escalation matrix for reporting unresolved problems
- KU5.** schedule for resolving the complaint/problem
- KU6.** work goal and review mechanism with supervisor for obtaining/giving feedback on 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

## Generic Skills (GS)

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

- GS1.** keep a record of any deviations or occurrences that do not conform to the specified standards
- GS2.** read and comprehend basic english to read manuals of operations
- GS3.** read instructions, guidelines / procedures / rules related to the worksite and equipment operations
- GS4.** give clear instructions to co-workers, subordinates and other personnel
- GS5.** when talking with your operator or other personnel, utilize the right technical words
- GS6.** decide when to conduct maintenance checks
- GS7.** evaluate the decision and conduct basic trouble shooting
- GS8.** follow the instructions of Operator / supervisors / team mates to carryout work related tasks
- GS9.** plan work according to the required schedule and location
- GS10.** plan for regular maintenance on a daily basis before machine operations
- GS11.** deliver first-class service to ensure client satisfaction
- GS12.** identify immediate or temporary solutions to resolve mechanical issues
- GS13.** investigate possible methods to enhance operational efficiency
- GS14.** evaluate the complexity of the tasks to determine if he/she needs any assistance from the senior
- GS15.** check for damages and diagnose common problems in the excavator and take relevant action
- GS16.** examine, evaluate, and apply knowledge acquired from observation, experience, logic, or communication in order to act efficiently

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Assist in routine maintenance</i>	<b>6</b>	<b>14</b>	-	-
<b>PC1.</b> assist in monitoring machine working hours allows you to determine the best service plan	1	1	-	-
<b>PC2.</b> at regular intervals, clean the air filter dust bowls	1	1	-	-
<b>PC3.</b> at regular intervals, clean the footplates, pedals, and stairs of mud, grime, ice, and snow	-	2	-	-
<b>PC4.</b> at regular interval, drain the water and debris from the fuel tank	-	2	-	-
<b>PC5.</b> replenish coolants, lubricants and fluids everyday	1	1	-	-
<b>PC6.</b> grease all greasing pins and pivot points everyday	-	2	-	-
<b>PC7.</b> check battery levels and terminal condition, and make small changes as needed	-	2	-	-
<b>PC8.</b> if a fault is found that is outside the scope of his duty, notify the supervisor immediately	1	1	-	-
<b>PC9.</b> before performing any repair, be certain that the machine is on firm and level ground	-	2	-	-
<b>PC10.</b> assist in timely completion of daily/ weekly maintenance sheets as provided by the company	2	-	-	-
<i>Maintenance Work assistance</i>	<b>3</b>	<b>7</b>	-	-
<b>PC11.</b> while doing maintenance, be sure that appropriate props / support devices are utilized and that the bucket is not lifted	-	2	-	-
<b>PC12.</b> make sure that no engine repair is conducted while the engine is running or remains hot	-	2	-	-
<b>PC13.</b> when a situation is beyond his capabilities, he should analyze it and report it to appropriately skilled and competent individuals	2	-	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC14.</b> handle and dispose waste based on environmental guidelines at the work place	-	2	-	-
<b>PC15.</b> adhere to the reporting procedures established by the employer	1	1	-	-
<b>NOS Total</b>	<b>9</b>	<b>21</b>	-	-

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### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	IES/N0112
<b>NOS Name</b>	Assist in regular maintenance of an excavator
<b>Sector</b>	Infrastructure Equipment
<b>Sub-Sector</b>	Equipment Operations
<b>Occupation</b>	Operator
<b>NSQF Level</b>	3
<b>Credits</b>	2
<b>Version</b>	3.0
<b>Last Reviewed Date</b>	NA
<b>Next Review Date</b>	17/11/2025
<b>NSQF Clearance Date</b>	17/11/2022

## Qualification Pack

### IES/N7601: Comply with worksite health and safety

#### Description

This unit is about adhering to health and safety requirements at the worksite during equipment operations.

#### Scope

The scope covers the following :

- Worksite health and safety

#### Elements and Performance Criteria

##### *Worksite 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 at the work site
- PC2.** use personal protective equipment (ppe) and other safety gear as applicable to the equipment and the worksite
- PC3.** Follow safety measures during operations to ensure that the health and safety of self or others (including members of the public) is not at risk
- PC4.** Carry out operations as per the manufacturer's and worksite related health and safety guidelines
- PC5.** Handle the transport, storage and disposal of hazardous materials and waste in compliance with worksite health, safety and environmental guidelines
- PC6.** operate various grades of fire extinguishers, as applicable
- PC7.** support in administering basic first aid and report to concerned team members, as required, in case of an accident
- PC8.** respond promptly and appropriately to an accident/ incident or emergency, within limits of your role and responsibility
- PC9.** 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 and the worksite and its importance
- KU2.** personnel responsible for health, safety and environment (HSE) related matters and their contact details
- KU3.** location of worksite storage, she team and safe assembly points
- KU4.** reporting and documentation procedures for HSE and security matters
- KU5.** manufacturers guidelines related to health and safety requirements

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- KU6.** common types of health, safety, environment and security risks related to the worksite and operations
- KU7.** types, use and importance of personal protective equipment (PPE) and other safety gear
- KU8.** safe working practices to avoid common hazards and risks
- KU9.** guidelines for transport, storage and disposal of hazardous materials and waste
- KU10.** types of common hazards and risks at the worksite including fire, electrical, gas emergencies, accidents, incidents, structure collapse, machine breakdown
- KU11.** knowledge of safe lockdown/stop of machinery use in case of emergencies and incidents/accidents
- KU12.** types of fire extinguishers and their use
- KU13.** common injuries and appropriate basic first aid treatment e.g. 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 and comprehend basic English to read manuals of operations
- GS3.** read all organizational and equipment related health and safety manuals and documents
- GS4.** read instructions, guidelines / procedures /rules related to the worksite and equipment operations
- GS5.** Give clear instructions to co-workers, subordinates and other personnel
- GS6.** Use correct technical terms while interacting with supervisor
- GS7.** Make an appropriate timely decision in responding to emergencies/accidents in line with organizational/worksite guidelines
- GS8.** Use correct PPE and other safety gear while at the worksite
- GS9.** Work with supervisors/ team mates to carry out work related tasks
- GS10.** Plan work according to the required schedule and location
- GS11.** Build and maintain positive and effective relationships with colleagues and customers
- GS12.** Seek appropriate assistance from other sources to resolve problems
- GS13.** Assess the intensity of the fire accident and operate fire extinguishers
- GS14.** Analyse, evaluate and apply the information gathered from observation, experience, reasoning, or communication to act efficiently

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### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Worksite health and safety</i>	<b>5</b>	<b>10</b>	-	-
<b>PC1.</b> Comply with safety, health, security and environment related regulations/guidelines at the work site	0.5	1	-	-
<b>PC2.</b> use personal protective equipment (ppe) and other safety gear as applicable to the equipment and the worksite	0.5	1	-	-
<b>PC3.</b> Follow safety measures during operations to ensure that the health and safety of self or others (including members of the public) is not at risk	0.5	1	-	-
<b>PC4.</b> Carry out operations as per the manufacturer's and worksite related health and safety guidelines	0.5	1	-	-
<b>PC5.</b> Handle the transport, storage and disposal of hazardous materials and waste in compliance with worksite health, safety and environmental guidelines	1	1	-	-
<b>PC6.</b> operate various grades of fire extinguishers, as applicable	0.5	2	-	-
<b>PC7.</b> support in administering basic first aid and report to concerned team members, as required, in case of an accident	0.5	1	-	-
<b>PC8.</b> respond promptly and appropriately to an accident/ incident or emergency, within limits of your role and responsibility	0.5	1	-	-
<b>PC9.</b> record and report details related to operations, incidents or accidents, as applicable	0.5	1	-	-
<b>NOS Total</b>	<b>5</b>	<b>10</b>	-	-

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### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	IES/N7601
<b>NOS Name</b>	Comply with worksite health and safety
<b>Sector</b>	Infrastructure Equipment
<b>Sub-Sector</b>	Equipment Operations
<b>Occupation</b>	Operator
<b>NSQF Level</b>	4
<b>Credits</b>	1
<b>Version</b>	3.0
<b>Last Reviewed Date</b>	NA
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## Qualification Pack

### DGT/VSQ/N0101: Employability Skills (30 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
- 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.** understand the significance of employability skills in meeting the job requirements

##### *Constitutional values - Citizenship*

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

**PC2.** identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices

##### *Becoming a Professional in the 21st Century*

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

**PC3.** explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.

##### *Basic English Skills*

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

**PC4.** speak with others using some basic English phrases or sentences

##### *Communication Skills*

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

**PC5.** follow good manners while communicating with others

**PC6.** work with others in a team

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### *Diversity & Inclusion*

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

**PC7.** communicate and behave appropriately with all genders and PwD

**PC8.** report any issues related to sexual harassment

### *Financial and Legal Literacy*

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

**PC9.** use various financial products and services safely and securely

**PC10.** calculate income, expenses, savings etc.

**PC11.** approach the concerned authorities for any exploitation as per legal rights and laws

### *Essential Digital Skills*

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

**PC12.** operate digital devices and use its features and applications securely and safely

**PC13.** use internet and social media platforms securely and safely

### *Entrepreneurship*

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

**PC14.** identify and assess opportunities for potential business

**PC15.** identify sources for arranging money and associated financial and legal challenges

### *Customer Service*

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

**PC16.** identify different types of customers

**PC17.** identify customer needs and address them appropriately

**PC18.** follow appropriate hygiene and grooming standards

### *Getting ready for apprenticeship & Jobs*

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

**PC19.** create a basic biodata

**PC20.** search for suitable jobs and apply

**PC21.** identify and register apprenticeship opportunities as per requirement

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

**KU1.** need for employability skills

**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 basic spoken English language

**KU6.** Do and dont of effective communication

**KU7.** inclusivity and its importance

**KU8.** different types of disabilities and appropriate communication and behaviour towards PwD

**KU9.** different types of financial products and services

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- KU10.** how to compute income and expenses
- KU11.** importance of maintaining safety and security in financial transactions
- KU12.** different legal rights and laws
- KU13.** how to operate digital devices and applications safely and securely
- KU14.** ways to identify business opportunities
- KU15.** types of customers and their needs
- KU16.** how to apply for a job and prepare for an interview
- KU17.** apprenticeship scheme and the process of registering on apprenticeship portal

## Generic Skills (GS)

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

- GS1.** communicate effectively using appropriate language
- GS2.** behave politely and appropriately with all
- GS3.** perform basic calculations
- GS4.** solve problems effectively
- GS5.** be careful and attentive at work
- GS6.** use time effectively
- GS7.** maintain hygiene and sanitisation to avoid infection

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Introduction to Employability Skills</i>	<b>1</b>	<b>1</b>	-	-
<b>PC1.</b> understand the significance of employability skills in meeting the job requirements	-	-	-	-
<i>Constitutional values - Citizenship</i>	<b>1</b>	<b>1</b>	-	-
<b>PC2.</b> identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices	-	-	-	-
<i>Becoming a Professional in the 21st Century</i>	<b>1</b>	<b>3</b>	-	-
<b>PC3.</b> explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.	-	-	-	-
<i>Basic English Skills</i>	<b>2</b>	<b>3</b>	-	-
<b>PC4.</b> speak with others using some basic English phrases or sentences	-	-	-	-
<i>Communication Skills</i>	<b>1</b>	<b>1</b>	-	-
<b>PC5.</b> follow good manners while communicating with others	-	-	-	-
<b>PC6.</b> work with others in a team	-	-	-	-
<i>Diversity &amp; Inclusion</i>	<b>1</b>	<b>1</b>	-	-
<b>PC7.</b> communicate and behave appropriately with all genders and PwD	-	-	-	-
<b>PC8.</b> report any issues related to sexual harassment	-	-	-	-
<i>Financial and Legal Literacy</i>	<b>3</b>	<b>4</b>	-	-
<b>PC9.</b> use various financial products and services safely and securely	-	-	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC10.</b> calculate income, expenses, savings etc.	-	-	-	-
<b>PC11.</b> approach the concerned authorities for any exploitation as per legal rights and laws	-	-	-	-
<i>Essential Digital Skills</i>	<b>4</b>	<b>6</b>	-	-
<b>PC12.</b> operate digital devices and use its features and applications securely and safely	-	-	-	-
<b>PC13.</b> use internet and social media platforms securely and safely	-	-	-	-
<i>Entrepreneurship</i>	<b>3</b>	<b>5</b>	-	-
<b>PC14.</b> identify and assess opportunities for potential business	-	-	-	-
<b>PC15.</b> identify sources for arranging money and associated financial and legal challenges	-	-	-	-
<i>Customer Service</i>	<b>2</b>	<b>2</b>	-	-
<b>PC16.</b> identify different types of customers	-	-	-	-
<b>PC17.</b> identify customer needs and address them appropriately	-	-	-	-
<b>PC18.</b> follow appropriate hygiene and grooming standards	-	-	-	-
<i>Getting ready for apprenticeship &amp; Jobs</i>	<b>1</b>	<b>3</b>	-	-
<b>PC19.</b> create a basic biodata	-	-	-	-
<b>PC20.</b> search for suitable jobs and apply	-	-	-	-
<b>PC21.</b> identify and register apprenticeship opportunities as per requirement	-	-	-	-
<b>NOS Total</b>	<b>20</b>	<b>30</b>	-	-

## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	DGT/VSQ/N0101
<b>NOS Name</b>	Employability Skills (30 Hours)
<b>Sector</b>	Cross Sectoral
<b>Sub-Sector</b>	Professional Skills
<b>Occupation</b>	Employability
<b>NSQF Level</b>	2
<b>Credits</b>	1
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	NA
<b>Next Review Date</b>	27/05/2024
<b>NSQC Clearance Date</b>	27/05/2021

## 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.

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

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

### Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
IES/N0110.Assist in carrying out pre-checks of an excavator	7	23	-	-	30	30
IES/N0111.Assist in operating an excavator	5	15	-	-	20	20
IES/N0112.Assist in regular maintenance of an excavator	9	21	-	-	30	20
IES/N7601.Comply with worksite health and safety	5	10	-	-	15	15
DGT/VSQ/N0101.Employability Skills (30 Hours)	20	30	-	-	50	15
<b>Total</b>	<b>46</b>	<b>99</b>	<b>-</b>	<b>-</b>	<b>145</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.

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<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.