









Junior Paver Operator/Screedman

QP Code: IES/Q0121

Version: 3.0

NSQF Level: 3

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







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IES/Q0121: Junior Paver Operator/Screedman

Brief Job Description

A junior paver operator/screedman assists in operating the screed of the paver vehicle, controls the quantity and consistency of asphalt that is deposited. He is required to assist the operator in performing the operations on the site.

Personal Attributes

The job requires an individual to be physically agile, strong and should have good eye sight. He should maintain constant alertness to the multiple concurrent activities of paver operations, including the activities of other employees, contractors, labourers etc. He should possess basic math skills and is required to be mentally alert at all times.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

- 1. IES/N0161: Assist in carrying out Pre-operational checks on the paver
- 2. IES/N0162: Assist in operating a paver
- 3. IES/N0163: Assist in regular maintenance of the paver
- 4. IES/N7601: Comply with worksite health and safety
- 5. DGT/VSQ/N0101: Employability Skills (30 Hours)

Qualification Pack (QP) Parameters

Sector	Infrastructure Equipment
Sub-Sector	Equipment Operations
Occupation	Operator
Country	India
NSQF Level	3
Credits	10
Aligned to NCO/ISCO/ISIC Code	NCO-2015/ 8342.1800









Ability to read and write with 5 Years of experience Relevant OR Sh grade pass with 4 Years of experience OR Sh grade pass with 1 Year of experience OR Sh grade pass and pursuing continuous schoolingMinimu Level of Education for Training in Pre-Requisite License or TrainingNaMinimun Job Entry AgeNaIst Review DateNaMat Review DateNaStock Approval Date1/11/2025Version3.0Reference code on NQR3.0		
SchoolNAPre-Requisite License or TrainingNAMinimun Job Entry Age18 YearsLast Reviewed OnNANext Review Date17/11/2025NSQC Approval Date3.0Version3.0Reference code on NQRининининининининининининининининининин	Minimum Educational Qualification & Experience	experience Relevant OR 5th grade pass with 4 Years of experience Relevant OR 8th grade pass 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
Minimum Job Entry Age18 YearsLast Reviewed OnNANext Review Date17/11/2025NSQC Approval Date17/11/2022Version3.0Reference code on NQR2022/IS/IESC/06803		
Last Reviewed OnNANext Review Date17/11/2025NSQC Approval Date17/11/2022Version3.0Reference code on NQR2022/IS/IESC/06803	Pre-Requisite License or Training	NA
Next Review Date17/11/2025NSQC Approval Date17/11/2022Version3.0Reference code on NQR2022/IS/IESC/06803	Minimum Job Entry Age	18 Years
NSQC Approval Date 17/11/2022 Version 3.0 Reference code on NQR 2022/IS/IESC/06803	Last Reviewed On	NA
Version 3.0 Reference code on NQR 2022/IS/IESC/06803	Next Review Date	17/11/2025
Reference code on NQR 2022/IS/IESC/06803	NSQC Approval Date	17/11/2022
	Version	3.0
NQR Version 3.0	Reference code on NQR	2022/IS/IESC/06803
	NQR Version	3.0







IES/N0161: Assist in carrying out Pre-operational checks on the paver

Description

This unit provides insight into activities that need to be carried out to assist pre-operational checks on screed in paver machines.

Scope

The scope covers the following :

- Pre-operational checks
- Reporting and documentation

Elements and Performance Criteria

Pre-operational checks

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

- PC1. visually check the machine for any damaged, missing or malfunctioning parts
- PC2. check that all the instruction and safety labels are in place and readable
- **PC3.** assist in inspecting general hydraulic hoses/fittings for leaks in the paver per the operator's instructions
- PC4. inspect screed for excessive wear as per the operational manual
- **PC5.** inspect screed heaters and gas lines for serviceability in accordance with the operator's instructions
- PC6. inspect screed plate, tamping bar and screed attack angle for any damages
- **PC7.** in accordance with the operator's instructions, inspect the crown jack and its mountings for excessive play
- PC8. examine the mat thickness adjustment screws for smooth functioning
- **PC9.** check the various controls-augers, screed, sensing and control equipment as per instructions from the operator
- PC10. check for the bolt tightness on screed for free plying a per instructions from the operator

Reporting and documentation

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

- **PC11.** maintain a inspection/maintenance logbook to record all activities performed before starting the operation
- **PC12.** notify the supervisor immediately if a defect is discovered that is outside the scope of the position

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1. the organizations procedures and guidelines related to backhoe loader operations
- KU2. reporting structure in the company

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- KU3. schedule for resolving the complaint/problem
- KU4. contact person in case of queries on procedure or products
- **KU5.** location and process for storage and disposal of waste material
- KU6. safety policy of the company; includes the customer and manufacturer policy
- **KU7.** location of tools
- KU8. types of pavers wheeled pavers tracked pavers
- KU9. primary parts of paver tractor unit screed unit
- **KU10.** components of tractor unit and screed unit and its functioning truck push rollers mixture receiving hopper material flow gates two slat conveyors and a pair of distributor augers burners, rod-extensions and auger extension flights, strike-off plates and safety guards for the auger tunnel match-height straight line indicator rod kept below the push rollers in from of machine vibration, pressure bar and tamping system on the screed
- **KU11.** paver attachments and their applications reference ski / big-ski cut-off plates / strike-off plates auger tunnel extension plates, screed and auger extensions, and safety guard frames lighting at night Sensor system that operates automatically (includes the grade and slope sensor and the controller units)
- KU12. basic hydroelectrical operation and maintenance
- KU13. screed mechanism and its uses
- KU14. procedure of filling diesel, coolant in the machine
- KU15. the various types of hand signals used on the site
- **KU16.** different types of machine guards for equipment

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. comprehend basic sign and symbols at the worksite
- **GS4.** when talking with your supervisor, utilize the right technical words
- GS5. decide when to conduct maintenance checks
- GS6. work with supervisors/ team mates to carry out work related tasks
- **GS7.** plan for cleaning and lubricating the appropriate equipment every day
- GS8. deliver first-rate service to ensure client satisfaction
- GS9. identify immediate or temporary solutions to resolve mechanical issues
- GS10. judge when to seek assistance from supervisor
- GS11. determine cause and effect relationships in his field of employment
- **GS12.** examine, evaluate and apply knowledge acquired from observation, experience, logic or communication in order to act efficiently







Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Pre-operational checks	9	20	-	-
PC1. visually check the machine for any damaged, missing or malfunctioning parts	1	2	-	-
PC2. check that all the instruction and safety labels are in place and readable	0.5	2	-	-
PC3. assist in inspecting general hydraulic hoses/fittings for leaks in the paver per the operator's instructions	1	2	-	-
PC4. inspect screed for excessive wear as per the operational manual	1	2	-	-
PC5. inspect screed heaters and gas lines for serviceability in accordance with the operator's instructions	1	2	-	-
PC6. inspect screed plate, tamping bar and screed attack angle for any damages	1	2	-	-
PC7. in accordance with the operator's instructions, inspect the crown jack and its mountings for excessive play	1	2	-	-
PC8. examine the mat thickness adjustment screws for smooth functioning	1	2	-	-
PC9. check the various controls-augers, screed, sensing and control equipment as per instructions from the operator	1	2	-	-
PC10. check for the bolt tightness on screed for free plying a per instructions from the operator	0.5	2	-	-
Reporting and documentation	2	4	-	-
PC11. maintain a inspection/maintenance logbook to record all activities performed before starting the operation	1	2	-	-
PC12. notify the supervisor immediately if a defect is discovered that is outside the scope of the position	1	2	-	_









Assessment Criteria for Outcomes	Theory	Practical	Project	Viva
	Marks	Marks	Marks	Marks
NOS Total	11	24	-	-









National Occupational Standards (NOS) Parameters

NOS Code	IES/N0161
NOS Name	Assist in carrying out Pre-operational checks on the paver
Sector	Infrastructure Equipment
Sub-Sector	Equipment Operations
Occupation	Operator
NSQF Level	3
Credits	2
Version	3.0
Last Reviewed Date	NA
Next Review Date	17/11/2025
NSQC Clearance Date	17/11/2022







IES/N0162: Assist in operating a paver

Description

This unit provides insight into activities that are required for operating screed in paver machine

Scope

The scope covers the following :

- Screed Operations
- Reporting and documentation

Elements and Performance Criteria

Screed Operations

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

- **PC1.** ascertain that the screed is clean and appropriately set for the type of pavement to be finished, such as crown, cross-slope, and so on
- **PC2.** assist in pre-heating the paving screed prior to asphalt installation determine the screedplate angle of attack, location of pre-strike-off plates and other components
- **PC3.** monitor and control temperature settings of the asphalt mixture as per instructions from the operator
- **PC4.** adjust the screed paving reference components to the project specification, paving, width, depth (thickness), grade and slope in accordance with manufacturers instructions
- **PC5.** ensure good contact between the gates and the paved surface in accordance with the requirements
- PC6. check the thickness of the mat and adjust the settings as needed to maintain yield
- PC7. adjust springs and chains for clearance as per instructions from the operator
- PC8. assist the paver operator to fill the auger chamber
- PC9. check mat thickness and adjust controls as needed to maintain yield
- **PC10.** control the direction of the screed and the distribution of asphalt materials along the screed to eliminate voids at curbs and junctions
- PC11. assist in navigating the direction of the paver as per the requirement of the surface
- **PC12.** operate and manipulate cranks and tow points on the back of the asphalt machine that spreads and levels asphaltic concrete on surfaces
- **PC13.** examine the distribution of asphalt materials from the hopper to the conveyor and to the auger along the breadth of the screed
- **PC14.** assist the paver operator in attaching extensions to screed to adjust width as per the requirement
- **PC15.** carryout adding or removing accessories associated with asphalt equipment as per instructions from the operator

PC16. inform operator/ supervisor of any screed problems during paver operations *Reporting and documentation*







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

PC17. help the operator in documenting input and output flow in accordance with the organization's intended formats

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 company's performance criteria and processes
- KU3. reporting structure in the company
- **KU4.** schedule for resolving the complaint/problem
- KU5. contact person in case of queries on procedure or products
- KU6. location and process for storage and disposal of waste material
- KU7. safety policy of the company; includes the customer and manufacturer policy
- KU8. types of pavers wheeled pavers tracked pavers
- KU9. primary parts of paver tractor unit screed unit
- **KU10.** components of tractor unit and screed unit and its functioning truck push rollers, mixture receiving hopper, material flow gates, two slat conveyors and a pair of distributor augers.- burners, rod-extensions and auger extension flights, strike-off plates and safety guards for the auger tunnel match-height straight line indicator rod kept below the push rollers in from of machine vibration, pressure bar and tamping system on the screed
- KU11. paver attachments and their applications reference ski / big-ski cut-off plates / strike-off plates auger tunnel extension plates, screed and auger extensions, and safety guard frames lighting at night Sensor system that operates automatically (includes the grade and slope sensor and the controller units)
- KU12. road layers, materials and characteristics
- KU13. screed mechanism and its uses
- KU14. the various types of hand signals used on the site
- KU15. different types of machine guards for equipment
- KU16. road safety rules and signs

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.** comprehend basic sign and symbols at the worksite
- **GS4.** give clear instructions to co-workers, subordinates and other persons
- GS5. when talking with your supervisor, 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 for cleaning and lubricating the Paver everyday
- GS9. deliver first-class service to ensure client satisfaction
- GS10. identify immediate or temporary solutions to resolve mechanical issues
- **GS11.** judge when to seek assistance from supervisor
- **GS12.** determine cause and effect relationships in his field of employment
- **GS13.** examine, evaluate and apply knowledge acquired from observation, experience, logic or communication in order to act efficiently







Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Screed Operations	8	20	-	-
PC1. ascertain that the screed is clean and appropriately set for the type of pavement to be finished, such as crown, cross-slope, and so on	1	1	-	_
PC2. assist in pre-heating the paving screed prior to asphalt installation determine the screed-plate angle of attack, location of pre-strike-off plates and other components	-	1	-	-
PC3. monitor and control temperature settings of the asphalt mixture as per instructions from the operator	1	1	-	_
PC4. adjust the screed paving reference components to the project specification, paving, width, depth (thickness), grade and slope in accordance with manufacturers instructions	1	1	-	-
PC5. ensure good contact between the gates and the paved surface in accordance with the requirements	-	2	-	-
PC6. check the thickness of the mat and adjust the settings as needed to maintain yield	-	1	_	-
PC7. adjust springs and chains for clearance as per instructions from the operator	1	1	-	-
PC8. assist the paver operator to fill the auger chamber	-	1	-	-
PC9. check mat thickness and adjust controls as needed to maintain yield	1	2	-	-
PC10. control the direction of the screed and the distribution of asphalt materials along the screed to eliminate voids at curbs and junctions	-	1	-	_
PC11. assist in navigating the direction of the paver as per the requirement of the surface	1	2	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. operate and manipulate cranks and tow points on the back of the asphalt machine that spreads and levels asphaltic concrete on surfaces	-	1	-	_
PC13. examine the distribution of asphalt materials from the hopper to the conveyor and to the auger along the breadth of the screed	1	2	-	_
PC14. assist the paver operator in attaching extensions to screed to adjust width as per the requirement	-	1	-	-
PC15. carryout adding or removing accessories associated with asphalt equipment as per instructions from the operator	-	1	-	-
PC16. inform operator/ supervisor of any screed problems during paver operations	1	1	-	_
Reporting and documentation	1	1	-	-
PC17. help the operator in documenting input and output flow in accordance with the organization's intended formats	1	1	-	-
NOS Total	9	21	-	-









National Occupational Standards (NOS) Parameters

NOS Code	IES/N0162
NOS Name	Assist in operating a paver
Sector	Infrastructure Equipment
Sub-Sector	Equipment Operations
Occupation	Operator
NSQF Level	3
Credits	4
Version	3.0
Last Reviewed Date	NA
Next Review Date	17/11/2025
NSQC Clearance Date	17/11/2022







IES/N0163: Assist in regular maintenance of the paver

Description

This unit provides insight into activities that are required for performing routine maintenance and troubleshooting of screed

Scope

The scope covers the following :

- Routine maintenance Repair and troubleshooting
- Documentation and reporting

Elements and Performance Criteria

Routine maintenance

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

- PC1. check and lubricate all screed points as per manufacturer specifications
- **PC2.** remove any debris from screed and check for hose leaks / cylinders
- **PC3.** spray cleaning solvent or release agent on the screed plate, hopper, etc., any place that has come in contact with the mix
- **PC4.** lubricate all grease fittings on the auger flight screw, the fitting on the depth screw, and the fittings on the flange bearings located on top of the extension screed, grease nuts on extension screws
- **PC5.** check screws on the rod extensions, tilt screws on the screed pivot
- PC6. check screed crown on chain and turn buckles for wear and tear
- **PC7.** ensure that all tools are returned to their proper location after use, as per organizational rules
- PC8. perform housekeeping activities wherever required

Repair and troubleshooting

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

- PC9. ensure that appropriate tools are used while troubleshooting
- PC10. diagnose the problem
- PC11. handle and dispose waste based on environmental guidelines at the work place

Documentation and reporting

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

- PC12. follow reporting procedures as laid down by the employer
- **PC13.** assist in the timely completion of all documents in accordance with the required requirements
- PC14. if a fault is found that is outside the scope of his duty, notify the supervisor immediately

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 company's performance criteria and processes
- KU3. reporting structure in the company
- **KU4.** schedule for resolving the complaint/problem
- **KU5.** location of tools
- KU6. contact person in case of queries on procedure or products
- KU7. location and process for storage and disposal of waste material
- KU8. safety policy of the company includes the customer and manufacturer policy
- KU9. the responsibilities of the designated job function
- **KU10.** basic physics and mechanics are used in the paver's many functions
- **KU11.** common defects and general causes of breakdown.
- **KU12.** response to emergency situations.
- **KU13.** the ideal levels of control indicators, such as the fuel gauge, engine oil pressure and temperature, as well as all buttons on the main control unit and screed control units

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 supervisor, 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 Paver, everyday
- **GS10.** deliver first-class service to ensure client satisfaction
- GS11. identify immediate or temporary solutions to resolve mechanical issues
- GS12. judge when to seek assistance from supervisor
- GS13. determine cause and effect relationships in his field of employment
- **GS14.** examine, evaluate and apply knowledge acquired from observation, experience, logic or communication in order to act efficiently







Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Routine maintenance	3	8	-	-
PC1. check and lubricate all screed points as per manufacturer specifications	-	1	-	-
PC2. remove any debris from screed and check for hose leaks / cylinders	1	1	-	-
PC3. spray cleaning solvent or release agent on the screed plate, hopper, etc., any place that has come in contact with the mix	-	1	-	-
PC4. lubricate all grease fittings on the auger flight screw, the fitting on the depth screw, and the fittings on the flange bearings located on top of the extension screed, grease nuts on extension screws	1	1	-	_
PC5. check screws on the rod extensions, tilt screws on the screed pivot	-	1	-	-
PC6. check screed crown on chain and turn buckles for wear and tear	-	1	-	-
PC7. ensure that all tools are returned to their proper location after use, as per organizational rules	1	1	-	-
PC8. perform housekeeping activities wherever required	-	1	_	-
Repair and troubleshooting	1	3	-	-
PC9. ensure that appropriate tools are used while troubleshooting	1	1	-	-
PC10. diagnose the problem	-	1	-	-
PC11 . handle and dispose waste based on environmental guidelines at the work place	-	1	_	-
Documentation and reporting	2	3	-	-
PC12. follow reporting procedures as laid down by the employer	0.5	1	_	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. assist in the timely completion of all documents in accordance with the required requirements	1	1	-	-
PC14. if a fault is found that is outside the scope of his duty, notify the supervisor immediately	0.5	1	-	-
NOS Total	6	14	-	-







National Occupational Standards (NOS) Parameters

NOS Code	IES/N0163
NOS Name	Assist in regular maintenance of the paver
Sector	Infrastructure Equipment
Sub-Sector	Equipment Operations
Occupation	Operator
NSQF Level	3
Credits	2
Version	3.0
Last Reviewed Date	NA
Next Review Date	17/11/2025
NSQC Clearance Date	17/11/2022







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









- **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) andother 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







Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Worksite health and safety	5	10	-	-
PC1. Comply with safety, health, security and environment related regulations/guidelines at the work site	0.5	1	-	-
PC2. use personal protective equipment (ppe) and other safety gear as applicable to the equipment and the worksite	0.5	1	-	-
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	0.5	1	-	-
PC4. Carry out operations as per the manufacturer's and worksite related health and safety guidelines	0.5	1	-	-
PC5. Handle the transport, storage and disposal of hazardous materials and waste in compliance with worksite health, safety and environmental guidelines	1	1	-	-
PC6. operate various grades of fire extinguishers, as applicable	0.5	2	-	-
PC7. support in administering basic first aid and report to concerned team members, as required, in case of an accident	0.5	1	-	-
PC8. respond promptly and appropriately to an accident/ incident or emergency, within limits of your role and responsibility	0.5	1	-	-
PC9. record and report details related to operations, incidents or accidents, as applicable	0.5	1	-	-
NOS Total	5	10	-	-









National Occupational Standards (NOS) Parameters

NOS Code	IES/N7601
NOS Name	Comply with worksite health and safety
Sector	Infrastructure Equipment
Sub-Sector	Equipment Operations
Occupation	Operator
NSQF Level	4
Credits	1
Version	3.0
Last Reviewed Date	NA
Next Review Date	17/11/2025
NSQC Clearance Date	17/11/2022







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, selfmotivation, 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







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









- 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







Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Introduction to Employability Skills	1	1	-	-
PC1. understand the significance of employability skills in meeting the job requirements	-	_	-	-
Constitutional values – Citizenship	1	1	-	-
PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices	-	-	-	-
Becoming a Professional in the 21st Century	1	3	-	-
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	2	3	-	-
PC4. speak with others using some basic English phrases or sentences	-	-	-	-
Communication Skills	1	1	-	-
PC5. follow good manners while communicating with others	-	-	-	-
PC6. work with others in a team	-	-	-	-
Diversity & Inclusion	1	1	-	-
PC7. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC8. report any issues related to sexual harassment	-	-	-	-
Financial and Legal Literacy	3	4	-	-
PC9. use various financial products and services safely and securely	-	-	-	-









Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. calculate income, expenses, savings etc.	-	-	-	-
PC11. approach the concerned authorities for any exploitation as per legal rights and laws	-	-	-	-
Essential Digital Skills	4	6	-	-
PC12. operate digital devices and use its features and applications securely and safely	-	-	-	-
PC13. use internet and social media platforms securely and safely	-	-	-	-
Entrepreneurship	3	5	-	-
PC14. identify and assess opportunities for potential business	-	-	-	-
PC15. identify sources for arranging money and associated financial and legal challenges	-	-	-	-
Customer Service	2	2	-	-
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	1	3	-	-
PC19. create a basic biodata	-	-	-	-
PC20. search for suitable jobs and apply	-	-	-	-
PC21. identify and register apprenticeship opportunities as per requirement	-	-	-	-
NOS Total	20	30	-	-









National Occupational Standards (NOS) Parameters

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







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/N0161.Assist in carrying out Pre-operational checks on the paver	11	24	-	-	35	40
IES/N0162.Assist in operating a paver	9	21	-	-	30	20
IES/N0163.Assist in regular maintenance of the paver	6	14	-	-	20	20
IES/N7601.Comply with worksite health and safety	5	10	-	-	15	10
DGT/VSQ/N0101.Employability Skills (30 Hours)	20	30	-	-	50	10
Total	51	99	-	-	150	100







Acronyms

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







Glossary

Sector	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
Occupational Standards (OS)	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC)	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context.
Qualifications Pack (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Scope	Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required.









Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.
Organisational Context	Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/ Generic Skills (GS)	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.
Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.