



Skill Council For Mining Sector



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REIMAGINE FUTURE

Qualification Pack



Loader Operator (Mining)

QP Code: MIN/Q1403

Version: 2.0

NSQF Level: 4

Skill Council for Mining Sector || FIMI House, B-311, Okhla Industrial Area, Phase-I
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MIN/Q1403: Loader Operator (Mining)

Brief Job Description

The Loader operator uses the Loader - O/C (Opencast mines) for moving aside or loading ROM (Run-Of-Mine), product etc, into or onto different types of machinery (such as dumper/tipper, conveyor belt, feed-hopper etc.). They also ensure that the safety systems are working correctly and perform essential maintenance on the Loader.

Personal Attributes

This job requires the individual to concentrate on the job at hand and complete it efficiently and effectively. The individual should be physically agile, strong, have good eye sight and not suffer from colour-blindness.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [MIN/N1409: Prepare the Loader for operations](#)
2. [MIN/N1410: Perform Loader Operations](#)
3. [MIN/N1411: Perform basic maintenance and troubleshooting of the Loader](#)
4. [MIN/N1412: Carry out reporting and documentation related to the Loader Operation](#)
5. [MIN/N1703: Follow Health, Safety, and Environmental Guidelines for opencast mines \(Including Mine Vocational Training Rule\)](#)
6. [DGT/VSQ/N0102: Employability Skills \(60 Hours\)](#)

Qualification Pack (QP) Parameters

Sector	Mining
Sub-Sector	Mining Operation
Occupation	Loading and Hauling - Opencast
Country	India
NSQF Level	4



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Credits	17
Aligned to NCO/ISCO/ISIC Code	NCO-2015/8342.0301
Minimum Educational Qualification & Experience	8th grade pass plus 2-year NTC plus 1 Year NAC OR 8th pass plus 1-year NTC plus 1-Year NAC plus CITS OR 10th grade pass and pursuing continuous schooling OR 10th grade pass (with 2 years relevant experience) OR Previous relevant Qualification of NSQF Level (Level 3.0 Jr. Loader Operator-O/C (opencast) with minimum education as 5th Grade pass with 2 years relevant experience)
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	Preferable Heavy Motor Vehicle Driving License
Minimum Job Entry Age	20 Years
Last Reviewed On	NA
Next Review Date	17/11/2025
NSQC Approval Date	17/11/2022
Version	2.0
Reference code on NQR	2022/MIN/SCMS/06978
NQR Version	1

Remarks:

Total Notional Duration: 510 Hours= Domain Theory Duration: 120 Hours+ Domain Practical Duration: 150 Hours+ Domain OJT (Mandatory) Duration:180 Hours+ Employability Skills Duration:60 Hours



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MIN/N1409: Prepare the Loader for operations

Description

This unit is about preparing the Loader for activities that need to be carried out during the shift.

Scope

The scope covers the following :

- Conducting pre-operation checks and routine maintenance of the Loader
- Recording and reporting the details of Loader's pre-operation inspection and maintenance

Elements and Performance Criteria

Conducting pre-operation checks and routine maintenance of the Loader

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

- PC1.** follow the work related instructions given by the supervisor before the shift starts
- PC2.** check oil levels of engine, transmission, differential, hydraulic tank etc. and top up as required
- PC3.** check water level in the radiator and top up as required
- PC4.** confirm availability and functionality of safety features in the Loader like audiovisual alarm, reverse camera, mirrors, horn, seat belt, Roll-Over Protection Structure (ROPS) and Falling Object Protective Structure (FOPS)
- PC5.** check fan belt tension, electrolyte level and batteries' terminal tightness
- PC6.** clean the Loader and outer element of air cleaner with compressed air
- PC7.** apply grease to all the required parts
- PC8.** drain accumulated water from the diesel tank
- PC9.** check air pressure in tyres for tyre mounted Loader and track's tension for track mounted Loader and take action as required
- PC10.** take action as per the entries done by the previous operator in the Loader logbook
- PC11.** check for any spills/leakages in the engine, hydraulic systems, transmission etc.
- PC12.** plug spill, leakage of oil and lubricants and escalate to appropriate authority if unable to rectify
- PC13.** check functioning of fire extinguishers, automatically operated fire suppression system and devices including fire detection system in the Loader
- PC14.** clean air filter dust bowls
- PC15.** check the gasket and inner filter element
- PC16.** inspect the body components like Loader's frame and arm for any cracks or wear and tear
- PC17.** check the bucket cutting edge and the bucket for excessive damage, if any
- PC18.** inspect all mounting bolts , pivot pins and ram pins
- PC19.** clean any muck, soil or debris from the area around the slewing rams
- PC20.** examine the various controls, gauges, warning lamps



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PC21. check and adjust driving position, rear and side mirrors, seat belts and confirm clear uninterrupted vision all around

PC22. inspect the work site before commencement of operation

Recording and reporting the details of Loader's pre-operation inspection and maintenance

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

PC23. update the operation and maintenance log book with activities conducted before starting the Loader

PC24. inform the supervisor of those problems which are not under one's purview

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. job-specific documents e.g. daily maintenance checklist and importance of the same

KU2. risk and impact of not following defined procedures/work instructions

KU3. the hierarchy for reporting identified problems

KU4. cost of equipment and loss for the company that results from damage of equipment

KU5. implications of delays in the process

KU6. handover and takeover procedures of the Loader according to company's SOP

KU7. safety guidelines specified by Directorate General of Mines Safety (DGMS) specific to Loader operations

KU8. different types of mines and detail of the mine one is working in

KU9. benching in quarries, dressing of overhangs, undercuts, fencing

KU10. importance of first aid and hygiene

KU11. code of practice in specific areas of the mine

KU12. standing orders in force at the mine

KU13. importance of safety in the vicinity of machinery

KU14. about shot-firing / blasting related safety regulations including taking shelter during blasting

KU15. duties of workmen under the Mines Act-1952

KU16. provision of compensation and working hours, leaves, etc. as per Mines Act-1952

KU17. the outcome of violation of safety procedures

KU18. about levers, switches, instrument panel and various controls in order to operate the Loader properly

KU19. emergency response /disaster management plan prepared by the organization

KU20. different types of Heavy Earth Moving Machines (H.E.M.M) and their use

KU21. different types of Loaders (bucket, front-end, pay, scoop, shovel, skip , or wheel) and their specific uses.

KU22. basic about diesel engines, their components and functions

KU23. steering mechanisms and correct way of steering on slopes

KU24. about wheels, tyres, optimal pressure

KU25. battery and dynamo / alternator and the electric circuit and connections

KU26. signages, mining area-specific signs and other safety and emergency signals



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- KU27.** the optimal working condition of Loader components and the oil level e.g. parking brake, main horn, reverse horn, etc and the oil level of the engine, transmission, etc.
- KU28.** parts of Loader that need routine lubrication
- KU29.** optimal engine oil pressure, radiator coolant temperature , Lube oil pressure, transmission oil pressure etc. during operation
- KU30.** power transmission circuit from engine to final drive
- KU31.** importance of sensitization towards different genders and PWD (Persons with Disabilities)

Generic Skills (GS)

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

- GS1.** note down observations (if any)
- GS2.** read and interpret symbols and readings
- GS3.** read information documents
- GS4.** discuss task lists, schedules and activities
- GS5.** effectively communicate, listen and comprehend the information given by various sources about the site
- GS6.** make decisions pertaining to the concerned area of work
- GS7.** plan and organize the work order and tasks
- GS8.** organize all operation and service manuals so that sorting/ accessing information is easy
- GS9.** detect problems in day to day tasks
- GS10.** discuss possible solution with the supervisor for problem solving
- GS11.** make decisions in emergency conditions
- GS12.** follow instructions and work on areas of improvement identified
- GS13.** complete the assigned tasks timely
- GS14.** use reasoning skills to identify and resolve basic problems
- GS15.** analyze and detect any potential problems which could arise during operation

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Conducting pre-operation checks and routine maintenance of the Loader</i>	26	44	-	20
PC1. follow the work related instructions given by the supervisor before the shift starts	2	2	-	1
PC2. check oil levels of engine, transmission, differential, hydraulic tank etc. and top up as required	2	2	-	1
PC3. check water level in the radiator and top up as required	1	2	-	1
PC4. confirm availability and functionality of safety features in the Loader like audiovisual alarm, reverse camera, mirrors, horn, seat belt, Roll-Over Protection Structure (ROPS) and Falling Object Protective Structure (FOPS)	1	2	-	1
PC5. check fan belt tension, electrolyte level and batteries' terminal tightness	1	2	-	1
PC6. clean the Loader and outer element of air cleaner with compressed air	1	2	-	1
PC7. apply grease to all the required parts	1	2	-	1
PC8. drain accumulated water from the diesel tank	1	2	-	1
PC9. check air pressure in tyres for tyre mounted Loader and track's tension for track mounted Loader and take action as required	2	2	-	1
PC10. take action as per the entries done by the previous operator in the Loader logbook	1	2	-	1
PC11. check for any spills/leakages in the engine, hydraulic systems, transmission etc.	1	2	-	1
PC12. plug spill, leakage of oil and lubricants and escalate to appropriate authority if unable to rectify	1	2	-	1



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. check functioning of fire extinguishers, automatically operated fire suppression system and devices including fire detection system in the Loader	1	2	-	1
PC14. clean air filter dust bowls	1	2	-	1
PC15. check the gasket and inner filter element	1	2	-	1
PC16. inspect the body components like Loader's frame and arm for any cracks or wear and tear	1	1	-	1
PC17. check the bucket cutting edge and the bucket for excessive damage, if any	1	2	-	-
PC18. inspect all mounting bolts , pivot pins and ram pins	1	2	-	1
PC19. clean any muck, soil or debris from the area around the slewing rams	1	3	-	-
PC20. examine the various controls, gauges, warning lamps	2	2	-	1
PC21. check and adjust driving position, rear and side mirrors, seat belts and confirm clear uninterrupted vision all around	1	2	-	1
PC22. inspect the work site before commencement of operation	1	2	-	1
<i>Recording and reporting the details of Loader's pre-operation inspection and maintenance</i>	4	6	-	-
PC23. update the operation and maintenance log book with activities conducted before starting the Loader	2	3	-	-
PC24. inform the supervisor of those problems which are not under one's purview	2	3	-	-
NOS Total	30	50	-	20



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National Occupational Standards (NOS) Parameters

NOS Code	MIN/N1409
NOS Name	Prepare the Loader for operations
Sector	Mining
Sub-Sector	Mining Operation
Occupation	Loading and Hauling - Opencast
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	27/01/2022
Next Review Date	17/11/2025
NSQC Clearance Date	17/11/2022



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MIN/N1410: Perform Loader Operations

Description

This unit is about performing various Loader operations in the mines during the shift.

Scope

The scope covers the following :

- Starting and driving the Loader
- Perform various other Loader operations

Elements and Performance Criteria

Starting and driving the Loader

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

- PC1.** use Loader in an optimum way as per the instruction manual
- PC2.** start the engine by using push button and key switch together
- PC3.** use the priming pump and pre-heater to start the engine in cold weather conditions
- PC4.** ensure that no other operators travel on or stand near the Loader
- PC5.** check backhoe/ front hoe is in transport position while the loader is moving
- PC6.** select correct gear range by shifting the quadrant device
- PC7.** inspect critical temperature and pressure gauges during driving
- PC8.** use various signalling devices available in the Loader such as turn signal, parking indicator, air horn etc. as per requirement
- PC9.** keep a safe distance from the tip edge and use an approved stop block/safety parapet before tipping over an edge
- PC10.** park the Loader safely and appropriately
- PC11.** select and use the right kind of brake in different situations and working conditions

Perform various other Loader operations

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

- PC12.** follow manufacturer's instructions for safe operation and durability of the Loader
- PC13.** deploy the digger stabilizer legs to level the Loader when working on a slope
- PC14.** maintain stability and anchorage during digging operation, by using the loader's arms
- PC15.** manoeuvre the joystick lever provided for backhoe operations
- PC16.** operate the four levers to control the digging arm, dipper arm and stabilizer legs
- PC17.** discharge the load safely at the designated place
- PC18.** ensure that backhoe is never utilised for craning
- PC19.** inform supervisor of problems while operating the Loader

Knowledge and Understanding (KU)



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The individual on the job needs to know and understand:

- KU1.** emergency response /disaster management plan prepared by the organization
- KU2.** safety guidelines for Loader operations specified by Directorate General of Mines Safety (DGMS)
- KU3.** different types of mines and detail of the mine one is working in
- KU4.** benching in quarries, dressing of overhangs, undercuts, fencing, etc.
- KU5.** importance of first aid and hygiene
- KU6.** about shot-firing / blasting related safety regulations including taking shelter during blasting
- KU7.** duties of workmen under the Mines Act-1952
- KU8.** about instrument panel, levers, switches and various controls in order to operate the Loader properly
- KU9.** provision of compensation and working hours, leaves, etc as per Mines Act-1952
- KU10.** guidelines for working in congested places e.g. stock piles, below overhangs
- KU11.** correct operating procedures while using the Loader
- KU12.** precautions to be taken in the dump-yard
- KU13.** importance of sensitization towards different genders and PWD (Persons with Disabilities)

Generic Skills (GS)

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

- GS1.** note down observations (if any)
- GS2.** read and interpret symbols and readings
- GS3.** read information documents
- GS4.** discuss task lists, schedules and activities
- GS5.** effectively communicate, listen and comprehend the information given by various sources about the site
- GS6.** make decisions pertaining to the concerned area of work
- GS7.** plan and organize the work order and tasks
- GS8.** organize all operation and service manuals so that sorting/ accessing information is easy
- GS9.** detect problems in day to day tasks
- GS10.** discuss possible solution with the supervisor for problem solving
- GS11.** make decisions in emergency conditions
- GS12.** follow instructions and work on areas of improvement identified
- GS13.** complete the assigned tasks timely



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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Starting and driving the Loader</i>	20	32	-	11
PC1. use Loader in an optimum way as per the instruction manual	2	2	-	1
PC2. start the engine by using push button and key switch together	2	3	-	1
PC3. use the priming pump and pre-heater to start the engine in cold weather conditions	2	3	-	1
PC4. ensure that no other operators travel on or stand near the Loader	1	3	-	1
PC5. check backhoe/ front hoe is in transport position while the loader is moving	2	3	-	1
PC6. select correct gear range by shifting the quadrant device	1	3	-	1
PC7. inspect critical temperature and pressure gauges during driving	2	3	-	1
PC8. use various signalling devices available in the Loader such as turn signal, parking indicator, air horn etc. as per requirement	2	3	-	1
PC9. keep a safe distance from the tip edge and use an approved stop block/safety parapet before tipping over an edge	2	3	-	1
PC10. park the Loader safely and appropriately	2	3	-	1
PC11. select and use the right kind of brake in different situations and working conditions	2	3	-	1
<i>Perform various other Loader operations</i>	10	18	-	9
PC12. follow manufacturer's instructions for safe operation and durability of the Loader	1	2	-	1
PC13. deploy the digger stabilizer legs to level the Loader when working on a slope	1	2	-	2
PC14. maintain stability and anchorage during digging operation, by using the loader's arms	2	3	-	1



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC15. manoeuver the joystick lever provided for backhoe operations	1	3	-	1
PC16. operate the four levers to control the digging arm, dipper arm and stabilizer legs	1	2	-	1
PC17. discharge the load safely at the designated place	1	2	-	1
PC18. ensure that backhoe is never utilised for craning	1	2	-	1
PC19. inform supervisor of problems while operating the Loader	2	2	-	1
NOS Total	30	50	-	20



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National Occupational Standards (NOS) Parameters

NOS Code	MIN/N1410
NOS Name	Perform Loader Operations
Sector	Mining
Sub-Sector	Mining Operation
Occupation	Loading and Hauling - Opencast
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	27/01/2022
Next Review Date	17/11/2025
NSQC Clearance Date	17/11/2022



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MIN/N1411: Perform basic maintenance and troubleshooting of the Loader

Description

This unit is about performing basic maintenance and troubleshooting of the Loader.

Scope

The scope covers the following :

- Performing preventive maintenance
- Performing basic diagnosis and troubleshooting

Elements and Performance Criteria

Performing preventive maintenance

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

- PC1.** track machine operating hours to assess the required service
- PC2.** park the Loader on a firm and level ground before attempting to carry out any maintenance activity
- PC3.** inspect the tyre rims, air pressure, wheel nuts and treads for tyre-mounted Loader or track chain tension, track motor, roller for track-mounted Loader
- PC4.** tighten the loose battery terminals with the help of an auto-electrician
- PC5.** ensure that the Original Equipment Manufacturer (OEM) recommended procedure and checklist is followed for routine servicing
- PC6.** replenish coolants, lubricants, and fluids
- PC7.** carry out the maintenance with Heavy Earth Moving Machinery (HEMM) mechanic or superior in case of non-routine service or repair
- PC8.** assist HEMM mechanic and electrician as and when required
- PC9.** fill the daily, weekly and monthly maintenance/defect sheets as per the format laid down by the organization

Performing basic diagnosis and troubleshooting

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

- PC10.** ensure that no diagnosis on the machine is performed when it is running or is still hot
- PC11.** identify fault in the Loader and trace the cause of this fault
- PC12.** check the instrument panel and control gauge to identify out of range readings to find the defect/cause of failure
- PC13.** conduct scheduled, routine examination and assessments against equipment specifications to identify wear, damage, corrosion, inadequate fluid levels, leaks and general condition and serviceability
- PC14.** carry out diagnostic procedures as per the troubleshooting checklist prepared by the Original Equipment Manufacturer (OEM)



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- PC15.** assess the problem when it is beyond one's competence and report the problem to concerned person
- PC16.** follow standard operating procedure set out for diagnosing faults
- PC17.** review complaint sheet, logbook and history sheet of the equipment to identify the repair requirements
- PC18.** follow "5-S" practice near the workshop area

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** job specific documents e.g. daily maintenance checklist and importance of the same
- KU2.** safety guidelines specified by Directorate General of Mines Safety (DGMS) specific to Loader operations
- KU3.** different types of mines and detail of the mine one is working in
- KU4.** benching in quarries, dressing of overhangs, undercuts, fencing, etc.
- KU5.** importance of safety in the vicinity of machinery
- KU6.** duties of workmen under the Mines Act-1952
- KU7.** the outcome of violation of safety procedures
- KU8.** about levers, switches, instrument panel and various controls in order to operate the Loader properly
- KU9.** correct maintenance procedures for the Loader
- KU10.** response to emergencies e.g. fire /inundation
- KU11.** guidelines for working in congested places e.g. stock piles, below overhangs
- KU12.** optimal working condition of Loader components e.g. hoists, propel system, power train and other attachments
- KU13.** importance of 5-S practice at worksite
- KU14.** about visual checks to identify damage, defects or leaks
- KU15.** steering and transmission systems
- KU16.** different types of hydraulic mechanism
- KU17.** instrument panel, their location and operation
- KU18.** the various sources of information available for assessing service and repair requirements of the vehicle including diagnostics displays, visual inspection, test drives
- KU19.** parts of the Loader that need routine lubrication
- KU20.** importance of sensitization towards different genders and PWD (Persons with Disabilities)

Generic Skills (GS)

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

- GS1.** note down observations (if any)
- GS2.** read and interpret symbols and readings
- GS3.** read information documents



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- GS4.** discuss task lists, schedules and activities
- GS5.** effectively communicate, listen and comprehend the information given by various sources about the site
- GS6.** make decisions pertaining to the concerned area of work
- GS7.** plan and organize the work order and tasks
- GS8.** organize all operation and service manuals so that sorting/ accessing information is easy
- GS9.** report about all activities to the supervisor
- GS10.** detect problems in day to day tasks
- GS11.** discuss possible solution with the supervisor for problem solving
- GS12.** make decisions in emergency conditions
- GS13.** follow instructions and work on areas of improvement identified
- GS14.** complete the assigned tasks timely
- GS15.** use reasoning skills to identify and resolve basic problems
- GS16.** analyze and detect any potential problems which could arise during operation

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Performing preventive maintenance</i>	15	27	-	9
PC1. track machine operating hours to assess the required service	1	3	-	1
PC2. park the Loader on a firm and level ground before attempting to carry out any maintenance activity	2	3	-	1
PC3. inspect the tyre rims, air pressure, wheel nuts and treads for tyre-mounted Loader or track chain tension, track motor, roller for track-mounted Loader	2	3	-	1
PC4. tighten the loose battery terminals with the help of an auto-electrician	1	3	-	1
PC5. ensure that the Original Equipment Manufacturer (OEM) recommended procedure and checklist is followed for routine servicing	1	3	-	1
PC6. replenish coolants, lubricants, and fluids	1	3	-	1
PC7. carry out the maintenance with Heavy Earth Moving Machinery (HEMM) mechanic or superior in case of non-routine service or repair	2	3	-	1
PC8. assist HEMM mechanic and electrician as and when required	3	3	-	1
PC9. fill the daily, weekly and monthly maintenance/defect sheets as per the format laid down by the organization	2	3	-	1
<i>Performing basic diagnosis and troubleshooting</i>	15	23	-	11
PC10. ensure that no diagnosis on the machine is performed when it is running or is still hot	1	3	-	1
PC11. identify fault in the Loader and trace the cause of this fault	2	3	-	1
PC12. check the instrument panel and control gauge to identify out of range readings to find the defect/cause of failure	2	2	-	2



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. conduct scheduled, routine examination and assessments against equipment specifications to identify wear, damage, corrosion, inadequate fluid levels, leaks and general condition and serviceability	2	2	-	1
PC14. carry out diagnostic procedures as per the troubleshooting checklist prepared by the Original Equipment Manufacturer (OEM)	2	3	-	1
PC15. assess the problem when it is beyond one's competence and report the problem to concerned person	2	2	-	2
PC16. follow standard operating procedure set out for diagnosing faults	1	3	-	1
PC17. review complaint sheet, logbook and history sheet of the equipment to identify the repair requirements	1	3	-	1
PC18. follow "5-S" practice near the workshop area	2	2	-	1
NOS Total	30	50	-	20



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Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	MIN/N1411
NOS Name	Perform basic maintenance and troubleshooting of the Loader
Sector	Mining
Sub-Sector	Mining Operation
Occupation	Loading and Hauling - Opencast
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	27/01/2022
Next Review Date	17/11/2025
NSQC Clearance Date	17/11/2022

Qualification Pack

MIN/N1412: Carry out reporting and documentation related to the Loader Operation

Description

This unit is about carrying out reporting and documentation related to the Loader operations.

Scope

The scope covers the following :

- Reporting and documentation

Elements and Performance Criteria

Reporting and documentation

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

- PC1.** report completion of job allocated during the shift, problems encountered and further actions that need to be taken
- PC2.** report safety and hazard related problems on urgent and priority basis to the supervisor and the manager
- PC3.** record the details of the machine operations accurately using the appropriate format
- PC4.** identify documentation to be completed
- PC5.** prepare all documentation correctly on time
- PC6.** ensure that all documents are available to all appropriate authorities for inspection
- PC7.** use Mineral Conservation and Development Rules (MCDR) based logbook and fill accurate data in correct format along with the signature at the end
- PC8.** handover all important information to the reliever in a proper manner

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** types of documentation in organization e.g. daily maintenance checklist and importance of the same
- KU2.** different types of mines and detail of the mine one is working in
- KU3.** commonly used mining terminologies
- KU4.** duties of workers under The Mines Act-1952
- KU5.** precautions to be taken when handling heavy equipment
- KU6.** various problems/incidents likely to occur
- KU7.** importance of sensitization towards different genders and PWD (Persons with Disabilities)

Generic Skills (GS)



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Qualification Pack

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

- GS1.** fill up documentation applicable to one's role
- GS2.** make decisions on the concerned area of work
- GS3.** read and explain manuals, health, and safety instructions, memos, etc
- GS4.** plan and organize the work order and jobs
- GS5.** use reasoning skills to identify and resolve fundamental problems
- GS6.** complete the assigned tasks timely
- GS7.** maintain a good relationship with the supervisor/ and staff
- GS8.** detect problems in day to day tasks



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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Reporting and documentation</i>	30	50	-	20
PC1. report completion of job allocated during the shift, problems encountered and further actions that need to be taken	5	7	-	2
PC2. report safety and hazard related problems on urgent and priority basis to the supervisor and the manager	3	7	-	3
PC3. record the details of the machine operations accurately using the appropriate format	3	6	-	2
PC4. identify documentation to be completed	3	6	-	3
PC5. prepare all documentation correctly on time	5	6	-	2
PC6. ensure that all documents are available to all appropriate authorities for inspection	3	6	-	3
PC7. use Mineral Conservation and Development Rules (MCDR) based logbook and fill accurate data in correct format along with the signature at the end	3	6	-	2
PC8. handover all important information to the reliever in a proper manner	5	6	-	3
NOS Total	30	50	-	20



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Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	MIN/N1412
NOS Name	Carry out reporting and documentation related to the Loader Operation
Sector	Mining
Sub-Sector	Mining Operation
Occupation	Loading and Hauling - Opencast
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	27/01/2022
Next Review Date	17/11/2025
NSQC Clearance Date	17/11/2022



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Qualification Pack

MIN/N1703: Follow Health, Safety, and Environmental Guidelines for opencast mines (Including Mine Vocational Training Rule)

Description

This unit is about adhering to health, safety and environmental guidelines at the Open Cast Mines while executing various tasks, maintenance and operations.

Scope

The scope covers the following :

- Follow work-site health and safety measures
- Follow Environmental guidelines

Elements and Performance Criteria

Follow work-site health and safety measures

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

- PC1.** comply with safety, health, and security-related regulations/guidelines at the opencast mine
- PC2.** follow the safety instructions given by the workman's inspector
- PC3.** follow adequate safety while working at haul roads, heights, overburden dumps, sump area, stockyard, near moving parts, etc.
- PC4.** take safety precautions while working on sites (sub-station, workshop etc.), with equipment, and conducting welding and cutting operations
- PC5.** follow appropriate Safe Operating Procedure (SOP) while dealing with explosives
- PC6.** respond promptly and appropriately to an accident/ incident or an emergency situation, within limits of the role and responsibility
- PC7.** provide first aid to an injured person
- PC8.** operate various types of fire extinguishers to control different types of fire at a worksite when required
- PC9.** use appropriate PPE as per the requirement
- PC10.** maintain hand hygiene by washing hands with alcohol based sanitisers/soap
- PC11.** disinfect the machine/tools before and after work/task
- PC12.** maintain hygiene at the work site
- PC13.** report any symptoms of illness to the shift-incharge

Follow Environmental guidelines

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

- PC14.** identify the environmental impact of related opencast mining operations
- PC15.** follow the process for collecting, storing and disposing of the hazardous material and waste (like used oil, lubricant, battery, etc.) in compliance with worksite guidelines
- PC16.** ensure not to mix topsoil with waste in day to day tasks
- PC17.** ensure that HEMM is washed at the designated location



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- PC18.** ensure the productivity of the machine for material/fuel conservation
- PC19.** follow the mineral conservation practices specified by the organization in accordance with MCDR-2017 (Mineral Conservation and Development Rules)
- PC20.** assist supervisor for reducing environmental impact caused due to related mining operations

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** about various environmental awareness program related to mining, organized by the various government bodies/company
- KU2.** safety guidelines specified by Directorate General of Mine Safety (DGMS)
- KU3.** basic mining terminologies and definitions
- KU4.** means of access and egress from the mines, location of workshop, haul roads and working face including dump yards
- KU5.** duties of workers under The Mines act-1952
- KU6.** working hours and accident compensation as per The Mines act-1952
- KU7.** about precautions to be taken when handling heavy equipment
- KU8.** various problems/incidents likely to occur
- KU9.** hierarchy of the reporting
- KU10.** machine operation, condition of the machine and worksite
- KU11.** proper documents specific to the machine
- KU12.** role of workmen inspector, safety committee and internal safety organization
- KU13.** the process of top soil removal and management
- KU14.** mine sump and pumping system of the mines
- KU15.** about mine safety standard including light illumination level, noise levels, dust level, pollutants, etc at the work-site
- KU16.** common sources of pollution in the mines and ways to minimize it
- KU17.** safety equipment like safety shoes, safety belt, tight fit clothing, hand gloves, safety goggles, gas detector, safety lamp, self-contained breathing apparatus, gum boots, ear plugs, face mask, etc.
- KU18.** shot-firing / blasting related safety regulations including taking shelter during blasting
- KU19.** emergency response /disaster management plan prepared by the organization
- KU20.** signages, mining area-specific signs, and other safety and emergency signals
- KU21.** the outcome of violation of safety procedures
- KU22.** basic personal and workplace hygiene
- KU23.** importance of sensitization towards different genders and PWD (Persons with Disabilities)

Generic Skills (GS)

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

- GS1.** fill up documentation applicable to one's role



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- GS2.** make decisions on the concerned area of work
- GS3.** read and interpret manuals, health, and safety instructions, memos, etc.
- GS4.** plan and organize the work order and jobs
- GS5.** use reasoning skills to identify and resolve fundamental problems
- GS6.** complete the assigned tasks timely



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REIMAGINE FUTURE

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Follow work-site health and safety measures</i>	20	34	-	15
PC1. comply with safety, health, and security-related regulations/guidelines at the opencast mine	2	2	-	1
PC2. follow the safety instructions given by the workman's inspector	1	3	-	1
PC3. follow adequate safety while working at haul roads, heights, overburden dumps, sump area, stockyard, near moving parts, etc.	3	3	-	1
PC4. take safety precautions while working on sites (sub-station, workshop etc.), with equipment, and conducting welding and cutting operations	1	3	-	1
PC5. follow appropriate Safe Operating Procedure (SOP) while dealing with explosives	2	3	-	2
PC6. respond promptly and appropriately to an accident/ incident or an emergency situation, within limits of the role and responsibility	2	3	-	1
PC7. provide first aid to an injured person	2	3	-	1
PC8. operate various types of fire extinguishers to control different types of fire at a worksite when required	1	3	-	1
PC9. use appropriate PPE as per the requirement	2	4	-	2
PC10. maintain hand hygiene by washing hands with alcohol based sanitisers/soap	1	2	-	1
PC11. disinfect the machine/tools before and after work/task	1	2	-	1
PC12. maintain hygiene at the work site	1	1	-	1
PC13. report any symptoms of illness to the shift-incharge	1	2	-	1
<i>Follow Environmental guidelines</i>	10	16	-	5



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. identify the environmental impact of related opencast mining operations	2	2	-	1
PC15. follow the process for collecting, storing and disposing of the hazardous material and waste (like used oil, lubricant, battery, etc.) in compliance with worksite guidelines	1	2	-	1
PC16. ensure not to mix topsoil with waste in day to day tasks	2	2	-	1
PC17. ensure that HEMM is washed at the designated location	2	2	-	1
PC18. ensure the productivity of the machine for material/fuel conservation	1	3	-	-
PC19. follow the mineral conservation practices specified by the organization in accordance with MCDR-2017 (Mineral Conservation and Development Rules)	1	3	-	1
PC20. assist supervisor for reducing environmental impact caused due to related mining operations	1	2	-	-
NOS Total	30	50	-	20



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Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	MIN/N1703
NOS Name	Follow Health, Safety, and Environmental Guidelines for opencast mines (Including Mine Vocational Training Rule)
Sector	Mining
Sub-Sector	Mining Operation
Occupation	HSE Functions, , Exploration, Mineral Estimation, Planning, Mine Surveying, Drilling/Cutting, Shot firing/Blasting, Loading and Hauling - Opencast, Specialized Operations, Electrical Services, Mechanical Services, Instrumentation and Control Systems, Ore Processing
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	30/06/2022
Next Review Date	17/11/2025
NSQC Clearance Date	17/11/2022



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Qualification Pack

DGT/VSQ/N0102: Employability Skills (60 Hours)

Description

This unit is about employability skills, Constitutional values, becoming a professional in the 21st Century, digital, financial, and legal literacy, diversity and Inclusion, English and communication skills, customer service, entrepreneurship, and apprenticeship, getting ready for jobs and career development.

Scope

The scope covers the following :

- Introduction to Employability Skills
- Constitutional values - Citizenship
- Becoming a Professional in the 21st Century
- Basic English Skills
- Career Development & Goal Setting
- Communication Skills
- Diversity & Inclusion
- Financial and Legal Literacy
- Essential Digital Skills
- Entrepreneurship
- Customer Service
- Getting ready for Apprenticeship & Jobs

Elements and Performance Criteria

Introduction to Employability Skills

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

- PC1.** identify employability skills required for jobs in various industries
- PC2.** identify and explore learning and employability portals

Constitutional values - Citizenship

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

- PC3.** recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.
- PC4.** follow environmentally sustainable practices

Becoming a Professional in the 21st Century

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

- PC5.** recognize the significance of 21st Century Skills for employment
- PC6.** practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life

Basic English Skills

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



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- PC7.** use basic English for everyday conversation in different contexts, in person and over the telephone
- PC8.** read and understand routine information, notes, instructions, mails, letters etc. written in English
- PC9.** write short messages, notes, letters, e-mails etc. in English

Career Development & Goal Setting

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

- PC10.** understand the difference between job and career
- PC11.** prepare a career development plan with short- and long-term goals, based on aptitude

Communication Skills

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

- PC12.** follow verbal and non-verbal communication etiquette and active listening techniques in various settings
- PC13.** work collaboratively with others in a team

Diversity & Inclusion

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

- PC14.** communicate and behave appropriately with all genders and PwD
- PC15.** escalate any issues related to sexual harassment at workplace according to POSH Act

Financial and Legal Literacy

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

- PC16.** select financial institutions, products and services as per requirement
- PC17.** carry out offline and online financial transactions, safely and securely
- PC18.** identify common components of salary and compute income, expenses, taxes, investments etc
- PC19.** identify relevant rights and laws and use legal aids to fight against legal exploitation

Essential Digital Skills

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

- PC20.** operate digital devices and carry out basic internet operations securely and safely
- PC21.** use e- mail and social media platforms and virtual collaboration tools to work effectively
- PC22.** use basic features of word processor, spreadsheets, and presentations

Entrepreneurship

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

- PC23.** identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research
- PC24.** develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion
- PC25.** identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity

Customer Service

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

- PC26.** identify different types of customers
- PC27.** identify and respond to customer requests and needs in a professional manner.



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PC28. follow appropriate hygiene and grooming standards

Getting ready for apprenticeship & Jobs

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

PC29. create a professional Curriculum vitae (Résumé)

PC30. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively

PC31. apply to identified job openings using offline /online methods as per requirement

PC32. answer questions politely, with clarity and confidence, during recruitment and selection

PC33. identify apprenticeship opportunities and register for it as per guidelines and requirements

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. need for employability skills and different learning and employability related portals

KU2. various constitutional and personal values

KU3. different environmentally sustainable practices and their importance

KU4. Twenty first (21st) century skills and their importance

KU5. how to use English language for effective verbal (face to face and telephonic) and written communication in formal and informal set up

KU6. importance of career development and setting long- and short-term goals

KU7. about effective communication

KU8. POSH Act

KU9. Gender sensitivity and inclusivity

KU10. different types of financial institutes, products, and services

KU11. how to compute income and expenditure

KU12. importance of maintaining safety and security in offline and online financial transactions

KU13. different legal rights and laws

KU14. different types of digital devices and the procedure to operate them safely and securely

KU15. how to create and operate an e- mail account and use applications such as word processors, spreadsheets etc.

KU16. how to identify business opportunities

KU17. types and needs of customers

KU18. how to apply for a job and prepare for an interview

KU19. apprenticeship scheme and the process of registering on apprenticeship portal

Generic Skills (GS)

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

GS1. read and write different types of documents/instructions/correspondence

GS2. communicate effectively using appropriate language in formal and informal settings



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- GS3.** behave politely and appropriately with all
- GS4.** how to work in a virtual mode
- GS5.** perform calculations efficiently
- GS6.** solve problems effectively
- GS7.** pay attention to details
- GS8.** manage time efficiently
- GS9.** maintain hygiene and sanitization to avoid infection

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Introduction to Employability Skills</i>	1	1	-	-
PC1. identify employability skills required for jobs in various industries	-	-	-	-
PC2. identify and explore learning and employability portals	-	-	-	-
<i>Constitutional values - Citizenship</i>	1	1	-	-
PC3. recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.	-	-	-	-
PC4. follow environmentally sustainable practices	-	-	-	-
<i>Becoming a Professional in the 21st Century</i>	2	4	-	-
PC5. recognize the significance of 21st Century Skills for employment	-	-	-	-
PC6. practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life	-	-	-	-
<i>Basic English Skills</i>	2	3	-	-
PC7. use basic English for everyday conversation in different contexts, in person and over the telephone	-	-	-	-
PC8. read and understand routine information, notes, instructions, mails, letters etc. written in English	-	-	-	-
PC9. write short messages, notes, letters, e-mails etc. in English	-	-	-	-
<i>Career Development & Goal Setting</i>	1	2	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. understand the difference between job and career	-	-	-	-
PC11. prepare a career development plan with short- and long-term goals, based on aptitude	-	-	-	-
<i>Communication Skills</i>	2	2	-	-
PC12. follow verbal and non-verbal communication etiquette and active listening techniques in various settings	-	-	-	-
PC13. work collaboratively with others in a team	-	-	-	-
<i>Diversity & Inclusion</i>	1	2	-	-
PC14. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC15. escalate any issues related to sexual harassment at workplace according to POSH Act	-	-	-	-
<i>Financial and Legal Literacy</i>	2	3	-	-
PC16. select financial institutions, products and services as per requirement	-	-	-	-
PC17. carry out offline and online financial transactions, safely and securely	-	-	-	-
PC18. identify common components of salary and compute income, expenses, taxes, investments etc	-	-	-	-
PC19. identify relevant rights and laws and use legal aids to fight against legal exploitation	-	-	-	-
<i>Essential Digital Skills</i>	3	4	-	-
PC20. operate digital devices and carry out basic internet operations securely and safely	-	-	-	-
PC21. use e- mail and social media platforms and virtual collaboration tools to work effectively	-	-	-	-
PC22. use basic features of word processor, spreadsheets, and presentations	-	-	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Entrepreneurship</i>	2	3	-	-
PC23. identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research	-	-	-	-
PC24. develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion	-	-	-	-
PC25. identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity	-	-	-	-
<i>Customer Service</i>	1	2	-	-
PC26. identify different types of customers	-	-	-	-
PC27. identify and respond to customer requests and needs in a professional manner.	-	-	-	-
PC28. follow appropriate hygiene and grooming standards	-	-	-	-
<i>Getting ready for apprenticeship & Jobs</i>	2	3	-	-
PC29. create a professional Curriculum vitae (Résumé)	-	-	-	-
PC30. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively	-	-	-	-
PC31. apply to identified job openings using offline /online methods as per requirement	-	-	-	-
PC32. answer questions politely, with clarity and confidence, during recruitment and selection	-	-	-	-
PC33. identify apprenticeship opportunities and register for it as per guidelines and requirements	-	-	-	-
NOS Total	20	30	-	-



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Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	DGT/VSQ/N0102
NOS Name	Employability Skills (60 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	4
Credits	2
Version	1.0
Last Reviewed Date	NA
Next Review Date	17/11/2025
NSQC Clearance Date	17/11/2022

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Element/ Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each Element/ PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.
6. To pass the Qualification Pack assessment, every trainee should score the Recommended Pass % 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
MIN/N1409.Prepare the Loader for operations	30	70	-	-	100	15
MIN/N1410.Perform Loader Operations	30	70	-	-	100	30
MIN/N1411.Perform basic maintenance and troubleshooting of the Loader	30	70	-	-	100	15
MIN/N1412.Carry out reporting and documentation related to the Loader Operation	30	70	-	-	100	10
MIN/N1703.Follow Health, Safety, and Environmental Guidelines for opencast mines (Including Mine Vocational Training Rule)	30	50	-	20	100	20
DGT/VSQ/N0102.Employability Skills (60 Hours)	20	30	-	-	50	10
Total	170	360	-	20	550	100



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Qualification Pack

Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training
SCMS	Skill Council for Mining Sector
ROPS	Roll-Over Protection Structure
FOPS	Falling Object Protective Structure
HEMM	Heavy Earth Moving Machinery
OEM	Original Equipment Manufacturer
DGMS	Directorate General of Mining Safety
MMR	Metalliferous Mines Regulations
SOP	Standard Operating Practice
MVTR	Mine Vocational Training Rules
HSE	Health, Safety & Environment
MRR	Mines Rescue Rules
MCDR	Mineral Conservation and Development Rules
Pwd	Person with Disability
ERP	Enterprise Resource Planning
ROM	Run-of-Mines



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Qualification Pack

Glossary

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



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Qualification Pack

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.