

## Qualification Pack



# Bulldozer Operator

QP Code: IES/MIN/Q0205

Version: 1.0

NSQF Level: 4

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

## Qualification Pack

### Borrowed Qualification Pack (QP) Parameters

<b>Originating SSC</b>	Mining
<b>Borrowing SSC</b>	Infrastructure Equipment
<b>Borrowing Request Validity</b>	01/07/2018 to 31/03/2020
<b>Assessment and Certification to be conducted by</b>	Infrastructure Equipment
<b>Certification Logos to be included</b>	Infrastructure Equipment

## Qualification Pack

### Contents

IES/MIN/Q0205: Bulldozer Operator .....	4
<i>Brief Job Description</i> .....	4
Applicable National Occupational Standards (NOS) .....	4
<i>Compulsory NOS</i> .....	4
<i>Qualification Pack (QP) Parameters</i> .....	4
MIN/N0204: Health and Safety measures critical in open-cast mines .....	6
MIN/N0215: Prepare Bulldozer .....	9
MIN/N0216: Perform Bulldozer Operations .....	14
MIN/N0217: To carry out reporting and documentation .....	20
Assessment Guidelines and Weightage .....	24
<i>Assessment Guidelines</i> .....	24
<i>Assessment Weightage</i> .....	24
Acronyms .....	26
Glossary .....	27

## Qualification Pack

### IES/MIN/Q0205: Bulldozer Operator

#### Brief Job Description

The bulldozer operator uses the tractor and blade to scoop out soil, move rock and ore to other locations on the site, and to level the soil. Bulldozers are capable of pushing ore and rock. Bulldozer operators are also responsible for confirming that their safety systems are working properly and for performing basic maintenance on the Bulldozer

#### Personal Attributes

This job requires the individual to concentrate on the job at hand and complete it efficiently and effectively without any accidents. The individual should be skilled in performing various driving and maneuvering operations with the Bulldozer. The individual must be able to follow instructions provided by supervisor.

#### Applicable National Occupational Standards (NOS)

##### Compulsory NOS:

1. [MIN/N0204: Health and Safety measures critical in open-cast mines](#)
2. [MIN/N0215: Prepare Bulldozer](#)
3. [MIN/N0216: Perform Bulldozer Operations](#)
4. [MIN/N0217: To carry out reporting and documentation](#)

#### Qualification Pack (QP) Parameters

<b>Sector</b>	Infrastructure Equipment
<b>Sub-Sector</b>	
<b>Occupation</b>	Loading & Hauling - Opencast Mines
<b>Country</b>	India
<b>NSQF Level</b>	4
<b>Aligned to NCO/ISCO/ISIC Code</b>	NCO-2004/8332.10
<b>Minimum Educational Qualification &amp; Experience</b>	10th Class (NA )
<b>Minimum Level of Education for Training in School</b>	

## Qualification Pack

<b>Pre-Requisite License or Training</b>	1. Technical and gallery training as per first schedule, Mining Vocational Training Rules (MVTR) 1966.2. Heavy commercial vehicle license
<b>Minimum Job Entry Age</b>	18 Years
<b>Last Reviewed On</b>	24/03/2014
<b>Next Review Date</b>	31/03/2020
<b>NSQC Approval Date</b>	18/06/2015
<b>Version</b>	1.0

## Qualification Pack

### MIN/N0204: Health and Safety measures critical in open-cast mines

#### Description

This unit is about health and safety measures critical in open-cast mines

#### Elements and Performance Criteria

##### *Critical health and safety measures for open-cast mines*

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

- PC1.** Comply with occupational health and safety regulations adopted by the employer.
- PC2.** Follow mining operations procedures with respect to materials handling and accidents.
- PC3.** Follow the correct safety steps in case of accident or major failure.
- PC4.** Comply with safety regulations and procedures in case of fire hazard.
- PC5.** Operate various grades of fire extinguishers.
- PC6.** Work responsibly and as safe and careful as possible so as not to put the health and safety of self or others at risk, including members of the public.
- PC7.** Perform storage and transport of hazardous materials compliant with safety guidelines prescribed by DGMS.
- PC8.** Identify characteristics of post-blast fumes and take necessary precautions.
- PC9.** wear safety gear such as hard hat, respiratory protection, eye protection, ear protection.
- PC10.** Follow the manufacturers instructions for care and safe operation of the equipment

#### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** Benching in quarries, Dressing of overhangs, Fencing
- KU2.** First aid and Hygiene
- KU3.** Code of practice in specific areas of mine. Significance of fences
- KU4.** Standing orders in force at the mine. Safety in the vicinity of machinery
- KU5.** Shot-firing and Safety regulations. How and where to take shelter
- KU6.** Knowledge of mining safety procedures
- KU7.** Outcome of violation of safety procedures
- KU8.** Locally prepared Emergency Preparedness / Disaster Management Plan.
- KU9.** Process for reporting any unsafe act/condition in work area which may endanger his or his colleagues life
- KU10.** environmental impact of mining
- KU11.** sources of dust, noise and vibration and measures to minimise
- KU12.** hazardous material safety and security rules and regulations as prescribed by DGMS

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Critical health and safety measures for open-cast mines</i>	<b>30</b>	<b>70</b>	-	-
<b>PC1.</b> Comply with occupational health and safety regulations adopted by the employer.	3	4	-	-
<b>PC2.</b> Follow mining operations procedures with respect to materials handling and accidents.	3	4	-	-
<b>PC3.</b> Follow the correct safety steps in case of accident or major failure.	3	4	-	-
<b>PC4.</b> Comply with safety regulations and procedures in case of fire hazard.	3	6	-	-
<b>PC5.</b> Operate various grades of fire extinguishers.	3	9	-	-
<b>PC6.</b> Work responsibly and as safe and careful as possible so as not to put the health and safety of self or others at risk, including members of the public.	3	9	-	-
<b>PC7.</b> Perform storage and transport of hazardous materials compliant with safety guidelines prescribed by DGMS.	3	6	-	-
<b>PC8.</b> Identify characteristics of post-blast fumes and take necessary precautions.	2	9	-	-
<b>PC9.</b> wear safety gear such as hard hat, respiratory protection, eye protection, ear protection.	3	9	-	-
<b>PC10.</b> Follow the manufacturers instructions for care and safe operation of the equipment	4	10	-	-
<b>NOS Total</b>	<b>30</b>	<b>70</b>	-	-

## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	MIN/N0204
<b>NOS Name</b>	Health and Safety measures critical in open-cast mines
<b>Sector</b>	Mining
<b>Sub-Sector</b>	Exploration & Resource Management, Mining Operation, Engineering Services, Mineral Beneficiation
<b>Occupation</b>	Geological ExplorationGeophysical ExplorationExploration DrillingResource ManagementElectrical ServicesField Services MechanicalWorkshop Mechanical Mine Surveying Drilling & CuttingBlasting Loading & Hauling - OpencastLoading & Hauling UndergroundSpecialist Operations Underground HSE functionsOre Processing Instrumentation & Control System
<b>NSQF Level</b>	4
<b>Credits</b>	TBD
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	24/03/2014
<b>Next Review Date</b>	24/03/2017
<b>NSQC Clearance Date</b>	20/07/2015



## Qualification Pack

### MIN/N0215: Prepare Bulldozer

#### Description

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

#### Scope

This OS unit/task covers the following:

- Conducting pre-operation checks & routine maintenance of Bulldozer
- Reporting of recording details of checking and maintenance

#### Elements and Performance Criteria

##### *Pre-operation checks & Routine maintenance*

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

- PC1.** adhere to time limits given by supervisor
- PC2.** check oil levels of engine, transmission, radiator coolant and brake
- PC3.** check differential and hydraulic oil levels
- PC4.** check condition of parking brake, main horn, reverse horn, warning lamp and head light
- PC5.** ensure availability of safety features in dozers like audio visual alarm, camera, mirrors, horn, auto fire protection system
- PC6.** check fan belt tension, electrolyte level and terminal tightness
- PC7.** clean the bulldozer and outer element of air cleaner with compressed air
- PC8.** top up oil in engine, transmission, etc. if necessary after checking
- PC9.** apply grease to all greasing points
- PC10.** drain accumulated water from the diesel tank.

##### *Reporting of recording details of checking and maintenance*

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

- PC11.** maintain a checking/maintenance logbook to detail all activities conducted before starting the bulldozer
- PC12.** inform supervisor of those problems that extend beyond scope of ones role
- PC13.** fill out administrative forms as required by the company

#### 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.** escalation matrix for reporting identified problems
- KU4.** cost of equipment and loss for the company that results from damage of equipment
- KU5.** direct /indirect cost of accidents

## Qualification Pack

- KU6.** implications of delays in process to the company
- KU7.** bulldozer takeover procedures according to company's SOP
- KU8.** locally prepared emergency response / disaster management plan
- KU9.** different types of mines and detail of the mine he is working in
- KU10.** mine organization, time keeping, need for discipline and punctuality
- KU11.** benching in quarries, dressing of overhangs, undercuts, fencing, first aid and hygiene
- KU12.** code of practice in specific areas of mine. significance of fences
- KU13.** standing orders in force at the mine. safety in the vicinity of machinery
- KU14.** shot-firing and safety regulations. how and where to take shelter
- KU15.** tramways and siding, haulage rooms, winding rooms, boilers, electrical gears
- KU16.** duties of workmen under mines act
- KU17.** provision of compensation and working hours as per mines act
- KU18.** knowledge of mining safety procedures
- KU19.** outcome of violation of safety procedures
- KU20.** precautions to be taken when handling explosive
- KU21.** refresher training as per fourth schedule mvtr (1966) within one month of joining duties following absence from duties for a period exceeding one year.
- KU22.** levers and switches in order to operate the bulldozer properly
- KU23.** instrument panel and various controls
- KU24.** basic physics and mechanics involved in using the bulldozer
- KU25.** signage, mining area signs and other safety and emergency signals
- KU26.** correct maintenance procedures for bulldozer
- KU27.** response to emergencies e.g. fire
- KU28.** safety regulations while operating the bulldozer
- KU29.** optimal working condition of bulldozer components e.g. parking brake, main horn, reverse horn, etc.
- KU30.** optimal oil level of engine, transmission, etc.
- KU31.** parts of bulldozer that need routine lubrication
- KU32.** optimal engine oil pressure, radiator coolant temperature

## Generic Skills (GS)

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

- GS1.** note down observations (if any)
- GS2.** write information documents or enter the information in online ERP systems under guidance of the supervisor
- GS3.** read and interpret symbols and measurements
- GS4.** read information documents
- GS5.** understand and analyse the available data about the site
- GS6.** discuss task lists, schedules and activities
- GS7.** effectively communicate

## Qualification Pack

- GS8.** attentively listen with full attention and comprehend the information given by various sources about the site
- GS9.** make decisions pertaining to the concerned area of work.
- GS10.** plan and organize the work order and jobs
- GS11.** organize all process manuals so that sorting/ accessing information is easy
- GS12.** detect problems in day to day tasks
- GS13.** discuss possible solution with the supervisor for problem solving
- GS14.** make decisions in emergency conditions
- GS15.** follow instructions and work on areas of improvement identified
- GS16.** complete the assigned tasks with minimum supervision
- GS17.** complete the job within timelines and quality norms
- GS18.** use common sense and make judgments during day to day basis
- GS19.** use reasoning skills to identify and resolve basic problems
- GS20.** use intuition to detect any potential problems which could arise

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Pre-operation checks &amp; Routine maintenance</i>	<b>12</b>	<b>45</b>	-	-
<b>PC1.</b> adhere to time limits given by supervisor	3	-	-	-
<b>PC2.</b> check oil levels of engine, transmission, radiator coolant and brake	3	3	-	-
<b>PC3.</b> check differential and hydraulic oil levels	3	3	-	-
<b>PC4.</b> check condition of parking brake, main horn, reverse horn, warning lamp and head light	-	6	-	-
<b>PC5.</b> ensure availability of safety features in dozers like audio visual alarm, camera, mirrors, horn, auto fire protection system	3	3	-	-
<b>PC6.</b> check fan belt tension, electrolyte level and terminal tightness	-	6	-	-
<b>PC7.</b> clean the bulldozer and outer element of air cleaner with compressed air	-	6	-	-
<b>PC8.</b> top up oil in engine, transmission, etc. if necessary after checking	-	6	-	-
<b>PC9.</b> apply grease to all greasing points	-	6	-	-
<b>PC10.</b> drain accumulated water from the diesel tank.	-	6	-	-
<i>Reporting of recording details of checking and maintenance</i>	<b>12</b>	<b>6</b>	-	-
<b>PC11.</b> maintain a checking/maintenance logbook to detail all activities conducted before starting the bulldozer	3	3	-	-
<b>PC12.</b> inform supervisor of those problems that extend beyond scope of ones role	3	3	-	-
<b>PC13.</b> fill out administrative forms as required by the company	6	-	-	-
<b>NOS Total</b>	<b>24</b>	<b>51</b>	-	-

## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	MIN/N0215
<b>NOS Name</b>	Prepare Bulldozer
<b>Sector</b>	Mining
<b>Sub-Sector</b>	Mining Operation
<b>Occupation</b>	Loading & Hauling - Opencast Mines
<b>NSQF Level</b>	4
<b>Credits</b>	TBD
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	24/03/2014
<b>Next Review Date</b>	24/03/2017
<b>NSQC Clearance Date</b>	18/06/2015

## Qualification Pack

### MIN/N0216: Perform Bulldozer Operations

#### Description

This unit is about performing operations while using the Bulldozer

#### Scope

This OS unit/task covers the following:

- Starting and driving the bulldozer to the operations area
- Engage and maneuver the blade to push or move around ore stacks/waste rock /rejects as necessary
- Use the blade appropriately for leveling the surface

#### Elements and Performance Criteria

##### *Starting and driving the bulldozer*

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

- PC1.** plan the dozing job before starting the maneuver
- PC2.** inspect the site to identify any loose soil, hidden deep trenches or marshy patches where dozer could get stuck.
- PC3.** ensure bulldozer load and operating speed is within specified limits
- PC4.** adhere to load targets and time limits given by supervisor
- PC5.** fill out administrative forms as required by the company

##### *Engage and maneuver the blade to push or move around orestacks/waste rock /rejects as necessary*

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

- PC6.** ensure proper lock out and tag out scenario to avoid any untoward incident triggered due to unknowingly operation of machine / system under maintenance.
- PC7.** inform supervisor of any problems while operating the bulldozer
- PC8.** ensure that no other operators travel on or stand near the bulldozer

##### *Use blade for leveling the surface*

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

- PC9.** ensure that walkway rules e.g. operating the bulldozer within the permissible/allocated areas are followed.
- PC10.** perform dozing safely on down slopes, near banks and bench edges
- PC11.** use the correct slings and links
- PC12.** perform maintenance checks as and when necessary

#### 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

## Qualification Pack

- KU2.** risk and impact of not following defined procedures/work instructions
- KU3.** rules and regulations of mine as per standard operating procedure (sop)
- KU4.** direct /indirect cost of accidents
- KU5.** cost of delay for the company
- KU6.** risk and impact of not following companys sop
- KU7.** escalation matrix for reporting identified problems
- KU8.** the duties and responsibilities associated with his job role as per the employer
- KU9.** locally prepared emergency preparedness / disaster management plan.
- KU10.** different types of mines and detail of the mine he is working in
- KU11.** mine organization, time keeping, need for discipline and punctuality
- KU12.** benching in quarries, dressing of overhangs, undercuts, fencing, first aid and hygiene
- KU13.** code of traffic in specific areas of mine. significance of fences
- KU14.** standing orders in force at the mine. safety in the vicinity of machinery
- KU15.** shot-firing and safety regulations. how and where to take shelter
- KU16.** tramways and siding, haulage rooms, winding rooms, boilers, electrical gears
- KU17.** duties of workmen under mines act
- KU18.** provision of wages, working hours and accident compensation as per mines act.
- KU19.** knowledge of mining safety procedures
- KU20.** outcome of violation of safely procedures
- KU21.** precautions to be taken when handling explosives
- KU22.** environmental impact of mining
- KU23.** sources of dust, noise and vibration and measures to minimize
- KU24.** refresher training as per fourth schedule mvtr (1966) within one month of joining duties following absence from duties for a period exceeding one year.
- KU25.** controls and switches needed to operate the bulldozer properly
- KU26.** basic physics and mechanics involved in using the bulldozer
- KU27.** correct operating procedures while using the bulldozer
- KU28.** power transmission systems and steering mechanisms
- KU29.** battery and dynamo connections
- KU30.** signage and other safety and emergency signals
- KU31.** guidelines for working in congested places e.g. stock piles, below overhangs.
- KU32.** response to emergencies e.g. fire
- KU33.** appropriate size and weight of material that can be transported by the bulldozer
- KU34.** safety regulations while operating the bulldozer
- KU35.** the optimal levels of control indicators e.g. fuel gauge, engine oil pressure and temperature
- KU36.** any unusual sound emanating from the engine.
- KU37.** precautions to be observed in the dump-yard.

## Generic Skills (GS)

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

## Qualification Pack

- GS1.** fill out check-list, daily logbooks detailing activities conducted
- GS2.** fill out administrative forms
- GS3.** read operators manual
- GS4.** read and understand checking/maintenance logbook
- GS5.** read and comprehend banners /signage
- GS6.** discuss task lists, schedules and activities
- GS7.** effectively communicate
- GS8.** attentively listen with full attention and comprehend the information given by various sources about the site
- GS9.** make decisions pertaining to the concerned area of work.
- GS10.** plan and organize the work order and jobs
- GS11.** organize all process manuals so that sorting/ accessing information is easy
- GS12.** detect problems in day to day tasks
- GS13.** discuss possible solution with the supervisor for problem solving
- GS14.** make decisions in emergency conditions
- GS15.** follow instructions and work on areas of improvement identified
- GS16.** complete the assigned tasks with minimum supervision
- GS17.** complete the job within timelines and quality norms
- GS18.** use common sense and make judgments during day to day basis
- GS19.** use reasoning skills to identify and resolve basic problems
- GS20.** use intuition to detect any potential problems which could arise



## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Starting and driving the bulldozer</i>	<b>12</b>	<b>30</b>	-	-
<b>PC1.</b> plan the dozing job before starting the maneuver	3	3	-	-
<b>PC2.</b> inspect the site to identify any loose soil, hidden deep trenches or marshy patches where dozer could get stuck.	-	12	-	-
<b>PC3.</b> ensure bulldozer load and operating speed is within specified limits	3	6	-	-
<b>PC4.</b> adhere to load targets and time limits given by supervisor	3	9	-	-
<b>PC5.</b> fill out administrative forms as required by the company	3	-	-	-
<i>Engage and maneuver the blade to push or move around orestacks/waste rock /rejects as necessary</i>	<b>3</b>	<b>15</b>	-	-
<b>PC6.</b> ensure proper lock out and tag out scenario to avoid any untoward incident triggered due to unknowingly operation of machine / system under maintenance.	-	6	-	-
<b>PC7.</b> inform supervisor of any problems while operating the bulldozer	3	3	-	-
<b>PC8.</b> ensure that no other operators travel on or stand near the bulldozer	-	6	-	-
<i>Use blade for leveling the surface</i>	<b>15</b>	<b>15</b>	-	-
<b>PC9.</b> ensure that walkway rules e.g. operating the bulldozer within the permissible/allocated areas are followed.	3	3	-	-
<b>PC10.</b> perform dozing safely on down slopes, near banks and bench edges	6	6	-	-
<b>PC11.</b> use the correct slings and links	3	3	-	-
<b>PC12.</b> perform maintenance checks as and when necessary	3	3	-	-

## Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
NOS Total	30	60	-	-

## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	MIN/N0216
<b>NOS Name</b>	Perform Bulldozer Operations
<b>Sector</b>	Mining
<b>Sub-Sector</b>	Mining Operation
<b>Occupation</b>	Loading & Hauling - Opencast Mines
<b>NSQF Level</b>	4
<b>Credits</b>	TBD
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	24/03/2014
<b>Next Review Date</b>	24/03/2017
<b>NSQC Clearance Date</b>	18/06/2015

## Qualification Pack

### MIN/N0217: To carry out reporting and documentation

#### Description

This unit is about carrying out reporting and documentation

#### Scope

This OS unit/task covers the following:

- Starting and driving the bulldozer to the operations area
- Engage and maneuver the blade to push or move around ore stacks/waste rock /rejects as necessary
- Use the blade appropriately for leveling the surface

#### Elements and Performance Criteria

##### *Reporting of problems / incidents*

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

- PC1.** report problems/incidents as applicable in a timely manner
- PC2.** report to the appropriate authority as laid down by the employer
- PC3.** follow reporting procedures as prescribed by the employer

##### *Reporting and Documentation*

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

- PC4.** identify documentation to be completed relating to ones role

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

- PC5.** record details accurately using the appropriate format
- PC6.** complete all documentation within stipulated time.
- PC7.** make sure documents are available to all appropriate authorities to inspect

#### 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.** risk and impact of not following defined procedures/work instructions
- KU3.** rules and regulations of mine as per standard operating procedure (sop)
- KU4.** risk and impact of not following companys sop
- KU5.** escalation matrix for reporting identified problems
- KU6.** the duties and responsibilities associated with his job role as per the employer
- KU7.** different types of mines and detail of the mine he is working in
- KU8.** commonly used mining terminology - benches (width, height etc.), haul roads (width, gradient), stability of slopes, over hang, under cut, high side etc.

## Qualification Pack

- KU9.** duties of workmen under mines act
- KU10.** provision of wages, working hours and accident compensation as per mines act
- KU11.** knowledge of mining safety procedures
- KU12.** outcome of violation of safely procedures
- KU13.** precautions to be taken when handling heavy equipment.

### Generic Skills (GS)

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

- GS1.** fill up documentation applicable to ones role
- GS2.** read english and/or vernacular language with few pauses and a constant speed
- GS3.** read and understand manuals, health and safety instructions, memos etc
- GS4.** ability to read from different sources - books, screens in machines, signange
- GS5.** understand the various color codes, as per standard mining nomenclature
- GS6.** express statements or information clearly so that others can hear and understand
- GS7.** participate in and understand the main points of simple discussions
- GS8.** respond appropriately to any queries
- GS9.** communicate with supervisor
- GS10.** make decisions pertaining to the concerned area of work.
- GS11.** plan and organize the work order and jobs
- GS12.** organize all process manuals so that sorting/ accessing information is easy
- GS13.** detect problems in day to day tasks
- GS14.** discuss possible solution with the supervisor for problem solving
- GS15.** make decisions in emergency conditions
- GS16.** follow instructions and work on areas of improvement identified
- GS17.** complete the assigned tasks with minimum supervision
- GS18.** complete the job within timelines and quality norms
- GS19.** use common sense and make judgments during day to day basis
- GS20.** use reasoning skills to identify and resolve basic problems
- GS21.** use intuition to detect any potential problems which could arise

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Reporting of problems / incidents</i>	<b>9</b>	<b>18</b>	-	-
<b>PC1.</b> report problems/incidents as applicable in a timely manner	3	6	-	-
<b>PC2.</b> report to the appropriate authority as laid down by the employer	3	9	-	-
<b>PC3.</b> follow reporting procedures as prescribed by the employer	3	3	-	-
<i>Reporting and Documentation</i>	-	<b>3</b>	-	-
<b>PC4.</b> identify documentation to be completed relating to ones role	-	3	-	-
	<b>9</b>	<b>6</b>	-	-
<b>PC5.</b> record details accurately using the appropriate format	3	3	-	-
<b>PC6.</b> complete all documentation within stipulated time.	3	3	-	-
<b>PC7.</b> make sure documents are available to all appropriate authorities to inspect	3	-	-	-
<b>NOS Total</b>	<b>18</b>	<b>27</b>	-	-

## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	MIN/N0217
<b>NOS Name</b>	To carry out reporting and documentation
<b>Sector</b>	Mining
<b>Sub-Sector</b>	Mining Operation
<b>Occupation</b>	Loading & Hauling - Opencast Mines
<b>NSQF Level</b>	4
<b>Credits</b>	TBD
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	24/03/2014
<b>Next Review Date</b>	24/03/2017
<b>NSQC Clearance Date</b>	18/06/2015

## Qualification Pack

### Assessment Guidelines and Assessment Weightage

#### Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) (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 PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.
5. In case of successfully passing only certain number of NOSs, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.
6. 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
MIN/N0204.Health and Safety measures critical in open-cast mines	30	70	-	-	100	25
MIN/N0215.Prepare Bulldozer	24	51	-	-	75	25
MIN/N0216.Perform Bulldozer Operations	30	60	-	-	90	25
MIN/N0217.To carry out reporting and documentation	18	27	-	-	45	25



## Qualification Pack

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
<b>Total</b>	<b>102</b>	<b>208</b>	<b>-</b>	<b>-</b>	<b>310</b>	<b>100</b>

## Qualification Pack

### Acronyms

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

## Qualification Pack

### Glossary

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

## Qualification Pack

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