



Qualification Pack



Pavement Layer (Helper)

QP Code: CON/Q1001

Version: 2.0

NSQF Level: 2

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CON/Q1001: Pavement Layer (Helper)

Brief Job Description

This job role is responsible for assisting in the construction of flexible pavements or in rehabilitation works for roads constructed manually by selecting, handling, and placing materials and carrying out earthwork for construction of the base course and wearing course of the roads using appropriate hand tools and equipment.

Personal Attributes

The assistant pavement layer is expected to be physically fit to work across various locations with varied environmental conditions. The person should be organized, diligent, methodical, and safety-conscious. The individual should be team-oriented.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

- [1. CON/N1001: Handle and store tools and construction materials for road construction works](#)
- [2. CON/N1002: Prepare base course for roads by carrying out surface cleaning and manual earthwork](#)
- [3. CON/N1003: Shift and place hot asphalt mix by suitable/ specified means at specified locations](#)
- [4. CON/N8001: Work effectively in a team to deliver desired results at the workplace](#)
- [5. CON/N9001: Work according to personal health, safety and environment protocols at construction site](#)

Qualification Pack (QP) Parameters

Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Roads and Runway Construction
Country	India
NSQF Level	2
Credits	NA



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Aligned to NCO/ISCO/ISIC Code	NCO-2015/7112.05.9900
Minimum Educational Qualification & Experience	Ability to read and write
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NIL
Minimum Job Entry Age	18 Years
Last Reviewed On	31/03/2022
Next Review Date	31/03/2025
NSQC Approval Date	31/03/2022
Version	2.0
Reference code on NQR	2022/CON/CSDCI/05620
NQR Version	1.0



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CON/N1001: Handle and store tools and construction materials for road construction works

Description

This unit describes the skills and knowledge required to identify, handle, and store tools, and construction materials required for road construction work.

Scope

The scope covers the following :

- Handle and store construction materials relevant to road construction work.
- Handle and store construction tools and equipment relevant to road construction work.

Elements and Performance Criteria

Handle and store construction materials relevant to road construction work

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

- PC1.** identify various construction materials used in road construction works
- PC2.** select construction materials such as aggregates, sand, bitumen, morrum, stone crusher dust, used for construction of flexible pavement as per requirement
- PC3.** select different components of service lines/ drainage work for roads, such as pipelines, ducts, and its accessories as per requirement
- PC4.** select different hazardous material such as hot bitumen/ asphalt, diesel, chemicals etc. used in the road construction work, adopting appropriate safety guidelines
- PC5.** handle materials, tools and hot bitumen as per general safety guidelines using appropriate PPEs
- PC6.** load/ unload, shift and stack the various construction materials such as bricks, blocks, aggregates etc. at appropriate location as per instructions, using proper tools
- PC7.** shift sewer/ drainage pipe segments and their accessories to the specified location and stack them as per instruction/ standard practice
- PC8.** lift and shift heavy materials manually, maintaining correct body posture and ergonomics
- PC9.** store and stack hazardous material as per standard practice/ instructions at specified location at site
- PC10.** erect barricades and safety signages at the workplace as per instructions

Handle and store construction tools and equipment relevant to road construction work.

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

- PC11.** identify various construction tools and equipment used in road construction works
- PC12.** select tools and equipment required for surface grading/ cleaning, earthwork, bitumen spreading, etc. for road laying operation as per requirement
- PC13.** select the various type of scaffolding and barricading systems used for road construction works as per requirement
- PC14.** shift tools and tackles manually to specified location, maintaining correct body posture and ergonomics as per instructions



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PC15. shift heavy tools/equipment safely by assisting cranes etc. as per the requirements under supervision

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard organizational practices followed for handling and storing tools, equipment, and materials for the roads and pavements laying works
- KU2.** safety rules and regulations for handling and storing required tools, equipment and materials
- KU3.** importance of personal protection including the use of related safety gears & equipment in accordance with organizational norms
- KU4.** service request procedures for tools, materials and equipment as per organizational norms
- KU5.** procedure for maintenance of relevant tools and equipment
- KU6.** standard procedure of handling and storing bitumen
- KU7.** common tools and tackles used in road laying works including their use
- KU8.** standard procedure of storing and handling of sewer and drainage pipes
- KU9.** procedure for storing, stacking & tagging hazardous materials and their properties
- KU10.** size and type of gravels, stones, and filler materials relevant to the pavement construction
- KU11.** physical properties of bitumen
- KU12.** handling procedure of bitumen and PPEs to be used while working with the hot asphalt
- KU13.** the procedure of handling and stacking of pipes as per standard practice
- KU14.** the standard practice of shifting and stacking of bitumen and polymer containers
- KU15.** the safe procedure followed while loading, unloading, and shifting of construction materials

Generic Skills (GS)

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

- GS1.** write in at least one languages, preferably in the local language of the site
- GS2.** read drawing/sketches, work, and safety-related instructions/signboards, etc. in one or more languages, preferably in the local language of the site
- GS3.** speak in one or more languages, preferably in one of the local languages of the site
- GS4.** listen attentively to instructions communicated by supervisors
- GS5.** communicate orally and efficiently with team members
- GS6.** analyze the safety aspect of the workplace
- GS7.** plan work to achieve productivity as per the direction /close supervision of superiors
- GS8.** ensure work is done within time and as per desired quality based on instructions provided by superiors
- GS9.** identify any violation of safety norms during the work



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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Handle and store construction materials relevant to road construction work</i>	8	32	-	-
PC1. identify various construction materials used in road construction works	-	-	-	-
PC2. select construction materials such as aggregates, sand, bitumen, morrum, stone crusher dust, used for construction of flexible pavement as per requirement	-	-	-	-
PC3. select different components of service lines/ drainage work for roads, such as pipelines, ducts, and its accessories as per requirement	-	-	-	-
PC4. select different hazardous material such as hot bitumen/ asphalt, diesel, chemicals etc. used in the road construction work, adopting appropriate safety guidelines	-	-	-	-
PC5. handle materials, tools and hot bitumen as per general safety guidelines using appropriate PPEs	-	-	-	-
PC6. load/ unload, shift and stack the various construction materials such as bricks, blocks, aggregates etc. at appropriate location as per instructions, using proper tools	-	-	-	-
PC7. shift sewer/ drainage pipe segments and their accessories to the specified location and stack them as per instruction/ standard practice	-	-	-	-
PC8. lift and shift heavy materials manually, maintaining correct body posture and ergonomics	-	-	-	-
PC9. store and stack hazardous material as per standard practice/ instructions at specified location at site	-	-	-	-
PC10. erect barricades and safety signages at the workplace as per instructions	-	-	-	-
<i>• Handle and store construction tools and equipment relevant to road construction work.</i>	12	48	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. identify various construction tools and equipment used in road construction works	-	-	-	-
PC12. select tools and equipment required for surface grading/ cleaning, earthwork, bitumen spreading, etc. for road laying operation as per requirement	-	-	-	-
PC13. select the various type of scaffolding and barricading systems used for road construction works as per requirement	-	-	-	-
PC14. shift tools and tackles manually to specified location, maintaining correct body posture and ergonomics as per instructions	-	-	-	-
PC15. shift heavy tools/equipment safely by assisting cranes etc. as per the requirements under supervision	-	-	-	-
NOS Total	20	80	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CON/N1001
NOS Name	Handle and store tools and construction materials for road construction works
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Roads & Runway Construction
NSQF Level	2
Credits	TBD
Version	2.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



Qualification Pack

CON/N1002: Prepare base course for roads by carrying out surface cleaning and manual earthwork

Description

This unit describes the skills and knowledge required to prepare a base course for roads by carrying out surface cleaning and manual earthwork.

Scope

The scope covers the following :

- Carry out preparatory work prior to earthwork.
- Carry out manual excavation and backfilling with earth / moorum or crusher dust.
- Assist roller operator with the leveling and compaction of base course.

Elements and Performance Criteria

Carry out preparatory work prior to earthwork

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

- PC1.** carry out surface cleaning work using appropriate PPEs
- PC2.** grub soil from the proposed area and dispose uprooted plants and grasses to specified locations as per instructions
- PC3.** remove unwanted materials, organic substances and other manually removable objects from the worksite using appropriate hand tools as per the instructions
- PC4.** clean earth surface for marking activity using proper hand tools
- PC5.** carry out marking for excavation using lime, wooden pegs, ropes and other suitable materials as per the instructions
- PC6.** shift and stack fencing/ barricading materials, safety signages, ladders, ropes, earth cutting and shifting tools at specified locations as per instructions

Carry out manual excavation and backfilling with earth / moorum or crusher dust

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

- PC7.** use appropriate PPEs for the manual earthwork
- PC8.** excavate earth to required depth and slope using appropriate tools as per instructions
- PC9.** dispose the excavated soil/earth from the pit/trench using suitable tools and equipment such as spade, wheel barrows and pans as per instructions
- PC10.** check for loose material, soil lumps, pebbles on achieving the desired earth level
- PC11.** carry out surface dressing by shifting loose material, gravels, plant roots, sludge, muck and debris as per the requirement to the appropriate location
- PC12.** shift earth, moorum, gravel or sands and spread them on the top surface of the roads as per construction requirement of the road/ pavement
- PC13.** fill earth/ gravel, boulders, stone dust and other filler material as per applicability for constructing sub base and base course manually, maintaining specific depth of layers as per instructions



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PC14. fill/ spread moorum, stone dust maintaining uniform thickness of layers as per applicability/instructions

Assist roller operator with the leveling and compaction of base course

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

PC15. sort gravels or oversized aggregates manually from soil prior to backfilling as per instructions

PC16. sprinkle water on the base course surface as per the direction of superiors

PC17. cut protruded soil lumps and rocks up to desired level using appropriate cutting tools

PC18. assist the roller operator by adding earth/ soil in the required quantity to the pits and holes

PC19. carry out compaction of the base layer by ramming or operating hand/ plate compactor as per instruction/applicability

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. standard practices followed for manual earthwork in pavement laying works

KU2. safety rules and regulations for handling and storing relevant tools, equipment, and materials for manual earthwork in accordance with organizational norms

KU3. personal protection including the use of related safety gears & equipment in accordance with organizational norms

KU4. service request procedures for tools, materials and equipment as per organizational norms

KU5. procedure for maintenance of tools and equipment

KU6. hand and marking tools such as spade, pickaxe, shovel, pans, line threads, wooden pegs, ropes and wheelbarrow used in manual earth cutting activity

KU7. precautions to be taken while working in a pit/trench below ground level

KU8. use of plate compactor, hand roller and earth ramming tools etc

KU9. how to maintain slope in excavation

KU10. use of ladder to access earth pits

KU11. how to dig earth to remove vegetation, stumps, etc

KU12. how to manually remove rocks and boulders which have protruded above finished sub-grade surface

KU13. appropriate thickness of various layers as per the requirement at the construction site

KU14. how to spread water uniformly over surface of base course layers during compaction process

KU15. how to shift and spread earth, moorum, stone on the specified surface uniformly maintaining specified thickness of layers

KU16. sequence of activities, use of construction materials and steps involved in formation of base course for roads

Generic Skills (GS)

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

GS1. write in at least one languages, preferably in the local language of the site



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- GS2.** read drawing/sketches, work, and safety-related instructions/signboards in one or more languages, preferably in the local language of the site
- GS3.** speak in one or more language, preferably in one of the local languages of the site
- GS4.** listen attentively to instructions communicated by supervisors
- GS5.** communicate orally and efficiently with team members
- GS6.** analyze the safety aspects of the workplace
- GS7.** plan work to achieve productivity as per the direction /close supervision of superiors
- GS8.** ensure work is done within time and as per desired quality based on instructions provided by superiors
- GS9.** identify any violation of safety norms during the work



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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Carry out preparatory work prior to earthwork</i>	5	20	-	-
PC1. carry out surface cleaning work using appropriate PPEs	-	-	-	-
PC2. grub soil from the proposed area and dispose uprooted plants and grasses to specified locations as per instructions	-	-	-	-
PC3. remove unwanted materials, organic substances and other manually removable objects from the worksite using appropriate hand tools as per the instructions	-	-	-	-
PC4. clean earth surface for marking activity using proper hand tools	-	-	-	-
PC5. carry out marking for excavation using lime, wooden pegs, ropes and other suitable materials as per the instructions	-	-	-	-
PC6. shift and stack fencing/ barricading materials, safety signages, ladders, ropes, earth cutting and shifting tools at specified locations as per instructions	-	-	-	-
<i>Carry out manual excavation and backfilling with earth / moorum or crusher dust</i>	10	40	-	-
PC7. use appropriate PPEs for the manual earthwork	-	-	-	-
PC8. excavate earth to required depth and slope using appropriate tools as per instructions	-	-	-	-
PC9. dispose the excavated soil/earth from the pit/trench using suitable tools and equipment such as spade, wheel barrows and pans as per instructions	-	-	-	-
PC10. check for loose material, soil lumps, pebbles on achieving the desired earth level	-	-	-	-
PC11. carry out surface dressing by shifting loose material, gravels, plant roots, sludge, muck and debris as per the requirement to the appropriate location	-	-	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. shift earth, moorum, gravel or sands and spread them on the top surface of the roads as per construction requirement of the road/ pavement	-	-	-	-
PC13. fill earth/ gravel, boulders, stone dust and other filler material as per applicability for constructing sub base and base course manually, maintaining specific depth of layers as per instructions	-	-	-	-
PC14. fill/ spread moorum, stone dust maintaining uniform thickness of layers as per applicability/instructions	-	-	-	-
<i>Assist roller operator with the leveling and compaction of base course</i>	5	20	-	-
PC15. sort gravels or oversized aggregates manually from soil prior to backfilling as per instructions	-	-	-	-
PC16. sprinkle water on the base course surface as per the direction of superiors	-	-	-	-
PC17. cut protruded soil lumps and rocks up to desired level using appropriate cutting tools	-	-	-	-
PC18. assist the roller operator by adding earth/ soil in the required quantity to the pits and holes	-	-	-	-
PC19. carry out compaction of the base layer by ramming or operating hand/ plate compactor as per instruction/applicability	-	-	-	-
NOS Total	20	80	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CON/N1002
NOS Name	Prepare base course for roads by carrying out surface cleaning and manual earthwork
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Roads & Runway Construction
NSQF Level	2
Credits	TBD
Version	2.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



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CON/N1003: Shift and place hot asphalt mix by suitable/ specified means at specified locations

Description

This unit describes the skills and knowledge required to shift and place hot asphalt mix by suitable/ specified means at the appropriate work location.

Scope

The scope covers the following :

- Shift and place hot asphalt mix at the appropriate locations using suitable means

Elements and Performance Criteria

Shift and place hot asphalt mix at the appropriate locations using suitable means

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

- PC1.** operate wheel barrow to shift bitumen/ asphalt mix without spillage from mixing location to the placing point
- PC2.** handle hot bitumen safely, wearing appropriate PPEs
- PC3.** place the asphalt mix from wheelbarrow at appropriate location under close supervision
- PC4.** avoid contact with the hot asphalt mix during the transportation work
- PC5.** identify unsafe conditions during mixing and placing of hot asphalt and report the same to the seniors

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard practices followed for pavement laying works
- KU2.** safety rules and regulations for handling and storing relevant tools, equipment, and materials for pavement laying works in accordance with organizational norms
- KU3.** importance of personal protection including the use of related safety gears & equipment in accordance with organizational norms
- KU4.** service request procedures for tools, materials and equipment as per organizational norms
- KU5.** procedure for the maintenance of tools and equipment relevant to work
- KU6.** the standard and safe procedure, including usage of PPEs for handling hot bitumen/ asphalt mix
- KU7.** method of shifting bitumen/ asphalt mix using transporting equipment
- KU8.** correct procedure of operating the transportation vehicle and unloading bitumen/ asphalt mix from it
- KU9.** physical properties of bitumen/ asphalt mix and hazards involved in handling the same



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- KU10.** components of asphalt and mixing procedure of bitumen, aggregates, sands and polymers (if applicable) to form asphalt
- KU11.** the sequence of placing of asphalt on the road surface

Generic Skills (GS)

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

- GS1.** write in at least one language, preferably in the local language of the site
- GS2.** read drawing/sketches, work, and safety-related instructions/signboards in one or more languages, preferably in the local language of the site
- GS3.** speak in one or more language, preferably in one of the local languages of the site
- GS4.** listen attentively to instructions communicated by supervisors
- GS5.** communicate orally and efficiently with team members
- GS6.** analyze the safety aspect of the workplace
- GS7.** plan work to achieve productivity as per the direction /close supervision of superiors
- GS8.** ensure work is done within time and as per desired quality based on instructions provided by superiors
- GS9.** identify any violation of safety norms during the work



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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Shift and place hot asphalt mix at the appropriate locations using suitable means</i>	20	80	-	-
PC1. operate wheel barrow to shift bitumen/ asphalt mix without spillage from mixing location to the placing point	-	-	-	-
PC2. handle hot bitumen safely, wearing appropriate PPEs	-	-	-	-
PC3. place the asphalt mix from wheelbarrow at appropriate location under close supervision	-	-	-	-
PC4. avoid contact with the hot asphalt mix during the transportation work	-	-	-	-
PC5. identify unsafe conditions during mixing and placing of hot asphalt and report the same to the seniors	-	-	-	-
NOS Total	20	80	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CON/N1003
NOS Name	Shift and place hot asphalt mix by suitable/ specified means at specified locations
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Roads & Runway Construction
NSQF Level	2
Credits	TBD
Version	2.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



Qualification Pack

CON/N8001: Work effectively in a team to deliver desired results at the workplace

Description

This unit describes the skills and knowledge required to work effectively within a team to achieve the desired results

Scope

The scope covers the following :

- Interact and communicate effectively with co-workers, superiors and sub-ordinates across different teams
- Support co-workers, superiors and sub-ordinates within the team and across interfacing teams to ensure effective execution of assigned task
- Acknowledge and show sensitivity to disability, culture and gender diversity

Elements and Performance Criteria

Interact and communicate effectively with co-workers, superiors and sub-ordinates across different teams

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

- PC1.** pass on work related information/ requirement clearly to the team members
- PC2.** inform co-workers and superiors about any kind of deviations from work
- PC3.** address the problems effectively and report if required to immediate supervisor appropriately
- PC4.** receive instructions clearly from superiors and respond effectively on the same
- PC5.** communicate to team members/subordinates for appropriate work technique and method
- PC6.** seek clarification and advice as per the requirement and applicability

• *Support co-workers, superiors and sub-ordinates within the team and across interfacing teams to ensure effective execution of assigned task*

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

- PC7.** hand over the required material, tools tackles, equipment and work fronts timely to interfacing teams
- PC8.** work together with co-workers in a synchronized manner

Acknowledge and show sensitivity to disability, culture and gender diversity

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

- PC9.** follow practices which are sensitive to disability, culture and gender diversity.
- PC10.** respond to attitude and behaviour which are aggressive, abusive or discriminatory, in a professional manner and as per organizational policy

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:



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- KU1.** own roles and responsibilities
- KU2.** importance of effective communication and establishing strong working
- KU3.** risks of a failure in teamwork in terms of effects on project outcomes, timelines, safety at the construction site, etc.
- KU4.** different modes of communication, and its appropriate usage
- KU5.** importance of creating healthy and cooperative work environment among the gangs of workers
- KU6.** different activities within his work area where an interaction with other workers is required
- KU7.** applicable techniques of work, properties of materials used, tools and tackles used, safety standards that co-workers might need as per the requirement
- KU8.** importance of proper and effective communication and the expected adverse effects in case of failure relating to quality, timelines, safety, risks at the construction project site
- KU9.** importance and need of supporting co-workers facing problems for smooth functioning of work
- KU10.** the fundamental concept of gender equality
- KU11.** how to recognise and be sensitive to issues of disability, culture and gender

Generic Skills (GS)

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

- GS1.** write in at least one language, preferably in the local language of the site
- GS2.** read in one or more languages, preferably the local language of the site
- GS3.** read communication from team members regarding work completed, materials used, tools and tackles used, support required
- GS4.** speak in one or more languages, preferably in one of the local language of the site
- GS5.** listen and follow instructions / communication shared by superiors/ co-workers regarding team requirements or interfaces during work processes
- GS6.** communicate orally with co-workers regarding support required to complete the respective work
- GS7.** decide on what information is to be shared with co-workers within the team or from interfacing gang of workers
- GS8.** plan work and organize required resources in coordination with team members
- GS9.** complete all assigned task in coordination with team members
- GS10.** take initiative in resolving issues among co-workers or report the same to superiors
- GS11.** ensure best ways of coordination among team members
- GS12.** communicate with co-workers considering their educational / social background
- GS13.** evaluate the complexity of task and determine if any guidance is required from superiors



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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Interact and communicate effectively with co-workers, superiors and sub-ordinates across different teams</i>	12	48	-	-
PC1. pass on work related information/ requirement clearly to the team members	-	-	-	-
PC2. inform co-workers and superiors about any kind of deviations from work	-	-	-	-
PC3. address the problems effectively and report if required to immediate supervisor appropriately	-	-	-	-
PC4. receive instructions clearly from superiors and respond effectively on the same	-	-	-	-
PC5. communicate to team members/subordinates for appropriate work technique and method	-	-	-	-
PC6. seek clarification and advice as per the requirement and applicability	-	-	-	-
• <i>Support co-workers, superiors and sub-ordinates within the team and across interfacing teams to ensure effective execution of assigned task</i>	4	16	-	-
PC7. hand over the required material, tools tackles, equipment and work fronts timely to interfacing teams	-	-	-	-
PC8. work together with co-workers in a synchronized manner	-	-	-	-
<i>Acknowledge and show sensitivity to disability, culture and gender diversity</i>	4	16	-	-
PC9. follow practices which are sensitive to disability, culture and gender diversity.	-	-	-	-
PC10. respond to attitude and behaviour which are aggressive, abusive or discriminatory, in a professional manner and as per organizational policy	-	-	-	-
NOS Total	20	80	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CON/N8001
NOS Name	Work effectively in a team to deliver desired results at the workplace
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Generic 2
NSQF Level	2
Credits	TBD
Version	5.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



Qualification Pack

CON/N9001: Work according to personal health, safety and environment protocols at construction site

Description

This NOS covers the skill and knowledge required for an individual to work according to personal health, safety and environmental protocol at construction site

Scope

The scope covers the following :

- Follow safety norms as defined by organization
- Adopt healthy & safe work practices
- Implement good housekeeping and environment protection process and activities
- Follow infection control guidelines as per applicability

Elements and Performance Criteria

Follow safety norms as defined by organization

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

- PC1.** identify and report any hazards, risks or breaches in site safety to the appropriate authority
- PC2.** follow emergency and evacuation procedures in case of accidents, fires, natural calamities
- PC3.** follow recommended safe practices in handling construction materials, including chemical and hazardous material whenever applicable
- PC4.** follow all the protocols and safety techniques conveyed during safety awareness programs like Tool Box Talks, safety demonstrations and mock drills conducted at the site
- PC5.**
 - select and operate different types of fire extinguishers corresponding to various types of fires
 - as per EHS guideline
- PC6.** identify near miss , unsafe condition and unsafe act

Adopt healthy & safe work practices

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

- PC7.** use appropriate Personal Protective Equipment (PPE) as per work requirements including: Head Protection (Helmets) Ear protection Fall Protection Foot Protection Face and Eye Protection, Hand and Body Protection Respiratory Protection (if required)
- PC8.** handle all required tools, tackles , materials & equipment safely
- PC9.** follow safe disposal of waste, harmful and hazardous materials as per EHS guidelines
- PC10.** check and install all safety equipment as per standard guidelines
- PC11.** follow safety protocol and practices as laid down by site EHS department
- PC12.** obtain "height pass" clearance for working at heights

Implement good housekeeping practices

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

- PC13.**
 - collect, segregate and deposit construction waste into appropriate containers based on their
 - toxicity or hazardous nature



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PC14. apply ergonomic principles wherever required

Follow infection control guidelines as per applicability

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

PC15. follow recommended personal hygiene, workplace hygiene and sanitization practices

PC16. clean and disinfect all materials, tools and supplies before and after use

PC17. • report immediately to concerned authorities regarding signs and symptoms of illness of self
• and others

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. reporting procedures in cases of breaches or hazards for site safety, accidents, and emergency situations as per guidelines

KU2. types of safety hazards at construction sites

KU3. basic ergonomic principles as per applicability

KU4. the procedure for responding to accidents and other emergencies at site

KU5. use of appropriate personal protective equipment based on various working conditions

KU6. importance of handling tools, equipment, and materials as per applicable norms

KU7. effect of construction material on health and environments as per applicability

KU8. various environmental protection methods as per applicability

KU9. storage of waste including non-combustible scrap material and debris, combustible scrap material and debris, general construction waste and trash (non-toxic, non-hazardous), any other hazardous wastes and any other flammable wastes at the appropriate location

KU10. how to keep the workplace neat and tidy so as to be safe

KU11. how to use hazardous material in a safe and appropriate manner as per applicability

KU12. types of fire

KU13. procedure of operating different types of fire extinguishers

KU14. safety relevant to tools, tackles, and equipment as per applicability

KU15. housekeeping activities relevant to task

KU16. ways of transmission of infection

KU17. ways to manage infectious risks at the workplace

KU18. different methods of cleaning, disinfection, sterilization, and sanitization

KU19. symptoms of infection like fever, cough, redness, swelling, and inflammation

Generic Skills (GS)

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

GS1. write in at least one language, preferably in the local language of the site

GS2. fill safety formats for near miss, unsafe conditions and safety suggestions

GS3. read in one or more language, preferably in the local language of the site

GS4. speak in one or more language, preferably in one of the local language of the site



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- GS5.** listen to instructions/communication shared by site EHS and superiors regarding site safety, and conducting the toolbox talk
- GS6.** identify potential safety risks and report to the appropriate authority
- GS7.**
- assess and analyze areas which may affect health, safety and environment protocol on the
 - site



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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Follow safety norms as defined by organization</i>	4	16	-	-
PC1. identify and report any hazards, risks or breaches in site safety to the appropriate authority	-	-	-	-
PC2. follow emergency and evacuation procedures in case of accidents, fires, natural calamities	-	-	-	-
PC3. follow recommended safe practices in handling construction materials, including chemical and hazardous material whenever applicable	-	-	-	-
PC4. follow all the protocols and safety techniques conveyed during safety awareness programs like Tool Box Talks, safety demonstrations and mock drills conducted at the site	-	-	-	-
PC5. <ul style="list-style-type: none"> select and operate different types of fire extinguishers corresponding to various types of fires as per EHS guideline 	-	-	-	-
PC6. identify near miss , unsafe condition and unsafe act	-	-	-	-
<i>Adopt healthy & safe work practices</i>	10	40	-	-
PC7. use appropriate Personal Protective Equipment (PPE) as per work requirements including: Head Protection (Helmets) Ear protection Fall Protection Foot Protection Face and Eye Protection, Hand and Body Protection Respiratory Protection (if required)	-	-	-	-
PC8. handle all required tools, tackles , materials & equipment safely	-	-	-	-
PC9. follow safe disposal of waste, harmful and hazardous materials as per EHS guidelines	-	-	-	-
PC10. check and install all safety equipment as per standard guidelines	-	-	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. follow safety protocol and practices as laid down by site EHS department	-	-	-	-
PC12. obtain "height pass" clearance for working at heights	-	-	-	-
<i>Implement good housekeeping practices</i>	4	16	-	-
PC13. <ul style="list-style-type: none"> • collect, segregate and deposit construction waste into appropriate containers based on their • toxicity or hazardous nature 	-	-	-	-
PC14. apply ergonomic principles wherever required	-	-	-	-
<i>Follow infection control guidelines as per applicability</i>	2	8	-	-
PC15. follow recommended personal hygiene, workplace hygiene and sanitization practices	-	-	-	-
PC16. clean and disinfect all materials, tools and supplies before and after use	-	-	-	-
PC17. <ul style="list-style-type: none"> • report immediately to concerned authorities regarding signs and symptoms of illness of self • and others 	-	-	-	-
NOS Total	20	80	-	-



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	CON/N9001
NOS Name	Work according to personal health, safety and environment protocols at construction site
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Generic Safety
NSQF Level	2
Credits	TBD
Version	7.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC)/ Elements 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/Elements.
2. The assessment for the knowledge part will be based on knowledge bank of questions created by Assessment Bodies subject to approval by SSC
3. Individual assessment agencies will create unique question papers for knowledge/theory part for assessment of candidates as per assessment criteria given below
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on assessment criteria.
5. The passing percentage for each QP will be 50%. To pass the Qualification Pack, every trainee should score a minimum of 50% individually in each NOS.
6. The Assessor shall check the final outcome of the practices while evaluating the steps performed to achieve the final outcome.



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- The trainee shall be provided with a chance to repeat the test to correct his procedures in case of improper performance, with a deduction of marks for each iteration.
- After the certain number of iterations as decided by SSC the trainee is marked as fail, scoring zero marks for the procedure for the practical activity.
- In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack within the specified time frame set by SSC.
- Minimum duration of Assessment of each QP shall be of 4hrs/trainee.

Minimum Aggregate Passing % at QP Level : 50

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

Minimum Passing % at NOS Level: 50

(Please note: A Trainee must score the minimum percentage for each NOS separately as well as on the QP as a whole.)

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
CON/N1001. Identify, handle and store tools and construction materials for road construction works	20	80	-	-	100	20
CON/N1002. Prepare base course for road by surface cleaning and carrying out earthwork manually	20	80	-	-	100	30
CON/N1003. Shift and place hot asphalt mix by suitable/ specified means at specified locations	20	80	-	-	100	25
CON/N8001. Work effectively in a team to deliver desired results at the workplace	20	80	-	-	100	10



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National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
CON/N9001.Work according to personal health, safety and environment protocols at construction site	20	80	-	-	100	15
Total	100	400	-	-	500	100



Qualification Pack

Acronyms

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



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