



Qualification Pack



Helper Shuttering Carpenter

Options: Manual earthwork

QP Code: CON/Q0301

Version: 2.0

NSQF Level: 2

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CON/Q0301: Helper Shuttering Carpenter

Brief Job Description

This job role is responsible for identification, handling and shifting of materials, components and equipment. The responsibilities also includes using of basic tools for cutting, sizing, planeing and drilling of timber/ plywood, carrying out manual earthwork, erection and dismantling temporary scaffold. The individual should have knowledge about the environment, health, safety and safe working practices.

Personal Attributes

The individual is expected to be physically fit and should be able to work across various locations in withstanding extreme conditions while working. The individual should be able to work within a team to handle various carpentry & scaffolding tools, materials, equipment and works under continuous instructions and close supervision.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [CON/N0305: Identify, shift and stack tools, materials and equipment relevant to shuttering carpentry and scaffolding](#)
2. [CON/N0306: Use hand tools for cutting, planing and drilling of timber/plywood](#)
3. [CON/N0101: Erect and dismantle temporary scaffold up to 3.6 meter height](#)
4. [CON/N9001: Work according to personal health, safety and environment protocol at construction site](#)

Options(Not mandatory):

Option : Manual earthwork

This unit describes the skills and knowledge required to carry out manual earthwork at construction sites

1. [CON/N0104: Carry out manual earthwork at construction site](#)

Qualification Pack (QP) Parameters

Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction



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Occupation	Shuttering Carpentry
Country	India
NSQF Level	2
Aligned to NCO/ISCO/ISIC Code	NCO-2015/9313.0401
Minimum Educational Qualification & Experience	5th Class with 0-6 Months of experience minimum 3 months in same occupation
Minimum Level of Education for Training in School	Not Applicable
Pre-Requisite License or Training	NIL
Minimum Job Entry Age	18 Years
Last Reviewed On	19/06/2020
Next Review Date	24/07/2023
Deactivation Date	24/07/2023
NSQC Approval Date	22/08/2019
Version	2.0
Reference code on NQR	2019/CON/CSDCI/3286
NQR Version	2



Qualification Pack

CON/N0305: Identify, shift and stack tools, materials and equipment relevant to shuttering carpentry and scaffolding

Description

This unit describes the skills and knowledge required to identify, shift and stack basic tools, materials, components and equipment relevant to shuttering carpentry and scaffolding site under continuous instructions and close supervision

Scope

The scope covers the following :

- Identify, shift and stack tools, materials, and equipment relevant to shuttering carpentry and scaffolding

Elements and Performance Criteria

Identify, shift and stack tools, materials, and equipment relevant to shuttering carpentry and scaffolding

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

- PC1.** identify hand tools such as claw hammer, hand saw, hack saw wooden planners, measuring tape, nailing hammer, try square, plumb bob and other relevant tools
- PC2.** identify basic carpentry materials such as timbers, plywood, runner pieces of different size, wooden battens and other relevant carpentry materials
- PC3.** identify consumable items such as nails of different size, masking tape, cotton waste, cotton and nylon line thread, cotton waste
- PC4.** identify personal protective gears such as safety shoes, gloves, helmets, ear plugs, nose mask, safety goggles
- PC5.** identify and wear full and half body safety harness
- PC6.** identify basic components used in shuttering and scaffolding such as bamboos & ballis, props, acrow span, H-beam, shuttering sheets, foot plates, U head and other relevant components
- PC7.** store, stack and shift shuttering and scaffolding components as per standard procedure
- PC8.** identify different types of slings, shackles and lifting belts
- PC9.** protect shuttering and scaffolding components from weathering action
- PC10.** maintain tidiness at site location
- PC11.** barricade area of work to prevent unauthorized entrance

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** safety rules and regulations for handling and storing shuttering and scaffolding tools, materials and components
- KU2.** personal protection including use of safety gears and equipments
- KU3.** safe working methods and movements while performing relevant tasks



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- KU4.** request procedure for tools & materials and equipment
- KU5.** housekeeping & other site administrative rules
- KU6.** use of hand tools such as claw hammer, hand saw, hack saw wooden planners, measuring tape, nailing hammer, try square, plumb bob and other relevant tools
- KU7.** consumable materials and their optimum use
- KU8.** visual check for quality of timber and plywood
- KU9.** types of wood such as hard wood and soft wood and its common defect
- KU10.** types and thickness of plywood such as commercial , water proof, marine plywood
- KU11.** types and use of slings, shackles and lifting belts
- KU12.** height up to which each shuttering carpentry and scaffolding materials should be stacked
- KU13.** different types of hand and power tools used for cutting and planing of timber
- KU14.** different types of shuttering- system with their components.
- KU15.** stacking of various shuttering carpentry and scaffolding materials as per standard practices
- KU16.** various components and their standard sizes
- KU17.** work place procedures and policies and mechanical handling
- KU18.** standard procedure for housekeeping
- KU19.** knowledge about storing and handling technique of tools
- KU20.** knowledge about upkeep repair and maintenance of tools
- KU21.** working at heights

Generic Skills (GS)

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

- GS1.** write in one or more language, preferably in the local language of the site
- GS2.** read one or more language, preferably the local language of the site
- GS3.** read instructions, guidelines, sign boards, safety rules & safety tags instructions related to exit routes during emergency at the workplace
- GS4.** speak in one or more language, preferably in one of the local languages of the site
- GS5.** listen and follow instructions given by the superior
- GS6.** communicate orally and effectively with team members
- GS7.** decide whether his workplace is safe for working and also his work is not creating hazardous conditions for other
- GS8.** complete work as per agreed time schedule and quality



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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Identify, shift and stack tools, materials, and equipment relevant to shuttering carpentry and scaffolding</i>	20	80	-	-
PC1. identify hand tools such as claw hammer, hand saw, hack saw wooden planners, measuring tape, nailing hammer, try square, plumb bob and other relevant tools	-	-	-	-
PC2. identify basic carpentry materials such as timbers, plywood, runner pieces of different size, wooden battens and other relevant carpentry materials	-	-	-	-
PC3. identify consumable items such as nails of different size, masking tape, cotton waste, cotton and nylon line thread, cotton waste	-	-	-	-
PC4. identify personal protective gears such as safety shoes, gloves, helmets, ear plugs, nose mask, safety goggles	-	-	-	-
PC5. identify and wear full and half body safety harness	-	-	-	-
PC6. identify basic components used in shuttering and scaffolding such as bamboos & ballis, props, acrow span, H-beam, shuttering sheets, foot plates, U head and other relevant components	-	-	-	-
PC7. store, stack and shift shuttering and scaffolding components as per standard procedure	-	-	-	-
PC8. identify different types of slings, shackles and lifting belts	-	-	-	-
PC9. protect shuttering and scaffolding components from weathering action	-	-	-	-
PC10. maintain tidiness at site location	-	-	-	-
PC11. barricade area of work to prevent unauthorized entrance	-	-	-	-
NOS Total	20	80	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CON/N0305
NOS Name	Identify, shift and stack tools, materials and equipment relevant to shuttering carpentry and scaffolding
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Shuttering Carpentry
NSQF Level	2
Credits	TBD
Version	2.0
Last Reviewed Date	NA
Next Review Date	NA
NSQC Clearance Date	



Qualification Pack

CON/N0306: Use hand tools for cutting, planing and drilling of timber/plywood

Description

This unit describes the skills and knowledge required to use hand tools for cutting, sizing, planing and drilling of timber/ plywood and making of timber joints under continuous instructions and close supervision

Scope

The scope covers the following :

- Use hand tools for cutting, planing and drilling of timber/plywood tools and make timber joints

Elements and Performance Criteria

Use hand tools for cutting, planing and drilling of timber/plywood tools and make timber joints

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

- PC1.** identify hand tools such as claw hammer, hand saw, wooden planers, chisel, hand file, measuring tape, try square, hand auger and other relevant tools
- PC2.** identify different types of wood & plywood
- PC3.** use hand saw for cutting and sizing of timber/ plywood
- PC4.** use wooden planers for planing of timber and finishing the rough surface
- PC5.** use hand auger of different diameter for drilling in timber and plywood
- PC6.** use measurement and marking tools for correct sizing of timber/plywood
- PC7.** make timber joint such as lap joint, mortis and tenon joints, dovetail joints and housing joints using appropriate hand tools
- PC8.** maintain tidiness at site location

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** safety rules and regulations for handling and storing shuttering and scaffolding tools, materials and components
- KU2.** personal protection including use of safety gears and equipments
- KU3.** safe working methods and movements while performing relevant tasks
- KU4.** request procedure for tools & materials and equipment
- KU5.** housekeeping & other site administrative rules
- KU6.** use of hand tools such as claw hammer, hand saw, hack saw wooden planners, measuring tape, nailing hammer, try square, plumb bob and other relevant tools
- KU7.** visual check for quality of timber and plywood
- KU8.** types of wood such as hard wood and soft wood and its common defect
- KU9.** types and thickness of plywood such as commercial , water proof, marine plywood



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- KU10.** different types of hand and power tools used for cutting and planing of timber
- KU11.** standard procedure for housekeeping
- KU12.** knowledge about storing and handling technique of tools
- KU13.** knowledge about upkeep repair and maintenance of tools
- KU14.** use of measurement and marking tools
- KU15.** seasoning of timber, storage of timber to prevent decay distortion, bending, splitting and timber treatments
- KU16.** various types of timber joints

Generic Skills (GS)

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

- GS1.** write in one or more language, preferably in the local language of the site
- GS2.** read one or more language, preferably the local language of the site
- GS3.** read instructions, guidelines, sign boards, safety rules & safety tags instructions related to exit routes during emergency at the workplace
- GS4.** speak in one or more language, preferably in one of the local languages of the site
- GS5.** listen and follow instructions given by the superior
- GS6.** orally and effectively communicate with team members
- GS7.** decide whether his workplace is safe for working and also his work is not creating hazardous conditions for other
- GS8.** complete work as per agreed time schedule and quality



Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Use hand tools for cutting, planing and drilling of timber/plywood tools and make timber joints</i>	20	80	-	-
PC1. identify hand tools such as claw hammer, hand saw, wooden planers, chisel, hand file, measuring tape, try square, hand auger and other relevant tools	-	-	-	-
PC2. identify different types of wood & plywood	-	-	-	-
PC3. use hand saw for cutting and sizing of timber/ plywood	-	-	-	-
PC4. use wooden planers for planing of timber and finishing the rough surface	-	-	-	-
PC5. use hand auger of different diameter for drilling in timber and plywood	-	-	-	-
PC6. use measurement and marking tools for correct sizing of timber/plywood	-	-	-	-
PC7. make timber joint such as lap joint, mortis and tenon joints, dovetail joints and housing joints using appropriate hand tools	-	-	-	-
PC8. maintain tidiness at site location	-	-	-	-
NOS Total	20	80	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CON/N0306
NOS Name	Use hand tools for cutting, planing and drilling of timber/plywood
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Shuttering Carpentry
NSQF Level	2
Credits	TBD
Version	2.0
Last Reviewed Date	NA
Next Review Date	NA
NSQC Clearance Date	



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CON/N0101: Erect and dismantle temporary scaffold up to 3.6 meter height

Description

This unit describes the skills and knowledge required to erect and dismantle 3.6 meter temporary scaffold

Scope

The scope covers the following :

- Erect and dismantle temporary scaffold up to 3.6 meter height

Elements and Performance Criteria

Erect and dismantle temporary scaffold up to 3.6 meter height

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

- PC1.** level area where scaffold need to be erected and check for ground compactness if required
- PC2.** shift and stack required materials, components, tools and tackles at the instructed location
- PC3.** wear and use required safety gadgets and follow trade safety
- PC4.** place base plates and sole boards on the ground as per markings and instructions
- PC5.** use proper components and follow standard procedure for erecting temporary scaffold up to 3.6 m
- PC6.** check verticality of scaffold at first level of erection and correct (if required) before moving to the next level
- PC7.** check for rigidity, stability and support of erected scaffold
- PC8.** fix walk-boards, guard rails, toe-boards and other components on working platform
- PC9.** follow standard procedure for dismantling of temporary scaffold up to 3.6 m
- PC10.** remove guard rails, toe boards, walk boards and other components sequentially
- PC11.** clean and stack all components properly after dismantling
- PC12.** maintain tidiness at work location

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard procedure for scaffolding works
- KU2.** safety rules and regulations for handling and storing scaffolding tools, materials and components
- KU3.** personal protection including use of safety gears and equipment
- KU4.** request procedure for tools & materials
- KU5.** housekeeping & other administrative rules
- KU6.** use of different types of scaffolds (cup-lock , frame scaffold)



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- KU7.** use of different types of scaffolds (cup-lock, frame scaffold)
- KU8.** use of tools and tackles in scaffolding works
- KU9.** identification and use of different components
- KU10.** use of tools for measurements and marking
- KU11.** basic arithmetic calculation
- KU12.** units of measurements
- KU13.** standard size of scaffolding components
- KU14.** personal protective equipment for safety
- KU15.** importance of housekeeping
- KU16.** standard procedure for erection and dismantling of 3.6 m temporary scaffold
- KU17.** tools and equipment used for erecting and dismantling 3.6 meter temporary scaffold

Generic Skills (GS)

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

- GS1.** write in one or more language, preferably in the local language of the site
- GS2.** read one or more language, preferably the local language of the site
- GS3.** read instructions, guidelines, sign boards, safety rules & safety tags
- GS4.** speak in one or more language, preferably in one of the local languages of site
- GS5.** listen and follow instructions / communication shared by superiors/ co- workers regarding team requirements or interfaces during work processes
- GS6.** orally communicate with co-workers regarding support required to complete the respective work
- GS7.** decide whether the workplace is safe for working and also whether the
- GS8.** identify and organize right scaffolding materials
- GS9.** identify and use relevant tools effectively
- GS10.** complete work as per agreed time and quality
- GS11.** minimize wastages
- GS12.** revert to superior for selection/sorting of materials
- GS13.** identify location at which violation of any safety norms may lead to accidents



Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Erect and dismantle temporary scaffold up to 3.6 meter height</i>	20	80	-	-
PC1. level area where scaffold need to be erected and check for ground compactness if required	-	-	-	-
PC2. shift and stack required materials, components, tools and tackles at the instructed location	-	-	-	-
PC3. wear and use required safety gadgets and follow trade safety	-	-	-	-
PC4. place base plates and sole boards on the ground as per markings and instructions	-	-	-	-
PC5. use proper components and follow standard procedure for erecting temporary scaffold up to 3.6 m	-	-	-	-
PC6. check verticality of scaffold at first level of erection and correct (if required) before moving to the next level	-	-	-	-
PC7. check for rigidity, stability and support of erected scaffold	-	-	-	-
PC8. fix walk-boards, guard rails, toe-boards and other components on working platform	-	-	-	-
PC9. follow standard procedure for dismantling of temporary scaffold up to 3.6 m	-	-	-	-
PC10. remove guard rails, toe boards, walk boards and other components sequentially	-	-	-	-
PC11. clean and stack all components properly after dismantling	-	-	-	-
PC12. maintain tidiness at work location	-	-	-	-
NOS Total	20	80	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CON/N0101
NOS Name	Erect and dismantle temporary scaffold up to 3.6 meter height
Sector	Construction
Sub-Sector	Generic
Occupation	Construction Painting
NSQF Level	2
Credits	TBD
Version	4.0
Last Reviewed Date	NA
Next Review Date	NA
NSQC Clearance Date	



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CON/N9001: Work according to personal health, safety and environment protocol 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

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.** participate in safety awareness programs like Tool Box Talks, safety demonstrations, mock drills, conducted at site
- PC5.** select and operate different types of fire extinguishers corresponding to 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.** install and apply properly all safety equipment as instructed
- PC11.** follow safety protocol and practices as laid down by site EHS department
- PC12.** undertake and pass height pass test as per EHS guideline

Implement good housekeeping and environment protection process and activities

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

- PC13.** collect and deposit construction waste into identified containers before disposal, separate containers that may be needed for disposal of toxic or hazardous wastes
- PC14.** apply ergonomic principles wherever required



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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 to be used based on various working conditions
- KU6.** importance of handling tools, equipment and materials as per applicable
- KU7.** health and environmental effect of construction materials as per applicability
- KU8.** various environmental protection methods as per applicability
- KU9.** storage of waste including the following at appropriate location: non-combustible scrap material and debris, combustible scrap material and debris, general construction waste and trash (non-toxic, non-hazardous), any other hazardous wastes, any other flammable wastes
- KU10.** how to use hazardous material, in a safe and appropriate manner as per applicability
- KU11.** types of fire
- KU12.** Procedure of operating different types of fire extinguishers
- KU13.** safety relevant to tools, tackles, & requirement as per applicability
- KU14.** housekeeping activities relevant to task

Generic Skills (GS)

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

- GS1.** write in one or more languages, 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.** read sign boards, notice boards relevant to safety
- GS5.** speak in one or more language, preferably in one of the local language of the site
- GS6.** listen instructions / communication shared by site EHS and superiors regarding site safety, and conducting tool box talk
- GS7.** communicate reporting of site conditions, hazards, accidents, etc.
- GS8.** maintain safe conditions for others
- GS9.** keep the workplace clean and tidy
- GS10.** identify safety risks that affect the health, safety and environment for self and others working in the vicinity, tackle it if within limit or report to appropriate authority
- GS11.** assess and analyze areas which may affect health, safety and environment protocol on the site
- GS12.** ensure personal safety behavior
- GS13.** respond to emergency



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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>	6	24	-	-
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. participate in safety awareness programs like Tool Box Talks, safety demonstrations, mock drills, conducted at site	-	-	-	-
PC5. select and operate different types of fire extinguishers corresponding to 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. install and apply properly all safety equipment as instructed	-	-	-	-



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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. undertake and pass height pass test as per EHS guideline	-	-	-	-
<i>Implement good housekeeping and environment protection process and activities</i>	4	16	-	-
PC13. collect and deposit construction waste into identified containers before disposal, separate containers that may be needed for disposal of toxic or hazardous wastes	-	-	-	-
PC14. apply ergonomic principles wherever required	-	-	-	-
NOS Total	20	80	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CON/N9001
NOS Name	Work according to personal health, safety and environment protocol at construction site
Sector	Construction
Sub-Sector	Generic
Occupation	Generic
NSQF Level	2
Credits	TBD
Version	5.0
Last Reviewed Date	NA
Next Review Date	NA
NSQC Clearance Date	



Qualification Pack

CON/N0104: Carry out manual earthwork at construction site

Description

This unit describes the skills and knowledge required to carry out manual earthwork at construction sites

Scope

The scope covers the following :

- Carry out preparatory work prior to earthwork
- Carry out soil cutting, dressing work
- Carry out backfilling and compaction manually

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.** remove all the unwanted materials, organic substances, manually removable objects from the worksite using appropriate hand tools as per instruction
- PC2.** clean earth surface using proper hand tools to make it ready for carrying out marking activity
- PC3.** carry out marking for excavation using lime, wooden pegs, ropes or by any other suitable materials as per instruction
- PC4.** shift and stack fencing/ barricading materials, safety signage, ladders, ropes, earth cutting and shifting tools at specified locations as per instruction

Carry out soil cutting, dressing work

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

- PC5.** dig earth to a desired depth using appropriate tools as per instruction
- PC6.** maintain desired slope of earth during digging activity
- PC7.** dispose earth from the excavated pit by using suitable tools and equipments such as spade , wheel barrows, pans as per instruction
- PC8.** check for loose material, soil lumps, pebbles on achieving the desired earth level
- PC9.** carry out surface dressing work by disposing loose material, gravels, plant roots, sludge, muck or debris as per requirement to the appropriate locations
- PC10.** carry out compaction of the base layer of the pit by ramming or operating hand/ plate compactor as per instruction

Carry out backfilling and compaction manually

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

- PC11.** shift and place earth at desired location by using right tools as per instruction
- PC12.** sort gravels or oversized aggregates from soil to be used for backfilling as per instruction
- PC13.** place and spread earth maintaining uniform layers within tolerance limit of thickness
- PC14.** sprinkle water as uniformly over the layer to be compacted as and when required as per direction



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- PC15.** carry out ramming or operate hand/ plate compacting machines over the soil layer as per direction
- PC16.** carry out re-filling and compaction of excavated trenches, pits surrounding the structures or at necessary location by soil under supervision

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** general safety rules applicable to different activities related to construction
- KU2.** administrative rules and regulations applicable to construction sites
- KU3.** material issue and return procedure at site
- KU4.** reporting procedures relevant to own job, unsafe/ hazardous conditions
- KU5.** use and name of hand tools such as spade, pick axe, shovel, pans, wheel
- KU6.** working at depth at below ground level
- KU7.** use of marking tools such as wooden pegs, lime, line threads, ropes
- KU8.** use of plate compactor, hand roller, earth ramming tools etc
- KU9.** how to maintain slope in excavation
- KU10.** use of ladder to access earth pits
- KU11.** safety related to earthwork

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 in the local language of the site
- GS3.** read instructions, guidelines, sign boards, safety rules & safety tags instruction related to exit routes during emergency at the workplace
- GS4.** speak in one or more languages, preferably in one of the local languages of the site
- GS5.** listen and follow instructions / communication shared by superiors/ co- workers regarding team requirements or interfaces during work processes
- GS6.** orally communicate with co-workers regarding support required to complete the respective work
- GS7.** decide on tools to be used at different activities involved in manual
- GS8.** sequence activities to be carried out
- GS9.** decide whether his workplace is safe for working and also his work is not creating hazardous conditions for other
- GS10.** identify and use the tools
- GS11.** identify and use of all safety equipment
- GS12.** arrange the material for earthwork
- GS13.** complete work as per time schedule and quality
- GS14.** determine any violation from organizational and standard safety norms



Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Carry out preparatory work prior to earthwork</i>	6	24	-	-
PC1. remove all the unwanted materials, organic substances, manually removable objects from the worksite using appropriate hand tools as per instruction	-	-	-	-
PC2. clean earth surface using proper hand tools to make it ready for carrying out marking activity	-	-	-	-
PC3. carry out marking for excavation using lime, wooden pegs, ropes or by any other suitable materials as per instruction	-	-	-	-
PC4. shift and stack fencing/ barricading materials, safety signage, ladders, ropes, earth cutting and shifting tools at specified locations as per instruction	-	-	-	-
<i>Carry out soil cutting, dressing work</i>	8	32	-	-
PC5. dig earth to a desired depth using appropriate tools as per instruction	-	-	-	-
PC6. maintain desired slope of earth during digging activity	-	-	-	-
PC7. dispose earth from the excavated pit by using suitable tools and equipments such as spade , wheel barrows, pans as per instruction	-	-	-	-
PC8. check for loose material, soil lumps, pebbles on achieving the desired earth level	-	-	-	-
PC9. carry out surface dressing work by disposing loose material, gravels, plant roots, sludge, muck or debris as per requirement to the appropriate locations	-	-	-	-
PC10. carry out compaction of the base layer of the pit by ramming or operating hand/ plate compactor as per instruction	-	-	-	-
<i>Carry out backfilling and compaction manually</i>	6	24	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. shift and place earth at desired location by using right tools as per instruction	-	-	-	-
PC12. sort gravels or oversized aggregates from soil to be used for backfilling as per instruction	-	-	-	-
PC13. place and spread earth maintaining uniform layers within tolerance limit of thickness	-	-	-	-
PC14. sprinkle water as uniformly over the layer to be compacted as and when required as per direction	-	-	-	-
PC15. carry out ramming or operate hand/ plate compacting machines over the soil layer as per direction	-	-	-	-
PC16. carry out re-filling and compaction of excavated trenches, pits surrounding the structures or at necessary location by soil under supervision	-	-	-	-
NOS Total	20	80	-	-



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	CON/N0104
NOS Name	Carry out manual earthwork at construction site
Sector	Construction
Sub-Sector	Generic
Occupation	Generic
NSQF Level	2
Credits	TBD
Version	3.0
Last Reviewed Date	NA
Next Review Date	NA
NSQC Clearance Date	

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) 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 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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7. 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.
8. After the certain number of iteration as decided by SSC the trainee is marked as fail, scoring zero marks for the procedure for the practical activity.
9. 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 timeframe set by SSC.
10. 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.)

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
CON/N0305. Identify, shift and stack tools, materials and equipment relevant to shuttering carpentry and scaffolding	20	80	-	-	100	25
CON/N0306. Use hand tools for cutting, planing and drilling of timber/plywood	20	80	-	-	100	50
CON/N0101. Erect and dismantle temporary scaffold up to 3.6 meter height	20	80	-	-	100	15
CON/N9001. Work according to personal health, safety and environment protocol at construction site	20	80	-	-	100	10
Total	80	320	-	-	400	100

Optional: 1 Manual earthwork



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National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
CON/N0104.Carry out manual earthwork at construction site	20	80	-	-	100	10
Total	20	80	-	-	100	10



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)	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.