



Qualification Pack



Assistant Rural Mason

Options: Random Rubble Masonry works/ Bar Bending works/ Shuttering
Carpentry works

QP Code: CON/Q3605

Version: 1.0

NSQF Level: 3

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CON/Q3605: Assistant Rural Mason

Brief Job Description

The job role assists in performing routine rural construction works such as marking for foundation, wall and soak pit and brick/block works including fixing door and window frames, assists in concreting, Brick soling, PCC flooring, random rubble masonry, bar bending works, shuttering carpentry works including assistance in fixing toilet pan and pipes in inspection chamber

Personal Attributes

The individual is expected to be physically fit and should be able to work at rural location. The person must be able to handle the various rural masonry tools and materials, perform as per quality and efficiency requirements with a team in a responsible and professional manner

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [CON/N3613: Handle and use hand tools related to masonry, bar bending, shuttering carpentry and concreting works](#)
2. [CON/N3614: Assist in marking of foundation, wall and soak pit and brick/block works including fixing door and window frames.](#)
3. [CON/N3615: Assist in concreting works and brick soling](#)
4. [CON/N3616: Assist in PCC flooring works](#)
5. [CON/N3617: Assist in fixing toilet pan and pipes in inspection chamber](#)

Options(Not mandatory):

Option 1: Random Rubble Masonry works

This unit describes the skills and knowledge required to assist in Random Rubble Masonry works

1. [CON/N3618: Assist in Random rubble Masonry works](#)

Option 2: Bar Bending works

This unit describes the skills and knowledge required to assist in bar bending works

1. [CON/N3619: Assist in bar bending works](#)



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Option 3: Shuttering Carpentry works

This unit describes the skills and knowledge required to assist in shuttering carpentry works

1. [CON/N3620: Assist in shuttering carpentry Masonry works](#)

Qualification Pack (QP) Parameters

Sector	Construction
Sub-Sector	Rural Infrastructure construction
Occupation	Masonry - Rural
Country	India
NSQF Level	3
Credits	NA
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7112.0200 & 7114.9900
Minimum Educational Qualification & Experience	5th Class with 3 Years of experience OR 8th Class with 1 Year of experience OR Certificate-NSQF (level 2) with 1 Year of experience
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
NSQF Approval Date	31/03/2022
Version	1.0
Reference code on NQR	2022/CON/CSDCI/05627
NQR Version	1.0



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CON/N3613: Handle and use hand tools related to masonry, bar bending, shuttering carpentry and concreting works

Description

This unit describes the skills and knowledge required to handle and use hand and tools related to masonry, bar bending, shuttering carpentry and concreting works

Scope

The scope covers the following :

- Handle and use hand tools related to masonry, bar bending, shuttering carpentry works

Elements and Performance Criteria

- *Handle and use hand tools related to masonry, bar bending, shuttering carpentry works*

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

- PC1.** identify and use basic tools used such as :measurement tape, levelling tools(plumb bob, spirit level, line thread),masonry tools (trowel, mortar pan, pointing trowel, bolster chisel, spade, right angle etc.), carpentry tools(hammer, hand saw, nail puller, etc.), bar bending tools, spanners, cutters, concrete floats, check for serviceability/safety of tools and report faults to superiors
- PC2.** set up and use basic leveling devices like spirit level ,water level & straight edge
- PC3.** assist in transferring levels and setting out using appropriate tools
- PC4.** clean and maintain tools prior to and after use

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** personal protection including the use of related safety gears
- KU2.** maintenance of tools
- KU3.** different type of tools for masonry, bar bending, shuttering carpentry and concreting works and their maintenance and care
- KU4.** use of different tools for masonry, bar bending, shuttering carpentry and concreting works and material
- KU5.** basic leveling devices ,their setting and use
- KU6.** transferring levels using basic leveling devices
- KU7.** basic knowledge of care and maintenance of tools.

Generic Skills (GS)

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



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- GS1.** basic numeracy skills
- GS2.** speak in one or more language, preferably one of the local language at the site
- GS3.** orally and effectively communicate with co-workers
- GS4.** decide on whether the workplace is safe for working
- GS5.** plan self-work and organize required resources
- GS6.** complete work as per instruction



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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<ul style="list-style-type: none"> Handle and use hand tools related to masonry, bar bending, shuttering carpentry works 	20	80	-	-
<p>PC1. identify and use basic tools used such as :measurement tape, levelling tools(plumb bob, spirit level, line thread),masonry tools (trowel, mortar pan, pointing trowel, bolster chisel, spade, right angle etc.), carpentry tools(hammer, hand saw, nail puller, etc.), bar bending tools, spanners, cutters, concrete floats, check for serviceability/safety of tools and report faults to superiors</p>	-	-	-	-
<p>PC2. set up and use basic leveling devices like spirit level ,water level & straight edge</p>	-	-	-	-
<p>PC3. assist in transferring levels and setting out using appropriate tools</p>	-	-	-	-
<p>PC4. clean and maintain tools prior to and after use</p>	-	-	-	-
NOS Total	20	80	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CON/N3613
NOS Name	Handle and use hand tools related to masonry, bar bending, shuttering carpentry and concreting works
Sector	Construction
Sub-Sector	Rural Infrastructure construction
Occupation	Masonry - Rural
NSQF Level	2
Credits	TBD
Version	1.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



Qualification Pack

CON/N3614: Assist in marking of foundation, wall and soak pit and brick/block works including fixing door and window frames.

Description

This unit describes the skills and knowledge required to assist in marking of foundation, wall and soak pit and brick/block works including fixing door and window frames

Scope

The scope covers the following :

- Assist in marking of foundation, wall and soak pit and brick/block works including fixing door and window frames

Elements and Performance Criteria

Assist in marking of foundation, wall and soak pit and brick/block works including fixing door and window frames

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

- PC1.** identify the correct type of tools and materials required for marking layouts & brick/block work including fixing door and windows
- PC2.** check and ensure the base surface in free of dust, dirt & debris prior to commencement of work
- PC3.** assist in passing the correct tools as per the requirement
- PC4.** sieve fine aggregate as per requirement/instructions
- PC5.** carry out/ proper mixing of cement and mortar in the required quantity for brick/block work and fixing door and windows
- PC6.** assist in setting out the layouts for foundation, wall and soak pits as per the instructions
- PC7.** assist in placing and fixing of brick/block for brick works
- PC8.** assist in spreading mortar using trowel to the required thickness as per instructions
- PC9.** remove excess mortar from face of wall keeping surface clean
- PC10.** carry out pointing for brick/block work
- PC11.** assist in fixing of doors and window frames

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard practices of marking layouts & brick/block work including fixing door and windows
- KU2.** safety rules and regulation for handling and storing required masonry tools, equipment and materials
- KU3.** personal protection including the use of related safety gears & equipment
- KU4.** maintenance of tools and equipment



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- KU5.** basics of masonry works
- KU6.** how to use the basic masonry tools and equipment such as measurement tape, trowel, mortar pan, hammer, and hand operated concrete mixer, etc.
- KU7.** basic leveling devices like plum bob, spirit level, water level ,their setting and use
- KU8.** transferring levels using basic leveling devices
- KU9.** various techniques / procedures for cutting different types of bricks to required sizes
- KU10.** how to assist to lay and fix brick / blocks with alignment under supervision
- KU11.** knowledge of different bonds in brickwork
- KU12.** importance of different mix of mortar required for brick/block and pointing works
- KU13.** basic methods and techniques of preparing bed mortar, cement slurry and cement paste required for the brick/block works
- KU14.** marking of dummy dots for transfer of levels
- KU15.** how to align the frames and checking the hold fast position
- KU16.** how to anchor frames to walls and fill gap between wall and frames

Generic Skills (GS)

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

- GS1.** basic numeracy skills
- GS2.** speak in one or more language, preferably one of the local language at the site
- GS3.** orally and effectively communicate with co-workers & subordinates
- GS4.** decide whether the workplace is safe for working
- GS5.** plan self-work and Organize required resources
- GS6.** complete work as per instructions



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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Assist in marking of foundation, wall and soak pit and brick/block works including fixing door and window frames</i>	20	80	-	-
PC1. identify the correct type of tools and materials required for marking layouts & brick/block work including fixing door and windows	-	-	-	-
PC2. check and ensure the base surface in free of dust, dirt & debris prior to commencement of work	-	-	-	-
PC3. assist in passing the correct tools as per the requirement	-	-	-	-
PC4. sieve fine aggregate as per requirement/instructions	-	-	-	-
PC5. carry out/ proper mixing of cement and mortar in the required quantity for brick/block work and fixing door and windows	-	-	-	-
PC6. assist in setting out the layouts for foundation, wall and soak pits as per the instructions	-	-	-	-
PC7. assist in placing and fixing of brick/block for brick works	-	-	-	-
PC8. assist in spreading mortar using trowel to the required thickness as per instructions	-	-	-	-
PC9. remove excess mortar from face of wall keeping surface clean	-	-	-	-
PC10. carry out pointing for brick/block work	-	-	-	-
PC11. assist in fixing of doors and window frames	-	-	-	-
NOS Total	20	80	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CON/N3614
NOS Name	Assist in marking of foundation, wall and soak pit and brick/block works including fixing door and window frames.
Sector	Construction
Sub-Sector	Rural Infrastructure construction
Occupation	Masonry - Rural
NSQF Level	3
Credits	TBD
Version	1.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



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CON/N3615: Assist in concreting works and brick soling

Description

This unit describes the skills and knowledge required to assist in concreting works and brick soling

Scope

The scope covers the following :

- Assist in concreting works and brick soling

Elements and Performance Criteria

Assist in concreting works and brick soling

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

- PC1.** identify the correct type of tools and materials for concreting works
- PC2.** sieve the fine aggregate as per requirement/instructions in case of manual mixing of concrete
- PC3.** carry out proper mixing of cement mortar /concrete in the required quantity for relevant work
- PC4.** perform manual concrete batching and mixing as per instructions of superior
- PC5.** assist in pouring of concrete mix into the forms for casting under close supervision
- PC6.** carry out proper compaction of concrete using tamping rods
- PC7.** assist in levelling and finishing of concrete as per instructions using appropriate tools
- PC8.** protect the concreted area from damage during and after work
- PC9.** assist in laying bricks course over the compacted fill
- PC10.** fill gap in bricks with sand / suitable filling material
- PC11.** assist in checking the level of finished surface

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** safety rules and regulation for handling required concreting tools, equipment and materials
- KU2.** personal protection including the use of related safety gears & equipment
- KU3.** basic principles of measurement
- KU4.** how to select and use basic tools and tackles for concreting works
- KU5.** basic techniques for surface preparation for various surfaces
- KU6.** basic properties of concrete including weight, slump, etc
- KU7.** how to perform batching and mixing of materials for concreting
- KU8.** how to screed the concrete to correct levels
- KU9.** appropriate technique for pouring of concrete in the form of layers



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- KU10.** how to ensure proper curing as per the instruction
- KU11.** set out levels and marking floor thickness relevant to task
- KU12.** different type of PCC flooring works
- KU13.** process of brick soling and PCC flooring

Generic Skills (GS)

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

- GS1.** basic numeracy skills
- GS2.** speak in one or more language, preferably one of the local language at the site
- GS3.** orally and effectively communicate with co-workers & subordinates
- GS4.** decide whether the workplace is safe for working
- GS5.** plan self-work and organize required resources
- GS6.** complete work as per instructions



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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Assist in concreting works and brick soling</i>	20	80	-	-
PC1. identify the correct type of tools and materials for concreting works	-	-	-	-
PC2. sieve the fine aggregate as per requirement/instructions in case of manual mixing of concrete	-	-	-	-
PC3. carry out proper mixing of cement mortar /concrete in the required quantity for relevant work	-	-	-	-
PC4. perform manual concrete batching and mixing as per instructions of superior	-	-	-	-
PC5. assist in pouring of concrete mix into the forms for casting under close supervision	-	-	-	-
PC6. carry out proper compaction of concrete using tamping rods	-	-	-	-
PC7. assist in levelling and finishing of concrete as per instructions using appropriate tools	-	-	-	-
PC8. protect the concreted area from damage during and after work	-	-	-	-
PC9. assist in laying bricks course over the compacted fill	-	-	-	-
PC10. fill gap in bricks with sand / suitable filling material	-	-	-	-
PC11. assist in checking the level of finished surface	-	-	-	-
NOS Total	20	80	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CON/N3615
NOS Name	Assist in concreting works and brick soling
Sector	Construction
Sub-Sector	Rural Infrastructure construction
Occupation	Masonry - Rural
NSQF Level	3
Credits	TBD
Version	1.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



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CON/N3616: Assist in PCC flooring works

Description

This unit describes the skills and knowledge required to assist in PCC flooring works

Scope

The scope covers the following :

- Assist in PCC flooring works

Elements and Performance Criteria

Assist in PCC flooring works

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

- PC1.** sieve the fine aggregate as per requirement/instructions in case of manual mixing of concrete
- PC2.** ensure proper mixing of cement and mortar in the required quantity for relevant work
- PC3.** perform manual concrete batching and mixing as per instructions to prepare mix of appropriate ratio
- PC4.** assist in pouring of concrete mix for flooring work under close supervision
- PC5.** carry out proper compaction of concrete using tamping rods
- PC6.** assist in leveling and finishing of concrete as per instructions using appropriate tools
- PC7.** carry out curing of finished surface as per instructions
- PC8.** protect the concreted area from damage during and after work
- PC9.** fix baton strips on the floors for making panels as per requirement.
- PC10.** carry out the screeding of PCC over the brick soling in specified panels for flooring works
- PC11.** assist in leveling and finishing of the finished surface

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard practices of concreting, IPS/Tremix flooring works
- KU2.** safety rules and regulation for handling required concreting tools, equipment and materials
- KU3.** personal protection including the use of related safety gears
- KU4.** basic principles of measurement
- KU5.** how to select and use basic tools and tackles for IPS/Tremix flooring works
- KU6.** basic techniques for surface preparation for various surfaces
- KU7.** basic properties of concrete including weight, slump, etc.
- KU8.** how to perform batching and mixing of materials for concreting
- KU9.** how to screed the concrete to correct levels



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- KU10.** appropriate technique for pouring of concrete
- KU11.** how to ensure proper curing as per the instruction
- KU12.** set out levels and marking floor thickness relevant to task
- KU13.** different baton strips and their uses
- KU14.** process of IPS/Tremix flooring
- KU15.** thickness of different layers in IPS/Tremix flooring works

Generic Skills (GS)

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

- GS1.** basic numeracy skills
- GS2.** speak in one or more language, preferably one of the local language at the site
- GS3.** orally and effectively communicate with co-workers & subordinates
- GS4.** decide whether the workplace is safe for working
- GS5.** plan self-work and organize required resources
- GS6.** complete work as per instructions



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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Assist in PCC flooring works</i>	20	80	-	-
PC1. sieve the fine aggregate as per requirement/instructions in case of manual mixing of concrete	-	-	-	-
PC2. ensure proper mixing of cement and mortar in the required quantity for relevant work	-	-	-	-
PC3. perform manual concrete batching and mixing as per instructions to prepare mix of appropriate ratio	-	-	-	-
PC4. assist in pouring of concrete mix for flooring work under close supervision	-	-	-	-
PC5. carry out proper compaction of concrete using tamping rods	-	-	-	-
PC6. assist in leveling and finishing of concrete as per instructions using appropriate tools	-	-	-	-
PC7. carry out curing of finished surface as per instructions	-	-	-	-
PC8. protect the concreted area from damage during and after work	-	-	-	-
PC9. fix baton strips on the floors for making panels as per requirement.	-	-	-	-
PC10. carry out the screeding of PCC over the brick soling in specified panels for flooring works	-	-	-	-
PC11. assist in leveling and finishing of the finished surface	-	-	-	-
NOS Total	20	80	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CON/N3616
NOS Name	Assist in PCC flooring works
Sector	Construction
Sub-Sector	Rural Infrastructure construction
Occupation	Masonry - Rural
NSQF Level	3
Credits	TBD
Version	1.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



Qualification Pack

CON/N3617: Assist in fixing toilet pan and pipes in inspection chamber

Description

This unit describes the skills and knowledge required to assist in fixing toilet pan and pipes in inspection chamber

Scope

The scope covers the following :

- Assist in fixing toilet pan and pipes in inspection chamber

Elements and Performance Criteria

Assist in fixing toilet pan and pipes in inspection chamber

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

- PC1.** assist in marking layout of pit
- PC2.** assist in construction of footing for pit
- PC3.** assist in constructing the soak pits and inspection chamber
- PC4.** assist in fixing the toilet pan temporarily for levelling
- PC5.** level the toilet pan horizontally, and assist in fixing it at plinth level
- PC6.** connect pipe extending to junction box

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** general layout of toilet
- KU2.** purpose and importance of toilet
- KU3.** components of twin pit soak pit
- KU4.** importance of junction box
- KU5.** connection of junction box
- KU6.** importance of water seal
- KU7.** purpose of water seal
- KU8.** sequence of activities in toilet construction
- KU9.** how to position the toilet seat

Generic Skills (GS)

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

- GS1.** basic numeracy skills
- GS2.** speak in one or more language, preferably one of the local language at the site



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- GS3.** orally and effectively communicate with co-workers & subordinates
- GS4.** decide whether the workplace is safe for working
- GS5.** plan self-work and organize required resources
- GS6.** complete work as per instructions



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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Assist in fixing toilet pan and pipes in inspection chamber</i>	20	80	-	-
PC1. assist in marking layout of pit	-	-	-	-
PC2. assist in construction of footing for pit	-	-	-	-
PC3. assist in constructing the soak pits and inspection chamber	-	-	-	-
PC4. assist in fixing the toilet pan temporarily for levelling	-	-	-	-
PC5. level the toilet pan horizontally, and assist in fixing it at plinth level	-	-	-	-
PC6. connect pipe extending to junction box	-	-	-	-
NOS Total	20	80	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CON/N3617
NOS Name	Assist in fixing toilet pan and pipes in inspection chamber
Sector	Construction
Sub-Sector	Rural Infrastructure construction
Occupation	Masonry - Rural
NSQF Level	3
Credits	TBD
Version	1.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



Qualification Pack

CON/N3618: Assist in Random rubble Masonry works

Description

This unit describes the skills and knowledge required to assist in Random Rubble Masonry works

Scope

The scope covers the following :

- Assist in Random Rubble Masonry works

Elements and Performance Criteria

Assist in Random Rubble Masonry works

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

- PC1.** identify the correct type of tools and materials required for Random rubble Masonry works
- PC2.** carry out/ensure soaking of stones and pre wetting of base surface prior to commencement of work
- PC3.** fine aggregate is sieved as per requirement/instructions
- PC4.** proper mixing of cement and mortar in the required quantity for Random rubble Masonry works
- PC5.** assist in placing and fixing of stones for Random rubble Masonry works
- PC6.** assist in spreading mortar using trowel to the required thickness as per instructions
- PC7.** remove excess mortar from face of wall keeping surface clean
- PC8.** carry out pointing works by mixing mortar for pointing and cleaning Random rubble Masonry works for pointing work

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** safety rules and regulation for handling and storing required masonry tools, equipment and materials
- KU2.** personal protection including the use of related safety gears
- KU3.** maintenance of tools and equipment
- KU4.** basics of random rubble masonry works
- KU5.** how to use the basic masonry tools and equipment such as measurement tape, trowel, mortar pan, hammer, etc.
- KU6.** basic leveling devices like plum bob, spirit level, water level ,their setting and use
- KU7.** transferring levels using basic leveling devices
- KU8.** various techniques / procedures for cutting different types of bricks to required sizes
- KU9.** how to assist to lay and fix stones with alignment under supervision
- KU10.** knowledge of through stone and key stone in random rubble masonry works



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- KU11.** importance of different mix of mortar required for random rubble masonry works and pointing works
- KU12.** basic methods and techniques of preparing bed mortar, cement slurry and cement paste required for the random rubble masonry works
- KU13.** marking of dummy dots for transfer of levels

Generic Skills (GS)

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

- GS1.** basic numeracy skills
- GS2.** speak in one or more language, preferably one of the local language at the site
- GS3.** orally and effectively communicate with co-workers & subordinates
- GS4.** decide whether the workplace is safe for working
- GS5.** plan self-work and organize required resources
- GS6.** complete work as per instructions



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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Assist in Random Rubble Masonry works</i>	20	80	-	-
PC1. identify the correct type of tools and materials required for Random rubble Masonry works	-	-	-	-
PC2. carry out/ensure soaking of stones and pre wetting of base surface prior to commencement of work	-	-	-	-
PC3. fine aggregate is sieved as per requirement/instructions	-	-	-	-
PC4. proper mixing of cement and mortar in the required quantity for Random rubble Masonry works	-	-	-	-
PC5. assist in placing and fixing of stones for Random rubble Masonry works	-	-	-	-
PC6. assist in spreading mortar using trowel to the required thickness as per instructions	-	-	-	-
PC7. remove excess mortar from face of wall keeping surface clean	-	-	-	-
PC8. carry out pointing works by mixing mortar for pointing and cleaning Random rubble Masonry works for pointing work	-	-	-	-
NOS Total	20	80	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CON/N3618
NOS Name	Assist in Random rubble Masonry works
Sector	Construction
Sub-Sector	Rural Infrastructure construction
Occupation	Masonry - Rural
NSQF Level	3
Credits	TBD
Version	1.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



Qualification Pack

CON/N3619: Assist in bar bending works

Description

This unit describes the skills and knowledge required to assist in bar bending works

Scope

The scope covers the following :

- Assist in bar bending works

Elements and Performance Criteria

Assist in bar bending works

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

- PC1.** identify reinforcement bar of different types, grade and diameter, different types of binding wires such as mild steel, galvanized iron wire
- PC2.** use hand tools such as lever, hook, measurement tape, gauge, sledge hammer, chisel, pin plate and other relevant tools used in reinforcement works
- PC3.** select and use bending lever and pipe for straightening of rebar of different diameter
- PC4.** mark cut length and cut rebar of smaller diameter manually using chisel and sledge hammer as per requirement
- PC5.** mark on rebar, use lever or pipe of suitable diameter for bending of rebar
- PC6.** mark on bending bench for making stirrups, chairs, hanger bars
- PC7.** bend bars to required shape and angle manually
- PC8.** check bent rebar for its shape, angle & length
- PC9.** stack reinforcement bars as per standard practice
- PC10.** straight reinforcement bar with bends
- PC11.** straight reinforcement bar cut from the coils
- PC12.** cut binding wire as per the requirement
- PC13.** tie reinforcement using different ties as per requirement
- PC14.** maintain specified/instructed spacing while tying rebar
- PC15.** untie loosened reinforcement bar and secure its position using suitable tie

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** various type of bar, their grades and diameter
- KU2.** use of hand tools for straightening of rebar
- KU3.** types and use of tools for cutting rebar manually
- KU4.** identification and use of hand tools for reinforcement works



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- KU5.** types of ties and use on different structural elements
- KU6.** use of measurement and marking tools
- KU7.** importance of sorting and stacking cut piece rebar on the basis of length and diameter
- KU8.** identification and use of binding wire
- KU9.** different types of ties such as slash tie, ring slash tie, hairpin tie, ring hairpin tie, crown tie, splice tie
- KU10.** how to tie reinforcement using different types of ties
- KU11.** length of binding wire required for different types of ties
- KU12.** use of measurements and marking tools
- KU13.** tolerances for bending and cutting of rebar
- KU14.** calculation of cutting length for simpler shape, stirrups, chairs

Generic Skills (GS)

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

- GS1.** basic numeracy skills
- GS2.** speak in one or more language, preferably one of the local language at the site
- GS3.** orally and effectively communicate with co-workers & subordinates
- GS4.** decide whether the workplace is safe for working
- GS5.** plan self-work and organize required resources
- GS6.** complete work as per instructions



Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Assist in bar bending works</i>	20	80	-	-
PC1. identify reinforcement bar of different types, grade and diameter, different types of binding wires such as mild steel, galvanized iron wire	-	-	-	-
PC2. use hand tools such as lever, hook, measurement tape, gauge, sledge hammer, chisel, pin plate and other relevant tools used in reinforcement works	-	-	-	-
PC3. select and use bending lever and pipe for straightening of rebar of different diameter	-	-	-	-
PC4. mark cut length and cut rebar of smaller diameter manually using chisel and sledge hammer as per requirement	-	-	-	-
PC5. mark on rebar, use lever or pipe of suitable diameter for bending of rebar	-	-	-	-
PC6. mark on bending bench for making stirrups, chairs, hanger bars	-	-	-	-
PC7. bend bars to required shape and angle manually	-	-	-	-
PC8. check bent rebar for its shape, angle & length	-	-	-	-
PC9. stack reinforcement bars as per standard practice	-	-	-	-
PC10. straight reinforcement bar with bends	-	-	-	-
PC11. straight reinforcement bar cut from the coils	-	-	-	-
PC12. cut binding wire as per the requirement	-	-	-	-
PC13. tie reinforcement using different ties as per requirement	-	-	-	-
PC14. maintain specified/instructed spacing while tying rebar	-	-	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC15. untie loosened reinforcement bar and secure its position using suitable tie	-	-	-	-
NOS Total	20	80	-	-



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	CON/N3619
NOS Name	Assist in bar bending works
Sector	Construction
Sub-Sector	Rural Infrastructure construction
Occupation	Masonry - Rural
NSQF Level	3
Credits	TBD
Version	1.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



Qualification Pack

CON/N3620: Assist in shuttering carpentry Masonry works

Description

This unit describes the skills and knowledge required to assist in shuttering carpentry works

Scope

The scope covers the following :

- Assist in shuttering carpentry works

Elements and Performance Criteria

Assist in shuttering carpentry works

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 ,wooden planers, hand augers for cutting and sizing of timber/ plywood
- PC4.** use measurement and marking tools for correct sizing of timber/plywood
- PC5.** make timber joint such as lap joint, mortis and tenon joints, dovetail joints and housing joints using appropriate hand tools
- PC6.** select , cut and size timber/ plywood of required size for making shutter boards
- PC7.** assist in marking, cutting and sizing of timber for making shutter boards
- PC8.** carry out nailing works in making of shutter boards as per instructions
- PC9.** transfer level from reference points using water level tube
- PC10.** select bamboo, ballis based on height, diameter and thickness
- PC11.** check and ensure jute thread is kept in water before using it for tying of bamboo, ballis
- PC12.** assist in erecting staging for shuttering using conventional formwork
- PC13.** assist and place props and shuttering boards at marked location as per instructions
- PC14.** assist in aligning and providing support to shutter boards as per instructions using ballis, wooden battens, pipes and props
- PC15.** assist in checking line, level and alignment and making corrective action if required
- PC16.** tie different types of knots effectively
- PC17.** assist in de-shuttering works for removal of shutter boards safely under instruction as per standard method

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** 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



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- KU2.** visual check for quality of timber and plywood
- KU3.** visual check for quality of timber and plywood
- KU4.** different types of hand and power tools used for cutting and planing of timber
- KU5.** use of measurement and marking tools
- KU6.** storage of timber to prevent decay distortion, bending, splitting etc
- KU7.** various types of timber joints
- KU8.** use of water level tube, spirit level, plumb bob, tri-square
- KU9.** how to provide support in shuttering works
- KU10.** how to tie various types of knots and its use
- KU11.** standard procedure for assembling and dismantling conventional formwork

Generic Skills (GS)

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

- GS1.** basic numeracy skills
- GS2.** speak in one or more language, preferably one of the local language at the site
- GS3.** orally and effectively communicate with co-workers & subordinates
- GS4.** decide whether the workplace is safe for working
- GS5.** plan self-work and organize required resources
- GS6.** complete work as per instructions



Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Assist in shuttering carpentry works</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 ,wooden planers, hand augers for cutting and sizing of timber/ plywood	-	-	-	-
PC4. use measurement and marking tools for correct sizing of timber/plywood	-	-	-	-
PC5. make timber joint such as lap joint, mortis and tenon joints, dovetail joints and housing joints using appropriate hand tools	-	-	-	-
PC6. select , cut and size timber/ plywood of required size for making shutter boards	-	-	-	-
PC7. assist in marking, cutting and sizing of timber for making shutter boards	-	-	-	-
PC8. carry out nailing works in making of shutter boards as per instructions	-	-	-	-
PC9. transfer level from reference points using water level tube	-	-	-	-
PC10. select bamboo, ballis based on height, diameter and thickness	-	-	-	-
PC11. check and ensure jute thread is kept in water before using it for tying of bamboo, ballis	-	-	-	-
PC12. assist in erecting staging for shuttering using conventional formwork	-	-	-	-
PC13. assist and place props and shuttering boards at marked location as per instructions	-	-	-	-



Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. assist in aligning and providing support to shutter boards as per instructions using ballis, wooden battens, pipes and props	-	-	-	-
PC15. assist in checking line, level and alignment and making corrective action if required	-	-	-	-
PC16. tie different types of knots effectively	-	-	-	-
PC17. assist in de-shuttering works for removal of shutter boards safely under instruction as per standard method	-	-	-	-
NOS Total	20	80	-	-



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	CON/N3620
NOS Name	Assist in shuttering carpentry Masonry works
Sector	Construction
Sub-Sector	Rural Infrastructure construction
Occupation	Masonry - Rural
NSQF Level	3
Credits	TBD
Version	1.0
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)/ Element 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/ Element.
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 iteration 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 timeframe 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/N3613.Handle and use hand tools related to masonry, bar bending, shuttering carpentry and concreting works	20	80	-	-	100	15
CON/N3614.Assist in marking of foundation, wall and soak pit and brick/block works including fixing door and window frames.	20	80	-	-	100	25
CON/N3615.Assist in concreting works and brick soling	20	80	-	-	100	20
CON/N3616.Assist in PCC flooring works	20	80	-	-	100	15



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National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
CON/N3617.Assist in fixing toilet pan and pipes in inspection chamber	20	80	-	-	100	25
Total	100	400	-	-	500	100

Optional: 1 Random Rubble Masonry works

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
CON/N3618.Assist in Random rubble Masonry works	20	80	-	-	100	10
Total	20	80	-	-	100	10

Optional: 2 Bar Bending works

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
CON/N3619.Assist in bar bending works	20	80	-	-	100	10
Total	20	80	-	-	100	10

Optional: 3 Shuttering Carpentry works

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
CON/N3620.Assist in shuttering carpentry Masonry works	20	80	-	-	100	10
Total	20	80	-	-	100	10



Qualification Pack



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.