



# Model Curriculum

**QP Name: Helper Mason**

**Options: Manual Earthwork**

**QP Code: CON/Q0101**

**Version: 4.0**

**NSQF Level: 2**

**Model Curriculum Version: 4.0**

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## Training Parameters

<b>Sector</b>	Construction
<b>Sub-Sector</b>	Real Estate and Infrastructure Construction
<b>Occupation</b>	Masonry
<b>Country</b>	India
<b>NSQF Level</b>	2
<b>Aligned to NCO/ISCO/ISIC Code</b>	NCO-2015/9313.0301
<b>Minimum Educational Qualification and Experience</b>	No formal education prescribed. OR May require ability to read and write for some qualifications
<b>Pre-Requisite License or Training</b>	NA
<b>Minimum Job Entry Age</b>	18 Years
<b>Last Reviewed On</b>	31/08/2023
<b>Next Review Date</b>	29/02/2024
<b>NSQC Approval Date</b>	31/08/2023
<b>QP Version</b>	4.0
<b>Model Curriculum Creation Date</b>	31/08/2023
<b>Model Curriculum Valid Up to Date</b>	29/02/2024
<b>Model Curriculum Version</b>	4.0
<b>Minimum Duration of the Course</b>	240 Hours
<b>Maximum Duration of the Course</b>	270 Hours



# Program Overview

This section summarises the end objectives of the program along with its duration.

## Training Outcomes

At the end of the program, the learner should have acquired the listed knowledge and skills to:

- Describe the process of erecting and dismantling temporary scaffold up to 3.6 meter height.
- Elucidate ways to handle, shift and store masonry tools, equipment and materials.
- Describe the process of preparing cement and mortar concrete mixture, and undertake curing.
- Elucidate ways to work according to personal health, safety and environment protocols at construction site.
- Describe the process of carrying out manual earthwork at construction sites.

## Compulsory Modules

The table lists the modules and their duration corresponding to the Compulsory NOS of the QP.

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
<b>CON/N0101: Erect and dismantle temporary scaffold up to 3.6 - meter height</b> NOS Version- 7.0 NSQF Level- 3	15:00	45:00	0:00	00:00	60:00
Module 1: Introduction to the role of a Helper Mason	05:00	00:00	0:00	00:00	05:00
Module 2: Process of erecting and dismantling temporary scaffold up to 3.6-meter height	10:00	45:00	0:00	00:00	55:00
<b>CON/N0102: Handle, shift and store masonry tools, equipment and materials</b> NOS Version- 4.0 NSQF Level- 2	20:00	10:00	30:00	00:00	60:00
Module 3: Process of handling, shifting and storing masonry tools, equipment and materials	20:00	10:00	30:00	00:00	60:00
<b>CON/N0103: Prepare cement and mortar</b>	20:00	40:00	00:00	00:00	60:00



concrete mixture, and undertake curing NOS Version- 4.0 NSQF Level- 2					
Module 4: Process of preparing cement and mortar concrete mixture, and undertaking curing	20:00	40:00	00:00	00:00	60:00
<b>CON/N9001: Work according to personal health, safety, and environment protocols at construction site</b> NOS Version- 10.0 NSQF Level- 4	<b>05:00</b>	<b>25:00</b>	<b>0:00</b>	<b>00:00</b>	<b>30:00</b>
Module 5: Follow safety norms as defined by organization, adopt healthy and safe work practices	05:00	25:00	0:00	00:00	30:00
<b>DGT/VSQ/N0101: Employability Skills</b> NOS Version- 1.0 NSQF Level- 2	<b>30:00</b>	<b>00:00</b>	<b>0:00</b>	<b>00:00</b>	<b>30:00</b>
Module 6: Employability Skills	30:00	00:00	0:00	00:00	30:00
<b>Total Duration</b>	<b>90:00</b>	<b>120:00</b>	<b>30:00</b>	<b>00:00</b>	<b>240:00</b>

### Optional Modules

The table lists the modules and their duration corresponding to the Optional NOS of the QP.

#### Option 1: Manual Earthwork

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
<b>CON/N0104: Carry out manual earthwork at construction sites.</b> NOS Version- 5.0 NSQF Level- 2	<b>15:00</b>	<b>15:00</b>	<b>0:00</b>	<b>00:00</b>	<b>30:00</b>
Module 7: Process of carrying out manual earthwork at construction sites	15:00	15:00	0:00	00:00	30:00
<b>Total Duration</b>	<b>15:00</b>	<b>15:00</b>	<b>0:00</b>	<b>00:00</b>	<b>30:00</b>



# Module Details

## Module 1: Introduction to the role of a Helper Mason

*Mapped to CON/N0101 v7.0*

### Terminal Outcomes:

- Discuss the job role of a Helper Mason.

<b>Duration: 05:00</b>	<b>Duration: 0:00</b>
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"><li>• Describe the size and scope of the Construction industry and its sub-sectors.</li><li>• Discuss the role and responsibilities of a Helper Mason.</li><li>• Identify various employment opportunities for a Helper Mason.</li></ul>	
<b>Classroom Aids</b>	
Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
<b>Tools, Equipment and Other Requirements</b>	
NA	



## Module 2: Process of erecting and dismantling temporary scaffold up to 3.6-meter height

Mapped to CON/N0101 v7.0

### Terminal Outcomes:

- Explain the process of erecting and dismantling temporary scaffold.

<b>Duration: 10:00</b>	<b>Duration: 45:00</b>
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>● Explain the use of different types of scaffolds (e.g. cup-lock, frame scaffold).</li> <li>● Explain the use of tools and tackles in scaffolding, including tools for erecting and dismantling 3.6-meter temporary scaffold.</li> <li>● Elucidate the identification and use of different scaffolding components.</li> <li>● List the standard size of scaffolding components.</li> <li>● Describe the standard procedure for erecting and dismantling 3.6 m temporary scaffold.</li> </ul>	<ul style="list-style-type: none"> <li>● Demonstrate the process of carrying out levelling in the area where scaffold needs to be erected and check for ground compactness.</li> <li>● Demonstrate how to use appropriate components and follow the standard procedure for erecting temporary scaffold up to 3.6 m in height.</li> <li>● Demonstrate the process of setting up walk-boards, guard rails, toe-boards and other components on the scaffold's working platform.</li> <li>● Show how to clean and stack all components properly after dismantling.</li> </ul>
<b>Classroom Aids</b>	
Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
<b>Tools, Equipment and Other Requirements</b>	
Measuring Tape/Rule, Scale, Steel Square, Trowel, Water Level, Spirit Level, Plumb Bob, Straight Edge, Mason's Hammer, String Line, Jointers, Mallets, Wedges, Screeds, Floats, Bolster Chisel, Rubber/Wooden Hammers, Spade, Sponge, Volume Box, Weighing Balance, Tile Scribes Or Hand Held Tile Cutters, Wet-Power Saw, Mason's Line, Cup-Lock Scaffolding Components (Set), 40 NB Pipes, Swivel Coupler, Fixed Clamp, Steel Waler, Steel Walkways, Tool Box with Lock and Key, Power Source, Source Of Water, Electric Drills, Grinders, Vibrators, Hand Operated Concrete Mixer, Mortar Mixing Board/Mortar Pan, Pointing Trowel, Shovel, Pick Axe, Gi Bucket 5L Capacity, Wheel Barrow, Lime Powder, Wooden Pegs, Hard Broom, Nuts And Bolts, Spanner (Set), Wrench, Pulley, Rope, Ladder, Hand Roller, Plate Vibrator, Safety Helmets, Face Shield, Overalls, Knee Pads, Safety Shoes, Safety Belt, Safety Harness, Safety Gloves, Safety Goggles, Nose Masks, Ear Plugs, Reflective Jackets, Fire Extinguisher, Fire Prevention Kit, First Aid Box, Safety Tags, Safety Notice Board / Safety Message Board, Safety Net	



## Module 3: Process of handling, shifting and storing masonry tools, equipment and materials

*Mapped to CON/N0102 v4.0*

### Terminal Outcomes:

- Elucidate ways to select masonry tools and equipment.
- Elucidate ways to select and store masonry materials.
- Describe the process of performing effective housekeeping.

Duration: 20:00	Duration: 10:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> <li>● Discuss the standard masonry practices.</li> <li>● Explain the safety regulations concerning the handling and storing of masonry tools, equipment and materials.</li> <li>● Explain the importance of personal protection and the use of relevant safety gear and equipment.</li> <li>● Explain the basics of plastering, concreting, flooring and cladding using tiles and stones.</li> <li>● Explain how to use the different masonry tools, equipment and accessories, such as measuring tape, trowel, bolster chisel, mortar pan, hammer, spade, rubber/wooden hammers, mallet, wedges, jointers, square, plumb bob, straight edge tool, spirit level, water level tube, line thread, sponge, weighing balance, tile scribes/ hand-held tile cutters, floats, power masonry saw, electric drill, anglers and grinders, vibrators, concrete mixer, etc.</li> <li>● Elucidate the settings and use of basic levelling tools, such as plumb bob, spirit level, and water level, and how to transfer levels using them.</li> <li>● Explain the basic repair and maintenance requirements of masonry tools and equipment.</li> <li>● Explain the use of different materials in masonry, such as cement, sand, aggregate, brick, block, stones,</li> </ul>	<ul style="list-style-type: none"> <li>● Demonstrate the process of performing basic repair and maintenance of tools and equipment, and report the faults requiring expert assistance to the supervisor.</li> <li>● Demonstrate how to use appropriate hand tools relevant to the task, following the given instructions.</li> <li>● Demonstrate the process of setting up and use basic levelling tools, such as plumb bob, spirit level and water level.</li> <li>● Demonstrate the process of carrying out proper tagging and bagging of materials prior to stacking and storing, to allow their easy identification and retrieval.</li> <li>● Demonstrate the process of installing appropriate signage and barricades around the hazardous materials to prevent any harm to the personnel at the site.</li> </ul>



<p>marble slabs and tiles of different types, admixtures and chemicals.</p> <ul style="list-style-type: none"> <li>● Explain how to check the quality of bricks, blocks, tiles, stones, etc.</li> <li>● Describe the procedure for collecting tools, equipment and materials from store and the importance of indent during receiving/returning them.</li> <li>● Describe the appropriate methods for the efficient lifting and shifting materials of materials, and the role of material handling equipment in the process.</li> <li>● State the appropriate height for stacking masonry materials based on the nature, size and shape of material and available space.</li> <li>● Describe the methods and sequence of loading, unloading of different masonry materials.</li> <li>● State the classification of masonry materials and their storage requirements based on their uses and compositions.</li> <li>● Explain the importance and process of tagging and bagging materials.</li> <li>● Explain the importance of maintaining correct body posture during lifting and shifting of materials, and the applicable ergonomic principles.</li> <li>● State the appropriate precautions to be taken during the handling and stacking of hazardous/ inflammable materials.</li> <li>● Explain how to select and use appropriate material handling tools and equipment for handling different types of masonry materials, including heavy and hazardous materials.</li> <li>● Discuss the applicable housekeeping practices.</li> </ul>	
<p><b>Classroom Aids</b></p>	
<p>Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop</p>	
<p><b>Tools, Equipment and Other Requirements</b></p>	



Measuring Tape/Rule, Scale, Steel Square, Trowel, Water Level, Spirit Level, Plumb Bob, Straight Edge, Mason's Hammer, String Line, Jointers, Mallets, Wedges, Screeds, Floats, Bolster Chisel, Rubber/Wooden Hammers, Spade, Sponge, Volume Box, Weighing Balance, Tile Scribes Or Hand Held Tile Cutters, Wet-Power Saw, Mason's Line, Cup-Lock Scaffolding Components (Set), 40 NB Pipes, Swivel Coupler, Fixed Clamp, Steel Waler, Steel Walkways, Tool Box with Lock and Key, Power Source, Source Of Water, Electric Drills, Grinders, Vibrators, Hand Operated Concrete Mixer, Mortar Mixing Board/Mortar Pan, Pointing Trowel, Shovel, Pick Axe, Gi Bucket 5L Capacity, Wheel Barrow, Lime Powder, Wooden Pegs, Hard Broom, Nuts And Bolts, Spanner (Set), Wrench, Pulley, Rope, Ladder, Hand Roller, Plate Vibrator, Safety Helmets, Face Shield, Overalls, Knee Pads, Safety Shoes, Safety Belt, Safety Harness, Safety Gloves, Safety Goggles, Nose Masks, Ear Plugs, Reflective Jackets, Fire Extinguisher, Fire Prevention Kit, First Aid Box, Safety Tags, Safety Notice Board / Safety Message Board, Safety Net



## Module 4: Process of preparing cement and mortar concrete mixture, and undertaking curing

*Mapped to CON/N0103 v4.0*

### Terminal Outcomes:

- Explain the process of preparing cement and mortar concrete mixes.
- Describe the process of carrying out curing.

<b>Duration: 20:00</b>	<b>Duration: 40:00</b>
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>● List the types of materials required for cement and mortar concrete mix including other bonding materials.</li> <li>● State the ratio of materials required for mixing mortar and concrete by volume.</li> <li>● Describe the method for the preparation of platform, placing and mixing of ingredients.</li> <li>● Explain the use of relevant tools and equipment for preparing cement and mortar concrete mix.</li> <li>● Explain how to use appropriate measuring volume box/ weighing scales for measuring the appropriate quantity of materials required.</li> <li>● Explain how to mix dry ingredients using the appropriate quantity of water and additives.</li> <li>● List different admixtures used in masonry.</li> <li>● Describe the process of manual and mechanical mixing of concrete materials.</li> <li>● Explain how to move, place and operate the manual concrete mixer.</li> <li>● Describe various curing techniques, such as ponding spraying, wet coverings, plastic sheets, etc.</li> <li>● Explain the importance of using the correct quantity of water for spraying during curing.</li> <li>● Explain the use of appropriate types of polythene and hessian cloth to prevent the loss of moisture during</li> </ul>	<ul style="list-style-type: none"> <li>● Demonstrate how to sieve fine aggregates (sand) for mortar mix using the sieve wire mesh of appropriate specification.</li> <li>● Demonstrate ways to determine the quantity of dry ingredients using the appropriate weighing tools.</li> <li>● Demonstrate ways to batch the materials for mortar/concrete mixing as per the given instructions and mix them uniformly using the manual concrete mixer appropriately.</li> <li>● Demonstrate how to spread materials on the mixing bed for manual mixing according to type of mix required (concrete or mortar).</li> <li>● Show how to mix mortar uniformly and maintain consistency, plasticity and workability, adding appropriate additives as per the requirement /instructions.</li> <li>● Demonstrate the process of carrying out pre wetting of base surface prior to commencement of work.</li> <li>● Show how to clean the mixing tools before and after use.</li> <li>● Show how to spray water on concrete slabs/ cement plaster using appropriate tools as directed by the supervisor, and cover the concrete surface with hessian cloth/ polythene to retain water and achieve effective curing.</li> </ul>



curing.	
<b>Classroom Aids</b>	
Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
<b>Tools, Equipment and Other Requirements</b>	
Measuring Tape/Rule, Scale, Steel Square, Trowel, Water Level, Spirit Level, Plumb Bob, Straight Edge, Mason's Hammer, String Line, Jointers, Mallets, Wedges, Screeds, Floats, Bolster Chisel, Rubber/Wooden Hammers, Spade, Sponge, Volume Box, Weighing Balance, Tile Scribes Or Hand Held Tile Cutters, Wet-Power Saw, Mason's Line, Cup-Lock Scaffolding Components (Set), 40 NB Pipes, Swivel Coupler, Fixed Clamp, Steel Waler, Steel Walkways, Tool Box with Lock and Key, Power Source, Source Of Water, Electric Drills, Grinders, Vibrators, Hand Operated Concrete Mixer, Mortar Mixing Board/Mortar Pan, Pointing Trowel, Shovel, Pick Axe, Gi Bucket 5L Capacity, Wheel Barrow, Lime Powder, Wooden Pegs, Hard Broom, Nuts And Bolts, Spanner (Set), Wrench, Pulley, Rope, Ladder, Hand Roller, Plate Vibrator, Safety Helmets, Face Shield, Overalls, Knee Pads, Safety Shoes, Safety Belt, Safety Harness, Safety Gloves, Safety Goggles, Nose Masks, Ear Plugs, Reflective Jackets, Fire Extinguisher, Fire Prevention Kit, First Aid Box, Safety Tags, Safety Notice Board / Safety Message Board, Safety Net	



## Module 5: Work according to personal health, safety and environment protocols at construction site

*Mapped to NOS CON/N9001 v10.0*

### Terminal Outcomes:

- Explain the importance of following safety norms as defined by organization.
- Explain the need to adopt healthy & safe work practices.
- Describe the process of implementing good housekeeping and environment protection process and activities.
- Explain the importance of following infection control guidelines as per applicability.

Duration: 05:00	Duration: 25:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> <li>● Describe the reporting procedures in cases of breaches or hazards for site safety, accidents, and emergency situations as per guidelines.</li> <li>● Explain different types of safety hazards at construction sites.</li> <li>● Discuss basic ergonomic principles as per applicability.</li> <li>● Describe the procedure for responding to accidents and other emergencies at site.</li> <li>● Explain the importance of handling tools, equipment, and materials as per applicable norms.</li> <li>● Explain the effect of construction material on health and environments as per applicability.</li> <li>● Describe various environmental protection methods as per applicability.</li> <li>● Explain the storage requirement 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.</li> <li>● Explain how to use hazardous material in a safe and appropriate manner as per applicability.</li> </ul>	<ul style="list-style-type: none"> <li>● Demonstrate how to follow emergency and evacuation procedures in case of accidents, fires, natural calamities.</li> <li>● Show how to operate different types of fire extinguishers corresponding to various types of fires as per EHS guideline.</li> <li>● Demonstrate the use of appropriate Personal Protective Equipment (PPE) as per work requirements for : Head Protection, Ear protection, Fall Protection ,Foot Protection, Face and Eye Protection, Hand and Body Protection , and Respiratory Protection (if required).</li> <li>● Demonstrate how to check and install all safety equipment as per standard guidelines.</li> <li>● Show how to collect, segregate and deposit construction waste into appropriate containers based on their toxicity or hazardous nature.</li> <li>● Show how to clean and disinfect all materials, tools and supplies before and after use.</li> </ul>

<ul style="list-style-type: none"> <li>● Explain types of fire.</li> <li>● Describe the procedure of operating different types of fire extinguishers.</li> <li>● State safety relevant to tools, tackles, and equipment as per applicability.</li> <li>● List housekeeping activities relevant to task.</li> <li>● Elucidate ways of transmission of infection</li> <li>● Explain the ways to manage infectious risks at the workplace.</li> <li>● Describe different methods of cleaning, disinfection, sterilization, and sanitization.</li> <li>● List the symptoms of infection like fever, cough, redness, swelling, and inflammation.</li> </ul>	
<b>Classroom Aids:</b>	
Black/White board, marker, Projector/LED Monitor, Computer, Trade specific charts, Safety tags, Safety Notice board, registers and other teaching aids	
<b>Tools, Equipment and Other Requirements</b>	
Leather Hand Gloves, Jump suit, Wire brush, Hand and Leg guard leather, Safety goggles, Nose mask, Ear protection, Fire extinguishers, Sand buckets Flashback arrestors, Welding helmet, Welding glass, Fire Extinguisher, Fire prevention kit, First Aid box, Safety tags, Safety Notice board	



## Module 6: Employability Skills

Mapped to NOS DGT/VSQ/N0101 v1.0

**Duration: 30:00**

### Key Learning Outcomes

#### **Introduction to Employability Skills Duration: 1 Hour**

After completing this programme, participants will be able to:

1. Discuss the importance of Employability Skills in meeting the job requirements

#### **Constitutional values - Citizenship Duration: 1 Hour**

2. Explain constitutional values, civic rights, duties, citizenship, responsibility towards society etc. that are required to be followed to become a responsible citizen.
3. Show how to practice different environmentally sustainable practices

#### **Becoming a Professional in the 21st Century Duration: 1 Hours**

4. Discuss 21st century skills.
5. Display positive attitude, self -motivation, problem solving, time management skills and continuous learning mindset in different situations.

#### **Basic English Skills Duration: 2 Hours**

6. Use appropriate basic English sentences/phrases while speaking

#### **Communication Skills Duration: 4 Hour**

7. Demonstrate how to communicate in a well -mannered way with others.
8. Demonstrate working with others in a team

#### **Diversity & Inclusion Duration: 1 Hour**

9. Show how to conduct oneself appropriately with all genders and PwD
10. Discuss the significance of reporting sexual harassment issues in time

#### **Financial and Legal Literacy Duration: 4 Hours**

11. Discuss the significance of using financial products and services safely and securely.
12. Explain the importance of managing expenses, income, and savings.
13. Explain the significance of approaching the concerned authorities in time for any exploitation as per legal rights and laws

#### **Essential Digital Skills Duration: 3 Hours**

14. Show how to operate digital devices and use the associated applications and features, safely and securely
15. Discuss the significance of using internet for browsing, accessing social media platforms, safely and securely

#### **Entrepreneurship Duration: 7 Hours**

16. Discuss the need for identifying opportunities for potential business, sources for arranging money and potential legal and financial challenges

#### **Customer Service Duration: 4 Hours**

17. Differentiate between types of customers
18. Explain the significance of identifying customer needs and addressing them
19. Discuss the significance of maintaining hygiene and dressing appropriately

#### **Getting ready for apprenticeship & Jobs Duration: 2 Hours**

20. Create a biodata
21. Use various sources to search and apply for jobs
22. Discuss the significance of dressing up neatly and maintaining hygiene for an interview
23. Discuss how to search and register for apprenticeship opportunities



## Module 7: Process of carrying out manual earthwork at construction sites

*Mapped to CON/N0104 v5.0*

### Terminal Outcomes:

- Explain the process of preparing for earthwork.
- Describe the process of carrying out soil cutting and dressing work.
- Describe the process of carrying out backfilling and compaction manually.

<b>Duration: 15:00</b>	<b>Duration: 15:00</b>
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>● Explain the use of hand tools such as spade, pick axe, shovel, pans, and wheel for manual earthwork.</li> <li>● Explain how to work safely at depth below the ground level.</li> <li>● Explain the use of marking tools such as wooden pegs, lime, line threads, and ropes</li> <li>● Explain the use of plate compactor, hand roller, earth ramming tools, etc.</li> <li>● Explain how to maintain slope in excavation.</li> <li>● Elucidate the relevant preparatory activities for earthwork.</li> <li>● Describe the process of soil cutting and dressing.</li> <li>● Describe the process of manual backfilling and compaction.</li> </ul>	<ul style="list-style-type: none"> <li>● Show how to remove all the unwanted materials and removable objects from the worksite using the appropriate hand tools.</li> <li>● Show how to clean the earth's surface using appropriate hand tools to prepare it for carrying out marking activity.</li> <li>● Demonstrate the process of carrying out marking for excavation using lime, wooden pegs, ropes or any other suitable materials as instructed.</li> <li>● Demonstrate how to shift and stack fencing/ barricading materials, safety signage, ladders, ropes, earth cutting and shifting tools at the specified locations.</li> <li>● Demonstrate the process of carrying out excavation to the required depth using the appropriate tools, as per the supervisor's instruction.</li> <li>● Demonstrate how to dispose earth from the excavated pit by using suitable tools, such as spade, wheel barrows, pans, etc.</li> <li>● Demonstrate the process of carrying out surface dressing by disposing loose material, gravels, plant roots, sludge, muck or debris as per the requirement.</li> <li>● Demonstrate the process of carrying out compaction of the base layer of the pit by ramming or operating hand/ plate compactor.</li> <li>● Demonstrate how to shift and place earth at the designated location by</li> </ul>



	<p>using the appropriate tools as instructed.</p> <ul style="list-style-type: none"> <li>● Show how to place and spread earth maintaining uniform layers within the applicable tolerance limit of thickness.</li> <li>● Demonstrate the process of carrying out ramming or operate hand/ plate compacting machines over the soil layer as per direction.</li> <li>● Demonstrate the process of carrying out refilling and compaction of excavated trenches, pits surrounding the structures or at necessary location using soil as directed by the supervisor.</li> </ul>
<p><b>Classroom Aids</b></p>	
<p>Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films</p>	
<p><b>Tools, Equipment and Other Requirements</b></p>	
<p>Trowel, Pointing Trowel, Shovel, Mortar Pan, Spade, Pick Axe, GI Bucket 5L Capacity, Wheel Barrow, Lime Powder, Wooden Pegs, Hammer, Hard Broom, Source Of Water, Ladder, Measuring Tape, Mason’s Line, Hand Roller, Plate Vibrator, Power Source, Helmet, Safety Shoes, Cotton Hand Gloves, Goggles, Reflective Jackets, Safety Message Boards</p>	



## Module 8: On-the-Job Training

### Mapped to Helper Mason

<b>Mandatory Duration: 30:00</b>	<b>Recommended Duration: 00:00</b>
<b>Location: On-Site</b>	
<b>Terminal Outcomes</b>	
<ul style="list-style-type: none"><li>● Explain the use of tools and tackles in scaffolding, including tools for erecting and dismantling 3.6-meter temporary scaffold.</li><li>● Carry out levelling in the area where scaffold needs to be erected and check for ground compactness.</li><li>● Use appropriate components and follow the standard procedure for erecting temporary scaffold up to 3.6 m in height.</li><li>● Perform basic repair and maintenance of tools and equipment, and report the faults requiring expert assistance to the supervisor</li><li>● Install appropriate signage and barricades around the hazardous materials to prevent any harm to the personnel at the site</li><li>● Sieve fine aggregates (sand) for mortar mix using the sieve wire mesh of appropriate specification</li><li>● Mix mortar uniformly and maintain consistency, plasticity and workability, adding appropriate additives as per the requirement /instructions</li><li>● Carry our excavation to the required depth using the appropriate tools, as per the supervisor’s instruction</li><li>● Carry out compaction of the base layer of the pit by ramming or operating hand/ plate compactor</li><li>● Carry out ramming or operate hand/ plate compacting machines over the soil layer as per direction</li><li>● Carry out refilling and compaction of excavated trenches, pits surrounding the structures or at necessary location using soil as directed by the supervisor.</li></ul>	



# Annexure

## Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialisation	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
B. Tech	Civil/Mechanical/ Electrical	0.5	Masonry	0	-	
Diploma	Civil/Mechanical/ Electrical	1	Masonry	0	-	
ITI	Civil/Mechanical/ Electrical	2	Masonry	0	-	
General BA/BSc./ EX-Army/ 12th	Civil/Mechanical/ Electrical	2	Masonry	0	-	

Trainer Certification	
Domain Certification	Platform Certification
Certified for Job Role “Helper Mason”, mapped to QP: “CON/Q0101, v4.0”, Minimum accepted score is 80%	Recommended that the Trainer is certified for the Job Role: “Trainer (Vet and Skills)”, mapped to the Qualification Pack: “MEP/Q2601, v2.0”. The minimum accepted score as per MEPSC guidelines is 80%.

## Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
B. Tech	Civil/Mechanical/ Electrical	1	Masonry	0	-	
Diploma	Civil/Mechanical/ Electrical	2	Masonry	0	-	
ITI	Civil/Mechanical/ Electrical	3	Masonry	0	-	

Assessor Certification	
Domain Certification	Platform Certification
Certified for Job Role “Helper Mason”, mapped to QP: “CON/Q0101 v4.0”, Minimum accepted score is 80%	Recommended that the Assessor is certified for the Job Role: “Assessor (Vet and Skills)”, mapped to the Qualification Pack: “MEP/Q2701, v2.0”, with a minimum score of 80%.



## Assessment Strategy

This section includes the processes involved in identifying, gathering, and interpreting information to evaluate the Candidate on the required competencies of the program.

### 1. Assessment System Overview:

- Batches assigned to the assessment agencies for conducting the assessment on SIP
- The batch allocation Matrix prepared for each month based on previous months' performance of AAs, which determines the quantum of Assessment which can be allocated to each AA for a month
- Post allocation of assessment, Assessment agencies send the assessment confirmation to SSC
- Assessment agency deploys the ToA certified Assessor for executing the assessment
- SSC monitors the assessment process.

### 2. Testing Environment:

- A combination of Theory and practical/demonstration test is deployed to assess knowledge and Skill respectively of Learners.
- Assessment is conducted at Training center in in-person/offline mode
- For Skill assessment, environment is simulated to create a realistic Working Environment that should replicate the key features of the workplace. In job roles, where it is difficult to replicate the same, the OJT assessment is implemented.
- During the practical task, trainees are assessed on their workmanship, quality of finished product, time management, etc., based on the performance criteria (PC), knowledge and understanding and their professional and soft skills as specified in the qualification pack.
- Knowledge assessment is done through closed ended questions up to level 4 and from level 5 onwards, it is mixture of open ended and closed ended questions

### 3. Assessment Quality Assurance levels/Framework

- Assessment criteria is developed for each QP which acts as a guide for developing question set/banks
- Sample questions aligned with Assessment criteria for each QP are developed by SSC and validated by industry
- Taking reference of Assessment criteria and Sample Questions, AAs create the question bank which is further validated by SSC
- Questions are mapped to the specified assessment criteria
- It is mandatory that Assessor and Trainer must be ToA certified & ToT Certified respectively
- Continuous Monitoring through virtual and In-person mode are conducted to ensure the assessment is conducted as per stipulated process
- Process and Technical audit of assessment batches by quality team are conducted to avoid the errors in assessment process



- A well -defined comprehensive framework of NON-COMPLIANCE MATRIX is defined and implemented to identify the non-compliance made by assessor and AA and punitive actions are taken correspondingly.
- The capacity building sessions are conducted regularly for assessors and assessment agencies to update them about best practices in assessment

#### **4. Types of evidence or evidence-gathering protocol:**

- Post Assessment, the evidences are uploaded by Assessor to assessment agency and further assessment agency to SSC as per stipulated TAT
- Evidences are broadly the photographic and video graphic in nature
- Assessment agencies upload the evidence on SIP and detailed evidence on SSC digital platform (ZoHO)
- Evidences are; NOS wise-Geotagged photographs and videos of Theory Test & Practical Tasks, Attendance sheet, result summary sheet, group photographs.

#### **5. Method of verification or validation:**

- The process and technical audit of assessment batches are done by SSC
- Attendance of each candidate is verified and it is ensured that only those candidates are assessed by assessors who are meeting the stipulated minimum percentage of attendance
- The result of each candidate is verified, it is verified that that result on SIP are matching with respect to summary sheet submitted by AAs
- Under detailed technical audit for sample of batches, the knowledge and skill assessment results for each candidate is checked in technical aspect.
- All the evidences of batches are preserved on server of SSC digital platform

#### **On the Job:**

- On job training (OJT), candidates undergo training and learning at actual workplace for a fixed period of time and a certain weightage of assessment is allocated out of total skill weightage of Qualification Pack for undergoing OJT as stipulated by CSDCI. This OJT score and assessors' end point score are combined to arrive at final Marking/grading of trainees' skill test. The OJT score is determined by Supervisor of company under which candidates undergo on job training.



## References

## Glossary

Term	Description
<b>Declarative Knowledge</b>	Declarative knowledge refers to facts, concepts and principles that need to be known and/or understood in order to accomplish a task or to solve a problem.
<b>Key Learning Outcome</b>	Key learning outcome is the statement of what a learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and skills (practical application).
<b>OJT (M)</b>	On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site
<b>OJT (R)</b>	On-the-job training (Recommended); trainees are recommended the specified hours of training on site
<b>Procedural Knowledge</b>	Procedural knowledge addresses how to do something, or how to perform a task. It is the ability to work, or produce a tangible work output by applying cognitive, affective or psychomotor skills.
<b>Training Outcome</b>	Training outcome is a statement of what a learner will know, understand and be able to do it upon the completion of the training.
<b>Terminal Outcome</b>	Terminal outcome is a statement of what a learner will know, understand and be able to do upon the completion of a module. A set of terminal outcomes help to achieve the training outcome.



## Acronyms and Abbreviations

Term	Description
QP	Qualification Pack
NSQF	National Skills Qualification Framework
NSQC	National Skills Qualification Committee
NOS	National Occupational Standards
CSDCI	Construction Skill development Council of India
MCQ	Multiple Choice Question
EHS	Environment Health and Safety
IPS	Indian Patent Stone
VDF	Vacuum Dewatering Flooring