Model Curriculum

QP Name: Helper Shuttering Carpenter

Options: Manual Earthwork

QP Code: CON/Q0301

Version: 3.0

NSQF Level: 2

Model Curriculum Version: 3.0

Construction Skill Development Council of India|| Tower 4B, DLF Corporate Park, 201&, 202 4B, Mehrauli-Gurgaon Rd, DLF Phase 3, Gurugram, Haryana 122002

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Training Parameters

Sector	Construction
Sub-Sector	Real Estate and Infrastructure Construction
Occupation	Shuttering Carpentry
Country	India
NSQF Level	2
Aligned to NCO/ISCO/ISIC Code	NCO-2015/9313.0401
Minimum Educational Qualification and Experience	No formal education prescribed. OR May require ability to read and write for some qualifications
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	31/08/2023
Next Review Date	29/02/2024
NSQC Approval Date	31/08/2023
QP Version	3.0
Model Curriculum Creation Date	31/08/2023
Model Curriculum Valid Up to Date	29/02/2024
Model Curriculum Version	3.0
Minimum Duration of the Course	240 Hours
Maximum Duration of the Course	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:

- Explain the process of shifting and stacking shuttering carpentry and scaffolding tools, equipment, and materials.
- Describe the process of using hand tools for cutting, planing and drilling timber/ plywood.
- Describe the process of erecting and dismantling temporary scaffold up to 3.6 meter height.
- 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
CON/N0305: Shift and stack shuttering carpentry and scaffolding tools, equipment, and materials **NOS Version- 3.0** **NSQF Level- 2**	**10:00**	**20:00**	**30:00**	**00:00**	**60:00**
Module 1: Introduction to the role of a Helper Shuttering Carpenter	05:00	00:00	0:00	00:00	05:00
Module 2: Process of shifting and stacking shuttering carpentry and scaffolding tools, equipment, and materials	05:00	20:00	30:00	00:00	55:00
CON/N0306: Use hand tools for cutting, planing and drilling timber/ plywood **NOS Version- 3.0** **NSQF Level- 2**	**30:00**	**30:00**	**00:00**	**00:00**	**60:00**

Module 3: Process of using hand tools for cutting, planing and drilling timber/ plywood	30:00	30:00	00:00	00:00	60:00
CON/N0101: Erect and dismantle temporary scaffold up to 3.6 - meter height **NOS Version- 7.0** **NSQF Level- 3**	**15:00**	**45:00**	**0:00**	**00:00**	**60:00**
Module 4: Process of erecting and dismantling temporary scaffold up to 3.6-meter height	15:00	45:00	0:00	00:00	55:00
CON/N9001: Work according to personal health, safety, and environment protocols at construction site **NOS Version- 10.0** **NSQF Level- 4**	**05:00**	**25:00**	**0:00**	**00:00**	**30:00**
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
DGT/VSQ/N0101: Employability Skills **NOS Version- 1.0** **NSQF Level- 2**	**30:00**	**00:00**	**0:00**	**00:00**	**30:00**
Module 6: Employability Skills	30:00	00:00	0:00	00:00	30:00
Total Duration	**90:00**	**120:00**	**30:00**	**00:00**	**240:00**

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
CON/N0104: Carry out manual earthwork at construction sites. **NOS Version- 5.0** **NSQF Level- 2**	**15:00**	**15:00**	**0:00**	**00:00**	**30:00**
Module 7: Process of carrying out manual earthwork at construction sites	15:00	15:00	0:00	00:00	30:00
Total Duration	**15:00**	**15:00**	**0:00**	**00:00**	**30:00**

Module Details

Module 1: Introduction to the role of a Helper Shuttering Carpenter

Mapped to CON/N0305 v3.0

Terminal Outcomes:

- Discuss the job role of a Helper Shuttering Carpenter.

Duration: 05:00	**Duration: 0:00**
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Describe the size and scope of the Construction industry and its sub-sectors. • Discuss the role and responsibilities of a Helper Shuttering Carpenter. • Identify various employment opportunities for a Helper Shuttering Carpenter.	
Classroom Aids	
Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
NA	

Module 2: Process of shifting and stacking shuttering carpentry and scaffolding tools, equipment, and materials

Mapped to CON/N0305 v3.0

Terminal Outcomes:

- Explain the process of shifting and stacking shuttering carpentry and scaffolding tools, equipment and materials.

Duration: 05:00	Duration: 20:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the appropriate safety precautions to be taken while handling and storing shuttering and scaffolding tools, materials and components. • Explain the importance of personal protection and the use of relevant safety gear and equipment. • Describe the safe working methods and movements for shuttering carpentry. • Explain the use of hand tools, such as claw hammer, hand saw, hack saw wooden planners, measuring tape, nailing hammer, try square, plumb bob, etc. • List different types of shuttering carpentry consumable materials and their optimum use. • Explain how to check the quality of timber and plywood. • List different types of wood, such as hard wood and soft wood and the common defects found in them. • Explain different types of plywood, such as commercial, water proof and marine plywood, and the difference in their and thickness. • Explain the use of different types of slings, shackles and lifting belts. • State the appropriate height for stacking different shuttering carpentry and scaffolding materials. • Explain different types of hand and power tools used for cutting and	• Demonstrate how to shift stack and store the shuttering and scaffolding materials appropriately as per the supervisor's instructions. • Demonstrate the process of installing barricades and appropriate signage around the potentially materials, tools and equipment. • Demonstrate ways to follow the appropriate housekeeping practices to maintain safety and hygiene in the work area.

planing timber. ● Explain different types of shuttering systems and their components. ● Describe the appropriate procedures for mechanical handling of materials. ● Explain the safe handling, storage and maintenance requirement of relevant tools and equipment. ● Discuss the applicable housekeeping practices.	

Classroom Aids

Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films

Tools, Equipment and Other Requirements

Claw Hammer, Ball Pin Hammer, Handsaw, Tenon Saw, Wooden Jack Planner, Iron Jack Planner, Wooden Marking Gauge, Wooden Mortise Gauge, Hand Auger/Carpenter Auger, Farmer Chisel, Mortise Chisel, Cutting Plier, Screw Driver, Star Screw Driver, Marking Knife/Scribe, Wooden Mallet, Oil Stone (Rough/Smooth), Cutting Chisel, Center Punch, Bench Vice, Hacksaw Frame with Blade, Triangle File, Drill Bit, Ring Spanner, Double End Spanner, Flat File, Half Round File, Shovel, Mortar Pan, Spade, Pick Axe, GI Bucket 5L Capacity, Wheel Barrow, Lime Powder, Wooden Pegs, Hard Broom, Ladder, Hand Held Circular Saw, Hand Held Zig Saw, Hand Drill Machine, Table Mounted Saw, Electric Hand Planer (Manual), Masking Tape, Nylon Line Thread, Nails, Cotton Waste, Spirit Level, Steel Measuring Tape/Measuring Tape, Plumb Bob, Water Level Tube, Tri-Square, Mason's Line, Hand Roller, Plate Vibrator, Power Source, Safety Shoes, Safety Goggles, Safety Helmet, Cotton Hand – Gloves, Tools Bag, Safety Belt, Face Mask, Safety Shoes (Assorted Size), Ear Muff, Reflective Jackets, Fire Extinguishers, Sand Buckets, Fire Prevention Kit, First Aid Box, Safety Tags, Safety Harness, Safety Net, Safety Notice Board/Safety Message Board, Face Shield, Overalls, Knee Pads, Hammer, Spanner (Set), Wrench, Pulley, Rope, Nuts and Bolts, Cup-Lock Scaffolding Components (Set), 40 NB Pipes, Swivel Coupler, Fixed Clamp, Steel Walers, Steel Walkways, Aluminium/GI Ladder, Planing Machine, Power Drilling Machine, Trowel, Pointing Trowel, Source Of Water

Module 3: Process of using hand tools for cutting, planing and drilling timber/ plywood

Mapped to CON/N0306 v3.0

Terminal Outcomes:

- Elucidate ways to cut, plane and drill timber/plywood and make timber joints.

Duration: 30:00	**Duration: 30:00**
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• List the hand tools required for cutting, planing and drilling timber/ plywood. • List the appropriate visual checks to be performed to determine the quality of timber and plywood. • Explain the characteristics of hard wood and soft wood. • State the classification of plywood based on its thickness. • Explain different types of hand and power tools used for cutting and planing timber. • Describe standard procedure for housekeeping. • Explain the use and maintenance of relevant hand tools. • Explain the use of measurement and marking tools. • Describe the process timber seasoning and its storage requirements to prevent decay distortion, bending, splitting. • List different types of timber joints.	• Demonstrate the use of the appropriate tools, such as claw hammer, hand saw, wood planer, chisel, hand file, measuring tape, try square, hand auger, etc., based on the type of shuttering carpentry task. • Demonstrate how to use different types of wood and plywood for shuttering carpentry. • Show how to cut and size timber/ plywood using the hand saw safely. • Demonstrate the process of carrying out planing of timber to achieving an appropriate finish on rough surfaces by using the wood planer. • Demonstrate how to drill timber and plywood using hand auger of different types of diameter. • Demonstrate how to size timber/plywood using the appropriate measurement and marking tools. • Show how to create timber joints, such as lap joint, mortis and tenon joints, dovetail joints and housing joints using appropriate hand tools. • Demonstrate how to collect and dispose of the waste appropriately after the completion of shuttering carpentry tasks.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Claw Hammer, Ball Pin Hammer, Handsaw, Tenon Saw, Wooden Jack Planner, Iron Jack Planner, Wooden Marking Gauge, Wooden Mortise Gauge, Hand Auger/Carpenter Auger, Farmer Chisel, Mortise Chisel, Cutting Plier, Screw Driver, Star Screw Driver, Marking Knife/Scribe, Wooden	

Mallet, Oil Stone (Rough/Smooth), Cutting Chisel, Center Punch, Bench Vice, Hacksaw Frame with Blade, Triangle File, Drill Bit, Ring Spanner, Double End Spanner, Flat File, Half Round File, Shovel, Mortar Pan, Spade, Pick Axe, GI Bucket 5L Capacity, Wheel Barrow, Lime Powder, Wooden Pegs, Hard Broom, Ladder, Hand Held Circular Saw, Hand Held Zig Saw, Hand Drill Machine, Table Mounted Saw, Electric Hand Planer (Manual), Masking Tape, Nylon Line Thread, Nails, Cotton Waste, Spirit Level, Steel Measuring Tape/Measuring Tape, Plumb Bob, Water Level Tube, Tri-Square, Mason's Line, Hand Roller, Plate Vibrator, Power Source, Safety Shoes, Safety Goggles, Safety Helmet, Cotton Hand – Gloves, Tools Bag, Safety Belt, Face Mask, Safety Shoes (Assorted Size), Ear Muff, Reflective Jackets, Fire Extinguishers, Sand Buckets, Fire Prevention Kit, First Aid Box, Safety Tags, Safety Harness, Safety Net, Safety Notice Board/Safety Message Board, Face Shield, Overalls, Knee Pads, Hammer, Spanner (Set), Wrench, Pulley, Rope, Nuts and Bolts, Cup-Lock Scaffolding Components (Set), 40 NB Pipes, Swivel Coupler, Fixed Clamp, Steel Walers, Steel Walkways, Aluminium/GI Ladder, Planing Machine, Power Drilling Machine, Trowel, Pointing Trowel, Source Of Water

Module 4: 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.

Duration: 15:00	Duration: 45:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the use of different types of scaffolds (e.g. cup-lock, frame scaffold). • Explain the use of tools and tackles in scaffolding, including tools for erecting and dismantling 3.6 meter temporary scaffold. • Elucidate the identification and use of different scaffolding components. • List the standard size of scaffolding components. • Describe the standard procedure for erecting and dismantling 3.6 m temporary scaffold.	• Demonstrate the process of carrying out levelling in the area where scaffold needs to be erected and check for ground compactness. • Demonstrate how to use appropriate components and follow the standard procedure for erecting temporary scaffold up to 3.6 m in height. • Demonstrate the process of setting up walk-boards, guard rails, toe-boards and other components on the scaffold's working platform. • Show how to clean and stack all components properly after dismantling.
Classroom Aids	
Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
Claw Hammer, Ball Pin Hammer, Handsaw, Tenon Saw, Wooden Jack Planner, Iron Jack Planner, Wooden Marking Gauge, Wooden Mortise Gauge, Hand Auger/Carpenter Auger, Farmer Chisel, Mortise Chisel, Cutting Plier, Screw Driver, Star Screw Driver, Marking Knife/Scribe, Wooden Mallet, Oil Stone (Rough/Smooth), Cutting Chisel, Center Punch, Bench Vice, Hacksaw Frame with Blade, Triangle File, Drill Bit, Ring Spanner, Double End Spanner, Flat File, Half Round File, Shovel, Mortar Pan, Spade, Pick Axe, GI Bucket 5L Capacity, Wheel Barrow, Lime Powder, Wooden Pegs, Hard Broom, Ladder, Hand Held Circular Saw, Hand Held Zig Saw, Hand Drill Machine, Table Mounted Saw, Electric Hand Planer (Manual), Masking Tape, Nylon Line Thread, Nails, Cotton Waste, Spirit Level, Steel Measuring Tape/Measuring Tape, Plumb Bob, Water Level Tube, Tri-Square, Mason's Line, Hand Roller, Plate Vibrator, Power Source, Safety Shoes, Safety Goggles, Safety Helmet, Cotton Hand – Gloves, Tools Bag, Safety Belt, Face Mask, Safety Shoes (Assorted Size), Ear Muff, Reflective Jackets, Fire Extinguishers, Sand Buckets, Fire Prevention Kit, First Aid Box, Safety Tags, Safety Harness, Safety Net, Safety Notice Board/Safety Message Board, Face Shield, Overalls, Knee Pads, Hammer, Spanner (Set), Wrench, Pulley, Rope, Nuts and Bolts, Cup-Lock Scaffolding Components (Set), 40 NB Pipes, Swivel Coupler, Fixed Clamp, Steel Walers, Steel Walkways, Aluminium/GI Ladder, Planing Machine, Power Drilling Machine, Trowel, Pointing Trowel, Source Of Water	

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**
• Describe the reporting procedures in cases of breaches or hazards for site safety, accidents, and emergency situations as per guidelines. • Explain different types of safety hazards at construction sites. • Discuss basic ergonomic principles as per applicability. • Describe the procedure for responding to accidents and other emergencies at site. • Explain the importance of handling tools, equipment, and materials as per applicable norms. • Explain the effect of construction material on health and environments as per applicability. • Describe various environmental protection methods as per applicability. • 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. • Explain how to use hazardous material in a safe and appropriate manner as per applicability.	• Demonstrate how to follow emergency and evacuation procedures in case of accidents, fires, or natural calamities. • Show how to operate different types of fire extinguishers corresponding to various types of fires as per EHS guideline. • 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). • Demonstrate how to check and install all safety equipment as per standard guidelines. • Show how to collect, segregate and deposit construction waste into appropriate containers based on their toxicity or hazardous nature. • Show how to clean and disinfect all materials, tools and supplies before and after use.

• Explain types of fire. • Describe the procedure of operating different types of fire extinguishers. • State safety relevant to tools, tackles, and equipment as per applicability. • List housekeeping activities relevant to task. • Elucidate ways of transmission of infection • Explain the ways to manage infectious risks at the workplace. • Describe different methods of cleaning, disinfection, sterilization, and sanitization. • List the symptoms of infection like fever, cough, redness, swelling, and inflammation.	

Classroom Aids:
Black/White board, marker, Projector/LED Monitor, Computer, Trade specific charts, Safety tags, Safety Notice board, registers and other teaching aids
Tools, Equipment and Other Requirements
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.

Duration: 15:00	**Duration: 15:00**
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the use of hand tools such as spade, pick axe, shovel, pans, wheel and for manual earthwork. • Explain how to work safely at depth below the ground level. • Explain the use of marking tools such as wooden pegs, lime, line threads, and ropes. • Explain the use of plate compactor, hand roller, earth ramming tools, etc. • Explain how to maintain slope in excavation. • Elucidate the relevant preparatory activities for earthwork. • Describe the process of soil cutting and dressing. • Describe the process of manual backfilling and compaction.	• Show how to remove all the unwanted materials and removable objects from the worksite using the appropriate hand tools. • Show how to clean the earth's surface using appropriate hand tools to prepare it for carrying out marking activity. • Demonstrate the process of carrying out marking for excavation using lime, wooden pegs, ropes or any other suitable materials as instructed. • Demonstrate how to shift and stack fencing/ barricading materials, safety signage, ladders, ropes, earth cutting and shifting tools at the specified locations. • Demonstrate the process of carrying out excavation to the required depth using the appropriate tools, as per the supervisor's instruction. • Demonstrate how to dispose earth from the excavated pit by using suitable tools, such as spade, wheel barrows, pans, etc. • Demonstrate the process of carrying out surface dressing by disposing loose material, gravels, plant roots, sludge, muck or debris as per the requirement. • Demonstrate the process of carrying out compaction of the base layer of the pit by ramming or operating hand/ plate compactor. • Demonstrate how to shift and place earth at the designated location by

	using the appropriate tools as instructed. ● Show how to place and spread earth maintaining uniform layers within the applicable tolerance limit of thickness. ● Demonstrate the process of carrying out ramming or operate hand/ plate compacting machines over the soil layer as per direction. ● 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.
Classroom Aids	
Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
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	

Module 8: On-the-Job Training

Mapped to Helper Shuttering Carpenter

Mandatory Duration: 30:00	Recommended Duration: 00:00
Location: On-Site	

Terminal Outcomes

- Explain the use of hand tools, such as claw hammer, hand saw, hack saw wooden planners, measuring tape, nailing hammer, try square, plumb bob, etc.
- Shift stack and store the shuttering and scaffolding materials appropriately as per the supervisor's instructions.
- Install barricades and appropriate signage around the potentially materials, tools and equipment.
- Use the appropriate tools, such as claw hammer, hand saw, wood planer, chisel, hand file, measuring tape, try square, hand auger, etc., based on the type of shuttering carpentry task.
- Carry out planing of timber to achieving an appropriate finish on rough surfaces by using the wood planer.
- Create timber joints, such as lap joint, mortis and tenon joints, dovetail joints and housing joints using appropriate hand tools.
- Carry out levelling in the area where scaffold needs to be erected and check for ground compactness.
- Set up walk-boards, guard rails, toe-boards and other components on the scaffold's working platform.
- Operate different types of fire extinguishers corresponding to various types of fires as per EHS guideline.

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	Shuttering Carpentry	0	-	
Diploma	Civil/Mechanical/ Electrical	1	Shuttering Carpentry	0	-	
ITI	Civil/Mechanical/ Electrical	2	Shuttering Carpentry	0	-	
General BA/BSc./ EX-Army/ 12th	Civil/Mechanical/ Electrical	2	Shuttering Carpentry	0	-	

Trainer Certification	
Domain Certification	**Platform Certification**
Certified for Job Role "Helper Shuttering Carpenter", mapped to QP: "CON/Q0301, v3.0", 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	Shuttering Carpentry	0	-	
Diploma	Civil/Mechanical/ Electrical	2	Shuttering Carpentry	0	-	
ITI	Civil/Mechanical/ Electrical	3	Shuttering Carpentry	0	-	

Assessor Certification	
Domain Certification	**Platform Certification**
Certified for Job Role "Helper Shuttering Carpenter", mapped to QP: "CON/Q0301 v3.0", 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 leaning 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
Declarative Knowledge	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.
Key Learning Outcome	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).
OJT (M)	On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site
OJT (R)	On-the-job training (Recommended); trainees are recommended the specified hours of training on site
Procedural Knowledge	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.
Training Outcome	Training outcome is a statement of what a learner will know, understand and be able to do it upon the completion of the training.
Terminal Outcome	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