Model Curriculum

QP Name: Supervisor Structure (Technical)

QP Code: CON/Q0111

Version: 3.0

NSQF Level: 5.5

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	Masonry
Country	India
NSQF Level	5.5
Aligned to NCO/ISCO/ISIC Code	NCO-2015/3112.9900
Minimum Educational Qualification and Experience	Completed 3rd year of 3-year/ 4-year UG OR Completed 2nd year diploma after 12th with 1-year relevant experience OR Completed 2nd year of 3-year UG with 1-year relevant experience OR Completed 3-year diploma (after 10th) with 2-year relevant experience OR 12th Grade pass with 3-year relevant experience OR Previous relevant Qualification of NSQF Level 5 with 1.5-year relevant experience OR Previous relevant Qualification of NSQF Level 4.5 with 3 years relevant experience
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	31/03/2022
Next Review Date	31/03/2025

NSQC Approval Date	31/03/2022
QP Version	3.0
Model Curriculum Creation Date	31/03/2022
Model Curriculum Valid Up to Date	31/03/2025
Model Curriculum Version	3.0
Minimum Duration of the Course	660 Hours
Maximum Duration of the Course	660 Hours
Rationalisation Date	18/04/2024

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 how to read and interpret architectural GFC/ shop drawings, specifications and standards for structural execution.
- Discuss how to plan, allocate resources and supervise and monitor execution of system shuttering carpentry works.
- Show how to supervise and monitor execution of concreting works.
- Elucidate supervising and monitoring execution of concreting works.
- Show how to supervise and monitor execution of scaffolding works.
- Elucidate ways to supervise, monitor and evaluate performance of subordinates at workplace
- Elucidate ways to manage workplace for safe and healthy work environment.
- Discuss the applicable employability skills.

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/N0132: Interpret drawings, specifications and standards for structural execution **NOS Version- 3.0** **NSQF Level- 5.5**	**30:00**	**30:00**	**30:00**	**00:00**	**90:00**
Module 1: Introduction to the Role of a Supervisor Structure (Technical)	05:00	00:00	0:00	00:00	05:00
Module 2: Interpretation of drawings, specifications and standards for structural execution	25:00	30:00	30:00	00:00	85:00
CON/N0134: Plan, supervise and monitor execution of system shuttering carpentry works	**30:00**	**30:00**	**30:00**	**00:00**	**90:00**

NOS Version- 3.0 **NSQF Level- 5.5**					
Module 3: Planning, supervising and monitoring execution of system shuttering carpentry works	30:00	30:00	30:00	00:00	90:00
CON/N0135: Plan, supervise and monitor execution of concreting works **NOS Version- 3.0** **NSQF Level- 5.5**	**30:00**	**60:00**	**30:00**	**00:00**	**120:00**
Module 4: Planning, supervising and monitoring execution of concreting works	30:00	60:00	30:00	00:00	120:00
CON/N0136: Plan, supervise and monitor execution of bar bending works **NOS Version- 3.0** **NSQF Level- 5.5**	**30:00**	**60:00**	**30:00**	**00:00**	**120:00**
Module 5: Planning, supervising and monitoring execution of bar bending works	30:00	60:00	30:00	00:00	120:00
CON/N0137: Plan, supervise and monitor execution of scaffolding works **NOS Version- 3.0** **NSQF Level- 5.5**	**40:00**	**50:00**	**00:00**	**00:00**	**90:00**
Module 6: Planning, supervising and monitoring execution of scaffolding works	40:00	50:00	00:00	00:00	90:00
CON/N8003: Supervise, monitor and evaluate performance of subordinates at workplace **NOS Version- 5.0** **NSQF Level- 6**	**05:00**	**25:00**	**00:00**	**00:00**	**30:00**
Module 7: Supervise, monitor and evaluate	05:00	25:00	00:00	00:00	30:00

performance of subordinates at workplace					
CON/N9002: Manage workplace for safe and healthy work environment **NOS Version- 4.0** **NSQF Level -5**	**15:00**	**15:00**	**00:00**	**00:00**	**30:00**
Module 8: Manage safety and healthy at workplace	15:00	15:00	00:00	00:00	30:00
DGT/VSQ/N0103 (90 Hours): Employability Skills **NOS Version- 1.0** **NSQF Level- 5**	**90:00**	**00:00**	**00:00**	**00:00**	**90:00**
Module 9: Employability Skills	90:00	00:00	00:00	00:00	90:00
Total Duration	**270:00**	**270:00**	**120:00**	**00:00**	**660:00**

Module Details

Module 1: Introduction to the Role of a Supervisor Structure (Technical)

Mapped to CON/N0132, v3.0

Terminal Outcomes:

- Discuss the job role of a Supervisor Structure (Technical).

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 Supervisor Structure (Technical). • Identify various employment opportunities for a Supervisor Structure (Technical).	
Classroom Aids	
Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
NA	

Module 2: Interpretation of Drawings, Specifications and Standards for Structural Execution

Mapped to CON/N0132, v3.0

Terminal Outcomes:

- Elucidate how to read and interpret drawings, specifications and standards for structural execution.
- Show how to prepare simplified sketches from the architectural/ structural drawings.

Duration: 25:00	**Duration: 30:00**
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Discuss the different types of architectural drawings, structural drawings and specifications for masonry, bar bending, concreting, scaffolding and shuttering carpentry works. • Explain the procedure to read the plan, elevation and sectional drawings relevant to the given work. • Interpret the drawing for masonry, bar bending, concreting, scaffolding and shuttering carpentry. • Prepare the simplified sketches from the architectural/ structural drawings • Discuss the work schedule for masonry, bar bending, concreting, scaffolding and shuttering carpentry works. • Describe the standards and specifications for the execution of masonry, bar bending, concreting, scaffolding and shuttering carpentry works. • Elaborate on the manufacturer's specification and work method statement for masonry, bar bending, concreting, scaffolding and shuttering carpentry works.	• Show how to interpret details from architectural GFC/ shop drawings. • Demonstrate how to interpret details from the schedule of work. • Show how to interpret specification and standards provided for relevant works. • Demonstrate how to interpret all specification provided in the relevant drawing. • Demonstrate how to interpret the schedule provided for the completion of work. • Show how to read method statements for the execution of work. • Demonstrate how to interpret manufacturer specification for the operation of power tools. • Show how to carry out the calculation of the required quantity of materials from relevant schematic working drawings. • Demonstrate how to reproduce technical drawings as simplified hand sketches for explaining and providing clear instructions to subordinates
Classroom Aids	

Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop
Tools, Equipment and Other Requirements
Architectural GFC/Shop Drawings, Measuring Tools (e.g., Tape Measure, Scale Ruler), Drawing Interpretation Guides, Schedule of Work Document, Project Management Software, Drawing Set (with Specifications), Specification Key or Legend, Drawing Interpretation Guides, Manufacturer's Manuals for Power Tools, Sketching Tools (e.g., Pencils, Erasers), Paper or Sketchbook, Drawing Templates or Stencils (if applicable)

Module 3: Planning, Supervising and Monitoring Execution of System Shuttering Carpentry Works

Mapped to CON/N0134, v3.0

Terminal Outcomes:

- Elucidate how to interpret various types of drawings/ sketches related to making shutters and assembling formwork.
- Explain the sequential activity for shuttering of different structural elements using various types of formwork systems.

Duration: 30:00	**Duration: 30:00**
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Discuss the guidelines provided in the Indian Standard Code of Practice applicable for shuttering carpentry tasks. • Explain the sequential activity for shuttering of different structural elements using various types of formwork systems. • Determine the method of lifting, route and mode of transportation of relevant materials. • Explain how to carry out checks and fill checklist after completion of work. • Elucidate the importance of taking safety clearance from services and the EHS department before commencing shuttering work. • Explain how to assist in the planning of the timeline for identified key activities. • Describe how to supervise and ensure the execution of system shuttering carpentry work according to the agreed work plan.	• Demonstrate how to interpret the general arrangement drawing/ plans/ structural drawings, formwork drawings and sketches. • Show how to calculate component-wise requirements for formwork. • Show how to calculate the requirement of tools, tackles, consumables, equipment and manpower for making and erection of formwork. • Show how to allocate manpower and ensure their productivity. • provide clearance and mobility orders to subcontractors for mobilization of resources and material at the next workspace. • Demonstrate how to check for completion of preparatory activities and coordinate between various departments. • Show how to maintain records and files and prepare reports on labour deployment, work done and productivity. • Demonstrate how to review estimates, and prepares sketches and reports on labor expenditures and materials used. • Show how to assist in sequencing key

	activities related to shuttering carpentry works for making the schedule. ● Demonstrate the use of advanced power tools related to formwork carpentry. ● Demonstration visual quality check for timber, plywood and other formwork material. ● Demonstration for checking wooden shutter boards for their size, support, and stability. ● Demonstration for checking fabricated metal shutter boards. ● Demonstration for checking of staging and other associated support. ● Describe the standard method for loading, unloading, storing and stacking formwork material in the yard/site and identification of wrong handling of formwork material
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Drawing Interpretation Tools (e.g., Scale Ruler, Measuring Tape), Specification and Standards Documents, Communication Tools (e.g., Phone, Email), Work Scheduling Software/Tools, Formwork Requirement Calculation Sheet/Software, Lifting Equipment (e.g., Cranes, Hoists), Transportation Planning Tools (e.g., Route Planning Software), Record Keeping Forms/Documents, Reporting Templates/Software, Surveying Equipment (e.g., Levels, Theodolites), Preparatory Work Checklist/Software, Workshop Drawing, Fabrication Tools and Equipment (e.g., Saws, Drills)	

Module 4: Planning, Supervising and Monitoring Execution of Concreting Works

Mapped to CON/N0135, v3.0

Terminal Outcomes:

- Discuss the different types of architectural drawings, Indian standards and specifications for concreting works.
- Explain the sequence of concrete pouring for the casting of the RCC structure.

Duration: 30:00	**Duration: 60:00**
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the different types of architectural drawings, Indian standards and specifications for concreting works. • Determine the method of lifting, route and mode of transportation of relevant materials from the mixing point to the pouring point • Elaborate on the manufacturer's specification and work method statement for concreting works. • Discuss the tools and equipment used for concreting works. • Estimate the number of materials, tools, equipment and manpower required as per the given drawings. • Discuss the methodology of concreting works for horizontal, vertical and inclined surfaces. • Explain the specification of different grades of concrete. • Describe the different types of high-quality concrete finish. • Elaborate on the sequence of concrete pouring for casting of RCC structure. • Discuss the variation of slump w.r.t time and rate of concrete pouring. • Explain the methods to use concrete vibrator in congested areas.	• Show how to interpret drawings, specification and standards for concreting work. • Demonstrate calculation of the requirement of tools, tackles, consumables, equipment and manpower for concreting work. • Demonstrate the process of maintaining records and files and carry out the preparation of reports for concreting works. • Demonstrate supervision of concreting tasks such as form finish concrete structure, complex structure, slip form concreting and concreting in extreme weather. • Show how to carry out estimates of personnel required for a job. • Demonstrate checks to inspect work progress, and equipment to ensure work as per quality and safety. • Show how to take safety clearance from services and the EHS department before commencing concreting work. • Show how to maintain records and files and prepare reports on labour deployment, work done andproductivity. • Show how to inspect work progress, equipment, or construction sites to verify safety or to ensure thatspecifications are met. • Demonstrate recording of information such as personnel, production, or operational data, details of the concreting works covering grade of concrete, area

• Describe the concept of construction joints/cold joints. • State the curing technique for newly casted RCC structure. • Discuss the concept of self-compacted concrete (SCC). • State the initial and final setting of concrete and their test to verify. • Discuss about the correct positioning of the pump hose when pumping the SCC. • Explain the methodology for hot/cold weather concreting works. • Describe the effect of wind breaks, and wind velocity on the ongoing concreting work. • Elaborate the use of different types of evaporative retarder/anti-freeze compound. • Discuss the various types of defects in concrete and their remedies.	and volume of pour, number of workers, tools and equipment deployed for work and achieved productivity on specified forms or reports. • Show how to carry out analysis of the more complex construction or repair jobs to determine methods and materials. • Show how to carry out coordinating work activities with other construction project activities. • Show how to carry out coordinating with batching plant and construction site confirming continuity of supply of concrete. • Demonstrate how to check, inspect and ensure completion of preparatory works prior to concreting at construction site/yard. • Show how to inspect bracing and shoring of concrete forms to ensure their stability before and during pouring. • Show how to inspect the fixing and setting of pump line, machinery for pouring of concrete. • Demonstrate the instruction on the use of suitable type of pump w.r.t the discharge and head of concrete. • Show how to indicate positions for pouring chutes and runways, cranes, or paving machines to facilitate conveying concrete from mixer to forms. • Show how to direct and monitor workers who spread, vibrate, screed, and float concrete to ensure that concrete is compacted to desired consistency and surface is finished to specified uniformity and smoothness. • Demonstrate how to check for bulking and loose formwork during concreting. • Demonstrate how to ensure execution of concreting in extreme hot/cold weather. • Demonstrate the methods for curing concrete, such as covering surface of green (fresh) concrete with burlap, plastic, earth, straw, or chemical compound, to prevent green concrete from drying out rapidly or freezing.
Classroom Aids	

Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop
Tools, Equipment and Other Requirements
Drawing Interpretation Tools (e.g., Scale Ruler, Engineering Drawing Software), Lifting Equipment (e.g., Cranes, Forklifts), Transportation Equipment (e.g., Trucks, Dumpers), Manpower Scheduling Software, Productivity Tracking Tools, Checklist Forms/Templates, Inspection Tools (e.g., Measuring Tools, Visual Inspection Tools), Record-keeping Tools (e.g., Document Management Software, Spreadsheet Software), Reporting Templates, Sketching Tools (e.g., CAD Software), Safety Equipment (e.g., Hard Hat, Safety Glasses)

Module 5: Planning, Supervising and Monitoring Execution of Bar Bending Works

Mapped to CON/N0136, v3.0

Terminal Outcomes:

- Discuss the different types of architectural drawing, Indian standards and specifications for bar bending works.
- Explain the sequence of placing and fixing reinforcement bars for different types of structural elements.

Duration: 30:00	**Duration: 60:00**
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Discuss the standard operation procedure for power tools and CNC machine for cutting and bending machines. • Explain the sequence of placing and fixing reinforcement bars for different types of structural elements. • Discuss about the placing and fixing of inserts, sleeves, conduits and anchors within the reinforcement cage/ mesh for various RCC structure. • State various tools, consumables, materials and equipment related to bar bending works • Explain the unloading process of steel reinforcement at the site store yard. • Discuss about the storing and stacking of reinforcement steel at the yard. • Describe the methods of mechanical connection of reinforcement bars. • Discuss about the pre-fabricated cage and its erection process. • Explain the methods to optimize the use steel rods during its cutting and bending. • Explain the productivity norms for the reinforcement works. • Estimate the manpower, materials	• Show how to interpret the general arrangement drawings/ and bar bending schedule • Demonstrate reading of bar bending schedule. • Show how to calculate the requirement of tools, tackles, consumables, equipment and manpower for barbending works. • Demonstrate use of power tools for cutting and bending of reinforcement bar. • Describe the working procedure of CNC machine for cutting and bending of reinforcement steel and stirrups making. • Demonstrate the inputs method in the CNC machine. • Show how to take safety clearance from services and EHS department before commencing bar bending work. • Describe reinforcement steel work procedure related to placing and fixing for different types of structures and their element. • Describe standard method for storing and stacking of reinforcement steel in yard and identification of wrong handling of reinforcement steel. • Show how to monitor the reinforcement steel works in yard/site (cutting, bending, tagging). • Demonstration of different types mechanical coupler fixing. • Demonstrate the pre-fabricated rebar cage making and erection process.

and machinery requirement for the reinforcement work.	• How to organize cutting of steel based on cutting length requirement. • Show how to calculate the manpower and time requirement based on productivity norms for reinforcement works. • Show the calculation of reinforcement steel.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Drawing Interpretation Tools (e.g., Scale Ruler, Engineering Drawing Software), Lifting Equipment (e.g., Cranes, Forklifts), Transportation Equipment (e.g., Trucks, Dumpers), Manpower Scheduling Software, Productivity Tracking Tools, Checklist Forms/Templates, Inspection Tools (e.g., Measuring Tools, Visual Inspection Tools), Record-keeping Tools (e.g., Document Management Software, Spreadsheet Software), Reporting Templates, Sketching Tools (e.g., CAD Software), Safety Equipment (e.g., Hard Hat, Safety Glasses)	

Module 6: Planning, Supervising and Monitoring Execution of scaffolding works

Mapped to CON/N0137, v3.0

Terminal Outcomes:

- Discuss the different types of architectural drawings, Indian standards and specifications for scaffolding work.
- Explain the sequence for scaffolding work using various types of scaffolding systems (Cup-lock, frame scaffolding, customized scaffolding).

Duration: 40:00	**Duration: 50:00**
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Discuss the general arrangement drawing/ structural drawings and formwork drawing. • Explain the sequential activities for scaffolding work using various types of scaffolding systems (Cup-lock, frame scaffolding, customized scaffolding). • Determine the method of lifting, route and mode of transportation of relevant materials from the stockyard to the erection point. • Elucidate the visual quality checks for scaffolding materials and ground compactness. • Explain various materials and components of different types of scaffolding systems (Cup-lock, Tube and clamp, Ring lock, Wedge lock, Frame scaffolding and customized scaffolding). • Discuss the tools, consumables and equipment related to the scaffolding works • Brief about the lifting, lowering and shifting of scaffolding material. • Explain the storing and stacking methods for scaffolding material. • Discuss the productivity norms for scaffolding works.	• Demonstrate interpret drawings, specification and standards for scaffolding works. • Show how to calculate the requirement of tools, tackles, consumables, equipment and manpower for scaffolding works. • Demonstration of visual quality check for scaffolding material. • Demonstration of visual quality check for ground compactness. • Demonstration for checking of scaffolding and other associated support. • Demonstrate how to check erected scaffolding as per drawing. • Show how to calculate the requirement of tools, tackles, consumables, equipment and manpower for scaffolding works. • Demonstrate the method of lifting, route and mode of transportation of relevant materials from the stockyard to the erection point. • Demonstrate how to check for completion of preparatory activities and coordinate between various departments. • Show how to ensure that standard procedure is followed during the erection of the scaffold. • Show how to calculate the manpower and time requirement based on productivity norms for scaffolding works. • Show how to check all guardrails, toe boards, walkway boards, and fall protection are in place to ensure safety.

• Determine the manpower, materials and machinery requirements for the scaffolding work • Explain the hazards related to scaffolding (pinch points, hot surfaces, electrical) and prevention measures. • Describe the procedure for scaffold inspection.	• Demonstrate how to check scaffold is tagged for its purpose (safe for use, unsafe for use, scaffold incomplete). • Show how to check and ensure the scaffold is supported with a permanent structure at regular intervals as per standard practices. • Show how to check the scaffold concerning the inspection checklist. • Show how to maintain records and files and prepare reports on labour deployment, work done andproductivity. • Demonstration supervising scaffolding tasks requiring a high degree of skill. • record details of erected scaffold and document inspection checklist.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Drawing Interpretation Tools (e.g., Scale Ruler, Engineering Drawing Software), Lifting Equipment (e.g., Cranes, Forklifts), Transportation Equipment (e.g., Trucks, Dumpers), Manpower Scheduling Software, Productivity Tracking Tools, Checklist Forms/Templates, Inspection Tools (e.g., Measuring Tools, Visual Inspection Tools), Record-keeping Tools (e.g., Document Management Software, Spreadsheet Software), Reporting Templates, Sketching Tools (e.g., CAD Software), Safety Equipment (e.g., Hard Hat, Safety Glasses)	

Module 7: Supervise, monitor and evaluate performance of subordinates at workplace

Mapped to CON/N8003, v5.0

Terminal Outcomes:

- Elucidate ways to monitor and evaluate subordinates performance as per quality.
- Discuss various practices to promote gender inclusive behavior and leadership.

Duration: 05:00	**Duration: 25:00**
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Discuss various policies, procedures and work targets for performance evaluation and appraisals. • Discuss various organizational policies, procedures and protocol for smooth completion of work at the respective workplace. • Explain the importance of completing work/task accurately by following standard specifications and procedures by optimized and correct used of materials, tools, tackles and equipment.	• Demonstrate ways to inspect assigned work to the respected gang of workers through progressive checking. • Demonstrate how to observe and verify the work activities performed by the subordinates at the construction site. • Show how to monitor overall performance of subordinates on the designed measures to ensure quality requirements set by the concerned authority.
Classroom Aids	
Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
NA	

Module 8: Manage workplace for safe and healthy work environment

Mapped to NOS CON/N9002, v4.0

Terminal Outcomes:

- Discuss about maintaining a healthy and safe working environment at the construction site.
- Identify risks and other emergency situations at the workplace and respond accordingly to minimise risk.
- Explain methods of sanitization and infection control measures followed at the construction site.

Duration: 15:00	**Duration: 15:00**
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the various types of hazards at construction sites and procedures to respond in case of any emergency or accidents. • Discuss about the various personal protective equipment (PPE) used during various construction works. • Describe the safe work practices to be followed while performing tasks. • Discuss the methods to ensure the workplace safety and good health of workers. • Explain the safe ways for using tools, tackles, equipment and materials as specified by the Environment, Health and Safety (EHS) department. • Discuss the policies, guidelines and other requirements related to workplace safety as per EHS department/ government norms. • Describe the various types of infectious disease, their symptoms and control, at the construction site. • Discuss the medical guidelines, national legislation, local policies and protocols regarding spread of infectious disease.	• Demonstrate effective implementation of the health and safety plan for all the subordinates at the construction site. • Perform checks to ensure the safe handling, stacking and storing of tools, tackles, equipment and materials at the workplace. • Demonstrate effective use of proper PPE by the subordinates. • Demonstrate provision for proper entrance and exit from confined spaces, excavated pits and other locations of the workplace, as per safety recommendations. • Demonstrate the use of fire protection equipment for different types of fire hazards. • Demonstrate ways to create awareness about organisational policies and procedures associated with the health, safety and welfare of construction workers. • Demonstrate the procedures for identifying, recording and reporting hazards/accidents/hazards of any infectious disease/ pandemic as per organisational and statutory requirements. • Demonstrate effective implementation of control measures

	to reduce risks. ● Demonstrate vertigo test. ● Demonstrate the practices to maintain personal hygiene, workplace hygiene and site/ workplace sanitization.
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, Jumpsuit, 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 9: Employability Skills (90 Hours)

Mapped to DGT/VSQ/N0103, v1.0

Duration: 90:00
Key Learning Outcomes
Introduction to Employability Skills Duration: 3 Hours After completing this programme, participants will be able to: 1. Outline the importance of Employability Skills for the current job market and future of work 2. List different learning and employability related GOI and private portals and their usage 3. Research and prepare a note on different industries, trends, required skills and the available opportunities **Constitutional values – Citizenship Duration: 1.5 Hours** 4. Explain the constitutional values, including civic rights and duties, citizenship, responsibility towards society and personal values and ethics such as honesty, integrity, caring and respecting others that are required to become a responsible citizen 5. Demonstrate how to practice different environmentally sustainable practices **Becoming a Professional in the 21st Century Duration: 5 Hours** 6. Discuss relevant 21st century skills required for employment 7. Highlight the importance of practicing 21st century skills like Self-Awareness, Behavior Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn etc. in personal or professional life 8. Create a pathway for adopting a continuous learning mindset for personal and professional development **Basic English Skills Duration: 10 Hours** 9. Show how to use basic English sentences for everyday conversation in different contexts, in person and over the telephone 10. Read and understand text written in basic English 11. Write a short note/paragraph / letter/e -mail using correct basic English **Career Development & Goal Setting Duration: 4 Hours** 12. Create a career development plan 13. Identify well-defined short- and long-term goals **Communication Skills Duration: 10 Hours** 14. Demonstrate how to communicate effectively using verbal and nonverbal communication etiquette 15. Write a brief note/paragraph on a familiar topic

16. Explain the importance of communication etiquette including active listening for effective communication
17. Role play a situation on how to work collaboratively with others in a team

Diversity and Inclusion Duration: 2.5 Hours

18. Demonstrate how to behave, communicate, and conduct appropriately with all genders and PwD
19. Discuss the significance of escalating sexual harassment issues as per POSH act

Financial and Legal Literacy Duration: 10 Hours

20. Discuss various financial institutions, products, and services
21. Demonstrate how to conduct offline and online financial transactions, safely and securely and check passbook/statement
22. Explain the common components of salary such as Basic, PF, Allowances (HRA, TA, DA, etc.), tax deductions
23. Calculate income and expenditure for budgeting
24. Discuss the legal rights, laws, and aids

Essential Digital Skills Duration: 20 Hours

25. Describe the role of digital technology in day-to-day life and the workplace
26. Demonstrate how to operate digital devices and use the associated applications and features, safely and securely
27. Demonstrate how to connect devices securely to internet using different means
28. Follow the dos and don'ts of cyber security to protect against cyber crimes
29. Discuss the significance of displaying responsible online behavior while using various social media platforms
30. Create an e-mail id and follow e- mail etiquette to exchange e -mails
31. Show how to create documents, spreadsheets and presentations using appropriate applications
32. utilize virtual collaboration tools to work effectively

Entrepreneurship Duration: 7 Hours

33. Explain the types of entrepreneurship and enterprises
34. Discuss how to identify opportunities for potential business, sources of funding and associated financial and legal risks with its mitigation plan
35. Describe the 4Ps of Marketing-Product, Price, Place and Promotion and apply them as per requirement
36. Create a sample business plan, for the selected business opportunity

Customer Service Duration: 9 Hours

37. Classify different types of customers

38. Demonstrate how to identify customer needs and respond to them in a professional manner
39. Discuss various tools used to collect customer feedback
40. Discuss the significance of maintaining hygiene and dressing appropriately

Getting ready for apprenticeship & Jobs Duration: 8 Hours

41. Draft a professional Curriculum Vitae (CV)
42. Use various offline and online job search sources to find and apply for jobs
43. Discuss the significance of maintaining hygiene and dressing appropriately for an interview
44. Role play a mock interview
45. List the steps for searching and registering for apprenticeship opportunities

Module 10: On-the-Job Training

Mapped to Supervisor Structure (Technical)

Mandatory Duration: 120:00	Recommended Duration: 00:00
Location: On-Site	
Terminal Outcomes ● Show the various types of hazards, accidents and emergencies associated with the workplace and their prevention methods. ● Demonstrate the procedures to evaluate and improve EHS concerns at the construction site. ● Demonstrate the importance of EHS based orientation and training programs. ● Show how to access and use the special tools box. ● Demonstrate the various types of hazardous materials/ wastes associated with a construction site. ● Demonstrate the EHS protocols and procedure in case of any hazards, accidents or emergencies. ● Demonstrate about the evaluation of EHS concerns and risks at the construction site. ● Demonstrate about the identifying of hazards or unsafe site condition and reporting the same to the appropriate authorities. ● Demonstrate ways to supervise, monitor and evaluate performance of subordinates at workplace ● Show ways to manage workplace for safe and healthy work environment.	

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	**Specialisation**	**Relevant Industry Experience**		**Training Experience**		**Remarks**
		Years	***Specialization***	***Years***	***Specialization***	
B. Tech	Civil/Mechanical/ Electrical	8	Masonry	0	-	
Diploma	Civil/Mechanical/ Electrical	10	Masonry	0	-	
ITI	Civil/Mechanical/ Electrical	13	Masonry	0	-	
General BA/BSc./ EX-Army/ 12th	Civil/Mechanical/ Electrical	13	Masonry	0	-	

Trainer Certification	
Domain Certification	**Platform Certification**
Recommended that the Trainer is certified for the Job Role: "Supervisor Structure (Technical)", mapped to the Qualification Pack: "CON/Q0111, v3.0". The 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, v3.0". The minimum accepted score 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	8	Masonry	0	-	
Diploma	Civil/Mechanical/ Electrical	10	Masonry	0	-	
ITI	Civil/Mechanical/ Electrical	13	Masonry	0	-	

Assessor Certification	
Domain Certification	**Platform Certification**
Recommended that the Assessor is certified for the Job Role: "Supervisor Structure (Technical)", mapped to the Qualification Pack: "CON/Q0111, v3.0". The 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, v3.0". The minimum accepted score is 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