SCAFFOLDER- SYSTEM - NSQF LEVEL: 4

CURRICULUM/SYLLABUS – Bridge Course Duration: 68 Hours

Qualification Pack Name & Reference ID. -CON/Q0305

This program is aimed at training candidates for the job of a "Shuttering Carpentry-System" in the "Construction" Sector/Industry and aims at building the following key competencies amongst the learner

Training Outcomes

After completing this programme, participants will be able to:

- Erect and dismantle common customized system scaffolds.
- Procedure for erecting and dismantling common customized scaffolds.
- Erect and dismantle the staircase towers and mobile towers scaffolds.
- Procedure for erecting and dismantling staircase towers and mobile towers scaffolds.
- Work effectively in a team to deliver desired results at the workplace.
- Organised working procedure within a team at site.
- Plan and organize work to meet expected outcomes.
- Prioritizing activities and organising resources to meet desired outcome.
- Work according to personal health, safety and environment protocol at construction site.
- Importance of Health & Safety aspects & measures to be followed while working.

S.No.	Module	Key Learning Outcomes	Equipment Required
1	Introduction to Shuttering Carpenter job role Theory Duration (hh:mm) 02:00 Practical Duration (hh:mm) 00:00	• Role description/ functions of the job role • Expected personal attributes from the job role • Brief description about course content, mode of learning and duration of course • Future possible progression and career development provisions on completion of the course	Classroom Requirement 1. Trade specific charts and other teaching aid 2. Projector LED & Black/ White Board
2	Erect and dismantle common customized system scaffolds Theory Duration (hh:mm) 2:00 Practical Duration (hh:mm) 12:00 Corresponding NOS Code CON/N0351	**Theory:-** • Numeration/general arrangement drawings, schematic working drawing for scaffolding. • Importance of system scaffolding in construction work. • Different types of common customised system scaffolds (Pipe & coupler, frame, cuplock, wedgelock, ringlock), Scaffold component their standard size and weight • Various hand tools used in scaffold erection • Visual checking for ground compaction	**Hand tools** 1. Hammer 2. Ring spanner (set) 3. Open end spanner 4. Double end spanner 5. Wrench 6. Pulley 7. Rope 8. Nuts and bolts 9. Hack saw frame with blade 10. Drilling Machine with bits

		• PPE's and fall protection System related to scaffolding work. • Service request procedure for tools, material and equipment. • Sorting and selection of scaffold components. • Load carrying capacity of various type of scaffold. • Single pole and double pole scaffold. • Use of water level tube, Spirit level, plumb bob. • Sequential process for erection and dismantling of common customised system scaffold (Pipe & coupler, cuplock wedge lock, ringlock, cuplock scaffolds). • Support to erected scaffold with permanent structure. • Checking of erected scaffold for line, level plumb, rigidity, stability. • Standard tolerance for scaffolding work Demonstration/ **Demonstration/ Practical: -** • Read and explain scaffolding detail from drawing. • Calculation of quantity of scaffold material • Demonstrate erection and dismantle of common customized system scaffold (Pipe & coupler, Frame scaffold). • Demonstrate fixing of guard rail, safety net	**Measuring Instruments** 11. Measuring tape 12. Spirit level 13. Plumb-bob 14. Chalk line 15. Water level tube **Materials** 16. Cuplock/frame scaffolding components 17. 40 NB steel pipes 18. Swivel coupler 19. Fixed clamp 19. Steel walkways 20. Aluminium/ GI ladder 21. Safety net **PPEs & safety equipment's** 22. Helmet 23. Safety shoes 24. Safety belt 25. Cotton hand gloves 26. Goggles 27. Reflective Jackets 28. Safety message boards 29. Scaffolding Tags 30.Barricade Tape
3.	Erect and dismantle the staircase towers and mobile towers scaffolds Theory Duration (hh:mm) 2:00 Practical Duration (hh:mm) 12:00 Corresponding NOS Code CON/N0352	**Theory: -** • Component of staircase tower scaffold. • Component of mobile tower scaffolds • Hand tools used in staircase tower scaffold and mobile tower scaffold erection • Sequential process for erection and dismantling of staircase tower scaffold. • Sequential process for erection and dismantling of mobile tower scaffold. • Supporting methodology for staircase tower and mobile tower scaffold. • Standard tolerance for scaffolding work **Demonstration/ Practical: -** • Demonstrate erection and dismantling of staircase tower scaffold • Demonstrate erection and dismantle of mobile tower scaffold • Demonstrate/explain support to erected •	Tools same as above listed
4.	Work effectively in a team to deliver	**Theory:-** • Method of oral and written communication skills with co-workers, trade seniors while	1. Classroom having seating requirement for 30 people 2. Toilet/Urinals (Separate for gents and Ladies)

	desired results at the workplace Theory Duration (hh:mm) 02:00 Practical Duration (hh:mm) 08:00 Corresponding NOS Code CON/N8001	handling and carrying out visual checks on materials, tools and tackles, equipment □ How to interpret scope of shuttering work, material/ tools handling by adhering to instructions or consulting with seniors □ Method of providing instruction to subordinates or reporting to seniors clearly and promptly □ Seek necessary support and complete assigned tasks within stipulated time duration □ Keep good relation and maintain well behaviour with co-workers **Demonstration/ Practical :** - □ The skills will be developed and practiced while carrying out following trade related activities in a predictable and familiar working condition □ Handling formwork materials, tools and equipment □ Ensuring erection and dismantling of formwork as per formwork drawings and specifications □ Inspecting quality of shuttering works with the help of team members for line, level, alignment, support, rigidity etc.	3. Projector Blackboard
6.	Plan and organize work to meet expected outcomes Theory Duration (hh:mm) 02:00 Practical Duration (hh:mm) 12:00 Corresponding NOS Code CON/N8002	**Theory:-** • Basic concept of productivity, sequence of working and implementation of safety and organizational norms while working • Optimization of resources • To plan shuttering work within defined scope of work • Upkeep, storing and stacking methods of tools, materials used for domain specific works • Importance of housekeeping <u>Demonstration/ Practical :-</u> The skills will be developed and practiced while carrying out following trade related activities in a predictable and familiar working condition • Selection of materials, tools or devices for defined purpose in an optimum manner • Handling material, tools and equipment relevant to reinforcements works • Planning cutting, sizing and planning of timber activities • Carrying out erection and dismantling of formwork as per formwork drawings • Adherence to stipulated timelines for completion of shuttering work	
7.	Work according to personal health, safety and environment	**Theory:-** • Types of hazards involved in construction sites	<u>PPEs</u> 1. Safety Helmet 2. Safety goggles

	protocol at construction site Theory Duration (hh:mm) 02:00 Practical Duration (hh:mm) 12:00 Corresponding NOS Code CON/N9001	□ Types of hazards involved in reinforcement works □ Emergency safety control measures and actions to be taken under emergency situation □ Identification of unsafe act and unsafe condition □ Concept of :- 1. First Aid process 2. Use of fire extinguisher 3. Classification of fires and fire extinguisher 4. Safety drills □ Types and use of PPEs required for reinforcement works □ Reporting procedure to the concerned authority in emergency situations □ Standard procedure of handling, storing and stacking material **Demonstration/ Practical:-** The skills will be developed and practiced while carrying out following trade related activities in a predictable and familiar working condition. □ Selection of PPEs and use them appropriately as per working need of reinforcement works, handling, storing, stacking and shifting of reinforcement material, tools and equipment □ Selection of PPEs and use them appropriately as per working need of cutting, sizing and planning of timber and assembling and dismantling of formwork □ Identification of locations, situations/ circumstances, malpractices which can be hazardous for general or shuttering works □ Selection of fire extinguisher based on classification of fire, standard practice of storing & stacking firefighting equipment/ materials at work locations □ Disposal of waste materials as per their nature and effects on weather	3. Safety shoes 4. Safety belt 5. Cotton gloves 6. Ear plugs 7. Reflective jackets 8. Dust mask 9. Fire Prevention kit
	Total Duration Theory Duration 12:00 Practical Duration 56:00	**Unique Equipment Required:** Classroom Requirement Classroom of 30 student's capacity, Black/White board, Projector/LED Monitor, Computer, Trade specific charts and other teaching aids Hand Tools Hammer, Ring spanner (set), Open end spanner, Double end spanner, Wrench, Pulley, Rope, Nuts and bolts, Hack saw frame with blade Measuring Instruments Measuring tape, Spirit level, Water level tube, Plumb-bob, Mason's line General requirement Lifting appliance (Sling, Shackle, Belts)	

		Materials Cup-lock scaffolding components (set)/Frame scaffold components, Staircase tower components with fixtures, Castor wheels, 40 NB pipes, Swivel coupler, Fixed clamp, Steel walkways, Aluminium/ GI ladder, Safety net PPEs Safety Helmet, Safety goggles, Safety shoes, Safety belt, Cotton gloves, Ear plugs , Reflective jackets, Dust mask, Fire Prevention kit PPEs Safety Helmet, Safety goggles, Safety shoes, Safety belt, Cotton gloves, Ear plugs , Reflective jackets, Dust mask, Fire Prevention kit Infrastructure Class room for theory and assessment with 35 study chairs , Workshop/Mock-up yard for practical training and assessment, Toilet/Urinals (Separate for gents and Ladies), Single phase power supply points, Fire extinguishers (mechanical foam, CO_2 and sand buckets with stand), First aid kit, Tool box with lock and key

Grand Total Course Duration: 68 Hours 0 Minutes