

**TOTAL MARKS- 480**

**TOTAL TIME- 5 hours**

**ASSISTANT SHUTTERING CARPENTER LEVEL-2 SET-1**

**CON/N0312: Use and maintain tools and equipments relevant to shuttering carpentry**

**Infrastructure and tools required: 1.) Infra - Store room, Class room for 30 candidates, Practical yard (30 meter x 30 meter),  
2.) Tools & materials - Measuring tape, hand saw, chisel, Ball peen hammer, straight peen hammer, cross peen hammer, mallet, nailing hammer, circular saw, jig saw, planner machine, hand drill, water/spirit level, marking chalk/pencil, nails screws, timber, plywood, wooden battens, pan, line Dori, plumb bob, bamboos & ballis, acrow span, H-beam, shuttering sheets, foot plates, U heads, base plate, couplers, joint pin.**

**Each candidate will perform this task individually.**

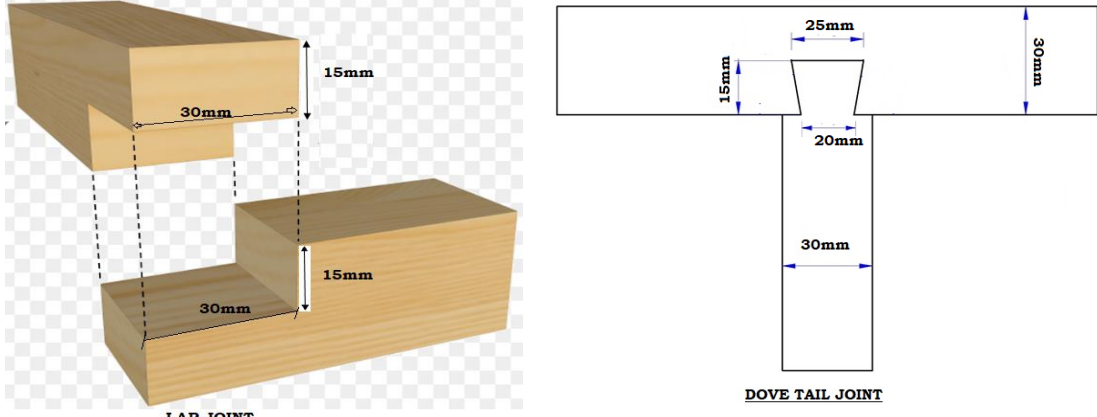
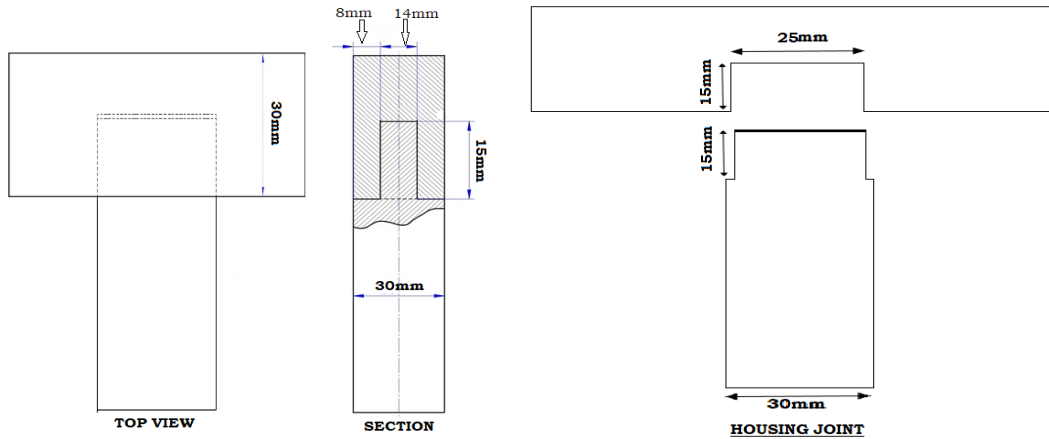
<b>Sl no</b>	<b>Practical assessment question</b>	<b>Marks</b>	<b>Duration (Min)</b>
1	Identify and Demonstrate following two hand tools 1. Ball pin hammer                      2. Hand saw	20	45 min
2	Identify & Demonstrate the use of 3 power tools 1. Drill machine              2. Jig saw cutter              3. Planner machine	30	
3	Measure the dimension of given shuttering plywood.	10	
4	Identify the following; 1. Foot plates    2. U- heads    3. Props	20	
<b>Total Marks</b>		<b>80</b>	

**Note- Questions to be distributed to the candidates.**

CON/N0313: Assist in making wooden shutter used in shuttering carpentry

Infrastructure and tools required: 1.) Infra - Store room, Class room for 30 candidates, Practical yard (30 meter x 30 meter),  
 2.) Tools & materials - Measuring tape, hand saw, chisel, Ball peen hammer, straight peen hammer, cross peen hammer, mallet, nailing hammer, circular saw, jig saw, planner machine, hand drill, water/spirit level, marking chalk/pencil, nails screws, timber, plywood, wooden battens 38X38mm, line Dori, plumb bob, shuttering sheets.

Task to be performed by individual candidate.

Sl no	Practical assessment question	Marks	Duration (Min)
1	Make the following joints as shown in fig by cutting, sizing and finishing rough surface by planing machine. Provided battens (38mm X 38mm), Finished batten size- 30mmX 30mm.		
	 <p><b>LAP JOINT</b></p> <p><b>DOVE TAIL JOINT</b></p>	80	90min
	 <p><b>MORTIS AND TENON JOINT</b></p> <p><b>HOUSING JOINT</b></p>		
<b>Total Marks</b>		<b>80</b>	

Note- Given drawings are for representation of joint dimensions only.

Note- Questions to be distributed to the candidates.

CON/N0314: Assist in assembling & dismantling conventional & system formwork for R.C.C. structure

Infrastructure and tools required: 1.) Infra - Store room, Class room for 30 candidates, Practical yard (30 meter x 30 meter), 2.) Tools & materials - Measuring tape, hand saw, chisel, Ball peen hammer, straight peen hammer, cross peen hammer, mallet, nailing hammer, circular saw, jig saw, planner machine, hand drill, water/spirit level, marking chalk/pencil, nails screws, timber, plywood, wooden battens 38X38mm, pan, line dori, plumb bob, bamboos & ballis, acrow span, H-beam, shuttering sheets, foot plates, U heads, base plate, couplers, joint pin.

Task to be performed by group of two candidate.

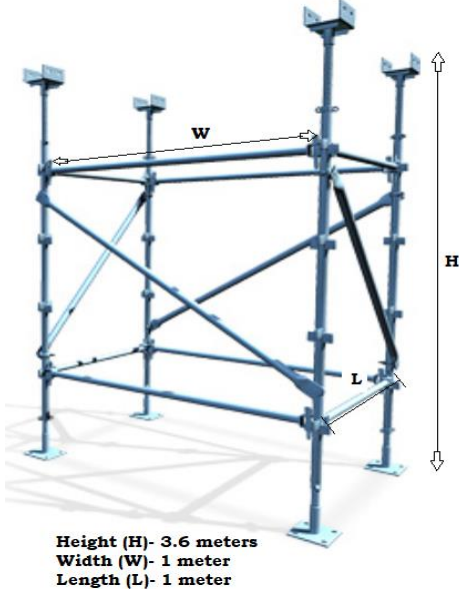
Sl no	Practical assessment question	Marks	Duration (Min)
1	Task 1- Carry out conventional shuttering work for Beam as given in drawing-A keeping the alignment and horizontalness within tolerance limits. NOTE- carryout installation on already erected staging.	40	120min
2	Task 2- Carry out system formwork for column as given in drawing-B keeping the alignment and verticality within tolerance limits. NOTE- carryout installation on the levelled ground.	40	
	<p style="text-align: center;"><b>A</b></p>	40	
	<p style="text-align: center;"><b>B</b></p>	40	
<b>Total Marks</b>		<b>80</b>	

Note- Questions to be distributed to the candidates.

CON/N0101: Erect and dismantle 3.6 meter temporary scaffold.

Infrastructure and tools required: 1.) Infra - Store room, Class room for 30 candidates, Practical yard (30 meter x 30 meter),  
 2.) Tools & materials - Measuring tape, hammer,, hand drill, water/spirit level, marking chalk/pencil, nails, line Dori, plumb bob, bamboos & ballis, acrow span, H-beam, foot plates, U heads, base plate, couplers, joint pin, Ledger beam, Vertical scaffold member, guard rails. toe board, ring spanner, openended spanner.

Task to be performed by group of two candidate.

Sl no	Practical assessment question	Marks	Remarks
1	Carry out cuplock/ pile & coupler scaffolding on levelled ground up to 3.6 meter ensuring the stability of the scaffold, verticality and horizontalness remains within tolerance limits.	40	45 min
2	Dismantle the scaffold erected in previous task and stack the material properly	40	
 <p>Height (H)- 3.6 meters                  Width (W)- 1 meter                  Length (L)- 1 meter</p>		80	
<b>Total Marks</b>			

Note- Questions are to be distributed to the candidates.

Note- Given sketch is for representation only.

**CON/N8001: Work effectively in a team to deliver desired results at the workplace****Infrastructure-** Observation on basis of core task as mentioned below**Task- Based on performance of conventional shuttering, system formwork and scaffolding.**

<b>Sl no</b>	<b>Practical assessment question</b>	<b>Marks</b>	
1	Observe the cooperation of team member in terms of willingness to share the task responsibility during any one of following core task. 1. Conventional shuttering 2. Scaffold Erection 3. System formwork	10	
2	Check how the candidate report the deviation from the planned task to its seniors. (provide some different material from described in the task)	15	
3	The effectiveness of communication to be checked. By observing the candidates' approach to replace the defective material/tools(provide some defective tool/material)	15	
4	Check the alertness/attentiveness of candidate for instructions given by assessor.	10	
5	Check for handling of tools and materials during all the tasks- conventional shuttering, system formwork and scaffolding.	15	
6	Check for communication between the candidate and subordinate during assigned task.	15	
<b>Total Marks</b>		<b>80</b>	

**Note- Questions not to be distributed to the candidates.**

**CON/N9001: Work according to personal health, safety and environment protocol at construction site**

**Infrastructure-** All PPEs such as (helmets, safety harness, insulated glove, reflective jackets, safety shoes, gum boot, goggle, Nose and face mask, earplug,) Fire Extinguisher, safety message boards, fire extinguishers and sand buckets

**Mock up for hazardous condition to be created for assessment purpose**

Sl no	Practical assessment question	Marks	Remarks
1	Observe how candidate identify hazards, risk at sight and report it to seniors. ( mock situation can be created e.g. Loose material in walkway, cut in wire of power tool etc.	10	
2	Observe how candidate respond to emergency situation by creating mock exercise for fire alarm, fire safety drill.	25	
3	Candidate's Identification and demonstration of fire extinguishers provided by the assessor.	10	
4	Observe attitude towards safety while handling the tools and equipment during core tasks-conventional shuttering, system formwork and scaffolding	15	
5	Observe the adherence of safe working practices while working at height and towards maintaining and upkeeping of the work place.	10	
6	Identify & demonstrate wearing the following PPE 1. Safety harness                      4. Ear Plug 2. Helmet                                      5. Insulated gloves 3. Reflective jacket                      6. Nose mask	10	
<b>Total Marks</b>		<b>80</b>	

**Note- Questions not to be distributed to the candidates.**