



Construction Skill Development Council of India

CON/N0602 Select and use hand, power tools and electrical devices relevant to construction electrical works

Infrastructure: Hand Tools- Hammer, Screw Driver, Wire stripper, Combination Plier, Hack saw, SWG

Power Tools- Jig saw cutter, Drill machine, Cutting machine.

Measuring Devices- Tong Tester, MultiMeter, ammeter.

Material- Different Types of Wires, Conduit pipe, Switches Holder

PPEs- Safety Helmet, Safety Belt, Different type of Gloves (Cotton and rubber), Different type of mask (Nose and face), Safety Jackets.

Each candidate will perform this task individually.

Task: Select and demonstrate use of hand tools, power tools, and electrical materials/devices

Sl no	Practical skill assessment question	Marks	Duration (Min)
1	Identify and Demonstrate following three hand tools 1. Combination Plier 2. Wire Striper 3. Neon Testre	5	60
2	Identify & Demonstrate the use of 2 power tools 1. Drill machine 2. Jig saw cutter	10	
3	Identify & Demonstrate any one of the following 1. Multi meter 2. Tong tester	10	
4	Describe the use of MCB, Switch, halogen light and PVC conduit with its advantage?	10	
5	Measure the dimension of given wire by use of SWG	5	
6	Measure the resistance of wire with the help of Multimeter	5	
7	Measure the thickness of conduit pipe by vernier caliper	5	
8	Measure the current in a cable by clamp on ammeter	5	
9	Demonstate the use of PPEs 1. Safety Harness (Full Body) 2. Safety Shoes 3. Ear plug 4. Safety goggles 5. Safety helmets	15	
Total Marks		70	

Note: Question to be distributed to the candidate.



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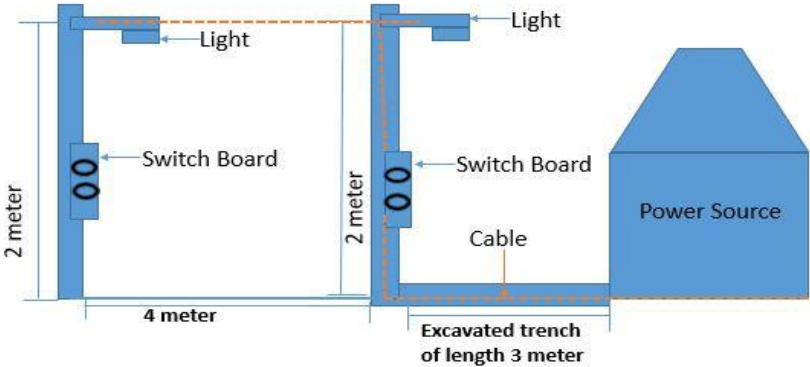
CON/N0603 Install Temporary Lighting Arrangement at Construction Site

Infrastructure-

Open yard should be minimum 450 sq. feet, availability of excavated trench of minimum 3m length should be ready, cable of two core and four core of different diameter & colour, halogen light, LED bulb, provision for plate Earthing, thimble, lungs, crimping tools, continuity tester, neon tester, electrical tape and other required relevant tools mentioned in curriculum of assistant electrician.

Group of two candidates will perform this task.

Task: Lay cable through trench and install temporary light

Sl no	Practical skill assessment question	Marks	Duration (Min)
1	Select cable, conduits, lights, sockets and related fitting. (Take 2 Halogen lamp for fitting at pole) 	10	90
2	Lay cable by underground trenching method for a length of 3m.	10	
3	Joint the cable using two different bit and extend it up to required length.	10	
4	Fix halogen light with its accessories at height of 2m from ground.	10	
5	Terminate the cable appropriately.	10	
6	Perform plate earthing and provide connection to lighting arrangement.	10	
7	Perform continuity test for temporary lighting arrangement.	10	
Total Marks		70	

Note: Question to be distributed to the candidate.



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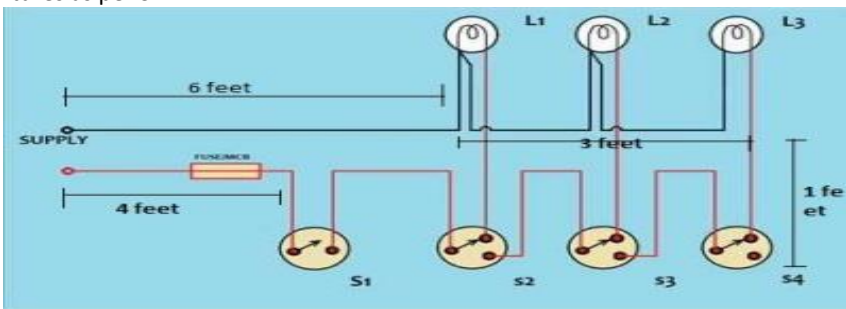
CON/N0604 Install LV electrical wiring at permanent structures

Infrastructure:

Chased brick wall (4*6 feet), hammer, combination plier, neon tester, drill machine, wire stripper, difference size of wire such as 1, 1.5, 2, 2.5 mm, batten holders and switches, wall chase machine, saddle, measuring tape, thimble, lugs, crimping tool.

Group of two candidates will perform this task.

Task: Electrical wiring through conduits on chased wall & fixing of switch board

Sl no	Practical skill assessment question	Marks	Duration (Min)
1	Read and interpret SLD and find out the required quantity of various materials and fixtures as per SLD 	7	90
2	Select wiring components such as conduits, switch, socket, light with accessories, cable and other relevant fittings for light point connection as per SLD given above	7	
3	Measure and cut the length of wire and conduit according to SLD	10	
4	Select and wear PPEs relevant to electrical wiring work such as: safety shoes/safety goggles/reflective jackets/insulated rubber gloves/helmets etc.	5	
5	store and handle electrical fixtures and materials for house wiring.	5	
6	Perform concealed electrical wiring at wall as per given drawing.	30	
7	Perform electrical test on above completed wiring to check continuity of electrical flow.	6	
Total Marks		70	
Note: Question to be distributed to the candidate.			



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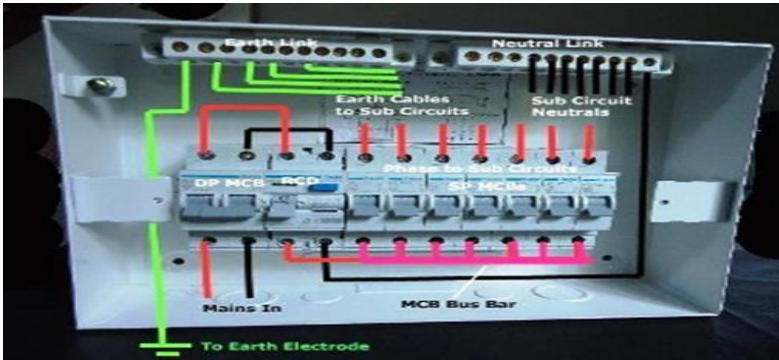
CON/N0605 Assemble, install and maintain temporary LV electrical panels (distribution boards) at construction site

Infrastructure:

Cutting machine, drill machine, DB (Distribution Box), drawing/sketch, DP MCB, SP MCB, RCB, provision for earthing, different colour of wire such as (Black, Yellow, Red, Blue, Green), Lugs, continuity tester, screw driver and other required materials and tools mentioned in curriculum.

Group of two candidates will perform this task.

Task: Assemble and Install distribution board

Sl no	Practical skill assessment question	Marks	Duration (Min)
1	<p>Check and select cable, MCB and switches for fitting of distribution board as per given drawing</p> 	16	90
2	Measure and mark all fittings and fixtures on distribution board as per drawing	10	
3	Perform cut/hole in distribution box as per drawing.	15	
4	Terminate wire/cable in appropriate manner.	10	
5	Provide earthing connection to distribution board	8	
6	Trace out fault/power interruption in distribution board	6	
7	Place and fix distribution box on wall and provide protection to it for any damage.	5	
Total Marks		70	

Note: Question to be distributed to the candidate.



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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 cable laying through trench/Electrical wiring through conduits on chasesd wall & fixing of switch board/Assemble and Install distribution board

Sl no	Practical skill assessment question	Marks	Remarks
1	Observe the cooperation of team member in terms of willingness to share the task responsibility during any one of following core task 1.cable laying through trench 2. Electrical wiring through conduits on chasesd wall & fixing of switch board 3. Assemble and Install distribution board	15	
2	Check the alertness/attentiveness of candidate for instructions given by assessor	15	
3	Attitude towards wearing safety PPE during all task - cable laying through trench/Electrical wiring through conduits on chasesd wall & fixing of switch board/Assemble and Install distribution boards	10	
4	The effectiveness of communication to be checked By observing the candidates' approach to replace the defective material/tools(provide some defective tool/material)	15	
5	Observe the coordination within team members for completing the task in allotted time	15	
Total Marks		70	

Note: Question note to be distributed to the candidate.



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CON/N8002 Plan and organize work to meet expected outcomes

Infrastructure- Based on task performance of NOS CON/N0603, CON/N0604 & CON/N0605

Task- Based on performance of cable laying through trench/Electrical wiring through conduits on chasesd wall & fixing of switch board/Assemble and Install distribution board

Sl no	Practical skill assessment question	Marks	Remarks
1	Observe the adherence to the targets and time line set by assessors during the given core task: cable laying through trench/Electrical wiring through conduits on chasesd wall & fixing of switch board/Assemble and Install distribution board	15	
2	Observe the candidate during planning of activities as per schedule and sequence while performing task of cable laying through trench/Electrical wiring through conduits on chasesd wall & fixing of switch board/Assemble and Install distribution board	10	
3	Observe the candidates effectiveness of communication with subordinates/team member during the task	10	
4	Observe how a candidate arrange required resources for completion of task within the allocated timelines for following. cable laying through trench/Electrical wiring through conduits on chasesd wall & fixing of switch board/Assemble and Install distribution board	15	
5	Observe how a candidate utilize required resources optimally while performing core task as given in sl no. 4.	10	
6	Observe how a person adhere to the standard instructions while performing the above task	10	
Total Marks		70	

Note: Question not to be distributed to the candidate.



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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, goggles, 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 skill assessment question	Marks	Duration (Min)
1	Observe how candidate identify hazards, risks at site and report to seniors (mock situations can be created- eg:water on floor while performing live electrical work, unsafe electrical joints, open electric circuit etc)	6	30
2	Observe how a candidate respond to emergency and evacuation procedures in case of accidents, fires (By creating mock up exercise for fire alarm, false safety drill)	6	
3	Identify & demonstrate wearing the following PPE 1. Safety harness 4. Ear Plug 2. Helmet 5. Insulated gloves 3. Reflective jacket 6. Nose mask	30	
4	Identify the type of fire extinguisher given & operate it?	8	
5	Observe attitude towards safety while handling of tools, materials and equipment while performing core practical task -cable laying through trench/Electrical wiring through conduits on chasesd wall & fixing of switch board/Assemble and Install distribution boards	8	
6	Observe the adherence to safe working practices while working at height, using tools and equipment, material shifting, working with hazardous materials etc.	6	
7	Observe attitude of candidates towards maintaining and up keeping the workplace clean	6	
Total Marks		70	

Note: Question not to be distributed to the candidate.