



# Model Curriculum

## Helper Electrician (NSQF Level – 2)

**SECTOR:** CONSTRUCTION  
**SUB-SECTOR:** REAL ESTATE AND INFRASTRUCTURE  
CONSTRUCTION  
**OCCUPATION:** CONSTRUCTION ELECTRICAL WORKS  
**REF. ID:** CON/Q0601, VERSION 1.1  
**NSQF LEVEL:** 2



  

# Certificate

**CURRICULUM COMPLIANCE TO  
QUALIFICATION PACK – NATIONAL OCCUPATIONAL  
STANDARDS**

is hereby issued by the  
**CONSTRUCTION SECTOR SKILLS COUNCIL**

for the  
**MODEL CURRICULUM**

Complying to National Occupational Standards of  
Job Role/ Qualification Pack: 'Helper Electrician' QP No. 'CON/Q 0601 NSQF Level 2'

Date of Issuance: **December 31st, 2015**

Valid up to: **May 23rd, 2017**

*\* Valid up to the next review date of the Qualification Pack*

  
Authorised Signatory  
(Construction Skill Development Council)



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# Helper Electrician

## CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Helper Electrician”, in the “construction” Sector/Industry and aims at building the following key competencies amongst the learner

<b>Program Name</b>	<b>Helper Electrician</b>		
<b>Qualification Pack Name &amp; Reference ID.</b>	Helper Electrician CON/Q0601		
<b>Version No.</b>	1.1	<b>Version Update Date</b>	23-05 - 2015
<b>Pre-requisites to Training</b>	Minimum qualification – 10th Class		
<b>Training Outcomes</b>	<b>After completing this programme, participants will be able to:</b> <ul style="list-style-type: none"><li>• <b>Identify and handle different tools, measuring devices and materials relevant to LV electrical works</b> - Identify, shift and use tools, tackles and materials to execute tasks related to electrical works</li><li>• <b>Carry out wall chasing and external threading on MS conduit</b> – Introduction to standard procedure for wall chasing and conduit fixing for concealed wiring and practice</li><li>• <b>Carry out manual earthwork at construction site</b> – Introduction to the standard procedure of manual excavation and excavation of trench the same by using appropriate tools</li><li>• <b>Erect and dismantle temporary scaffold of 3.6-meter height</b> – Introduction to the standard procedures of erection and dismantling of scaffold using appropriate tools and components (Cup-lock system and pipe scaffolding)</li><li>• <b>Work effectively in a team to deliver desired results at the workplace</b> – Introduction to team working and effective communication procedures to be followed at construction sites</li><li>• <b>Work according to personal health, safety and environment protocol at construction site:</b> - Importance of Health &amp; Safety aspects &amp; measures to be followed while working</li></ul>		

This course encompasses 6 out of 6 National Occupational Standards (NOS) of “Helper Electrician” Qualification Pack issued by “Construction Skill Development Council of India”.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<p><b>Introduction to Electrical Trade</b></p> <p><b>Theory Duration</b> (hh:mm) 08:00</p> <p><b>Practical Duration</b> (hh:mm) 00:00</p> <p><b>Corresponding NOS Code</b></p>	<ul style="list-style-type: none"> <li>Brief about electrical trade in construction sector</li> <li>Job opportunities for a Helper electrician in construction sector</li> <li>Role of a Helper electrician</li> <li>Brief about training session and training delivery plan</li> <li>Basic knowledge of Unit of measurement and their conversion</li> <li>Basic knowledge of arithmetic calculation</li> </ul>	<p>infrastructural requirements</p> <ol style="list-style-type: none"> <li>classroom having sitting capacity of 30 trainees</li> <li>blackboard</li> <li>LCD monitor 32"</li> <li>Laptop</li> </ol>
2	<p><b>Identify and handle different tools, measuring devices and materials relevant to LV electrical works</b></p> <p><b>Theory Duration</b> (hh:mm) 08:00</p> <p><b>Practical Duration</b> (hh:mm) 40:00</p> <p><b>Corresponding NOS Code</b> CON/N0606</p>	<p><b>Theory: -</b></p> <ul style="list-style-type: none"> <li>Introduction to hand tools and tackles used for electrical works and their function</li> <li>Introduction to measuring instruments and their function</li> <li>Brief introduction to basic electrical measuring devices and their use</li> <li>Brief introduction to common power tools used in electrical works and their respective components</li> <li>Brief introduction to common electrical materials and fixtures</li> <li>Brief introduction to common equipment's used at construction site</li> <li>Introduction to standard storing norms and handling norms related to electrical materials/ fixtures</li> <li>Introduction to the materials which are good conductor and bad conductor of electricity with example</li> </ul> <p><b>Demonstration/ practical: -</b></p> <ul style="list-style-type: none"> <li>Identification and demonstration of hand tools</li> <li>Identification and demonstration of measuring instruments</li> <li>Practice handling and storing of electrical materials/ fixtures at workplace</li> </ul>	<p><b>Hand tools: -</b></p> <ol style="list-style-type: none"> <li>screw drivers</li> <li>wire cutters</li> <li>wire strippers</li> <li>pliers</li> <li>hammers</li> <li>hacksaws</li> <li>chisels</li> <li>spanners (set)</li> <li>wrenches</li> </ol> <p><b>Measuring Instruments</b></p> <ol style="list-style-type: none"> <li>measuring tape</li> <li>spirit level</li> <li>plumb-bob</li> <li>mason's line</li> </ol> <p><b>Measuring Devices</b></p> <ol style="list-style-type: none"> <li>multi-meter</li> <li>voltage tester</li> </ol> <p><b>Power Tools</b></p> <ol style="list-style-type: none"> <li>drilling machine</li> <li>hand cutting machine</li> </ol> <p><b>Materials and Fixtures</b></p> <ol style="list-style-type: none"> <li>cables</li> <li>wires</li> <li>sockets</li> <li>switches</li> <li>lights</li> <li>conduits (flexible and rigid)</li> <li>raceways</li> </ol>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
			<p><b>Equipment</b></p> <ol style="list-style-type: none"> <li>25. vibrators</li> <li>26. bar cutting machine</li> <li>27. bar bending machine</li> <li>28. water pumps</li> </ol> <p><u>infrastructural requirements</u></p> <ol style="list-style-type: none"> <li>29. classroom having sitting capacity of 30 trainees</li> <li>30. blackboard</li> <li>31. LCD monitor 32"</li> <li>32. Laptop</li> </ol>
3	<p><b>Carry out wall chasing and external threading on MS conduit</b></p> <p><b>Theory Duration</b> (hh:mm) 16:00</p> <p><b>Practical Duration</b> (hh:mm) 64:00</p> <p><b>Corresponding NOS Code</b> CON/N0607</p>	<p><b>Theory: -</b></p> <ul style="list-style-type: none"> <li>• Brief about electrical wiring methods adopted in electrification of buildings</li> <li>• Electrical fixtures used in electrical wiring works</li> <li>• Brief about concealed electrical wiring and its use</li> <li>• Procedure of measurement and marking</li> <li>• Standard method of wall chasing and necessary precautions to be taken during the activity</li> <li>• Power tools and hand tools required for wall chasing</li> <li>• Common accessories used for fixing of conduits</li> <li>• Safety precautions / PPE's used in wall chasing and conduit fixing</li> <li>• Systems of Conduit fixing using appropriate accessories</li> <li>• Brief about specification of conduits and their use</li> <li>• Standard housekeeping practices post wall chasing work</li> <li>• Standard procedure of handling and storing of electrical materials required for wiring works</li> <li>• How to carry out threading on MS conduits</li> <li>• Tools and equipment's used for threading work</li> </ul> <p><b>Demonstration/ practical: -</b></p> <ul style="list-style-type: none"> <li>• Carry out marking and measurement on wall prior to chasing as per instruction using appropriate marking tools and instruments</li> <li>• Chase wall of given depth using appropriate tools</li> </ul>	<p><b>Hand tools: -</b></p> <ol style="list-style-type: none"> <li>1. wall chasing chisel</li> <li>2. hammer</li> <li>3. hacksaw</li> <li>4. file</li> <li>5. marking tools</li> <li>6. table vice</li> <li>7. Stock and die set</li> <li>8. Pipe cutter to cut pipes</li> <li>9. Hand brooms</li> <li>10. Shovels</li> <li>11. Screw driver set</li> </ol> <p><u>Measuring Instruments</u></p> <ol style="list-style-type: none"> <li>12. measuring tape</li> <li>13. spirit level</li> <li>14. plumb-bob</li> <li>15. mason's line</li> </ol> <p><u>Power tools</u></p> <ol style="list-style-type: none"> <li>16. cutting machine</li> <li>17. drilling machine</li> <li>18. power source</li> </ol> <p><u>Materials</u></p> <ol style="list-style-type: none"> <li>19. rigid conduits</li> <li>20. flexible conduit</li> <li>21. clamps for conduits</li> <li>22. screws</li> </ol>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> <li>• Fix conduit in the chased wall using appropriate accessories</li> <li>• Cutting and edge preparation of MS conduits</li> <li>• Threading of MS conduits using die stocks</li> <li>• Maintenance/ upkeep of tools and housekeeping at workplace</li> </ul>	<p><u>PPEs &amp; safety equipment's</u></p> <ol style="list-style-type: none"> <li>23. helmet</li> <li>24. safety shoes</li> <li>25. safety belt</li> <li>26. cotton hand gloves</li> <li>27. goggles</li> <li>28. Reflective jackets</li> <li>29. Safety message boards</li> <li>30. Fire extinguishers</li> <li>31. Sand buckets</li> </ol> <p><u>infrastructural requirements</u></p> <ol style="list-style-type: none"> <li>32. classroom having sitting capacity of 30 trainees</li> <li>33. blackboard</li> <li>34. LCD monitor 32"</li> <li>35. Laptop</li> </ol>
4	<p><b>Carry out manual earthwork at construction site</b></p> <p><b>Theory Duration</b> (hh:mm) 16:00</p> <p><b>Practical Duration</b> (hh:mm) 64:00</p> <p><b>Corresponding NOS Code</b> CON/N0104</p>	<p><b>Theory: -</b></p> <ul style="list-style-type: none"> <li>• Identification of tools required for cutting earth and cleaning excavated pit</li> <li>• Function of different tools used for manual excavation</li> <li>• Standard procedure of marking and tools used for marking</li> <li>• Standard procedure of excavation maintaining required slope, length, width and depth</li> <li>• Types of hand operated compaction Equipment - Rammers, Vibratory Plates, hand-rollers and their application.</li> <li>• Cleaning and preparatory works to be carried out prior to excavation work</li> <li>• Standard work method to be adopted for backfilling and compaction of earth using hand operated compactors</li> </ul> <p><b>Demonstration/ practical: -</b></p> <ul style="list-style-type: none"> <li>• Carry out cleaning of an area to be excavated</li> <li>• Carry out marking of layout of excavation as per instruction using appropriate hand tools and materials</li> <li>• Excavate a pit/ trench of desired depth/ slope, length and width</li> </ul>	<p><u>Hand Tools &amp; materials</u></p> <ol style="list-style-type: none"> <li>1. trowel</li> <li>2. pointing Trowel</li> <li>3. Shovel</li> <li>4. mortar Pan</li> <li>5. spade</li> <li>6. pick axe</li> <li>7. GI bucket 5L capacity</li> <li>8. wheel Barrow</li> <li>9. lime powder</li> <li>10. wooden pegs</li> <li>11. hammer</li> <li>12. hard broom</li> <li>13. source of water</li> <li>14. ladder</li> </ol> <p><u>Measuring Instruments</u></p> <ol style="list-style-type: none"> <li>15. measuring tape</li> <li>16. mason's line</li> </ol> <p><u>Equipment</u></p> <ol style="list-style-type: none"> <li>17. hand roller</li> <li>18. plate vibrator</li> <li>19. power source</li> </ol>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> <li>• Clean the excavated pit of loose soil using appropriate hand tools</li> <li>• Backfill the excavated pit by forming layer of specified depth up to desired level by earth</li> <li>• Grade/ level the surface of backfilled earth by spreading using appropriate hand tools</li> <li>• Carry out compaction by sprinkling water on the backfilled earth and using hand operated compactors</li> </ul>	<p><u>PPEs &amp; safety equipment's</u></p> <ol style="list-style-type: none"> <li>20. helmet</li> <li>21. safety shoes</li> <li>22. cotton hand gloves</li> <li>23. goggles</li> <li>24. Reflective jackets</li> <li>25. Safety message boards</li> </ol> <p><u>infrastructural requirements</u></p> <ol style="list-style-type: none"> <li>26. classroom having sitting capacity of 30 trainees</li> <li>27. blackboard</li> <li>28. LCD monitor 32"</li> <li>29. laptop</li> </ol>
5	<p><b>Erect and dismantle temporary scaffold of 3.6 meter height</b></p> <p><b>Theory Duration</b> (hh:mm) 16:00</p> <p><b>Practical Duration</b> (hh:mm) 64:00</p> <p><b>Corresponding NOS Code</b> CON/N101</p>	<p><u>Theory: -</u></p> <ul style="list-style-type: none"> <li>• What is scaffolding and its purpose of its erection</li> <li>• Common materials and tools used for erection of scaffolding such as pipe, cup lock (vertical and ledgers), H-frames</li> <li>• Characteristics of ideal base of scaffolding and its preparation</li> <li>• Visual checks to be carried out on the scaffolding components to ascertain their usability</li> <li>• Different components of a temporary scaffolding such as base, toe board, guard rails, platform, walkways, ladder etc., their function and placing</li> <li>• Spacing/ height to be provided among different components of a temporary scaffold</li> <li>• Safety measures to be followed while tightening, fixing/ assembling different part of scaffold together</li> <li>• Function of different hand tools like hammer, spanner, pulleys, hooks, ropes etc. used for erection/ dismantling of scaffolds.</li> <li>• Use of different scaffolding accessories like different kind of clamps, washers, props, bracings and other supporting members</li> </ul>	<p><u>Hand tools</u></p> <ol style="list-style-type: none"> <li>1. hammer</li> <li>2. spanner (set)</li> <li>3. wrench</li> <li>4. pulley</li> <li>5. rope</li> <li>6. nuts and bolts</li> </ol> <p><u>Measuring Instruments</u></p> <ol style="list-style-type: none"> <li>7. measuring tape</li> <li>8. spirit level</li> <li>9. plumb-bob</li> <li>10. mason's line</li> </ol> <p><u>Materials</u></p> <ol style="list-style-type: none"> <li>11. Cup-lock scaffolding components (set)</li> <li>12. 40 NB pipes</li> <li>13. swivel coupler</li> <li>14. fixed clamp</li> <li>15. steel walers</li> <li>16. steel walkways</li> <li>17. aluminium/ GI ladder</li> <li>18. safety net</li> </ol> <p><u>PPEs &amp; safety</u></p>



Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> <li>Standard method of erecting &amp; dismantling 3.6 m temporary scaffold.</li> <li>Material handling and shifting methods while scaffolding erection/ dismantling is under process</li> <li>Standard safety procedure while working at height.</li> <li>Checks to be done on completion of erection of scaffolds, such as verticality check, stability check</li> </ul> <p><b>Demonstration/ practical: -</b></p> <ul style="list-style-type: none"> <li>Sort and shift scaffolding material from stock yard to space of erection</li> <li>Clean the area of the scaffolding and prepare the base</li> <li>Erect scaffolds of 3.6 Mtr. height using pipes and cup locks using appropriate hand tools</li> <li>Use clamp and other supporting members to ensure stability and verticality of the scaffolds</li> <li>Place different components of scaffolds such as base plate, vertical/ horizontal members, toe boards, guard rails, platforms/ walkways, ladder etc. as per standard practice</li> <li>Use PPEs as per necessity of the task</li> <li>Dismantle the whole scaffold and stack their components as per standard practice</li> </ul>	<p><u>equipment's</u></p> <ol style="list-style-type: none"> <li>helmet</li> <li>safety shoes</li> <li>safety belt</li> <li>cotton hand gloves</li> <li>goggles</li> <li>Reflective jackets</li> <li>Safety message boards</li> </ol> <p><u>infrastructural requirements</u></p> <ol style="list-style-type: none"> <li>classroom having sitting capacity of 30 trainees</li> <li>blackboard</li> <li>LCD monitor 32"</li> <li>laptop</li> </ol>
6	<p><b>Work effectively in a team to deliver desired results at the workplace</b></p> <p><b>Theory Duration</b> (hh:mm) 04:00</p> <p><b>Practical Duration</b> (hh:mm) 12:00</p> <p><b>Corresponding NOS Code</b> CON/N8001</p>	<p><b>Theory: -</b></p> <ul style="list-style-type: none"> <li>Concept of effective verbal communication and reporting procedure to be undertaken at workplace</li> <li>Concept of team working and coordination to be maintained within the team</li> <li>How to respond to the instructions at workplace</li> <li>Time management and adherence to the timeline provided for tasks</li> </ul> <p><b>Demonstration/ practical: -</b></p> <ul style="list-style-type: none"> <li>The skills will be developed and practiced while carrying out following trade related activities in a repetitive predictable and familiar working condition</li> <li>Exhibit adherence to timelines and safety practices while performing wall chasing, erecting scaffolds, carrying out earthwork</li> <li>Communicate clearly within team and with</li> </ul>	<p><u>infrastructural requirements</u></p> <ol style="list-style-type: none"> <li>Classroom having sitting capacity of 30 trainees</li> <li>Blackboard</li> <li>LCD monitor 32"</li> <li>Laptop</li> </ol>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<p>seniors</p> <ul style="list-style-type: none"> <li>Seek permissions prior to starting any activity</li> <li>Report to seniors or concerned authorities on observing unsafe act, unsafe condition or violation of safety norms</li> <li>Explain effect of good housekeeping practices and upkeep of tools</li> </ul>	
7	<p><b>Work according to personal health, safety and environment protocol at construction site</b></p> <p><b>Theory Duration</b> (hh:mm) 08:00</p> <p><b>Practical Duration</b> (hh:mm) 30:00</p> <p><b>Corresponding NOS Code</b> CON/N9001</p>	<p><b>Theory: -</b></p> <ul style="list-style-type: none"> <li>Common types of hazards involved in construction sites</li> <li>Types of hazards involved in electrical works</li> <li>Safe working methods as per standard norms and actions to be taken under emergency situations</li> <li>Identification of unsafe act and unsafe condition and how to report the same</li> <li>Basic concept of: - First Aid process Use of fire extinguisher Classification of fires and fire extinguisher Safety drills and its purpose Types and use of PPEs required for wall chasing, conduit threading, earthwork and erection of scaffolds</li> <li>Safe working practices related to activities described in CON/N606, N607, N0104 and N0101</li> <li>Standard procedure of handling, storing and stacking material</li> <li>What is safe disposal of waste depending upon type of waste</li> <li>Basic ergonomic principles to be followed while carrying out task for CON/N606, N607, N0104 and N0101</li> </ul> <p><b>Demonstration/ Practical: -</b></p> <ul style="list-style-type: none"> <li>Select PPEs and use them appropriately as per working need of activities described at CON /N606, N607, N0104 and N0101</li> <li>Practice handling, storing, stacking and shifting of material, tools and equipment's</li> <li>Demonstration of locations, situations/ circumstances, malpractices which can be hazardous for electrical works</li> <li>Describe use of fire extinguisher and standard practice of storing &amp; stacking firefighting</li> </ul>	<p><b>PPEs &amp; safety equipment's</b></p> <ol style="list-style-type: none"> <li>helmet</li> <li>safety shoes</li> <li>safety belt</li> <li>cotton rubber gloves</li> <li>ear plugs</li> <li>reflective jackets</li> <li>safety message boards</li> <li>message board displaying Do's and Don'ts at construction sites</li> <li>Fire extinguishers</li> <li>Sand buckets</li> </ol> <p><b>infrastructural requirements</b></p> <ol style="list-style-type: none"> <li>Classroom having sitting capacity of 30 trainees</li> <li>Blackboard</li> <li>LCD monitor 32"</li> <li>Laptop</li> </ol>



Sr. No.	Module	Key Learning Outcomes	Equipment Required
		equipment's/ materials at work locations <ul style="list-style-type: none"> <li>Describe disposal of waste materials as per their nature and effects on weather</li> </ul>	
	<b>Total Duration</b>  <b>Theory Duration</b> <b>76Hrs.</b>  <b>Practical Duration</b> <b>274Hrs.</b>	<b>Unique Equipment Required:</b> screw drivers (set), wire cutters, wire strippers, pliers, hammers, hacksaws, chisels, spanners (set), wrenches, wall chasing chisel, file, marking tools, table vice, stock and die set, pipe cutter to cut pipes, hard brooms, shovels, trowel, pointing Trowel, mortar Pan, spade, pick axe, GI bucket 5L capacity, wheel Barrow, pulley, rope, measuring tape, spirit level, plumb-bob, mason's line, multi-meter, neon (voltage) tester, drilling machine, hand cutting machine, power source, source of water, cables, wires, sockets, switches, lights, conduits (flexible and rigid), raceways, screws, nuts & bolts, lime powder, wooden pegs, helmet, safety shoes, safety belt, cotton hand gloves, goggles, reflective jackets, Safety message boards, fire extinguishers, sand buckets, message board displaying Do's and Don'ts at construction sites, Cup-lock scaffolding components (set), 40 NB pipes, swivel coupler, fixed clamp, steel walers, steel walkways, aluminium/ GI ladder, safety net, vibrators, bar cutting machine, bar bending machine, water pumps, hand roller, plate vibrator, classroom having sitting capacity of 30 trainees, blackboard, LCD monitor 32", Laptop	

**Grand Total Course Duration: 300 Hours 00 Minutes**

*(This syllabus/ curriculum has been approved by Construction Skill Development Council of India)*

## Trainer Prerequisites for Job role: "Helper Electrician" mapped to Qualification Pack: "CON/Q0601"

Sr. No.	Area	Details
1	<b>Job Description</b>	To provide training to the trainees aspirant to become an Helper Electrician to support civil construction activities in construction sector
2	<b>Personal Attributes</b>	Person in this job role should have sound practical and theoretical knowledge about electrical works needed to support construction activities with good interpersonal skill, communication skill of explaining and demonstrating domain subject matters. Individual should have hand on experience in field of electrical works and be familiar to the environment of construction project sites. Additionally he/ she should have observation skills to find out specific need and area of improvement of trainees and awareness of trade safety practices.
3	<b>Minimum Educational Qualifications</b>	Class 10 <sup>th</sup>
4a	<b>Domain Certification</b>	Certified for Job Role: "Construction Electrician - LV" mapped to QP: "CON/N0603". Minimum accepted % as per respective SSC guidelines is 70%.
4b	<b>Platform Certification</b>	Recommended that the Trainer is certified for the Job Role: "Trainer", mapped to the Qualification Pack: "SSC/Q1402". Minimum accepted % as per respective SSC guidelines is 70%.
5	<b>Experience</b>	<ul style="list-style-type: none"> <li>i. Technical Degree holder with minimum Five years of Field &amp; Two years of teaching experience (At least one year each at workers and Engineers level) or,</li> <li>ii. In case of a Diploma Holder Ten years of field &amp; five years of teaching experience (Three years at worker level and two years at Engineers level) having Total experience to 15 yrs. or,</li> <li>iii. In case of specific to trades than should have qualified the Minimum Level- 4 and have Fifteen years of field experience and Three years of Teaching experience or,</li> <li>iv. Graduate or Intermediate should possess at least Level – 4 Certificate and have 12 years of field experience and two years of trade teaching experience or,</li> </ul>



## Annexure: Assessment Criteria

<b>Assessment Criteria for Helper Electrician</b>	
<b>Job Role</b>	<b>Helper Electrician</b>
<b>Qualification Pack</b>	<b>CON/Q0601, Version 1.1</b>
<b>Sector Skill Council</b>	<b>Construction</b>

<b>Sr. No.</b>	<b>Guidelines for Assessment</b>
1	Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2	The assessment for the knowledge part will be based on knowledge bank of questions created by Assessment Bodies subject to approval by SSC
3	Individual assessment agencies will create unique question papers for knowledge/theory part for assessment of candidates as per assessment criteria given below
4	Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training centre based on assessment criteria.
5	The passing percentage for each QP will be 50%. To pass the Qualification Pack, every trainee should score a minimum of 50% individually in each NOS.
6	The Assessor shall check the final outcome of the practices while evaluating the steps performed to achieve the final outcome
7	The trainee shall be provided with a chance to repeat the test to correct his procedures in case of improper performance, with a deduction of marks for each iteration.
8	After the certain number of iteration as decided by SSC the trainee is marked as fail, scoring zero marks for the procedure for the practical activity.
9	In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack within the specified timeframe set by SSC.
10	Minimum duration of Assessment of each QP shall be of 4hrs/trainee.

ASSESSMENT OUTCOME (NOS CODE AND DESCRIPTION)	Assessment Criteria for outcomes	Total Mark	Out Of	Marks Allocation	
				Theory	Skills Practical
<b>CON/N0606: Identify and handle different tools, measuring devices and materials relevant to LV electrical works</b>	PC1. identify and use different hand tools like screw driver, pliers, wire strippers, voltage testers, insulation tapes, hacksaw and other tools relevant to LV electrical works	<b>100</b>	10	2	8
	PC2. identify and use power tools like drill machine, hand cutting machine, hand grinding machine required to carry out LV electrical installation work		10	2	8
	PC3. use measuring tape, plumb bob, spirit level, line thread and other relevant hand tools for carrying out checks in alignment of works		10	2	8
	PC4. identify common electrical measuring devices like multimeter, earth tester, tong tester and megger required to undertake LV electrical tests/ inspections		10	2	8
	PC5. identify common construction equipments like steel cutting & bending machine, welding machine, vibrators, pumps, motors, tower cranes, batching plants etc.		5	1	4
	PC6. identify safety tools and equipments like sand bucket, fire extinguisher, PPEs, barricading, signage, symbols used at construction sites		5	1	4
	PC7. identify electrical materials and fixtures like wires, cables, conduits, clamps, lights, circuit breakers, switches, sockets, starters and related accessories		10	2	8
	PC8. check for breakages, cracks, damp, corrosions etc. to electrical materials and fixtures prior to using		5	1	4
	PC9. shift lights, cables, conduits, cable trays, brackets, DBs, ladders and other relevant materials to the appropriate work locations as per directions		5	1	4
	PC10. inspect material storage locations for safe condition which include avoiding vicinity of water, fire, direct sunlight, service lines, existing electrical lines, ongoing construction works causing fall of material etc.		5	1	4
	PC11. store and stack electrical materials at work locations as per instruction or standard practices		10	2	8
	PC12. provide protective cover, erect barricading, signage around the stacked materials adequately as per instructions		10	2	8

				Marks Allocation	
ASSESSMENT OUTCOME (NOS CODE AND DESCRIPTION)	Assessment Criteria for outcomes	Total Mark	Out Of	Theory	Skills Practical
	PC13. carry out housekeeping at work locations before and after completion of work		5	1	4
		<b>Total</b>	<b>100</b>	<b>20</b>	<b>80</b>
<b>CON/N0607: Carry out wall chasing and external threading on MS conduit</b>	PC1. select, shift, and stack the required hand and power tools at the identified job location	<b>100</b>	5	1	4
	PC2. select, shift and stack electrical materials such as cables, wires, conduits and fixtures required for wall chasing and LV wiring work		5	1	4
	PC3. carry out measurement and marking on wall surface using appropriate tools as per instruction		5	1	4
	PC4. carry out checks on tools and materials for their safe working conditions perform required basic maintenance on tools		5	1	4
	PC5. carry out firm cutting on wall surface using wall chasing machine as per marking while maintaining uniform depth		5	1	4
	PC6. finish the wall chasing work using hand tools as per standard practice maintaining the required dimension		5	1	4
	PC7. use appropriate PPEs while carrying out chasing activity		5	1	4
	PC8. measure mark and cut, cables and conduits as per instruction using appropriate hand and power tools		5	1	4
	PC9. bend and join conduits as per requirement using appropriate hand and power tools		5	1	4
	PC10. assist in placing conduits and cables/ wires through the same for permanent LV wiring works		5	1	4
	PC11. clean the work locations after completion of work and dispose debris appropriate location		5	1	4
	PC12. assist senior in all relevant cable laying works as per instruction		5	1	4
	PC13. carry out Measurement & marking on MS conduits		5	1	4
	PC14. hold the conduit in pipe vice efficiently		5	1	4
	PC15. cut the conduit at marking point and do the edge finishing using appropriate tools		10	2	8
	PC16. fix die cutter in die stock as per instructions		5	1	4



				Marks Allocation	
ASSESSMENT OUTCOME (NOS CODE AND DESCRIPTION)	Assessment Criteria for outcomes	Total Mark	Out Of	Theory	Skills Practical
	PC17. use die stock and lubricant as per requirement		5	1	4
	PC18. follow trade safety as applicable while perform threading activity		5	1	4
	PC19. maintain standard housekeeping practice at the workplace		5	1	4
	<b>Total</b>		<b>100</b>	<b>20</b>	<b>80</b>
<b>CON/N0104: Carry out manual earthwork at construction sites</b>	PC1. remove unwanted materials, organic substances, manually removable objects from the worksite using appropriate hand tools as per the instructions	100	5	1	4
	PC2. clean earth surface using proper hand tools to make it ready for carrying out marking activity		5	1	4
	PC3. carry out marking for excavation using lime, wooden pegs, ropes or by any other suitable materials as per the instructions		5	1	4
	PC4. shift and stack fencing/ barricading materials, safety signage, ladders, ropes, earth cutting and shifting tools at specified locations as per instruction		5	1	4
	PC5. dig earth to a desired depth using appropriate tools as per instruction		10	2	8
	PC6. maintain desired slope of earth during digging activity		10	2	8
	PC7. dispose earth from the excavated pit by using suitable tools and equipments such as spade , wheel barrows, pans as per instruction		5	1	4
	PC8. check for loose material, soil lumps, pebbles on achieving the desired earth level		5	1	4
	PC9. carry out surface dressing work by disposing loose material, gravels, plant roots, sludge, muck or debris as per requirement to the appropriate locations		5	1	4
	PC10. carry out compaction of the base layer of the pit by ramming or operating hand/ plate compactor as per instruction		10	2	8
	PC11. shift and place earth at desired location by using right tools as per instruction		10	2	8
	PC12. sort gravels or oversized aggregates from soil to be used for backfilling as per instruction		5	1	4
	PC13. place and spread earth maintaining uniform layers within tolerance limit of thickness		5	1	4



				Marks Allocation	
ASSESSMENT OUTCOME (NOS CODE AND DESCRIPTION)	Assessment Criteria for outcomes	Total Mark	Out Of	Theory	Skills Practical
	PC14. sprinkle water as uniformly over the layer to be compacted as and when required as per direction		5	1	4
	PC15. carry out ramming or operate hand/ plate compacting machines over the soil layer as per direction		5	1	4
	PC16. carry out re-filling and compaction of excavated trenches, pits surrounding the structures or at necessary location by soil under supervision		5	1	4
	<b>Total</b>		100	20	80
<b>CON/N0101: Erect and dismantle temporary scaffold of 3.6 m height</b>	PC1. level area where scaffold need to be erected and check for ground compactness if required	<b>100</b>	10	2	8
	PC2. shift and stack required materials, components, tools and tackles at the instructed location		10	2	8
	PC3. wear and use required safety gadgets and follow trade safety		10	2	8
	PC4. place base plates and sole boards on the ground as per markings and instructions		10	2	8
	PC5. use proper components and follow standard procedure for 3.6 m temporary scaffold erection		10	2	8
	PC6. check verticality of scaffold at first level of erection and correct (if required) before moving to the next level		10	2	8
	PC7. check for rigidity, stability and support of erected scaffold		5	1	4
	PC8. fix walk-boards, guard rails, toe-boards and other components on working platform		10	2	8
	PC9. follow standard procedure for dismantling of 3.6 m temporary scaffold		10	2	8
	PC10. remove guard rails, toe boards, walk boards and other components sequentially		5	1	4
	PC11. clean and stack all components properly after dismantling		5	1	4
	PC12. maintain tidiness at work location		5	1	4
<b>Total</b>		100	<b>20</b>	<b>80</b>	
<b>CON/N8001: Work effectively in a team to deliver desired</b>	PC1. pass on work related information/ requirement clearly to the team members	100	10	2	8
	PC2. inform co-workers and superiors about any kind of deviations from work		5	1	4

				Marks Allocation	
ASSESSMENT OUTCOME (NOS CODE AND DESCRIPTION)	Assessment Criteria for outcomes	Total Mark	Out Of	Theory	Skills Practical
<b>results at the workplace</b>	PC3. address the problems effectively and report if required to immediate supervisor appropriately		5	1	4
	PC4. receive instructions clearly from superiors and respond effectively on the same		5	1	4
	PC5. communicate to team members/subordinates for appropriate work technique and method		5	1	4
	PC6. seek clarification and advice as per the requirement and applicability		10	2	8
	PC7. hand over the required material, tools tackles, equipment and work fronts timely to interfacing teams		30	6	24
	PC8. work together with co-workers in a synchronized manner		30	6	24
			<b>Total</b>	<b>100</b>	<b>20</b>
<b>CON/N9001: Work according to personal health, safety and environment protocol at construction site</b>	PC1. identify and report any hazards, risks or breaches in site safety to the appropriate authorities	<b>100</b>	5	1	4
	PC2. follow emergency and evacuation procedures in case of accidents, fires, natural calamities		5	1	4
	PC3. follow recommended safe practices in handling construction materials, including chemical and hazardous material whenever applicable		10	2	8
	PC4. participate in safety awareness programs like Tool Box Talks, safety demonstrations, mock drills, conducted at site		5	1	4
	PC5. identify near miss , unsafe condition and unsafe act		5	1	4
	PC6. use appropriate Personal Protective Equipment (PPE) as per work requirements including: • Head Protection (Helmets) • Ear protection • Fall Protection • Foot Protection • Face and Eye Protection • Hand and Body Protection • Respiratory Protection (if required)		10	2	8
	PC7. handle all required tools, tackles , materials & equipment safely		5	1	4
	PC8. follow safe disposal of waste, harmful and hazardous materials as per EHS guidelines		5	1	4
	PC9. install and apply properly all safety equipment as instructed		15	3	12



				Marks Allocation	
ASSESSMENT OUTCOME (NOS CODE AND DESCRIPTION)	Assessment Criteria for outcomes	Total Mark	Out Of	Theory	Skills Practical
	PC10. follow safety protocol and practices as laid down by site EHS department		15	3	12
	PC11. collect and deposit construction waste into identified containers before disposal, separate containers that may be needed for disposal of toxic or hazardous wastes		10	2	8
	PC12. apply ergonomic principles wherever required		10	2	8
		<b>Total</b>	<b>100</b>	<b>20</b>	<b>80</b>



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