



कौशल विकास और
उद्यमशीलता मंत्रालय
MINISTRY OF
SKILL DEVELOPMENT
AND ENTREPRENEURSHIP



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Model Curriculum

QP Name: Assistant Electrician

QP Code: CON/Q0602

Version: 4.0

NSQF Level: 3

Model Curriculum Version: 4.0

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	Construction Electrical Works
Country	India
NSQF Level	3
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7411.0100
Minimum Educational Qualification and Experience	Grade 10 Pass OR Grade 8 pass with two year of (NTC/ NAC) after 8th OR 9 th grade pass with 1-year relevant experience OR 8 th grade pass with 2-year relevant experience OR 5 th grade pass with 5-year relevant experience OR Previous relevant qualification of NSQF Level 2.5 with 1.5-year relevant experience OR Previous relevant qualification of NSQF Level 2 with 3-year 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	4.0
Model Curriculum Creation Date	31/03/2022



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Model Curriculum Valid Up to Date	31/03/2025
Model Curriculum Version	4.0
Minimum Duration of the Course	390 Hours
Maximum Duration of the Course	390 Hours
Rationalization Date	18/04/2024



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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 select and use the hand, power tools and electrical devices relevant to construction electrical works.
- Demonstrate how to install temporary lighting arrangements at construction sites.
- Show how to install LV electrical wiring at permanent structures.
- Demonstrate how to assemble, install, and maintain temporary LV electrical panels (distribution boards) at the construction site.
- Explain the importance of working effectively in a team to deliver desired results at the workplace.
- Elucidate ways to plan and organize work to meet expected outcomes.
- Elucidate ways to work according to personal health, safety and environment protocols at the construction site.
- 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/N0602: Handle hand and power tools relevant to construction electrical works NOS Version- 4.0 NSQF Level- 3.0	20:00	40:00	30:00	00:00	90:00
Module 1: Introduction to the Role of an Assistant Electrician	05:00	00:00	00:00	00:00	05:00
Module 2: Handling Construction Hand and Power Tools	15:00	40:00	30:00	00:00	85:00
CON/N0603: Install temporary lighting arrangements at construction sites NOS Version- 4.0 NSQF Level- 3.0	15:00	45:00	00:00	00:00	60:00
Module 3: Installing temporary lighting	15:00	45:00	00:00	00:00	60:00



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CON/N0604: Assist in LV (low voltage) electrical wiring at permanent structures NOS Version- 4.0 NSQF Level- 3.0	20:00	40:00	00:00	00:00	60:00
Module 4: Assisting in LV (low voltage) electrical wiring at permanent structures	20:00	40:00	00:00	00:00	60:00
CON/N0605: Assemble, install and maintain temporary LV electrical panels (distribution boards) at the construction site NOS Version- 4.0 NSQF Level- 3.0	20:00	40:00	00:00	00:00	60:00
Module 5: Assembling, installing and maintaining temporary LV electrical panels	20:00	40:00	00:00	00:00	60:00
CON/N8001: Work effectively in a team to deliver desired results at the workplace NOS Version- 10.0 NSQF Level- 4.0	05:00	25:00	00:00	00:00	30:00
Module 6: Work according to personal health, safety and environment protocols at the construction site	05:00	25:00	0:00	00:00	30:00
CON/N8002: Plan and organize work to meet expected outcomes NOS Version- 7.0 NSQF Level- 4.0	05:00	25:00	00:00	00:00	30:00
Module 7: Plan and organize work to meet expected outcomes	05:00	25:00	0:00	00:00	30:00
CON/N9001: Work according to personal health, safety and environment protocols at the construction site NOS Version- 8.0 NSQF Level- 4.0	05:00	25:00	00:00	00:00	30:00
Module 8: Follow safety norms as defined by the organization,	05:00	25:00	00:00	00:00	30:00



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adopt healthy and safe work practices					
DGT/VSQ/N0101: Employability Skills (30 Hours) NOS Version- 1.0 NSQF Level- 2.0	30:00	00:00	00:00	00:00	30:00
Module 9: Employability Skills	30:00	00:00	00:00	00:00	30:00
Total Duration	120:00	240:00	30:00	00:00	390:00



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Module Details

Module 1: Introduction to the Role of an Assistant Electrician

Mapped to CON/N0602, v4.0

Terminal Outcomes:

- Discuss the job role of an Assistant Electrician.

Duration: 05:00	Duration: 00:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none">• Describe the size and scope of the Construction industry and its sub-sectors.• Discuss the role and responsibilities of an Assistant Electrician.• Identify various employment opportunities for an Assistant Electrician.	
Classroom Aids	
Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
NA	



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Module 2: Handling Construction Hand and Power Tools

Mapped to CON/N0602, v4.0

Terminal Outcomes:

- Demonstrate how to handle hand/power tools for construction electrical works.

Duration: 15:00	Duration: 40:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain the basic principle of electrical current flow and the fundamental concept of alternate and direct current, voltage, resistance, temperature, cross-section of conductors, etc. • Explain Ampere's law, Ohm's law, and electromagnetic field. • Explain the application of a tester, multimeter, digital ammeter etc. • Discuss the use of various electrical hand and power tools such as pliers, crimping tools, electrical drill machines, cutting machines etc. during the electrical wiring of the house/ building. • Explain the type of electrical devices like starters, relays and circuit breakers, their power ratings, working principles and use in circuits. • Describe features of switches, fuses, resistors and various circuit-protecting devices and their use in electrical circuits and connections. • Discuss the electrical measuring/ testing tools and devices such as voltage testers, earth testers, multimeters, digital ammeters, meggers, tong testers, etc. 	<ul style="list-style-type: none"> • Demonstrate how to check the proper and safe working of hand and power tools. • Show how to perform fitting of conduits, cables wiring, fixing of electrical fixtures, electrical connection termination at power outlets, etc. using hand and power tools. • Demonstrate measuring size and dimension of wires, and conduits as per electrical installation/ maintenance work requirements using measuring instruments • Show how to interpret wiring symbols, SLDs, manufacturer's guidelines and electrical specifications • Demonstrate basic inspections of electrical circuits/ wiring using electrical devices like an ammeter, voltmeter, meggers, multi-meter, tong tester, earth tester, etc. • Show how to install electrical components like starters, circuit breakers, relays, etc. • Demonstrate maintenance of electrical tools, and devices post-use as per manufacturer's guidelines.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Pliers, Screw Drivers (Set), Crimping Tools, Wire Strippers, Neon Tester, Ammeter, Voltmeter, Wattmeter, Ohmmeter, Digital Multimeter, Megger, Tong Tester, Measuring Tape, Spirit Level	



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Marking Tools, Drilling Machine, Cutting Machine, Chasing Machine, Electrical Socket (Set), Tungsten Bulb/ CFL/FSL Bulb, Halogen Lamp, Wall Socket, Simple Switchboard, Mains Breaker Switch, Earth Leakage Circuit Breaker (ELCB), Miniature Circuit Breaker (MCB), Helmet, Face Shield, Safety Goggles, Safety Shoes, Safety Belt, Insulated Rubber Gloves, Ear Plugs, Particle Masks, Reflective Jackets, Safety Message Boards, Fire Extinguishers, Sand Buckets



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Module 3: Installing Temporary Lighting

Mapped to CON/N0603, v4.0

Terminal Outcomes:

- Demonstrate how to install temporary lighting arrangements at construction sites.
- Show how to maintain the installed lighting arrangement.

Duration: 15:00	Duration: 45:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> ● Explain the interpretation of Single line diagrams (SLD) /schematics /electrical wiring diagrams for the requirements and specifications of temporary lighting arrangement at the construction site. ● Describe types of cables based on insulation, phase and their use as per power rating. ● Explain types of conduits and fixtures such as switches, and sockets, their selection method and respective uses in electrical works. ● Describe types of safety equipment commonly used for the protection of LV wiring circuits and their area of application. ● Explain standard/ safe practices of cable laying at construction sites such as through underground conduits, and poles. ● Describe types of light units, their wattage and their respective use in construction sites. ● Elucidate standard practices for fixing lights and their respective accessories. ● Explain the type of faults associated with lighting arrangements. ● Explain the type of tests to be undertaken in lighting units and their accessories such as voltage test, leakage test, power interruption/ continuity test etc. ● Determine the standard conditions 	<ul style="list-style-type: none"> ● Demonstrate visual checks on electrical fixtures and materials related to lighting for their usability as per specified acceptance criteria ● Show how to select cables, lights and electrical fixtures depending on electrical load requirement ● Demonstrate laying of cables through underground and overhead as per the requirement as per SLD/ schematics/ electrical wiring diagram ● Show joining of cable in 'straight through joint' methods using PVC tapes or other safe methods ● Demonstrate termination of LV cables as per standard practice ● Demonstrate the method of tagging electrical cables, and underground electrical conduits by standard method ● Show repairing of electrical lighting arrangements. ● Demonstrate methods of tracing out short circuits, and power interruptions/ continuity using appropriate electrical devices ● Demonstrate the preventive maintenance of diesel generators.



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for storing and stacking electrical units, materials, fixtures, tools and devices.

- Describe the safe procedure of erection and dismantling of temporary scaffolding, ladders or working platforms.

Classroom Aids

Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop

Tools, Equipment and Other Requirements

Pliers, Screw Drivers (Set), Crimping Tools, Wire Strippers, Neon Tester, Ammeter, Voltmeter, Wattmeter, Ohmmeter, Digital Multimeter, Megger, Tong Tester, Measuring Tape, Spirit Level, Marking Tools, Drilling Machine, Cutting Machine, Chasing Machine, Electrical Socket (Set), Tungsten Bulb/ CFL/FSL Bulb, Halogen Lamp, Wall Socket, Simple Switchboard, Mains Breaker Switch, Earth Leakage Circuit Breaker (ELCB), Miniature Circuit Breaker (MCB), Helmet, Face Shield, Safety Goggles, Safety Shoes, Safety Belt, Insulated Rubber Gloves, Ear Plugs, Particle Masks, Reflective Jackets, Safety Message Boards, Fire Extinguishers, Sand Buckets



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Module 4: Assisting in LV Electrical Wiring at Permanent Structures

Mapped to CON/N0604, v4.0

Terminal Outcomes:

- Explain how to assist in LV electrical wiring work in permanent structures

Duration: 20:00	Duration: 40:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> ● Explain the type of electrical hazards associated with domestic wiring work, a consequence of faulty/improper wiring works and standard safety control measures. ● Describe types of safety equipment commonly used for the protection of domestic wiring circuits and their area of application. ● Explain the type of electrical materials and fixtures such as conduits, raceways, brackets, etc., used for domestic wiring works and their required acceptance criteria for use. ● Describe standard conduit laying and fixing procedures through brick and concrete structures. ● Explain standard practices of cable/wire laying through conduits and tests to be done to ensure there is no breakage/ leakage from the wire. ● Explain the electrical earthing procedure in domestic wiring and its importance ● Describe the material, tools and equipment used for electrical earthing works. ● Explain the test to be performed in domestic electrical wiring works using appropriate measuring devices. 	<ul style="list-style-type: none"> ● Demonstrate visual checks on electrical fixtures and materials related to domestic wiring such as conduits, raceways, and wires to ascertain their usability as per specified acceptance criteria. ● Demonstrate the use of measuring instruments and cutting tools such as measuring tapes, markers, and cutters to cut and bend conduits ● Demonstrate use of hand and power tools for cutting drilling works for proper fixing of conduits and raceways as per wiring drawing. ● Show how to interpret the single-phase LV wiring diagram ● Demonstrate the method of termination of electrical wires/cables. ● Show how to perform electrical tests like voltage drop, continuity of current flow and resistance in insulations. ● Demonstrate handling and storing of electrical fixtures and materials used for domestic wiring. ● Show how to install the earthing components.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	



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Pliers, Screw Drivers (Set), Crimping Tools, Wire Strippers, Neon Tester, Ammeter, Voltmeter, Wattmeter, Ohmmeter, Digital Multimeter, Megger, Tong Tester, Measuring Tape, Spirit Level, Marking Tools, Drilling Machine, Cutting Machine, Chasing Machine, Electrical Socket (Set), Tungsten Bulb/ CFL/FSL Bulb, Halogen Lamp, Wall Socket, Simple Switchboard, Mains Breaker Switch, Earth Leakage Circuit Breaker (ELCB), Miniature Circuit Breaker (MCB), Helmet, Face Shield, Safety Goggles, Safety Shoes, Safety Belt, Insulated Rubber Gloves, Ear Plugs, Particle Masks, Reflective Jackets, Safety Message Boards, Fire Extinguishers, Sand Buckets



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Module 5: Assembling, Installing and Maintaining Temporary LV Electrical Panels

Mapped to CON/N0605, v4.0

Terminal Outcomes:

- Demonstrate how to assemble temporary LV power distribution panels (distribution boards).
- Show the repair or replacement of faulty parts/ fixtures as per requirement.

Duration: 20:00	Duration: 40:00
Theory – Key Learning Outcomes <ul style="list-style-type: none"> ● Explain types of conduits and fixtures such as switches, sockets, MCBs, wire their selection criterias. ● Describe method of connection temporary panel/ Distribution boards (DB) with main power outlet. ● Determine the power rating of fixtures to be used in panel/ DB. ● Describe type of faults associated with temporary electrical panels/ DBs and its accessories. ● Explain standard procedure of shifting and installing DBs at different locations. ● Explain type of tests to be undertaken in temporary panels/ DBs and its accessories such as voltage test, leakage test, power interruption/ continuity test etc. ● Describe methods of trace out short circuits, power interruptions/ continuity using appropriate electrical devices. ● Explain electrical earthing procedure in temporary panels and its importance ● Explain specification and details of material, tools and equipment used for electrical earthing works. ● Explain standard storing and stacking procedures of electrical units, materials, fixtures, tools and devices. 	Practical – Key Learning Outcomes <ul style="list-style-type: none"> ● Show how to interpret SLDs, instructions, safety guidelines, manufacturers 'specifications relevant to assembling of temporary panel/ distribution board (DB). ● Show the installation of electrical fixtures such as switches, sockets etc. to the panel/ DB as per circuit load requirement. ● Demonstrate how to connect the electrical fixtures by electric wires within the panel/DB ● Demonstrate electrical earthing of panel/DB ● Show how to connect the panel/ DB to main power source. ● Demonstrate method of termination of cables at panel/DB using appropriate fixtures. ● Show how to perform electrical tests to be carried out to inspect proper function of panel/DB using appropriate devices. ● Show how to repair and replace faulty parts with respect to technical specifications and power rating. ● Show the preparation of reports and documents regarding repair/ maintenance in specified formats.
Classroom Aids	



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Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop

Tools, Equipment and Other Requirements

Pliers, Screw Drivers (Set), Crimping Tools, Wire Strippers, Neon Tester, Ammeter, Voltmeter, Wattmeter, Ohmmeter, Digital Multimeter, Megger, Tong Tester, Measuring Tape, Spirit Level, Marking Tools, Drilling Machine, Cutting Machine, Chasing Machine, Electrical Socket (Set), Tungsten Bulb/ CFL/FSL Bulb, Halogen Lamp, Wall Socket, Simple Switchboard, Mains Breaker Switch, Earth Leakage Circuit Breaker (ELCB), Miniature Circuit Breaker (MCB), Helmet, Face Shield, Safety Goggles, Safety Shoes, Safety Belt, Insulated Rubber Gloves, Ear Plugs, Particle Masks, Reflective Jackets, Safety Message Boards, Fire Extinguishers, Sand Buckets



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Module 6: Work effectively in a team to deliver desired results at the workplace

Mapped to CON/N8001, v10.0

Terminal Outcomes:

- Explain the importance of interacting and communicating in an effective manner.
- Elucidate ways to support co-workers to execute the project requirements.
- Elucidate ways to practice inclusion at the workplace.

Duration: 05:00	Duration: 25:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> ● Elucidate own roles and responsibilities. ● Explain the importance of effective communication. ● Elucidate the consequence of poor teamwork on project outcomes, timelines, safety at the construction site, etc. ● Explain different modes of communication used at the workplace. ● Explain the importance of creating healthy and cooperative work environment among the gangs of workers. ● Elucidate applicable techniques of work, properties of materials used, tools and tackles used, safety standards that co-workers might need as per the requirement. ● Explain the importance of proper and effective communication and the expected adverse effects in case of failure relating to quality, timeliness, safety, risks at the construction project site. ● Explain the importance and need of supporting co-workers facing problems for the smooth functioning of work. ● Discuss the fundamental concept of gender equality. 	<ul style="list-style-type: none"> ● Demonstrate how to pass on work-related information/requirements clearly to the team members. ● Show how to report any unresolved problem to the supervisor immediately. ● Demonstrate ways to hand over the required material, tools, tackles, equipment and work fronts timely to interfacing teams. ● Demonstrate ways to work together with co-workers in a synchronized manner. ● Demonstrate effective implementation of gender-neutral practices at the workplace. ● Demonstrate ways to address discriminatory and offensive behaviour in a professional manner as per organizational policy.



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- Explain how to recognise and be sensitive to issues of disability, culture and gender.
- Discuss legislation, policies, and procedures relating to gender sensitivity and cultural diversity including their impact on the area of operation.

Classroom Aids

Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films

Tools, Equipment and Other Requirements

NA



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Module 7: Plan and Organize Work to meet Expected Outcomes

Mapped to CON/N8002, v7.0

Terminal Outcomes:

- Elucidate ways to plan and prepare for work.
- Explain the importance of organising required resources as per the work plan.
- Explain the importance of completing work as per the plan.

Duration: 05:00	Duration: 25:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain the importance of proper housekeeping including safe waste disposal. • Discuss policies, procedures and work targets set by superiors. • Explain how to identify work activities that need to be planned and organized. • Explain how to determine the task requirements. • Explain how to determine the quality requirements related to the task. • Elucidate how to undertake all aspects of planning and organizing the task, including interpretation of task, reading drawings/schedules, arranging resources, reporting problems etc. • Explain how to implement the planned activities. 	<ul style="list-style-type: none"> • Demonstrate ways to determine the work requirements corresponding to the task (drawings/schedules/instructions/methodology), safety, tools and equipment prior to the commencement of the task. • Show how to prepare the work areas in coordination with team members. • Demonstrate the procedures for organizing the required materials, tools and tackles required for the task. • Demonstrate how to use resources in an optimum manner to avoid any unnecessary wastage. • Demonstrate the practices to use tools, tackles and equipment carefully to avoid damage. • Show how to clean and organise the workplace after completion of tasks.
Classroom Aids	
Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
NA	



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Module 8: Work according to personal health, safety and environment protocols at the construction site

Mapped to CON/N9001, v8.0

Terminal Outcomes:

- Explain the importance of following safety norms as defined by the organization.
- Explain the need to adopt healthy & safe work practices.
- Describe the process of implementing good housekeeping and environment protection process and activities.
- Explain the importance of following infection control guidelines as per applicability.

Duration: 05:00	Duration: 25:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> ● Describe the reporting procedures in cases of breaches or hazards for site safety, accidents, and emergency situations as per guidelines. ● Explain different types of safety hazards at construction sites. ● Discuss basic ergonomic principles as per applicability. ● Describe the procedure for responding to accidents and other emergencies at the site. ● Explain the importance of handling tools, equipment, and materials as per applicable norms. ● Explain the effect of construction material on health and environments as per applicability. ● Describe various environmental protection methods as per applicability. ● Explain the storage requirement of waste including non-combustible scrap material and debris, combustible scrap material and debris, general construction waste and trash (non-toxic, non-hazardous), any other hazardous wastes and any other flammable wastes at the appropriate location. ● Explain how to use hazardous material in a safe and appropriate 	<ul style="list-style-type: none"> ● Demonstrate how to follow emergency and evacuation procedures in case of accidents, fires, or natural calamities. ● Show how to operate different types of fire extinguishers corresponding to various types of fires as per EHS guidelines. ● Demonstrate the use of appropriate Personal Protective Equipment (PPE) as per work requirements for Head Protection, Ear Protection, Fall Protection, Foot Protection, Face and Eye Protection, Hand and Body Protection, and Respiratory Protection (if required). ● Demonstrate how to check and install all safety equipment as per standard guidelines. ● Show how to collect, segregate and deposit construction waste into appropriate containers based on their toxicity or hazardous nature. ● Show how to clean and disinfect all materials, tools and supplies before and after use.



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manner as per applicability.

- Explain types of fire.
- Describe the procedure of operating different types of fire extinguishers.
- State safety relevant to tools, tackles, and equipment as per applicability.
- List housekeeping activities relevant to the task.
- Elucidate ways of transmission of infection
- Explain the ways to manage infectious risks at the workplace.
- Describe different methods of cleaning, disinfection, sterilization, and sanitization.
- List the symptoms of infection like fever, cough, redness, swelling, and inflammation.

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



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Module 9: Employability Skills (30 Hours)

Mapped to DGT/VSQ/N0101, v1.0

Duration: 30:00

Key Learning Outcomes

Introduction to Employability Skills Duration: 1 Hour

After completing this programme, participants will be able to:

1. Discuss the importance of Employability Skills in meeting the job requirements

Constitutional values - Citizenship Duration: 1 Hour

2. Explain constitutional values, civic rights, duties, citizenship, responsibility towards society etc. that are required to be followed to become a responsible citizen.
3. Show how to practice different environmentally sustainable practices

Becoming a Professional in the 21st Century Duration: 1 Hour

4. Discuss 21st-century skills.
5. Display a positive attitude, self-motivation, problem-solving, time management skills and continuous learning mindset in different situations.

Basic English Skills Duration: 2 Hours

6. Use appropriate basic English sentences/phrases while speaking

Communication Skills Duration: 4 Hours

7. Demonstrate how to communicate in a well-mannered way with others.
8. Demonstrate working with others in a team

Diversity & Inclusion Duration: 1 Hour

9. Show how to conduct oneself appropriately with all genders and PwD
10. Discuss the significance of reporting sexual harassment issues in time

Financial and Legal Literacy Duration: 4 Hours

11. Discuss the significance of using financial products and services safely and securely.
12. Explain the importance of managing expenses, income, and savings.
13. Explain the significance of approaching the concerned authorities in time for any exploitation as per legal rights and laws

Essential Digital Skills Duration: 3 Hours

14. Show how to operate digital devices and use the associated applications and features, safely and securely
15. Discuss the significance of using the internet for browsing, and accessing social media platforms, safely and securely

Entrepreneurship Duration: 7 Hours

16. Discuss the need for identifying opportunities for potential business, sources for arranging money and potential legal and financial challenges

Customer Service Duration: 4 Hours

17. Differentiate between types of customers
18. Explain the significance of identifying customer needs and addressing them
19. Discuss the significance of maintaining hygiene and dressing appropriately

Getting ready for Apprenticeship & Jobs Duration: 2 Hours

20. Create a biodata
21. Use various sources to search and apply for jobs
22. Discuss the significance of dressing up neatly and maintaining hygiene for an interview
23. Discuss how to search and register for apprenticeship opportunities



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On-the-Job Training

Mapped to Assistant Electrician

Mandatory Duration: 30:00

Recommended Duration: 00:00

Location: On-Site

Terminal Outcomes

- Explain how to select and use the hand, power tools and electrical devices relevant to construction electrical works.
- Demonstrate how to install temporary lighting arrangements at construction sites.
- Show how to install LV electrical wiring at permanent structures.
- Demonstrate how to assemble, install, and maintain temporary LV electrical panels (distribution boards) at the construction site.
- Demonstrate effective communication and coordination with co-workers, superiors and subordinates.
- Show how to effectively plan and organize work to achieve the work objectives.
- Demonstrate appropriate practices to ensure personal health and safety at construction sites, including the use of PPE, and waste management.



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Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialisation	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
B. Tech	Civil/Mechanical/ Electrical Engineering	1	Construction Electrical Works	0	-	
Diploma	Civil/Mechanical/ Electrical Engineering	2	Construction Electrical Works	0	-	
ITI	Relevant Trade	4	Construction Electrical Works	0	-	
General BA/BSc./ EX-Army/ 12th	Relevant Trade	4	Construction Electrical Works	0	-	

Trainer Certification	
Domain Certification	Platform Certification
Trainer- 80 % in each NOS of Qualification Pack "Assistant Electrician, (CON/Q0602), v4.0" and 80% overall.	Trainer - 80% in each NOS of Qualification Pack "Trainer (VET and Skills), (MEP/Q2601), v3.0" and 80% overall.



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Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
B. Tech	Civil/Mechanical/ Electrical Engineering	2	Construction Electrical Works	0	-	
Diploma	Civil/Mechanical/ Electrical Engineering	4	Construction Electrical Works	0	-	
ITI	Relevant Trade	5	Construction Electrical Works	0	-	

Assessor Certification	
Domain Certification	Platform Certification
Assessor- 80 % in each NOS of Qualification Pack "Assistant Electrician, (CON/Q0602), v4.0" and 80% overall.	Assessor - 80% in each NOS of Qualification Pack "Assessor (VET and Skills), (MEP/Q2701), v3.0" and 80% overall.



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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.

Mention the detailed assessment strategy in the provided template.

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.
- Check that the allotted time to the candidates to complete Theory & Practical Assessment is correct.

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



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- 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:
- Surprise visit to the assessment location
 - 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
6. Method for assessment documentation, archiving, and access
- Hard copies of the documents are stored

On the Job:

On job training (OJT), candidates undergo training and learning 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.



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References

Glossary

Term	Description
National Occupational Standards (NOS)	NOS define the measurable performance outcomes required from an individual engaged in a particular task. They list down what an individual performing that task should know and also do.
Qualification	A formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards
Qualification File	A Qualification File is a template designed to capture necessary information of a Qualification from the perspective of NSQF compliance. The Qualification File will be normally submitted by the awarding body for the qualification.
Sector	A grouping of professional activities on the basis of their main economic function, product, service or technology.
Long Term Training	Long-term skilling means any vocational training program undertaken for a year and above. https://ncvet.gov.in/sites/default/files/NCVET.pdf
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.



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Acronyms and Abbreviations

Term	Description
NCVET	National Council for Vocational Education and Training
CSDCI	Construction Skill Development Council of India
AA	Assessment Agency
AB	Awarding Body
ISCO	International Standard Classification of Occupations
NCO	National Classification of Occupations
NCrF	National Credit Framework
NOS	National Occupational Standard(s)
NQR	National Qualification Register
NSQF	National Skills Qualifications Framework
OJT	On the Job Training