



# Model Curriculum

**QP Name: Supervisor Electrical Works (Technical)**

**QP Code: CON/Q0605**

**QP Version: 2.0**

**NSQF Level: 6**

**Model Curriculum Version: 1.0**

Construction Skill Development Council of India | Construction Skill Development Council of India (CSDCI), CPB – 201 & 202, Block-4B, DLF corporate Park, Phase – III, MG Road Gurugram – 122002  
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## Training Parameters

<b>Sector</b>	Construction
<b>Sub-Sector</b>	Real Estate and Infrastructure Construction
<b>Occupation</b>	Construction Electrical Works
<b>Country</b>	India
<b>NSQF Level</b>	6
<b>Aligned to NCO/ISCO/ISIC Code</b>	NCO-2004/7138.40
<b>Minimum Educational Qualification and Experience</b>	Previous relevant qualification of NSQF level 5 with 3 years of experience or 3 years Diploma (after 12th class) with 3 years of relevant experience or Graduation in relevant field with 1 years of experience
<b>Pre-Requisite License or Training</b>	NA
<b>Minimum Job Entry Age</b>	18 Years
<b>Last Reviewed On</b>	31/03/2022
<b>Next Review Date</b>	31/03/2025
<b>NSQC Approval Date</b>	31/03/2025
<b>QP Version</b>	Version number 2.0
<b>Model Curriculum Creation Date</b>	02/09/2021
<b>Model Curriculum Valid Up to Date</b>	31/03/2025
<b>Model Curriculum Version</b>	Version number 1.0
<b>Minimum Duration of the Course</b>	660 hrs
<b>Maximum Duration of the Course</b>	660 hrs



## Program Overview

This section summarizes 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.

- Determine the quantity of required manpower, equipment, materials and tools from the electrical drawings.
- Discuss the different types of activities involved in the electrical work as per the sequence, work plan and standard method.
- Discuss about the sequence in which electrical work is conducted as per standard norms.
- Explain the methods of acquiring and distributing resources as per electrical works requirements.
- Elaborate the method of inspection of the electrical connections/ installations as per specifications or manufacturer's guidelines.
- Discuss about the major tests and diagnostic procedures for electrical works.
- Discuss about maintaining healthy and safe working environment at the construction site.
- Identify risks and other emergency situations at the workplace and respond accordingly to minimize risk.
- Explain methods of sanitization and infection control measures followed at the construction site.

### Compulsory Modules

The table lists the modules and their duration corresponding to the Compulsory NOS of the QP.

NOS and Module Details	Theory Duration (Hrs.)	Practical Duration (Hrs.)	On-the-Job Training Duration (Mandatory) (Hrs.)	On-the-Job Training Duration (Recommended) (Hrs.)	Total Duration (Hrs.)
<i>Bridge Module</i>	08:00	00:00	00:00	00:00	08:00
<b>CON/N0614 Provide work related information to concerned engineer and subordinates</b> NOS Version No. 2.0 NSQF Level 6	<b>67:00</b>	<b>00:00</b>	<b>75:00</b>	<b>00:00</b>	<b>142:00</b>
<i>Provide work related information to concerned engineer and subordinates</i>	67:00	00:00	75:00	00:00	142:00
<b>CON/N0615 Organise and deploy resources as per electrical work requirement</b> NOS Version No.2.0 NSQF Level 6	<b>105:00</b>	<b>00:00</b>	<b>105:00</b>	<b>00:00</b>	<b>210:00</b>



<i>Organise and deploy resources as per electrical work requirement</i>	105:00	00:00	105:00	00:00	210:00
<b>CON/N0616 Monitor the execution of electrical works at the construction site NOS Version No. 2.0 NSQF Level 6</b>	<b>135:00</b>	<b>00:00</b>	<b>135:00</b>	<b>00:00</b>	<b>270:00</b>
<i>Monitor the execution of electrical works at the construction site</i>	135:00	00:00	135:00	00:00	270:00
<b>CON/N9002 Manage workplace for safe and healthy work environment NOS Version No.2.0 NSQF Level 6</b>	<b>15:00</b>	<b>00:00</b>	<b>15:00</b>	<b>00:00</b>	<b>30:00</b>
<i>Manage safety and healthy at workplace</i>	135:00	00:00	135:00	00:00	270:00
<b>Total Duration</b>	<b>330:00</b>	<b>00:00</b>	<b>330:00</b>	<b>00:00</b>	<b>660:00</b>



# Module Details

## Module 1: Introduction to the job role Supervisor Electrical Works (Technical) *Bridge Module*

### Terminal Outcomes:

- Explain the role and responsibilities of Supervisor Electrical Works(Technical).
- Identify the career progression options for Supervisor Electrical Works (Technical).

<b>Duration:</b> 08:00	<b>Duration:</b> 00:00
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Describe the role and responsibilities of a Supervisor Electrical Works(Technical).</li> <li>• Define the personal attributes required in construction electrical works occupation.</li> <li>• Explain the future possible progression and career development options of a Supervisor Electrical Works(Technical).</li> </ul>	
<b>Classroom Aids:</b>	
Black/White board, marker, Projector/LED Monitor, Computer, Trade specific charts, Safety tags, Safety Notice board, registers and other teaching aids	
<b>Tools, Equipment and Other Requirements</b>	



## Module 2: Provide work related information to concerned engineer and subordinates

*Mapped to CON/N0614, v. 2.0*

### Terminal Outcomes:

- Determine the quantity of required manpower, equipment, materials and tools from the electrical drawings.
- Discuss the different types of activities involved in the electrical work as per the sequence, work plan and standard method.

<b>Duration:</b> 67:00	<b>Duration:</b> 00:00
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Explain about the electrical drawings and methods to extract technical specification from it.</li> <li>• Estimate the quantity of required manpower, equipment, materials and tools from the electrical drawings.</li> <li>• Discuss about the handling, and storing methods for different electricals materials as per standard practice.</li> <li>• Elaborate the different types of activities involved in the electrical work as per the sequence, work plan and standard method.</li> <li>• Discuss on the standard work method, and quality of electrical materials/accessories as per standard code of practice.</li> <li>• Elaborate the concept of safety policies, safety precaution, different types of hazards and its preventive measures related to electrical work.</li> </ul>	
<b>Classroom Aids:</b>	
Black/White board, marker, Projector/LED Monitor, Computer, Trade specific charts, Safety tags, Safety Notice board, registers and other teaching aids	
<b>Tools, Equipment and Other Requirements</b>	
screw drivers, wire cutters, wire strippers, pliers, hammers, hacksaws, chisels, spanners (set), wrenches, measuring tape, spirit level, plumb-bob, mason’s line, multi-meter, tester, drilling machine, hand cutting machine, cables, wires, sockets, switches, lights, conduits (flexible and rigid), raceways, vibrators, bar cutting machine, bar bending machine, water pumps	



## Module 3: Organise and deploy resources as per electrical work requirement

*Mapped to CON/N0615, v. 2.0*

### Terminal Outcomes:

- Discuss about the sequence in which electrical work is conducted as per standard norms.
- Explain the methods of acquiring and distributing resources as per electrical works requirements.

<b>Duration:</b> 105:00	<b>Duration:</b> 00:00
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Explain the concept of the electrical works to be conducted in sequence as per construction work requirements.</li> <li>• Discuss about the urgency/need of construction works for prioritizing electrical activity.</li> <li>• Describe the specification and statutory requirements of electrical installations and maintenances.</li> <li>• Explain the concept material indent.</li> <li>• Elaborate the methods to check the physical stock of electrical materials/ equipment/ tools.</li> <li>• Discuss the methods to monitor the consumption of electrical fixtures/ materials and minimization of wastage.</li> <li>• Elaborate the concept of material requisition vouchers with respect to actual requirement and method of calculation of material quantity for electrical works as per standard practice.</li> <li>• Discuss about the manpower allocation as per nature and quantum of work.</li> <li>• Describe the methods for keeping records of engaged manpower and work progress.</li> </ul>	
<b>Classroom Aids:</b>	
Black/White board, marker, Projector/LED Monitor, Computer, Trade specific charts, Safety tags, Safety Notice board, registers and other teaching aids	
<b>Tools, Equipment and Other Requirements</b>	
wall chasing chisel, hammer, hacksaw, file, marking tools, table vice, Stock and die set, Pipe cutter to cut pipes, Hand brooms, Shovels, Screw driver set, measuring tape, spirit level, plumb-bob, mason’s line , cutting machine, drilling machine, power source, rigid conduits, flexible conduit, clamps for conduits, screws, helmet , safety shoes, safety belt, cotton hand gloves, goggles, Reflective jackets, Safety message boards, Fire extinguishers, Sand buckets	





## Module 4: Monitor the execution of electrical works at the construction site

*Mapped to CON/N0616, v.2.0*

### Terminal Outcomes:

- Elaborate the method of inspection of the electrical connections/ installations as per specifications or manufacturer’s guidelines.
- Discuss about the major tests and diagnostic procedures for electrical works.

<b>Duration:</b> 135:00	<b>Duration:</b> 00:00
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Discuss the concept of compatibility of electrical fixtures as per type of installation and power rating.</li> <li>• Explain the different types of hazards involved in electrical works and its preventive measures.</li> <li>• Describe the method of electrical isolation as per standard electrical norms.</li> <li>• Explain the concept of time schedule and milestones for electrical works.</li> <li>• Discuss the applicable statutory requirements for electrical installations and maintenances.</li> <li>• Elaborate the method of inspection of the electrical connections/ installations as per specifications or manufacturer’s guidelines.</li> <li>• Discuss about the specification, power rating, number and brand of electrical fixtures to be used in electrical circuits as per applicable.</li> <li>• Elaborate the planning schedule of preventive maintenance activities for temporary electrical works</li> <li>• Explain the standard procedure of major tests and diagnostic methods for electrical works.</li> <li>• Describe the method of installation of electrical accessories and repair of faults/ defects for the electrical works.</li> <li>• Discuss about the manufacturer’s instructions for electrification of plant and machinery on site</li> </ul>	
<b>Classroom Aids:</b>	
Black/White board, marker, Projector/LED Monitor, Computer, Trade specific charts, Safety tags, Safety Notice board, registers and other teaching aids	
<b>Tools, Equipment and Other Requirements</b>	
Trowel, pointing Trowel, Shovel, mortar Pan, spade, pick axe, GI bucket 5L capacity, wheel Barrow, lime powder, wooden pegs, hammer, hard broom, source of water, ladder, measuring tape mason’s line, hand roller, plate vibrator, power source, helmet, safety shoes, cotton hand gloves goggles, Reflective jackets, Safety message boards	



## Module 5: Manage safety and healthy workplace

*Mapped to CON/N9002, v 2.0*

### Terminal Outcome:

- Discuss about maintaining healthy and safe working environment at the construction site.
- Identify risks and other emergency situations at the workplace and respond accordingly to minimize risk.
- Explain methods of sanitization and infection control measures followed at the construction site.

<b>Duration: 15:00</b>	<b>Duration: 00:00</b>
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Explain the various types of hazards at construction site and procedures to respond in case of any emergency or accidents.</li> <li>• Discuss about the various personal protective equipment (PPE) used during various construction works.</li> <li>• Describe the safe work practices to be followed while performing task.</li> <li>• Discuss the methods to ensure the workplace safety and good health of workers.</li> <li>• Explain the safe ways for using tools, tackles, equipment and materials as specified by Environment, Health and Safety (EHS) department.</li> <li>• Discuss the policies, guidelines and other requirements related to workplace safety as per EHS department/ government norms.</li> <li>• Describe the various types of infectious disease, their symptoms and control, at the construction site.</li> <li>• Discuss the medical guidelines, national legislation, local policies and protocols regarding spread of infectious disease.</li> </ul>	
<b>Classroom Aids:</b>	
Black/White board, marker, Projector/LED Monitor, Computer, Trade specific charts, Safety tags, Safety Notice board, registers and other teaching aids	
<b>Tools, Equipment and Other Requirements</b>	
Leather Hand Gloves, Jump suit, Wire brush, Hand & 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, personal protective equipment (PPE), organizational and statutory documents for EHS	



## Module 6: On-the-Job Training

### Mapped to Supervisor Electrical works V2.0

<b>CON/N0614 V. 2.0, Mandatory Duration: 75:00</b>	<b>Recommended Duration:</b>
<b>Location: On Site</b>	
<ul style="list-style-type: none"> <li>• Demonstrate the methods to make work plan according to the sequence of work/electrical activities.</li> <li>• Demonstrate the method of reporting to concerned authorities regarding electrical installations/maintenance, status of work, stopping/ suspending construction/ other activities as required before and after electrical works</li> <li>• Demonstrate the procedure to provide requirements related to construction equipment/ vehicles, manpower, tools, and materials to the concerned authority related to electricals work.</li> <li>• Analyse the hazards, breakdown/ mobilization, work delay/ stoppage, quality issues, other unsafe work-related cause, and demonstrate the reporting procedure for the same to concerned authority.</li> <li>• Demonstrate to inform the subordinates about scopes and timelines for their respective work/ activities.</li> <li>• Guide the subordinate to use tools, electrical measuring devices, material handling/ storing and follow the sequence of activities.</li> <li>• standard procedure of handling and storing of electrical fixtures, materials and devices</li> <li>• Examine and pass information about hazards and risks involved in working at height, live electrical power lines and working at proximity to heavy electrical machineries.</li> <li>• Implement the rules/ direction regarding PPE/ safety equipment use during electrical installations and maintenance.</li> <li>• Demonstrate the practices involved in emergency treatment/ first aid in case of electrical shocks, burns and fall from height.</li> <li>• Demonstrate the procedures for reporting and record maintenance during electrical works or under emergency situations.</li> </ul>	
screw drivers, wire cutters, wire strippers, pliers, hammers, hacksaws, chisels, spanners (set), wrenches, measuring tape, spirit level, plumb-bob, mason’s line, multi-meter, tester, drilling machine, hand cutting machine, cables, wires, sockets, switches, lights, conduits (flexible and rigid), raceways, vibrators, bar cutting machine, bar bending machine, water pumps	
<b>CON/N0615 V. 2.0, Mandatory Duration: 105:00</b>	
<b>Location: On Site</b>	
<ul style="list-style-type: none"> <li>• Demonstrate to collate information from drawings/ work plan regarding requirement of electrical tools, devices, fixtures etc. necessary for conducting electrical repair/ maintenance work at site.</li> <li>• Check the specification and number of electrical goods as per requirements.</li> <li>• Demonstrate the method to coordination with store for availability of required electrical goods and method to report to concerned senior if found otherwise.</li> <li>• Demonstrate to plan and perform indent for the required materials and take necessary approval from concerned engineer.</li> <li>• Demonstrate the practice to sort and stack re-usable electrical goods separately at designated locations to minimize/ control wastage.</li> <li>• Compute the quantity of consumable materials considering the sequence and stage of activities and report to superior in advance.</li> <li>• Demonstrate the effective mobilization of manpower specific to the electrical works as per requirement.</li> <li>• Demonstrate the methods to coordinate with sub-contractors to finalize work measurements and labour report.</li> </ul>	



wall chasing chisel, hammer, hacksaw, file, marking tools, table vice, Stock and die set, Pipe cutter to cut pipes, Hand brooms, Shovels, Screw driver set, measuring tape, spirit level, plumb-bob, mason's line, cutting machine, drilling machine, power source, rigid conduits, flexible conduit, clamps for conduits, screws, helmet, safety shoes, safety belt, cotton hand gloves, goggles, Reflective jackets, Safety message boards, Fire extinguishers, Sand buckets

**CON/N0616 V. 2.0, Mandatory Duration: 135:00**

**Location: On Site**

- Demonstrate to prioritize the activities involved in electrical works and monitor the progress as per the timeline, work plan and compliances.
- Demonstrate to record and maintain 'as-built' details/drawings of the permanent and modified electrical works.
- Demonstrate methods to ensure proper access/work platform is created prior to undertake electrical connections at height/ confined space.
- Coordinate with concerned authority/other department during electrical maintenance/repairing works.
- Evaluate any types of hazards involved during electrical operations and ensure safety measures as per applicable electrical norms.
- Check to ensure isolation and preventive maintenance of electrical installations/electrical units as per standard practice.
- Demonstrate to provide alternative option for installation/maintenance work if required one is not available.
- Demonstrate to ensure that all installations, troubleshooting and repair of temporary electrical works on site are carried out using correctly calibrated device as per manufacturers guidelines/applicable specifications.
- Ensure that all electrical installations are safely protected against rain, fire, access of unauthorized person and also erection of safety signage/display.

Trowel, pointing Trowel, Shovel, mortar Pan, spade, pick axe, GI bucket 5L capacity, wheel Barrow, lime powder, wooden pegs, hammer, hard broom, source of water, ladder, measuring tape mason's line, hand roller, plate vibrator, power source, helmet, safety shoes, cotton hand gloves goggles, Reflective jackets, Safety message boards

**CON/9002 V 6.0, Mandatory Duration: 15:00**

**Location: On Site**

- Ensure that all the safety and protection installation at construction site are adequate and correctly placed.
- Demonstrate effective implementation of the health and safety plan for all the subordinates at the construction site.
- Perform checks to ensure the safe handling, stacking and storing of tools, tackles, equipment and materials at the work place.
- Demonstrate effective use of proper PPE by the subordinates.
- Demonstrate provision for proper entrance and exit from confined spaces, excavated pits and other locations of workplace, as per safety recommendations.
- Demonstrate the use of fire protection equipment for different type of fire hazard.
- Demonstrate ways to create awareness about organisational policies and procedures associated with health, safety and welfare of construction workers.
- Demonstrate the procedures for identifying, recording and reporting of hazards/accidents/hazard of any infectious disease/ pandemic as per organizational and statutory requirements.
- Ensure effective adherence to response to emergency procedures / protocols.
- Demonstrate effective implementation of control measures to reduce risks.
- Demonstrate vertigo test.



- Demonstrate the practices to maintain personal hygiene, workplace hygiene and site/ workplace sanitization.
- Ensure proper housekeeping at the workplace.

Leather Hand Gloves, Jump suit, Wire brush, Hand & 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, personal protective equipment (PPE), organizational and statutory documents for EHS

# Annexure

## Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
Post-Graduation/Graduation in Engineering	Electrical Engineering	Two	Electrical Engineering	0	Electrical Engineering	As a pre-requisite for new entrant, no prior experience in training /assessment is mandatory. However, if someone with prior experience in requisite domain joins, experience will be measured in terms of relevant industry experience
Diploma	Electrical Engineering	Five	Electrical Engineering	0	Electrical Engineering	
Graduation/ Ex. Army /ITI /12 <sup>th</sup> pass	Any Graduation, certificate from Army/ITI certificate in relevant trade/12 <sup>th</sup> pas.	Eight	Working Experience as Supervisor Electrical works/ supervisory role in construction electrical domain	0	Working Experience as Supervisor Electrical works/ supervisory role in construction electrical domain	

Trainer Certification	
Domain Certification	Platform Certification
Trainer- 80 % in each NOS of Qualification Pack “Supervisor Electrical Works (Technical) CON/Q0605 v2.0” and 80% overall.	Trainers - 80% in each NOS of Qualification Pack “Trainer MEP/Q2601, v1.0” and 80% overall.

## Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
Post-Graduation/Graduation in Engineering	Electrical Engineering	Seven	Electrical Engineering	0	Electrical Engineering	As a prerequisite for new entrant, no prior experience in training/assessment is mandatory. However, if someone with prior experience in requisite domain joins, experience will be measured in terms of relevant industry experience
Diploma	Electrical Engineering	Ten	Electrical Engineering	0	Electrical Engineering	
Graduation/ Ex. Army /ITI /12 <sup>th</sup> pass	Any Graduation, certificate from Army/ITI certificate in relevant trade/12 <sup>th</sup> pas.	Thirteen	Working Experience as Supervisor Electrical works/ supervisory role in construction electrical domain	0	Working Experience as Supervisor Electrical works/ supervisory role in construction electrical domain	

Assessor Certification	
Domain Certification	Platform Certification
Assessor- 80 % in each NOS of Qualification Pack “Supervisor Electrical Works (Technical) CON/Q0605 v2.0” and 80% overall.	Assessors- 80% in each NOS of Qualification Pack “Assessor MEP/Q2701, v1.0” and overall 80%.



## Assessment strategy

### Assessment system Overview

Assessment is done through CSDCI affiliated Assessment Agencies. Assessors are trained & certified by CSDCI after training of assessors program. Assessments is conducted to gauge and assess the trainee's skill and knowledge competency in the specified areas. The assessment will have both theory and practical components in 50:50 ratio for Supervisor Electrical Works job role.

During the practical task, trainees are assessed on their workmanship, quality of finished product and time management. They will be graded for all their assessments based on the approved assessment strategy which is signed off by CSDCI. The Assessor submits an assessment plan to CSDCI prior to assessments.

The assessment plan contains the following information:

- What will be assessed, i.e. the competency based on each NOS based on theory and practical questions
- How assessment will occur i.e. methods of assessment
- When the assessment will occur
- duration of assessment
- Where the assessment will take place i.e. context of the assessment (workplace/simulation)
- The criteria for decision making i.e. those aspects that will guide judgments and
- Where appropriate, any supplementary criteria used to make a judgment on the level of performance.

### Testing Environment

Training partner shares the batch start date and end date, number of trainees and the job role.

Assessment will be fixed for a day after the end date of training. It could be next day or later.

Assessment will be conducted at the training venue/test center.

The knowledge/theory assessments is conducted with proper seating arrangements with enough space between the candidates to prevent copying.

Question set for theory and practical will be distributed to each candidate by the Assessor. Theory testing will include multiple choice questions, pictorial question, etc. which will test the trainee on his theoretical knowledge of the subject. The skill /practical assessments will be conducted in the approved test centers. The training provider will ensure adequate tools and materials are available to conduct the practical test.

If number of candidates are more than 30, more assessors will be organized on same day to complete the assessment.

The assessment has to comprise of two components, namely:

1. Knowledge assessment (theory/viva assessment)
2. Skill assessment (practical/hands-on skill assessment)





### Mode of assessment

1. Demonstration/Practical for Performance /Skill Assessment
  2. Synoptic multiple choice question test
  3. Viva
- } For Knowledge Assessment

**Performance/skill assessment:** The performance/skill assessment will be conducted through demonstration/practical

For the practical test trainees are assessed through a given task, which they have to complete correctly for them to be marked as passed.

The assessment is conducted in a simulated working environment. Due to this fact, the assessors must note that the naturally occurring evidence of competence is unavailable or infrequent. Simulation must be undertaken in a Realistic Working Environment which provides an environment that replicates the key characteristics of the workplace in which the skill to be assessed is normally employed.

**Knowledge Assessment:** The knowledge assessments are conducted through written test/ viva.

Synoptic test is used for this. It is an MCQ (Multiple Choice Question) test which are prepared externally and externally marked, meaning by agency having no link with training partners. The test may be conducted by the assessor in the oral mode, if required, considering the lack of reading and comprehending acumen (skills) of trainees. In such cases, the assessor will mention it on top of the MCQ submitted to CSDCI.

The assessment strategy, weightage and duration of assessment for Supervisor Electrical Works is summarized below

Assessment Type	Formative or Summative	Strategies	Weightage	Duration (hours)
Knowledge	Summative	MCQ/Viva	50	2.5
Skill	Summative	Structured practical task	25	3.0
Skill	Formative	Structured practical task	25	1.5

### Assessment Quality Assurance framework

CSDCI has developed assessment criteria framework for each Qualification pack as per National Occupational Standards. The criteria framework includes weightages/marks for each criteria under knowledge and skill. The criteria ensures quality assurance as it ensures valid, consistent and fair assessments at all locations. Issued to the affiliated Assessment body. The Assessment body develop questions based on CSDCI issued assessment criteria.



Evidences in the form of answer sheets in case of knowledge assessments are collected. For skill assessments videos and photographs are prepared as evidence. These are submitted by the assessor to the assessment agency. CSDCI does random checks of the same with the participant/ trainee's ID and ascertains authenticity and validity of assessments.

The training partner will intimate the time of arrival of the assessor and time of leaving the venue. Random spot checks/audit is conducted by CSDCI to monitor assessment.

### ***Methods of Validation***

Unless the trainee is registered, the person cannot undergo assessment. To further ensure that the person registered is the person appearing for assessment, ID verification is carried out. Aadhar card number is part of registering the candidate for training. This forms the basis of further verification during the assessment.

Assessor conducts the assessment through theory and practical questions developed in accordance with the assessment criteria and guidelines issued by CSDCI. This too is verified by random audits carried out by CSDCI.

Evidences for assessments are to be collected and submitted to CSDCI for verification as per demand.

Assessment agency is responsible to put details in SIP. CSDCI will also validate the data and result received from the assessment agency.

### **Method of assessment documentation and access**

The assessment agency will upload the result of assessment in the portal. The data will not be accessible for change by the assessment agency after the upload. The assessment data will be validated by CSDCI assessment team. After upload, only CSDCI can access this data. CSDCI approves the results within five days after which results are uploaded on SIP by Assessment Agency.



## References

## Glossary

Term	Description
<b>Declarative Knowledge</b>	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.
<b>Key Learning Outcome</b>	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).
<b>OJT (M)</b>	On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site
<b>OJT (R)</b>	On-the-job training (Recommended); trainees are recommended the specified hours of training on site
<b>Procedural Knowledge</b>	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.
<b>Training Outcome</b>	Training outcome is a statement of what a learner will know, understand and be able to do <b>upon the completion of the training</b> .
<b>Terminal Outcome</b>	Terminal outcome is a statement of what a learner will know, understand and be able to do <b>upon the completion of a module</b> . A set of terminal outcomes help to achieve the training outcome.



## Acronyms and Abbreviations

Term	Description
QP	Qualification Pack
NSQF	National Skills Qualification Framework
NSQC	National Skills Qualification Committee
NOS	National Occupational Standards
CSDCI	Construction Skill development Council of India
MCQ	Multiple Choice Question
PPEs	Personal Protective Equipment
RCC	Reinforced Cement Concrete