











# **Model Curriculum**

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

QP Code: CON/Q0605

Version: 3.0

**NSQF Level: 5.5** 

**Model Curriculum Version: 3.0** 

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	5.5
Aligned to NCO/ISCO/ISIC Code	NCO-2015/3123.0400
Minimum Educational Qualification and Experience	Completed 3rd year of 3-year/ 4-year UG  OR  Completed 2nd year diploma after 12 <sup>th</sup> with 1-year relevant experience  OR  Completed 2nd year of 3-year UG with 1-year relevant experience  OR  Completed 3-year diploma (after 10th) with 2-year relevant experience  OR  12th Grade pass with 3-year relevant experience  OR  Previous relevant Qualification of NSQF Level 5 with 1.5-year relevant experience  OR  Previous relevant Qualification of NSQF Level 4.5 with 3 years 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	3.0
Model Curriculum Creation Date	06/10/2023
Model Curriculum Valid Up to Date	31/03/2025
Model Curriculum Version	3.0
Minimum Duration of the Course	660 Hours
Maximum Duration of the Course	660 Hours
Rationalisation Date	18/04/2024











## **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 provide work related information to the concerned engineer and subordinates.
- Demonstrate organizing and deploying resources as per electrical work requirement.
- Show how to monitor the execution of electrical works 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 (Recommend ed)	Total Duration
CON/N0614: Provide work related information to concerned engineer and subordinates NOS Version- 3.0 NSQF Level- 5.5	30:00	60:00	30:00	00:00	120:00
Module 1: Introduction to the Role of a Supervisor - Electrical Works (Technical)	05:00	00:00	0:00	00:00	05:00
Module 2: Providing work related information to the concerned engineer and subordinates	25:00	60:00	30:00	00:00	115:00
CON/N0615: Organise and deploy resources as per electrical work requirement NOS Version- 3.0 NSQF Level- 5.5	45:00	75:00	60:00	00:00	180:00











Module 3: Organizing and deploying resources as per electrical work	45:00	75:00	60:00	00:00	180:00
CON/N0616: Monitor the execution of electrical works at the construction site NOS Version- 3.0 NSQF Level- 5.5	60:00	150:00	30:00	00:00	240:00
Module 4: Monitoring the execution of electrical works	60:00	150:00	30:00	00:00	240:00
CON/N9002 Manage workplace for safe and healthy work environment NOS Version- 2.0 NSQF Level -5	15:00	15:00	00:00	00:00	30:00
Module 5: Manage safety and healthy at workplace	15:00	15:00	00:00	00:00	30:00
DGT/VSQ/N0103: Employability Skills NOS Version- 1.0 NSQF Level- 5	90:00	00:00	00:00	00:00	90:00
Module 6: Employability Skills	90:00	00:00	00:00	00:00	90:00
<b>Total Duration</b>	240:00	300:00	120:00	00:00	660:00











## **Module Details**

## **Module 1: Introduction to the Role of a Supervisor - Electrical Works** (Technical)

Mapped to CON/N0614, v3.0

#### **Terminal Outcomes:**

Discuss the job role of a Supervisor - Electrical Works (Technical).

Duration: 05:00	Duration: 0:00		
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes		
<ul> <li>Describe the size and scope of the Construction industry and its sub- sectors.</li> </ul>			
<ul> <li>Discuss the role and responsibilities of a Supervisor - Electrical Works (Technical).</li> </ul>			
<ul> <li>Identify various employment opportunities for a Supervisor - Electrical Works (Technical).</li> </ul>			
Classroom Aids			
Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films			
Tools, Equipment and Other Requirements			
NA			











## **Module 2: Providing Work Related Information to the Concerned Engineer and Subordinates** Mapped to CON/N0614, v3.0

#### **Terminal Outcomes:**

- Explain the concerned engineer about work status and material/resource requirement.
- Elucidate the subordinate workers on work methods, safety norms, and time lines.

Duration: 25:00	Duration: 60:00		
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes		
<ul> <li>Explain about the electrical drawings and methods to extract technical specification from it.</li> </ul>	<ul> <li>Demonstrate the methods to make work plan according to the sequence of work/electrical activities.</li> </ul>		
<ul> <li>Estimate the quantity of required manpower, equipment, materials and tools from the electrical drawings.</li> </ul>	<ul> <li>Show how to assist to the concerned engineer for making/ modifying work plan and for sequencing of electrical activities.</li> </ul>		
<ul> <li>Discuss about the handling, and storing methods for different electricals materials as per standard practice.</li> </ul>	<ul> <li>Show how to brief the concerned engineer about location of electrical installations/maintenance and status of work with respect to planned</li> </ul>		
<ul> <li>Elaborate the different types of activities involved in the electrical work as per the sequence, work plan and standard method.</li> </ul>	<ul> <li>target.</li> <li>Demonstrate the process of informing to concerned authorities regarding the stopping/ suspending</li> </ul>		
<ul> <li>Discuss on the standard work method, and quality of electrical materials/accessories as per standard code of practice.</li> </ul>	<ul> <li>of construction/ other activities.</li> <li>Show how to provide requirement for the construction equipment/vehicles to the concerned authority for</li> </ul>		
<ul> <li>Elaborate the concept of safety policies, safety precaution, different types of hazards and its preventive measures related to electrical work.</li> </ul>	<ul> <li>executing the electrical works.</li> <li>Demonstrate the reporting procedure for the hazards, breakdown/ mobilization, work delay/ stoppage, quality issues, other unsafe work-related cause.</li> </ul>		
	<ul> <li>Demonstrate to inform the subordinates about scopes and timelines for their respective work/ activities.</li> </ul>		
	<ul> <li>Show how to guide the subordinate to use tools, electrical measuring devices, material handling/ storing</li> </ul>		











and follow the sequence of activities.

- Demonstrate how to brief the subordinates about the standard procedure of handling and storing of electrical fixtures, materials and devices.
- Show how to handle the hazards and risks involved in working at height, working with live electrical power lines and working in proximity with heavy electrical machineries.
- Demonstrate the applicable rules regarding using the PPE during electrical installations and maintenance.
- Demonstrate the practices involved in emergency treatment/ first aid in case of electrical shocks, burns and fall from height.
- Demonstrate the procedures for reporting and record maintenance during electrical works or under emergency situations.

#### **Classroom Aids**

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

#### **Tools, Equipment and Other Requirements**

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: Organizing and Deploying Resources as per Electrical Work Mapped to CON/N0615, v3.0

#### **Terminal Outcomes:**

- Show how to organize resources for electrical works at the construction site.
- Demonstrate deploying of the material and manpower as per requirement of electrical works.

Duration: 45:00	Duration: 75:00		
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes		
<ul> <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>	<ul> <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>Show how to 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>Show how to compute the quantity of consumable materials considering the sequence and stage of activities and report to superior in advance.</li> <li>Show how to interpret electrical drawing, work plan, specifications and guidelines (if required) prior to checking the material requisition vouchers.</li> <li>Demonstrate the effective</li> </ul>		











the electrical works as per requirement.

 Demonstrate the methods to coordinate with sub-contractors to finalize work measurements and labour report.

#### **Classroom Aids**

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

#### **Tools, Equipment and Other Requirements**

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: Monitoring the Execution of Electrical Works** Mapped to CON/N0616, v3.0

#### **Terminal Outcomes:**

- Explain how to monitor the progress of electrical work at construction site.
- Show how to check the quality and safety of the electrical works.

Duration: 60:00	Duration: 150:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul> <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</li> </ul>	<ul> <li>Demonstrate to prioritize the activities involved in electrical works and monitor the progress as per the timeline, work plan and compliances.</li> <li>Demonstrate to record and maintain 'asbuilt' details/drawings of the permanent and modified electrical works.</li> <li>Demonstrate methods to ensure proper access/work platform is created prior to undertake electrical connections at height/ confined space.</li> <li>Show how to coordinate with concerned authority/other department during electrical maintenance/ repairing works.</li> <li>Demonstrate how to evaluate any types of hazards involved during electrical operations and ensure safety measures as per applicable electrical norms.</li> <li>Show how to check to ensure isolation and preventive maintenance of electrical installations/electrical units as per standard practice.</li> <li>Demonstrate to provide alternative option for installation/maintenance work if required one is not available.</li> <li>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.</li> <li>Show how to ensure that all electrical installations are safely protected against rain, fire, access of unauthorized person and also erection of safety signage/display.</li> </ul>











instructions for electrification of plant and machinery on site

#### **Classroom Aids**

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

#### **Tools, Equipment and Other Requirements**

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 workplace for safe and healthy work environment *Mapped to NOS CON/N9002 v2.0*

#### **Terminal Outcomes:**

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

Duration: 15:00	Duration: 15:00			
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes			
<ul> <li>Explain the various types of hazards at construction sites and procedures to respond in case of any emergency or accidents.</li> </ul>	<ul> <li>Demonstrate effective implementation of the health and safety plan for all the subordinates at the construction site.</li> </ul>			
Discuss about the various personal protective equipment (PPE) used during various construction works.	<ul> <li>Perform checks to ensure the safe handling, stacking and storing of tools, tackles, equipment and materials at the workplace.</li> </ul>			
<ul> <li>Describe the safe work practices to be followed while performing tasks.</li> </ul>	Demonstrate effective use of proper			
<ul> <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 the 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> </ul>	<ul> <li>PPE by the subordinates.</li> <li>Demonstrate provision for proper entrance and exit from confined spaces, excavated pits and other locations of the workplace, as per safety recommendations.</li> </ul>			
	<ul> <li>Demonstrate ways to create awareness about organisational</li> </ul>			
	<ul> <li>Describe the various types of infectious disease, their symptoms and control, at the construction site.</li> </ul>	policies and procedures associated with the health, safety and welfare of construction workers.		
<ul> <li>Discuss the medical guidelines, national legislation, local policies and protocols regarding spread of infectious disease.</li> </ul>	<ul> <li>Demonstrate the procedures for identifying, recording and reporting hazards/accidents/hazards of any infectious disease/ pandemic as per organisational and statutory requirements.</li> </ul>			
	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.

#### **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











# Module 6: Employability Skills Mapped to DGT/VSQ/N0103, v1.0

**Duration: 90:00** 

#### **Key Learning Outcomes**

#### **Introduction to Employability Skills Duration: 3 Hours**

After completing this programme, participants will be able to:

- 1. Outline the importance of Employability Skills for the current job market and future of work
- 2. List different learning and employability related GOI and private portals and their usage
- 3. Research and prepare a note on different industries, trends, required skills and the available opportunities

#### **Constitutional values – Citizenship Duration: 1.5 Hours**

- 4. Explain the constitutional values, including civic rights and duties, citizenship, responsibility towards society and personal values and ethics such as honesty, integrity, caring and respecting others that are required to become a responsible citizen
- 5. Demonstrate how to practice different environmentally sustainable practices

#### **Becoming a Professional in the 21st Century Duration: 5 Hours**

- 6. Discuss relevant 21st century skills required for employment
- 7. Highlight the importance of practicing 21st century skills like Self-Awareness, Behavior Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn etc. in personal or professional life
- 8. Create a pathway for adopting a continuous learning mindset for personal and professional development

#### **Basic English Skills Duration: 10 Hours**

- 9. Show how to use basic English sentences for everyday conversation in different contexts, in person and over the telephone
- 10. Read and understand text written in basic English
- 11. Write a short note/paragraph / letter/e -mail using correct basic English

#### **Career Development & Goal Setting Duration: 4 Hours**

- 12. Create a career development plan
- 13. Identify well-defined short- and long-term goals

#### **Communication Skills Duration: 10 Hours**

- 14. Demonstrate how to communicate effectively using verbal and nonverbal communication etiquette
- 15. Write a brief note/paragraph on a familiar topic











- 16. Explain the importance of communication etiquette including active listening for effective communication
- 17. Role play a situation on how to work collaboratively with others in a team

#### **Diversity and Inclusion Duration: 2.5 Hours**

- 18. Demonstrate how to behave, communicate, and conduct appropriately with all genders and PwD
- 19. Discuss the significance of escalating sexual harassment issues as per POSH act

#### **Financial and Legal Literacy Duration: 10 Hours**

- 20. Discuss various financial institutions, products, and services
- 21. Demonstrate how to conduct offline and online financial transactions, safely and securely and check passbook/statement
- 22. Explain the common components of salary such as Basic, PF, Allowances (HRA, TA, DA, etc.), tax deductions
- 23. Calculate income and expenditure for budgeting
- 24. Discuss the legal rights, laws, and aids

#### **Essential Digital Skills Duration: 20 Hours**

- 25. Describe the role of digital technology in day-to-day life and the workplace
- 26. Demonstrate how to operate digital devices and use the associated applications and features, safely and securely
- 27. Demonstrate how to connect devices securely to internet using different means
- 28. Follow the dos and don'ts of cyber security to protect against cyber crimes
- 29. Discuss the significance of displaying responsible online behavior while using various social media platforms
- 30. Create an e-mail id and follow e- mail etiquette to exchange e -mails
- 31. Show how to create documents, spreadsheets and presentations using appropriate applications
- 32. utilize virtual collaboration tools to work effectively

#### **Entrepreneurship Duration: 7 Hours**

- 33. Explain the types of entrepreneurship and enterprises
- 34. Discuss how to identify opportunities for potential business, sources of funding and associated financial and legal risks with its mitigation plan
- 35. Describe the 4Ps of Marketing-Product, Price, Place and Promotion and apply them as per requirement
- 36. Create a sample business plan, for the selected business opportunity

#### **Customer Service Duration: 9 Hours**

37. Classify different types of customers











- 38. Demonstrate how to identify customer needs and respond to them in a professional manner
- 39. Discuss various tools used to collect customer feedback
- 40. Discuss the significance of maintaining hygiene and dressing appropriately

#### **Getting ready for apprenticeship & Jobs Duration: 8 Hours**

- 41. Draft a professional Curriculum Vitae (CV)
- 42. Use various offline and online job search sources to find and apply for jobs
- 43. Discuss the significance of maintaining hygiene and dressing appropriately for an interview
- 44. Role play a mock interview
- 45. List the steps for searching and registering for apprenticeship opportunities











#### **Module 7: On-the-Job Training**

Mapped to Supervisor - Electrical Works (Technical)

Mandatory Duration: 120:00 Recommended Duration: 00:00

**Location: On-Site** 

#### **Terminal Outcomes**

- Show how to Explain the concerned engineer about work status and material/resource requirement.
- Show the subordinate workers importance of work methods, safety norms, and time lines.
- Show how to monitor the execution of electrical works at the construction site.
- Demonstrate the ways to manage workplace for safe and heal Explain the concerned engineer about work status and material/resource requirement.
- Show how to organize resources for electrical works at the construction site.
- Demonstrate deploying of the material and manpower as per requirement of electrical works.
- Demonstrate about maintaining a healthy and safe working environment at the construction site.
- Show how to identify risks and other emergency situations at the workplace and respond accordingly to minimise risk.
- Demonstrate the methods of sanitization and infection control measures followed at the construction site.
- Elucidate the subordinate workers on work methods, safety norms, and time lines.











## **Annexure**

## **Trainer Requirements**

Trainer Prerequisites						
Minimum Educational	Specialisation	Relevant Industry Experience		Training Experience		Remarks
Qualification		Years	Specialization	Years	Specialization	
B. Tech	Civil/Mechanic al/ Electrical	8	Construction Electrical Works	0	-	
Diploma	Civil/Mechanic al/ Electrical	10	Construction Electrical Works	0	-	
ITI	Civil/Mechanic al/ Electrical	13	Construction Electrical Works	0	-	
General BA/BSc./ EX- Army/ 12th	Civil/Mechanic al/ Electrical	13	Construction Electrical Works	0	-	

Trainer Certification				
Domain Certification	Platform Certification			
Recommended that the Trainer is certified for the Job Role: "Supervisor - Electrical Works", mapped to the Qualification Pack: "CON/Q0605, v3.0". The minimum accepted score is 80%.	Recommended that the Trainer is certified for the Job Role: "Trainer (VET and skills)", mapped to the Qualification Pack: "MEP/Q2601, v3.0". The minimum accepted score is 80%.			











## **Assessor Requirements**

Minimum	Specialization	Polovant Industry		Training/Assessment		Remarks
Educational Qualification	Specialization	Relevant Industry Experience		Experience		Remarks
		Years	Specialization	Years	Specialization	
B. Tech	Civil/Mechanical/ Electrical	8	Construction Electrical Works	0	-	
Diploma	Civil/Mechanical/ Electrical	10	Construction Electrical Works	0	-	
ITI	Civil/Mechanical/ Electrical	13	Construction Electrical Works	0	-	

Assessor Certification					
Domain Certification	Platform Certification				
Recommended that the Assessor is certified for the Job Role: "Supervisor - Electrical Works", mapped to the Qualification Pack: "CON/Q0605, v3.0". The minimum accepted score is 80%.	Recommended that the Assessor is certified for the Job Role: "Assessor (VET and skills)", mapped to the Qualification Pack: "MEP/Q2701, v3.0". The minimum accepted score is 80%.				











#### **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.

#### 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.

#### 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
- 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:

- 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

#### On the Job:

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











## References

## **Glossary**

Term	Description
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.











## **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	
EHS	Environment Health and Safety	