



# Model Curriculum

**QP Name: Helper – Construction Laboratory and Field Technician**

**QP Code: CON/Q0401**

**QP Version: 2.0**

**NSQF Level: 2**

**Model Curriculum Version: 1.0**

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# Training Parameters

<b>Sector</b>	Construction Skill Development Council of India
<b>Sub-Sector</b>	Real Estate and Infrastructure Construction
<b>Occupation</b>	Quality Assurance and Quality Control
<b>Country</b>	India
<b>NSQF Level</b>	2
<b>Aligned to NCO/ISCO/ISIC Code</b>	NCO-2015/9313.0601
<b>Minimum Educational Qualification and Experience</b>	8th Class with 0-6 Months of experience (Should have minimum 6 months experience in Quality Assurance and Quality Control occupation)
<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>	2.0
<b>Model Curriculum Creation Date</b>	01/02/2021
<b>Model Curriculum Valid Up to Date</b>	31/03/2022
<b>Model Curriculum Version</b>	1.0
<b>Minimum Duration of the Course</b>	270 hrs
<b>Maximum Duration of the Course</b>	270 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.

- Identify the testing tools, apparatus and instruments.
- Identify the various components of testing tools and instruments.
- List the construction material used on site.
- Perform handling, storing and stacking of testing material.
- Perform tagging of test samples.
- Perform waste disposal and reuse/disposal of tested samples.
- Explain the procedure of collecting test samples.
- Perform casting of cubes, slump test.
- Prepare the test samples for testing.
- Perform upkeep of tools and instruments.
- Demonstrate effective communication with co-workers, superiors and sub-ordinates across different teams
- Provide support to co-workers, superiors and sub-ordinates within the team and across interfacing teams to ensure effective execution of assigned task.
- Demonstrate practices sensitive to disabilities (physical, mental, intellectual or sensory impairment), cultural diversity and gender neutrality.
- Identify various hazards at construction site.
- Use PPE's relevant to helper laboratory and field technician.
- Perform safe waste disposal at construction site.
- Demonstrate the activities to check the spread of infection as per medical/ organizational guidelines.

### 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/N0401: Identify and upkeep construction materials, testing tools and equipment</b> NOS Version No. 2.0 NSQF Level 2	<b>07:00</b>	<b>15:00</b>	<b>00:00</b>	<b>00:00</b>	<b>22:00</b>
Identify and upkeep construction materials, testing tools and equipment	07:00	15:00	00:00	00:00	22:00
<b>CON/N0402: Handle and store construction</b>	<b>15:00</b>	<b>75:00</b>	<b>00:00</b>	<b>00:00</b>	<b>90:00</b>



<b>material test sample at the laboratory</b> <b>NOS Version No. 2.0</b> <b>NSQF Level 2</b>					
Handle and store construction material test sample at the site laboratory	15:00	75:00	00:00	00:00	90:00
<b>CON/N0403: Collect test sample from field and assist in material testing at site laboratory</b> <b>NOS Version No. 2.0</b> <b>NSQF Level 2</b>	<b>15:00</b>	<b>75:00</b>	<b>00:00</b>	<b>00:00</b>	<b>90:00</b>
Collect test sample from field and assist in material testing at site laboratory	15:00	75:00	00:00	00:00	90:00
<b>CON/N8001 Work effectively in a team to deliver desired results at the workplace</b> <b>NOS Version No.6</b> <b>NSQF Level 4</b>	<b>07:30</b>	<b>22:30</b>	<b>00:00</b>	<b>00:00</b>	<b>30:00</b>
Communicate effectively at workplace	07:30	22:30	00:00	00:00	30:00
<b>CON/N9001 Work according to personal health, safety and environment protocol at construction site</b> <b>NOS Version No.7.0</b> <b>NSQF Level 2</b>	<b>07:30</b>	<b>22:30</b>	<b>00:00</b>	<b>00:00</b>	<b>30:00</b>
Follow safety norms as defined by organization, adopt healthy and safe work practices	07:30	22:30	00:00	00:00	30:00
<b>Total Duration</b>	<b>60:00</b>	<b>210:00</b>	<b>00:00</b>	<b>00:00</b>	<b>270:00</b>



# Module Details

## Module 1: Introduction to helper laboratory and field technician job role *Bridge Module*

### Terminal Outcomes:

- Explain the role and responsibilities of helper laboratory and field technician.
- Discuss the career progression for the helper laboratory and field technician.

<b>Duration: 08:00</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>• Describe the job roles of a helper construction laboratory and field technician.</li><li>• Define the personal attributes required in Quality Assurance and Quality Control (QA/QC) occupation.</li><li>• Explain the future possible progression and career development options of a helper construction laboratory and field technician.</li></ul>	
<b>Classroom Aids:</b>	
Black/White board, Projector/LED Monitor, Computer, Trade specific charts and other teaching aids	
<b>Tools, Equipment and Other Requirements</b>	
N/A	



## Module 2: Identify and upkeep construction materials, testing tools and equipment

Mapped to CON/N0401, v.2.0

### Terminal Outcomes:

- Identify the testing tools, apparatus and instruments.
- Identify the various components of testing tools and instruments.
- List the construction material used on site.

<b>Duration:</b> 07:00	<b>Duration:</b> 15:00
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Recognise construction materials (names, appearance, physical description etc.) such as cement, fine and coarse aggregate, bricks, steel, bitumen, admixtures, concrete blocks, paver block, concrete cubes, timber, plywood and steel reinforcement bar etc.</li> <li>• Classify materials for which testing is done at construction site.</li> <li>• List the name of the various tests carried out on-site for cement, concrete, bitumen, soil and aggregate.</li> <li>• Recognise the tools, accessories, apparatus and equipment used for testing of cement, concrete, bitumen, soil and aggregate at site including their use.</li> <li>• Discuss the methods and importance of upkeep of testing apparatus and equipment at site.</li> <li>• Explain the importance of housekeeping in the quality laboratory.</li> </ul>	<ul style="list-style-type: none"> <li>• Label the parts/components of various apparatus and equipment used for testing of cement, concrete, bitumen, soil, aggregate at site.</li> <li>• Demonstrate upkeep activities performed on various testing apparatus and equipment used for testing of cement, concrete, bitumen soil and aggregate at site.</li> </ul>
<b>Classroom Aids:</b>	
Black/White board, Projector/LED Monitor, Computer, Trade specific charts and other teaching aids	
<b>Tools, Equipment and Other Requirements</b>	
Shovels, Spade, Trowel, Core Cutter, dolly and hammer, Sampling accessories for field density test of soil, Drying oven, dishes, Weighing balance, Weighing dishes, Enameled trays, Desiccators, Thermometers, Vernier calibers, Stopwatch, Straight edge, measuring tape, Vicat apparatus, Vibration machine, Standard cement cube moulds, Gauging trowel, Standard sieves for Fine aggregate tests, Standard sieves for coarse aggregate test, Pycnometer, calibrated volume measure for density test, tamping rod, Brushes, Funnels, graduated glass measuring cylinders, Concrete table vibrator, Slump cone Apparatus, Compression testing machine, IS sieves as for soil tests, Casagrande apparatus, Plastic limit test apparatus, Shrinkage limit test apparatus, Compaction test apparatus, Permeability test apparatus, Measuring Tape, Metal- Tri-Square, Spirit level, Steel scale, Safety Helmets, Safety goggles, Hand gloves (Cotton), Safety Shoes (Assorted size), Safety Apron, Ear Plug, Lab coat, Nose mask, Face mask, Board of Safety instructions	



## Module 3: Handle and store construction material test sample at the site laboratory

Mapped to CON/N0402, v.2.0

### Terminal Outcomes:

- Perform handling, storing and stacking of testing material.
- Perform tagging of test samples.
- Perform waste disposal and reuse/disposal of tested samples.
- Explain the procedure of collecting test samples.

<b>Duration: 15:00</b>	<b>Duration: 75:00</b>
<p><b>Theory – Key Learning Outcomes</b></p> <ul style="list-style-type: none"> <li>• State the units of measurements for weight and volume.</li> <li>• Describe standard weight/volume of material required for various tests conducted on sand, aggregate, cement, concrete, soil and bitumen etc.</li> <li>• Explain method of collecting the test sample based upon type of test and material.</li> <li>• Classify construction materials as flammable and non-flammable.</li> <li>• Explain the precautions to be taken while handling flammable materials.</li> <li>• Explain the process of storage of flammable materials.</li> <li>• Explain the procedure for stacking flammable substances (restricted to flammable construction materials).</li> <li>• Classify fluid materials.</li> <li>• Explain general properties of fluids.</li> <li>• Explain precautions to be taken while shifting, storing and stacking of fluid materials.</li> <li>• Explain procedure for tagging of samples</li> <li>• Discuss details to be covered in sample tagging.</li> <li>• Describe safe method of material handling and storing.</li> </ul>	<p><b>Practical – Key Learning Outcomes</b></p> <ul style="list-style-type: none"> <li>• Demonstrate storage, stacking and handling of fluids and inflammable materials.</li> <li>• Demonstrate packing of soil, cement and concrete samples.</li> <li>• Demonstrate tagging and stacking of various materials.</li> <li>• Demonstrate waste disposal activities for tested samples and waste accumulated during testing.</li> <li>• Demonstrate reuse of tested samples.</li> </ul>
<p><b>Classroom Aids:</b></p> <p>Black/White board, Projector/LED Monitor, Computer, Trade specific charts and other teaching aids</p>	
<p><b>Tools, Equipment and Other Requirements</b></p> <p>Safety Helmets, Safety goggles, Hand gloves (Cotton) , Safety Shoes (Assorted size), Safety Apron, Ear Plug, Lab coat, Nose mask, Face mask, Board of Safety instructions</p>	





## Module 4: Collect test sample from field and assist in material testing at site laboratory

*Mapped to CON/N0403, v.2.0*

### Terminal Outcome:

- Perform casting of cubes and slump test.
- Prepare the test samples for testing.
- Perform upkeep of tools and instruments.

<b>Duration: 15:00</b>	<b>Duration: 75:00</b>
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Explain method of packing and tagging of samples collected/extracted for various materials such as cement, concrete, bitumen, soil, aggregate.</li> <li>• Explain the basic concept of sample preparation and requirements of various test of different materials.</li> <li>• Discuss the need for cleaning of tools, apparatus, instrument and accessories and placing them at appropriate location after use.</li> <li>• Define sampling of concrete, soil and sand in site.</li> <li>• Describe the physical properties of cement, brick, concrete block, sand etc.</li> <li>• Explain handling technique of tools and equipment used in testing.</li> <li>• Describe reading of gauges and meters along with the least count.</li> </ul>	<ul style="list-style-type: none"> <li>• Perform slump test as per standard procedure.</li> <li>• Demonstrate casting of concrete cubes as per standard procedure.</li> <li>• Demonstrate collection of sample of hot bitumen, soil, concrete etc.</li> <li>• Demonstrate preparation of cement sample for consistency, initial and final setting time, fineness, and soundness test.</li> <li>• Demonstrate the use of sieves for conducting the sieve analysis test.</li> <li>• Prepare the aggregate sample for specific gravity, crushing value, impact value test, abrasion value for coarse aggregate test.</li> <li>• Prepare the bitumen test sample for content, penetration, specific gravity, softening point, flash and fire point, Marshall stability test.</li> <li>• Prepare the soil test samples for specific gravity, bulk density, moisture content, Atterberg limits, sieve analysis and silt content test.</li> </ul>
<b>Classroom Aids:</b>	
Black/White board, Projector/LED Monitor, Computer, Trade specific charts and other teaching aids	
<b>Tools, Equipment and Other Requirements</b>	
Shovels, Spade, Trowel, Core Cutter, dolly and hammer, Sampling accessories for field density test of soil, Drying oven, dishes, Weighing balance, Weighing dishes, Enameled trays, Desiccators, Thermometers, Vernier calipers, Stopwatch, Straight edge, measuring tape, Vicat apparatus, Vibration machine, Standard cement cube moulds, Gauging trowel, Standard sieves for Fine aggregate tests, Standard sieves for coarse aggregate test, Pycnometer, calibrated volume measure for density test, tamping rod, Brushes, Funnels, graduated glass measuring cylinders, Concrete table vibrator, Slump cone Apparatus, Compression testing machine, IS sieves as for soil tests, Casagrande apparatus, Plastic limit test apparatus, Shrinkage limit test apparatus, Compaction test apparatus, Permeability test apparatus, Measuring Tape, Metal- Tri-Square, Spirit level, Steel scale, Safety Helmets, Safety goggles, Hand gloves (Cotton), Safety Shoes (Assorted size), Safety Apron, Ear Plug, Lab coat, Nose mask, Face mask, Board of Safety instructions	



## Module 5: Team work and effective communication at workplace

*Mapped to CON/N8001, v.5.0.*

### Terminal Outcomes:

- Demonstrate effective communication with co-workers, superiors and sub-ordinates across different teams
- Provide support to co-workers, superiors and sub-ordinates within the team and across interfacing teams to ensure effective execution of assigned task.
- Demonstrate practices sensitive to disabilities (physical, mental, intellectual or sensory impairment), cultural diversity and gender neutrality.

<b>Duration: 07:30</b>	<b>Duration: 22:30</b>
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Explain the effects and benefits of timely actions relevant to the task at hand with examples.</li> <li>• Explain the importance of teamwork and its effects relevant to the task at hand with examples.</li> <li>• Explain the importance of proper and effective communication and its adverse effects in case of failure of proper communication.</li> <li>• Discuss about gender and its related concept: gender equality, gender equity (group work)</li> <li>• Discuss different types of disabilities (physical, mental, intellectual or sensory impairment).</li> <li>• Discuss the activities sensitive to the cultural diversity, disabilities and gender neutrality at the workplace.</li> <li>• Discuss the basic rules and regulations related to gender sensitivity, disabilities, and cultural diversity, with their impact on operations of a workplace.</li> <li>• Discuss how to take initiative in resolving issues among co-workers in a given situation.</li> <li>• Discuss reporting procedure followed at the workplace.</li> </ul>	<ul style="list-style-type: none"> <li>• Apply effective communication skills while interacting with co-workers, trade seniors and others during the assigned task.</li> <li>• Use appropriate writing skills and verbal communication reporting as per commonly applicable organisational norms.</li> <li>• Demonstrate teamwork skills during assigned task.</li> <li>• Demonstrate acceptable interpersonal transactions with individuals having disabilities (physical, mental, intellectual or sensory impairment) or cultural diversity.</li> <li>• Demonstrate the process modifications required to make the workplace free from gender biases.</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>	
N/A	



## Module 6: Follow safety norms as defined by organization, adopt healthy and safe work practices

*Mapped to CON/N9001, v.7.0*

### Terminal Outcome:

- Identify various hazards at construction site.
- Use PPE's relevant to helper laboratory and field technician.
- Perform safe waste disposal at construction site.
- Demonstrate the activities to check the spread of infection as per medical/ organizational guidelines.

Duration: 07:30	Duration: 22:30
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> <li>• Explain the types of hazards at the construction sites and identify the hazards specific to the domain related works.</li> <li>• Recall the safety control measures and actions to be taken under emergency situation.</li> <li>• Explain the classes of fire and types of fire extinguishers.</li> <li>• Explain the importance of participation of workers in safety drills.</li> <li>• Explain the reporting procedure to the concerned authority in case of emergency situations.</li> <li>• Describe the standard procedure for handling, storing and stacking of material, tools, equipment and accessories.</li> <li>• Explain different types of waste at construction sites and their disposal method.</li> <li>• Explain the purpose and importance of vertigo test at construction site.</li> <li>• List out basic medical tests required for working at construction site.</li> <li>• Explain the types and benefits of basic ergonomic principles, which should be adopted while carrying out specific task at the construction sites.</li> <li>• Explain the importance of housekeeping works.</li> <li>• List different types of infectious disease that can spread/ originate at a construction site</li> <li>• Discuss the ways of transmission of the various infectious disease.</li> <li>• Explain the methods to check the spread of the infectious disease.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate the operating procedure of the fire extinguishers.</li> <li>• Demonstrate use of PPEs as per work requirements.</li> <li>• Demonstrate vertigo test.</li> <li>• Demonstrate safety techniques to be adopted in case of accidents.</li> <li>• Demonstrate safe waste disposal practices followed at construction site.</li> <li>• Demonstrate safe housekeeping practices.</li> <li>• Demonstrate the practices to maintain personal hygiene, workplace hygiene and site/ workplace sanitization.</li> <li>• Demonstrate the methods to clean and disinfect all materials, tools and supplies before and after use.</li> <li>• Demonstrate the procedure to report to the concerned authority regarding the outbreak/ hazard of any infectious disease/ pandemic.</li> </ul>



- Describe the symptoms and cure of the various infectious disease.

**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, Jump suit, 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

# Annexure

## Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
Post-Graduation/ Graduation in Engineering	M. Tech in Civil/B. Tech in civil	Six months	Civil Engineering	0	Civil 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	Diploma in Civil	One	Civil Engineering	0	Civil Engineering	
Graduation/ Ex. Army /ITI /12 <sup>th</sup> pass	General B.A./B.Sc./ Graduation certificate from Army/ITI certificate in relevant trade/12 <sup>th</sup> pass	Two	Working in the domain of quality assurance and quality control	0	Working in the domain of quality assurance and quality control	

Trainer Certification	
Domain Certification	Platform Certification
Trainer- 70 % in each NOS of Qualification Pack "Helper laboratory and field technician, CON/Q0401 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	M. Tech in Civil/B. Tech in civil	One	Civil Engineering	0	Civil 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	Diploma in Civil	Two	Civil Engineering	0	Civil Engineering	
Graduation/ Ex. Army /ITI /12 <sup>th</sup> pass	General B.A./B.Sc./ Graduation certificate from Army/ITI certificate in relevant trade/12 <sup>th</sup> pass	Three	Working in the domain of quality assurance and quality control	0	Working in the domain of quality assurance and quality control	

Assessor Certification	
Domain Certification	Platform Certification
Assessor- 70% in each NOS of Qualification Pack “Helper laboratory and field technician, CON/Q0401 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 Body. Assessors are trained and certified by CSDCI after a 10-day training of assessor's 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 20:80 ratios for helper laboratory and field technician 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 are 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 Assessment agency/ Assessor will ensure adequate tools and materials are available to conduct the practical test.

The theory and practical assessments will be carried out on same day. If number of candidates are more than 20, 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 helper laboratory and field technician is summarized below:

Assessment Type	Formative or Summative	Strategies	Weightage	Duration (hours)
Knowledge	Summative	MCQ/Viva	20	1.0
skill	Summative	Structured practical task	80	5.0

### 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 criterion under knowledge and skill. These criteria ensure 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. Adhar 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.

Video of the practical session is prepared 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 a week and uploads it on SIP.



## 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
EHS	Environment Health and Safety