Model Curriculum

QP Name: Façade Installer

QP Code: CON/Q1106

Version: 3.0

NSQF Level: 3.5

Model Curriculum Version: 3.0

Agriculture Skill Council of India || Agriculture Skill Council of India (ASCI), 6th Floor, GNG Tower, Plot No. 10, Sector - 44

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Training Parameters

Sector	Construction
Sub-Sector	Real Estate and Infrastructure Construction
Occupation	Interior & Exterior Finishes
Country	India
NSQF Level	3.5
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7125.0100
Minimum Educational Qualification and Experience	11th Grade pass OR Completed 1st year of 3-year diploma after 10th OR 10th grade pass and pursuing continuous schooling OR 8th Grade pass with 3-year relevant experience OR Previous relevant Qualification of NSQF Level 2.5 with 3-year relevant experience OR Previous relevant Qualification of NSQF Level 3 with 1.5-year relevant experience
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	31/08/2023
Next Review Date	31/08/2026
NSQC Approval Date	31/08/2023
QP Version	3.0
Model Curriculum Creation Date	31/08/2023
Model Curriculum Valid Up to Date	31/08/2026
Model Curriculum Version	3.0

Minimum Duration of the Course	360 Hours
Maximum Duration of the Course	360 Hours

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:

- Describe the process of conducting appropriate checks and taking necessary measurements to install curtain walls.
- Describe the process of installing stick system curtain walls.
- Describe the process of installing structural glazing type of façade.
- 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.
- Explain the process of managing workplace for safe and healthy work environment.

Compulsory Modules

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

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
CON/N1116: Conduct appropriate checks and take necessary measurements to install curtain walls **NOS Version- 3.0** **NSQF Level- 3.5**	**45:00**	**45:00**	**0:00**	**00:00**	**90:00**
Module 1: Introduction to the role of a Facade Installer	05:00	00:00	0:00	00:00	05:00
Module 2: Process of conducting appropriate checks and taking necessary measurements to install curtain walls	40:00	45:00	0:00	00:00	85:00
CON/N1117: Install stick system curtain walls **NOS Version- 3.0** **NSQF Level- 3.5**	**40:00**	**50:00**	**0:00**	**00:00**	**90:00**
Module 3: Process of installing stick system curtain walls	40:00	50:00	0:00	00:00	90:00

CON/N1119: Install structural glazing type of façade **NOS Version- 3.0** **NSQF Level- 3.5**	**20:00**	**10:00**	**30:00**	**00:00**	**60:00**
Module 4: Process of installing structural glazing type of façade	20:00	10:00	30:00	00:00	60:00
CON/N8001: Work effectively in a team to deliver desired results at the workplace **NOS Version- 12.0** **NSQF Level- 4**	**05:00**	**25:00**	**0:00**	**00:00**	**30:00**
Module 5: Work effectively in a team to deliver desired results at the workplace	05:00	25:00	0:00	00:00	30:00
CON/N8002: Plan and organize work to meet expected outcomes **NOS Version- 9.0** **NSQF Level- 4**	**05:00**	**25:00**	**0:00**	**00:00**	**30:00**
Module 6: Plan and organize work to meet expected outcomes	05:00	25:00	0:00	00:00	30:00
CON/N9001: Work according to personal health, safety and environment protocols at construction site **NOS Version- 10.0** **NSQF Level- 4**	**05:00**	**25:00**	**0:00**	**00:00**	**30:00**
Module 7: Follow safety norms as defined by organization, adopt healthy and safe work practices	05:00	25:00	0:00	00:00	30:00
DGT/VSQ/N0101: Employability Skills **NOS Version- 1.0** **NSQF Level- 2**	**30:00**	**00:00**	**0:00**	**00:00**	**30:00**
Module 8: Employability Skills	30:00	00:00	0:00	00:00	30:00
Total Duration	**150:00**	**180:00**	**30:00**	**00:00**	**360:00**

Module Details

Module 1: Introduction to the role of a Facade Installer

Mapped to CON/N1116 v3.0

Terminal Outcomes:

- Discuss the job role of a Facade Installer.

Duration: 05:00	**Duration: 0:00**
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Describe the size and scope of the Construction industry and its sub-sectors. • Discuss the role and responsibilities of a Facade Installer. • Identify various employment opportunities for a Facade Installer.	
Classroom Aids	
Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
NA	

Module 2: Process of conducting appropriate checks and taking necessary measurements to install curtain walls

Mapped to CON/N1116 v3.0

Terminal Outcomes:

- Describe the process of conducting appropriate checks and take necessary measurements.

Duration: 40:00	Duration: 45:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Discuss the standard practices and safety measures concerning façade installation. • Explain the importance of personal protection and the use of Personal Protective Equipment (PPE) • Explain the use and maintenance requirements of tools and equipment. • Explain the use of relevant sketches for façade installation and the façade installation process. • List different types of windows. • Explain different types of glasses used for panels. • List different types of frame materials. • List different types of curtain walls. • Elucidate the properties and applications of different types of panelling material, such as aluminium composite panels, glass, glass fibre reinforced concrete, stone, ceramic, etc. • Describe the appropriate fastening methods, such as clips and screws, backside attachment, etc. • Explain the effects of temperature and vapour on façade. • State the applicable tolerance limits for the uniformity of joints. • Explain the use of different types of joints for frames, such as butt joint. • Elucidate different types of flashing and interface and the process of	• Demonstrate ways to interpret the sketches and work methodology relevant to façade installation. • Demonstrate ways to select the appropriate type of panel material and frames and the method of fixing them. • Show how to examine the glass panels for surface and edge defects. • Show how to measure the sub-frame to ensure it is straight, aligned and rigid, and straighten it, as required. • Demonstrate the use of appropriate tools and equipment.

constructing them as per the relevant drawings and specifications. ● Explain the difference between transom-drained, and mullion-drained curtain walls. ● List the components of different types of curtain walls. ● Explain the use of glazing gaskets and sealants. ● Explain how to check for alignment, straightness and plumb and imperfections in panels and sub-frames. ● Elucidate the importance and process of cleaning frame joints. ● Explain the use of appropriate lifting devices to lift heavy panels. ● State the applicable tolerance limits for panel positioning. ● Explain how to keep the panels in the façade flat and straight using an appropriate number of screws per sheet. ● Discuss the principles of water and air tightness and the concept of drained, ventilated, and pressure equalized façades.	

Classroom Aids
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop
Tools, Equipment and Other Requirements
Measuring Tape, Scale, Right Angle, Rivet Gun, Framing Square, Chalk Line, Pencil, Line Dori, Plumb Bob, Spirit Level, Pliers, Punch Pliers, Hand Circular Saw, Dry Wall Knife, Hammers, Taping Knife, Sanding Tool, Rake Angle, Hack Saw, Jig Saw, Screw Driver Set, Screw Gun, Hammer Drill Machine, Metal Cutter, Silicon Gun/Caulk Gun, Stapler, Clutch Angle, Utility Knife, Safety Helmets, Face Shield, Overalls, Knee Pads, Safety Shoes, Safety Belt, Safety Harness, Safety Gloves, Safety Goggles, Particle Masks, Ear Plugs, Reflective Jackets, Fire Extinguisher, Fire Prevention Kit, First Aid Box, Safety Tags, Safety Notice Board

Module 3: Process of installing stick system curtain walls

Mapped to CON/N1117 v3.0

Terminal Outcomes:

- Describe the process of installing stick system curtain walls.

Duration: 40:00	**Duration: 50:00**
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Describe the process of measuring and marking the panels for installing façades. • Explain the applicable safety measures for façade installation. • Explain the use and maintenance requirement of relevant tools and equipment. • Explain the use of relevant sketches for façade installation. • List different components of the stick build system and the hardware components for installation. • List different components of the stick system curtain wall. • List different hardware components for stick wall curtain system. • Explain the use of corner block to separate the glazing cavity of the sealed units from that of the spandrel area. • List different sealants and gaskets used for weatherproofing and drainage system.	• Demonstrate the process of installing the vertical mullion over the floor edge with a steel angle, maintaining the recommended spacing. • Demonstrate the process of installing expansion joint in vertical mullions as per instructions. • Show how to attach the horizontal mullion (transom) to the vertical mullion to create a frame opening. • Demonstrate the process of installing a corner block at the junction of the vertical mullion and rail. • Demonstrate the process of installing panels in the vision area and spandrel panel cover area as per the specification. • Demonstrate the process of installing vision panels in frame opening between floors as per the specifications. • Show how to seal the inside of panels using a dry gasket or sealant, as specified. • Demonstrate the process of carrying out weatherproofing and provide drainage in the stick system, as per the specifications.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Measuring Tape, Scale, Right Angle, Rivet Gun, Framing Square, Chalk Line, Pencil, Line Dori, Plumb Bob, Spirit Level, Pliers, Punch Pliers, Hand Circular Saw, Dry Wall Knife, Hammers, Taping Knife, Sanding Tool, Rake Angle, Hack Saw, Jig Saw, Screw Driver Set, Screw Gun, Hammer Drill Machine, Metal Cutter, Silicon Gun/Caulk Gun, Stapler, Clutch Angle, Utility Knife, Safety Helmets, Face Shield, Overalls, Knee Pads, Safety Shoes, Safety Belt, Safety Harness, Safety Gloves, Safety	

Goggles, Particle Masks, Ear Plugs, Reflective Jackets, Fire Extinguisher, Fire Prevention Kit, First Aid Box, Safety Tags, Safety Notice Board

Module 4: Process of installing structural glazing type of facade

Mapped to CON/N1119 v3.0

Terminal Outcomes:

- Describe the process of installing structural glazing type of façade.

Duration: 20:00	Duration: 10:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the use of schematic drawings and sketches for façade installation. • List different types of glass used for panels. • List different components of the structural glazing system including hardware components for installation. • List the components of structural glazing type of curtain wall. • Explain the applications of different curtain wall systems. • State the tolerance limits for the uniformity of joints. • Explain different types of joints in façade work. • Explain different types of sealants and gaskets used for weatherproofing and drainage system. • Explain the uses of silicon sealant and the process of its application.	• Demonstrate the process of installing the vertical mullion over the floor edge with a steel angle, maintaining the recommended spacing. • Demonstrate the process of installing expansion joint in vertical mullions as per instructions. • Show how to attach the horizontal mullion (transom) to the vertical mullion to create a frame opening. • Demonstrate the process of installing a corner block at the junction of the vertical mullion and rail. • Demonstrate the process of installing panels in the vision area and spandrel panel cover area as per the specification. • Demonstrate the process of installing vision panels in frame opening between floors. • Show how to create a cap-less vertical joint system by sealing from the outside using silicon sealant as per specification. • Demonstrate the process of carrying out weatherproofing and provide drainage in the stick system as per the specifications.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Measuring Tape, Scale, Right Angle, Rivet Gun, Framing Square, Chalk Line, Pencil, Line Dori, Plumb Bob, Spirit Level, Pliers, Punch Pliers, Hand Circular Saw, Dry Wall Knife, Hammers, Taping Knife, Sanding Tool, Rake Angle, Hack Saw, Jig Saw, Screw Driver Set, Screw Gun, Hammer Drill Machine, Metal Cutter, Silicon Gun/Caulk Gun, Stapler, Clutch Angle, Utility Knife, Safety Helmets, Face Shield, Overalls, Knee Pads, Safety Shoes, Safety Belt, Safety Harness, Safety Gloves, Safety	

Goggles, Particle Masks, Ear Plugs, Reflective Jackets, Fire Extinguisher, Fire Prevention Kit, First Aid Box, Safety Tags, Safety Notice Board

Module 5: Work effectively in a team to deliver desired results at the workplace

Mapped to CON/N8001 v12.0

Terminal Outcomes:

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

Duration: 05:00	Duration: 25:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Elucidate own roles and responsibilities. • Explain the importance of effective communication. • Elucidate the consequence of poor teamwork on project outcomes, timelines, safety at the construction site, etc. • Explain different modes of communication used at workplace. • Explain the importance of creating healthy and cooperative work environment among the gangs of workers. • Elucidate applicable techniques of work, properties of materials used, tools and tackles used, safety standards that co-workers might need as per the requirement. • Explain the importance of proper and effective communication and the expected adverse effects in case of failure relating to quality, timeliness, safety, risks at the construction project site. • Explain the importance and need of supporting co-workers facing problems for the smooth functioning of work. • Discuss the fundamental concept of gender equality. • Explain how to recognise and be sensitive to issues of disability, culture and gender.	• Demonstrate how to pass on work related information/requirements clearly to the team members. • Show how to report any unresolved problem to the supervisor immediately. • Demonstrate ways to hand over the required material, tools, tackles, equipment and work fronts timely to interfacing teams. • Demonstrate ways to work together with co-workers in a synchronized manner. • Demonstrate effective implementation of gender neutral practices at workplace. • Demonstrate ways to address discriminatory and offensive behaviour in a professional manner as per organizational policy.

• Discuss legislation, policies, and procedures relating to gender sensitivity and cultural diversity including their impact on the area of operation.	
Classroom Aids	
Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
NA	

Module 6: Plan and organize work to meet expected outcomes

Mapped to CON/N8002 v9.0

Terminal Outcomes:

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

Duration: 05:00	Duration: 25:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the importance of proper housekeeping including safe waste disposal. • Discuss policies, procedures and work targets set by superiors. • Explain how to identify work activities that need to be planned and organized. • Explain how to determine the task requirements. • Explain how to determine the quality requirements related to the task. • Elucidate how to undertake all aspect of planning and organizing the task, including interpretation of task, reading drawing/schedules, arranging resources, reporting problems etc. • Explain how to implement the planned activities.	• Demonstrate ways to determine the work requirements corresponding to task (drawings/schedules/instructions/methodology), safety, tools and equipment prior to commencement of task. • Show how to prepare the work areas in coordination with team members. • Demonstrate the procedures for organizing the required materials, tools and tackles required for the task. • Demonstrate how to use resources in an optimum manner to avoid any unnecessary wastage. • Demonstrate the practices to use tools, tackles and equipment carefully to avoid damage. • Show how to clean and organise the workplace after completion of task.
Classroom Aids	
Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
NA	

Module 7: Work according to personal health, safety and environment protocols at construction site

Mapped to NOS CON/N9001 v10.0

Terminal Outcomes:

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

Duration: 05:00	Duration: 25:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Describe the reporting procedures in cases of breaches or hazards for site safety, accidents, and emergency situations as per guidelines. • Explain different types of safety hazards at construction sites. • Discuss basic ergonomic principles as per applicability. • Describe the procedure for responding to accidents and other emergencies at site. • Explain the importance of handling tools, equipment, and materials as per applicable norms. • Explain the effect of construction material on health and environments as per applicability. • Describe various environmental protection methods as per applicability. • Explain the storage requirement of waste including non-combustible scrap material and debris, combustible scrap material and debris, general construction waste and trash (non-toxic, non-hazardous), any other hazardous wastes and any other flammable wastes at the appropriate location. • Explain how to use hazardous material in a safe and appropriate manner as per applicability.	• Demonstrate how to follow emergency and evacuation procedures in case of accidents, fires, or natural calamities. • Show how to operate different types of fire extinguishers corresponding to various types of fires as per EHS guideline. • Demonstrate the use of appropriate Personal Protective Equipment (PPE) as per work requirements for: Head Protection, Ear Protection, Fall Protection , Foot Protection, Face and Eye Protection, Hand and Body Protection, and Respiratory Protection (if required). • Demonstrate how to check and install all safety equipment as per standard guidelines. • Show how to collect, segregate and deposit construction waste into appropriate containers based on their toxicity or hazardous nature. • Show how to clean and disinfect all materials, tools and supplies before and after use.

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

Classroom Aids:

Black/White board, marker, Projector/LED Monitor, Computer, Trade specific charts, Safety tags, Safety Notice board, registers and other teaching aids

Tools, Equipment and Other Requirements

Leather Hand Gloves, 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

Module 8: Employability Skills

Mapped to NOS DGT/VSQ/N0101 v1.0

Duration: 30:00

Key Learning Outcomes

Introduction to Employability Skills Duration: 1 Hour

After completing this programme, participants will be able to:

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

Constitutional values - Citizenship Duration: 1 Hour

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

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

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

Basic English Skills Duration: 2 Hours

6. Use appropriate basic English sentences/phrases while speaking

Communication Skills Duration: 4 Hour

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

Diversity & Inclusion Duration: 1 Hour

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

Financial and Legal Literacy Duration: 4 Hours

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

Essential Digital Skills Duration: 3 Hours

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

Entrepreneurship Duration: 7 Hours

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

Customer Service Duration: 4 Hours

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

Getting ready for apprenticeship & Jobs Duration: 2 Hours

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

Module 9: On-the-Job Training

Mapped to Facade Installer

Mandatory Duration: 30:00	Recommended Duration: 00:00
Location: On-Site	
Terminal Outcomes ● Explain the use of relevant sketches for façade installation and the façade installation process. ● Interpret the sketches and work methodology relevant to façade installation. ● Examine the glass panels for surface and edge defects. ● Use of appropriate tools and equipment. ● Install the vertical mullion over the floor edge with a steel angle, maintaining the recommended spacing. ● Install panels in the vision area and spandrel panel cover area as per the specification. ● Carry out weatherproofing and provide drainage in the stick system, as per the specifications. ● Install expansion joint in vertical mullions as per instructions. ● Create a cap-less vertical joint system by sealing from the outside using silicon sealant as per specification.	

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	**Specialisation**	**Relevant Industry Experience**		**Training Experience**		**Remarks**
		Years	***Specialization***	***Years***	***Specialization***	
B. Tech	Civil/Mechanical/ Electrical	2	Interior & Exterior Finishes	0	-	
Diploma	Civil/Mechanical/ Electrical	3	Interior & Exterior Finishes	0	-	
ITI	Civil/Mechanical/ Electrical	6	Interior & Exterior Finishes	0	-	
General BA/BSc./ EX-Army/ 12th	Civil/Mechanical/ Electrical	6	Interior & Exterior Finishes	0	-	

Trainer Certification	
Domain Certification	**Platform Certification**
Certified for Job Role "Facade Installer", mapped to QP: "CON/Q1106, v3.0", 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, v2.0". The minimum accepted score as per MEPSC guidelines is 80%.

Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	**Specialization**	**Relevant Industry Experience**		**Training/Assessment Experience**		**Remarks**
		Years	***Specialization***	***Years***	***Specialization***	
B. Tech	Civil/Mechanical/ Electrical	2	Interior & Exterior Finishes	0	-	
Diploma	Civil/Mechanical/ Electrical	5	Interior & Exterior Finishes	0	-	
ITI	Civil/Mechanical/ Electrical	7	Interior & Exterior Finishes	0	-	

Assessor Certification	
Domain Certification	**Platform Certification**
Certified for Job Role "Facade Installer", mapped to QP: "CON/N1106 v3.0", 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, v2.0", with a minimum score of 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
IPS	Indian Patent Stone
VDF	Vacuum Dewatering Flooring