Model Curriculum

QP Name: Solar Lighting Assembler

QP Code: SGJ/Q0201

QP Version: 4.0

NSQF Level: 4

Model Curriculum Version: 4.0

Skill Council for Green Jobs (SCGJ)
3rd Floor, CBIP Building, Malcha Marg, Chanakyapuri, New Delhi 110021

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Training Parameters

Sector	Environment Science
Sub-Sector	Renewable Energy
Occupation	Electrician, General
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7411.0100
Minimum Educational Qualification and Experience	*12th(Science) Grade Pass or equivalent* *Or* *10th Grade Pass with 2 years of any combination of NTC/NAC/CITS or equivalent in relevant trade* *Or* *10th Grade Pass with 3 years of experience in Renewable energy/power sector/light assembling* *Or* *Previous relevant Qualification of NSQF Level 3.5 with 1.5 years of experience in Renewable energy/power sector/light assembling* *Or* *Previous relevant Qualification of NSQF Level 3 with 3 years of experience in Renewable energy/power sector/light assembling*
Pre-Requisite License or Training	NA
Minimum Job Entry Age	16 years
Last Reviewed On	30th May 2024
Next Review Date	29th May 2027
NSQC Approval Date	30th May 2024
QP Version	3.0
Model Curriculum Creation Date	30th May 2024
Model Curriculum Valid Up to Date	29th May 2027
Model Curriculum Version	4.0
Minimum Duration of the Course	Total 450 notional hours ((including Theory : 180 +Practical: 180+OJT: 90)
Maximum Duration of the Course	Total 450 notional hours ((including Theory : 180 +Practical: 180+OJT: 90)

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 will be able to:

- Perform the assembly of different types of solar lighting system
- Carry out repair of solar lamps
- Apply Entrepreneurship skills to create and operate business of solar applications
- Maintain personal health and safety at workplace

Electives:

- Perform assembly and repair of solar home lighting systems
- Perform assembly and repair of solar street lights

Compulsory Modules

The table lists the modules, their duration and mode of delivery.

NOS and Module Details	Theory Duration	Practical Duration	On the Job Training Duration (Mandatory)	On the Job Training Duration (Recommended)	Total Duration
SGJ/N0201: Assembly of different types of solar lamp NOS Version 4.0 NSQF Level 4	**60:00**	**60:00**			**120:00**
Module 1: Introduction to role of Solar lighting assembly	07:30	07:30	90		
Module 2: Basic electrical concepts and Introduction to solar energy	07:30	07:30			
Module 3: Tools and tackles	15:00	15:00			

Module 4: Solar PV lighting system and Its components	15:00	15:00			
Module 5: Assembly of different types of solar lamp	15:00	15:00			
SGJ/N0202: repair solar lamps NOS Version 4.0 NSQF Level 4	**45:00**	**75:00**			**120:00**
Module 6: Repair of solar lamps	45:00	75:00			
SGJ/N0106: Maintain personal health & safety at project site NOS Version 4 NSQF Level 4	**15:00**	**15:00**			**30:00**
Module 7: Maintain personal health & safety at project site	15:00	15:00			
Module 8: Employability Skills (ES)	30				**30:00**
SGJ/N0203: Assemble and repair solar home lighting NOS Version 4 NSQF Level 4	**15:00**	**15:00**			**30:00**
Module 9: Assembly of solar home lighting System	07:30	07:30			
Module 10: Repair of solar home lighting systems	07:30	07:30			
SGJ/N0204: Assemble and repair solar street lights NOS Version 4.0 NSQF Level 4	**15:00**	**15:00**			**30:00**
Module 11: Assembly of solar street lights	07:30	07:30			
Module 12: Repair of Solar Street lights	07:30	07:30			
On the Jobs Training					**90:00**
Total Duration (hours)	180	180:00	90:00		**450:00**

Module Details

Module 1: Introduction to role of Solar lighting assembly

Mapped to SGJ/N0201: Assembly of different types of Solar Lamp

Terminal Outcomes:

Discuss the need of clean energy for lighting and ensure safety while working on site.

Duration: *07:30*	**Duration**: *07:30*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Provide introduction to the Program • Discuss the Job Description • Discuss the importance and the need of Clean Energy for Lighting • Explain how to acquire basic skills of communication; along with skills for working effectively with others while respecting gender and disability concerns • Discuss how to promote a safe and interactive environment	• Illustrate the importance of the job role and outline future career options • Show how small solar lighting system are useful for the overall health and development of communities • Illustrate key components of a small solar lighting system and outline their functions • Demonstrate the working of a solar DC system through various charts, model, video etc. • Show how to promote a safe and interactive environment at work.
Classroom Aids	
Laptop, white board, marker, projector, charts	
Tools, Equipment and Other Requirements	

Module 2: Basic electrical concepts and introduction to solar energy

Mapped to SGJ/N0201: Assembly of different types of Solar Lamp

Terminal Outcomes:

- Describe the basics of solar energy along with various fundamental concepts in electrical energy supported with calculations.

Duration: *07:30*	**Duration**: *07:30*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain basics of electricity. • Explain basics of electrical circuit. • Explain the importance of Measurement of Solar irradiation. • Explain the importance of measuring luminous intensity of lighting product (home light system) • Provide Introduction to luminance meter	• Analyze the use and importance of sunlight • Demonstrate uses of Sunlight in various solar applications. • Perform simple calculations to illustrate the fundamental concepts of power and energy. • Demonstrate the importance of luminous intensity.
Classroom Aids	
Laptop, white board, marker, projector, charts	
Tools, Equipment and Other Requirements	
Multimeter, Circuit, Open wire, closed loop wires, semiconductors, led bulbs, resistance, Batteries, capacitor	

Module 3: Tools and tackles

Mapped to SGJ/N0201: Assembly of different types of Solar Lamp

Terminal Outcomes:

- Introduce the various tools and tackles used in solar home lighting assembly

Duration: *15:00*	**Duration**: *15:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Introduction to Electric Tool Kit • Discuss the key tools and tackles required for assembly and repair of concerned system. • Introduction to Screw Driver • Discuss about Soldering and Soldering Iron • Explain various Safety Precautions in using tools and tackles. • Explain about lugs crimping tool.	• Show the use of all tools and tackles required for assembly and repair of concerned system. • Demonstrate how to work with an electric tool kit • Demonstrate working with a Screw Driver • Demonstrate how to use soldering Iron and how to do proper soldering • Demonstrate Cable/wire cutting practices. • Demonstrate how to use crimping tool.
Class room aid	
Laptop, white board, marker, projector, charts	
Tools, Equipment and Other Requirements	
Tweezers, Solder iron, Solder wire, M-seal, Battery, Feviquick, Cutter, PCB cleaner, screw driver, solar lighting assembly unit	

Module 4: Solar PV lighting system and its components

Mapped to SGJ/N0201: Assembly of different types of Solar Lamp

Terminal Outcomes:

- Describe working of solar home lighting system and its components
- Explain to conduct various test by using multimeter

Duration: *15:00*	**Duration**: *15:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the components of a Solar PV home lighting system • Discuss how to use a multimeter • Explain application of Multimeter Technical Testing • Explain how a solar panel operates and measure basic parameters like current and voltage • Explain the effect of shadow on solar module • Discuss on the working of LED bulbs	• Demonstrate the components of a Solar PV home lighting system. • Demonstrate uses of Multimeter • Demonstrate how to perform other technical testing of solar home lighting system components. • Demonstrate how a solar panel operates and measure basic parameters like current and voltage • Demonstrate the effect of shadow on solar module • Demonstrate the working of LED bulbs
Classroom Aids	
Laptop, white board, marker, projector, charts	
Tools, Equipment and Other Requirements	
Working models of Solar lamps available in the market, Ammeter, Led bulb, multimeter	

Module 5: Assembly of different types of solar lamp

Mapped to SGJ/N0201: Assembly of different types of Solar Lamp

Terminal Outcomes:

- Explain about assembly of different types of solar lamp.
- Explain how to test the electrical parameter of solar panel and battery.

Duration: *15:00*	**Duration**: *15:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain how to Identify different types of solar lamps • Verify physical properties of all the lamp components. • Explain how to measure basic electrical parameters like resistance, current and voltage of different solar lamp, electrical components. • Explain how to test the solar panel to check if the Voltage at open circuit (VoC) and current at short circuit (Isc) are according to the specifications mentioned by the manufacturer • Explain how to test the battery to check if its voltage is within the range specified by the manufacturer • Explain how to perform a continuity check of the load wire to check for any internal breakage • Discuss to verify the PCB and LED as per technical specifications mentioned by the manufacturer. • Discuss the use of various sensor for turn on and turn off the lamp (eg. Dusk to down)	• Demonstrate various types of solar lamps • Demonstrate how to measure basic electrical parameter of resistance, current and voltage. • Show how to test the solar panel to check if the Voltage at open circuit (VoC) and current at short circuit (Isc) are according to the specifications mentioned by the manufacturer • Demonstrate how to test the battery voltage. • Perform step by step procedure to assemble a solar lamp. • Show how to perform a continuity check of the load wire to check for any internal breakage. • Demonstrate how to place solar facing towards south for getting maximum radiation to get battery charged.
Classroom Aids	
Laptop, white board, marker, projector, charts	
Tools, Equipment and Other Requirements	
Tweezers, Solder iron, Solder wire, M-seal, Battery, Feviquick, Cutter, PCB cleaner, screw driver, solar lighting assembly unit	

Module 6: Repair of solar lamps

Mapped to SGJ/N0202: repair solar lamps

Terminal Outcomes:

- Explain how to perform visual inspection and repair solar lamps
- Describe how to measure voltage and current of battery and solar module.

Duration: *45:00*	**Duration**: *75:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Discuss to perform visual inspection of the solar lamp • Explain the key steps in repairing solar lamps. • Measure and verify the terminal voltage of the battery as per manufacturer's specification. • Explain how to measure and verify the voltage and current of solar PV modules with technical specifications • Examine and replace the faulty switches and DC sockets • Discuss and verify the connector pin and other components of a solar lamp • Examine the working of a PCB/ LED drivers • Prepare a basic repair and maintenance report	• Demonstrate how to perform visual inspection of a solar lamp. • Demonstrate how to read the label of Solar PV Module and datasheet. • Demonstrate how to do soldering on PCB board. • Show how to perform the key steps in repairing solar lamps • Demonstrate how to verify terminal voltage of the battery • Show how to examine and replace the faulty switches and DC sockets • Demonstrate the working of PCB/LED drivers • Show how to prepare a basic repair and maintenance report
Classroom Aids	
Laptop, white board, marker, projector, charts	
Tools, Equipment and Other Requirements	
Tweezers, Solder iron, Solder wire, Mseal, Battery, Feviquick, Cutter, PCB cleaner, Screw drivers, solar lamps	

Module 7: Maintain personal health & safety at project site

Mapped to SGJ/N0106: Maintain personal health & safety at project site

Terminal Outcomes:

Discuss to perform measures to maintain personal health and safety at a workplace.

Duration: *15:00*	**Duration**: *15:00*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Discuss the typical hazards, risks or breaches in site safety that may arise at workplace and their reporting process and hierarchy. • Identify the health and safety roles and responsibilities of personnel within and outside the organization to be able to report incidents appropriately. • Explain the recommended safety practices to be followed when performing work that may have associated physical, chemical, electrical and fire risks. • Describe how to read expiry dates, wear and tear issues of specified materials, consumables, tools and equipment. • Classify hazardous substances into different forms and their corresponding handling and disposing techniques • Illustrate how to interpret and place safety sign, labels, charts and notices at workplace. • Explain the importance of maintaining a safe, clean and hygienic workplace. • Identify the symptoms of common infections and discuss remedial actions. • Discuss typical emergency and potential emergency situations at workplace. • Explain the reporting procedure for informing concerned authorities regarding signs and symptoms of illness of self and other colleagues	• Demonstrate how to use appropriate Personal Protective Equipment (PPE) while performing work. • Employ appropriate techniques while handling tools and equipment to ensure safety of self and others. • Perform the steps to clean and disinfect material, tools, equipment and other supplies before starting work and after completing the job. • Demonstrate how to participate in emergency and evacuation drills to be able to take necessary action in case of accidents, fires and natural calamities. • Demonstrate correct techniques to move an injured person during an emergency. • Demonstrate how to use appropriate fire extinguishers for different types of fire at workplace. • Show how to provide first aid to a victim in case of exposed wounds, cuts, burns, choking, electric shock, poisoning, or any other situation such as a cardiac arrest. • Demonstrate how to dispose hazardous waste as per organizational norms.

Describe the recommended personal hygiene, workplace hygiene and sanitation practices that should be followed by individuals at workplace	
Classroom Aids	
Laptop, white board, marker, projector, charts	
Tools, Equipment and Other Requirements	
Tweezers, Safety helmet, Safety shoes, Safety belt, Ear plug hand glove, Cotton hand glove, Reflective jacket, Safety Gloves	

Module 8: Employability Skills

Mapped to DGT/VSQ/N0101: Employability Skills(30 hous)

Terminal Outcomes:

- Communicate effectively with team members, clients, vendors, visitors and stake holders
- Build personal and professional
- Digital and financial literacy which includes basic components of computer system and related concept, saving money, opening bank account and filing tax return

Duration: *30:00*
Key Learning Outcomes
• Discuss the importance of Employability Skills in meeting the job requirements • Explain constitutional values, civic rights, duties, citizenship, responsibility towards society etc. that are required to be followed to become a responsible citizen. • Show how to practice different environmentally sustainable practices. • Discuss 21st century skills. • Display positive attitude, self -motivation, problem solving, time management skills and continuous learning mindset in different situations. • Use appropriate basic English sentences/phrases while speaking. • Demonstrate how to communicate in a well -mannered way with others. • Demonstrate working with others in a team. • Show how to conduct oneself appropriately with all genders and PwD. • Discuss the significance of reporting sexual harassment issues in time. • Discuss the significance of using financial products and services safely and securely. • Explain the importance of managing expenses, income, and savings. • Explain the significance of approaching the concerned authorities in time for any exploitation as per legal rights and laws • Show how to operate digital devices and use the associated applications and features, safely and securely • Discuss the significance of using internet for browsing, accessing social media platforms, safely and securely • Discuss the need for identifying opportunities for potential business, sources for arranging money and potential legal and financial challenges • Differentiate between types of customers • Explain the significance of identifying customer needs and addressing them • Discuss the significance of maintaining hygiene and dressing appropriately • Create a biodata • Use various sources to search and apply for jobs • Discuss the significance of dressing up neatly and maintaining hygiene for an interview • Discuss how to search and register for apprenticeship opportunities
Classroom Aids
Laptop, white board, marker, projector, charts
Tools, Equipment and Other Requirements
Computer (PC) with latest configurations – and Internet connection with standard operating system

Module 9: On the Job Training

Mapped to SGJ/Q0201

Mandatory Duration: 90 hours
Module Name: On the Job Training **Location: Onsite**

Terminal Outcome

- Demonstrate uses of Sunlight in various solar applications.
- Demonstrate of how to use electric tool kit.
- Demonstrate working of Screw Driver & soldering Iron & Cable/wire cutting practices.
- Demonstrate the components of a Solar PV home lighting system.
- Demonstrate uses of Multimeter
- Demonstrate how to perform other technical testing of solar home lighting system components.
- Demonstrate how to measure basic electrical parameter of resistance, current and voltage.
- Demonstrate how to test the battery voltage.
- Perform step by step procedure to assemble a solar lamp.
- Demonstrate how to perform visual inspection of the solar home lighting systems.
- Demonstrate to verify the physical properties of street lights components.
- Demonstrate how to measure basic electrical parameters like resistance, current and voltage of different solar street lights electrical components.
- Demonstrate how to test the solar panel to check if the Voltage at open circuit (VoC) and current at open circuit (IoC) are according to the specifications mentioned by the manufacturer
- Demonstrate to prepare a basic repair and maintenance report.

Module 10: Assembly of solar home lighting system

Mapped to SGJ/N0203

Terminal Outcomes:

- Introduction of solar home lighting system and its components
- Discuss to perform various electrical test of solar module and battery of a solar home lighting system

Duration: *07:30*	**Duration**: *07:30*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Verify physical properties of all the solar home lighting systems components. • Discuss to measure basic electrical parameters like resistance, current and voltage of different solar home lighting electrical components. • Discuss to test the solar panel to check if the Voltage at open circuit (VoC) and current at short circuit (Isc) are according to the specifications mentioned by the manufacturer. • Test the battery to check if it's voltage is within the range specified by the manufacturer. • Perform a continuity check of the load wire to check for any internal breakage • Verify the PCB and LED as per technical specifications mentioned by the manufacturer • Identify recyclable and non-recyclable, and hazardous waste generated	• Demonstrate how to perform visual inspection. • Demonstrate how to verify terminal voltage • Demonstrate working of a PCB/LED drivers • Perform step by step procedure to assemble a solar home lighting system. • Demonstrate how to do electrical connection a solar home lighting system. • Demonstrate how to promote a safe and interactive environment at work while using inclusive language.
Classroom Aids	
Laptop, white board, marker, projector, charts	
Tools, Equipment and Other Requirements	
Tweezers, Soldeing iron, Solder wire, Mseal, Battery, Feviquick, Cutter, PC cleaner, Screw drivers	

Module 11: Repair of solar home lighting systems

Mapped to SGJ/N0203

Terminal Outcomes:

- Discuss to perform the assembly of solar home lighting systems
- Explain to repair solar home lighting systems

Duration: *07:30*	**Duration**: *07:30*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Discuss to perform visual inspection of the solar home lighting systems. • Discuss to measure and verify the terminal voltage of the battery as per manufacturer's specification. • Discuss to measure and verify the voltage and current of solar PV modules with technical specifications. • Examine and replace the faulty switches and DC sockets. • Examine the connector pin and other components of a solar home lighting systems • Examine the working of a PCB/ LED drivers. • Examine the working of the charge controller. • Prepare a basic repair and maintenance report. • Discuss to segregate waste into different categories, if any.	• Demonstrate how to perform visual inspection of the solar home lighting systems. • Demonstrate how to measure and verify the terminal voltage of the battery as per manufacturer's specification. • Demonstrate working of PCB/LED driver. • Demonstrate how to identify the faulty switches and DC socket and replace or repair them. • Illustrate the working of solar charge controller and their electrical connections.
Classroom Aids	
Laptop, white board, marker, projector, charts	
Tools, Equipment and Other Requirements	
Tweezers, Solder iron, Solder wire, Mseal, Battery, Fevi-quick, Cutter, PCB cleaner,Screw drivers	

Module 12: Assembly of solar street lights Mapped to SGJ/N0204

Terminal Outcomes:

- Discuss to perform the assembly of Solar Street lights
- Explain how to repair solar street lights

Duration: *07:30*	**Duration**: *07:30*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Discuss to verify physical properties of street lights components and how to perform visual inspection of the solar street lighting systems. • Measure and verify the terminal voltage of the battery as per manufacturer's specification. • Measure and verify the voltage and current of solar PV modules with technical specifications. • perform a continuity check of the load wire to check for any internal breakage. • Examine the connector pin and other components of a solar street lighting systems. • verify the PCB and LED as per technical specifications mentioned by the manufacturer. • Discus the use of latest sensor used in to the street light • Discuss the use of latest battery technology use for fast charging and discharging (eg. Lithium and Vanadium battery)	• Demonstrate to verify the physical properties of street lights components. • Demonstrate how to measure basic electrical parameters like resistance, current and voltage of different solar street lights electrical components. • Demonstrate how to perform visual inspection of the solar street lighting systems. • Demonstrate how to test the solar panel to check if the Voltage at open circuit (VoC) and current at open circuit (IoC) are according to the specifications mentioned by the manufacturer • Demonstrate how to measure and verify the terminal voltage of the battery as per manufacturer's specification. • Demonstrate working of PCB/LED driver. • Demonstrate to promote a safe and interactive environment while using inclusive language at work.
Classroom Aids	
Laptop, white board, marker, projector, charts	
Tools, Equipment and Other Requirements	
Tweezers, Solder iron, Solder wire, M-seal, Battery, Fevi-quick, Cutter, PCB cleaner,Screw drivers, working model of solar street light	

Module 13: Repair of Solar Street lights

Mapped to SGJ/N0204

Terminal Outcomes:

- Explain to perform the assembly of Solar Street lights
- Discuss to repair solar street lights

Duration: *07:30*	**Duration**: *07:30*
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Perform visual inspection of the solar street lights. • Measure and verify the terminal voltage of the battery as per manufacturer's specification. • Measure and verify the voltage and current of solar PV modules with technical specifications • Verify and replace the faulty switches and DC sockets • Examine the connector pin and other components of a solar street lights • Examine the working of a PCB/ LED drivers • Examine the working of the charge controller • Prepare a basic repair and maintenance report.	• Demonstrate how to perform visual inspection of the solar street lighting systems. • Demonstrate how to measure and verify the terminal voltage of the battery as per manufacturer's specification. • Demonstrate how to perform continuity test • Demonstrate to prepare a basic repair and maintenance report.
Classroom Aids	
Laptop, white board, marker, projector, charts	
Tools, Equipment and Other Requirements	
Tweezers, Solder iron, Solder wire, M-seal, Battery, Fevi-quick, Cutter, PCB cleaner, Screw drivers	

Annexure

Trainer Requirements

Trainer Prerequisites					
Minimum Educational Qualification	**Specialization**	**Relevant Industry Experience**		**Training Experience**		**Remarks**
		Years	***Specialization***	***Years***	***Specialization***	
10th Pass+ ITI Or Diploma in Technical Education		1 year of experience in manufacturing of solar lighting devices or 2 years of experience in operation and maintenance of solar lighting devices or in renewable energy				Aptitude for conducting training, and pre/ post work to ensure competent, employable candidates at the end of the training. Strong communication skills, interpersonal skills, ability to work as part of a team; a passion for quality and for developing others; well- organised and focused, eager to learn and keep oneself updated with the latest in the mentioned field.
As per the Relevant Craft Instructor Training Scheme (CITS)						

Trainer Certification	
Domain Certification	**Platform Certification**
Certified for Job Role: "Solar Lighting Assembler" mapped to QP: "SGJ/ Version 4.0". Minimum accepted score as per SCGJ is 80%.	Recommended that the Trainer is certified for the JOB ROLE "Trainer (VET and Skills) ", mapped to the qualification Pack : "MEP/2601, V2.0" with minimum score of 80%

Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	**Specialization**	**Relevant Industry Experience**		**Training/Assessment Experience**		**Remarks**
		Years	***Specialization***	***Years***	***Specialization***	
10th Pass+ ITI Or Diploma in Technical Education		2 year of experience in manufacturing of solar lighting devices or 3 years of experience in operation and maintenance of solar lighting devices or training/assessment in renewable energy				Personal Attributes: Aptitude for conducting assessment. Strong communication skills, interpersonal skills, ability to work as part of a team; a passion for quality and for developing others; well-organised and focused, eager to learn and keep oneself updated with the latest in the mentioned field.
As per the Relevant Craft Instructor Training Scheme (CITS)						

Assessor Certification	
Domain Certification	**Platform Certification**
Certified for Job Role: "Solar Lighting Assembler" mapped to QP: "SGJ/Q0201'' Version 4.0". Minimum accepted score as per SCGJ is 80%.	Recommended that the Assessor is certified for the JOB ROLE "Trainer (VET and Skills) ", mapped to the qualification Pack : "MEP/2701, V2.0" with minimum score of 80%

Assessment Strategy

This section includes the processes involved in identifying, gathering and interpreting information to evaluate the learner on the required competencies of the program.

1. Assessment System Overview:

- Batches assigned to the assessment agencies for conducting the assessment on SID or email
- Assessment agencies send the assessment confirmation to VTP/TC looping SCGJ
- Assessment agency deploys the ToA certified Assessor for executing the assessment
- SCGJ monitors the assessment process & records
- If the batch size is more than 30, then there should be 2 Assessors.

2. Testing Environment: Assessor must:

- Confirm that the centre is available at the same address as mentioned on SID
- Check the duration of the training.
- Check the Assessment Start and End time to be as 10 a.m. and 5 p.m.
- Check that the allotted time to the candidates to complete Theory & Practical Assessment is correct.
- Check the mode of assessment—Online (TAB/Computer) or Offline (OMR/PP).
- Confirm the number of TABs on the ground are correct to execute the Assessment smoothly.
- Check the availability of the Lab Equipment for the particular Job Role.

3. Assessment Quality Assurance levels / Framework:

- Question papers created by the Subject Matter Experts (SME)
- Question papers created by the SME should be verified by the other subject Matter Experts along with the approval required from SSC
- Questions are mapped with NOS and PC
- Question papers are prepared considering that level 1 to 3 is for the unskilled & semi-skilled individuals, and level 4 and above are for the skilled, supervisor & higher management
- Assessor must be ToA certified
- Assessment agency must follow the assessment guidelines to conduct the assessment

4. Types of evidence or evidence-gathering protocol:
   - Time-stamped & geotagged reporting of the assessor from assessment location
   - Centre photographs with signboards and scheme specific branding
   - Biometric or manual attendance sheet (stamped by TP) of the trainees during the training period
   - Time-stamped & geotagged assessment (Theory + Viva + Practical) photographs & videos

5. Method of verification or validation:
   - Surprise visit to the assessment location
   - Random audit of the batch
   - Random audit of any candidate

6. Method for assessment documentation, archiving, and access

- Hard copies of the documents are stored
- Soft copies of the documents & photographs of the assessment are uploaded / accessed from Cloud Storage and are stored in the Hard Drives

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 **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