Model Curriculum

QP Name: Pack house Worker

QP Code: AGR/Q7503

Version: 3.0

NSQF Level: 3

Model Curriculum Version: 2.0

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

Table of Contents

Training Parameters

Sector	Agriculture
Sub-Sector	Agriculture Industries
Occupation	Post-Harvest Supply Chain Management
Country	India
NSQF Level	3
Aligned to NCO/ISCO/ISIC Code	NCO-2015/NIL
Minimum Educational Qualification and Experience	Minimum Educational Qualification: Grade 10 OR Grade 8 with two years of (NTC/ NAC) after 8th OR Grade 8 pass and pursuing continuous schooling in regular school with vocational subject OR 8th grade pass with 2-year relevant experience OR 5th grade pass with 5-year relevant experience OR Previous relevant Qualification of NSQF Level 2 with 1-year relevant experience OR Previous relevant Qualification of NSQF Level 2.5 with 6 months' relevant experience
Pre-Requisite License or Training	NA
Minimum Job Entry Age	16 Years
Last Reviewed On	27/01/2022
Next Review Date	27/01/2025
NSQC Approval Date	27/01/2022
QP Version	3.0
Model Curriculum Creation Date	27/01/2022
Model Curriculum Valid Up to Date	27/01/2025
Model Curriculum Version	2.0

Minimum Duration of the Course	270 Hours
Maximum Duration of the Course	270 Hours

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 to:

- Demonstrate the process of unloading and washing the horticulture produce.
- Demonstrate the process of sorting, grading, sizing and storing the produce.
- Demonstrate the process of de-greening and ripening the horticulture produce.
- Demonstrate the process of packing, weighing and shipping the produce.
- Demonstrate the process of undertaking maintenance of the packhouse, HVAC, tools and equipment.
- Describe the process of undertaking employability and entrepreneurial practices.
- Demonstrate various practices to maintain personal hygiene, cleanliness and safety at the workplace.

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
Bridge Module	**05:00**	**0:00**	**0:00**	**0:00**	**05:00**
Module 1: Introduction to the role of a Packhouse Worker	05:00	0:00	0:00	0:00	05:00
AGR/N7510 Unload and wash the horticultural produce **NOS Version- 2.0** **NSQF Level-3**	**10:00**	**15:00**	**0:00**	**0:00**	**25:00**
Module 2: Process of unloading and washing the horticulture produce	10:00	15:00	0:00	0:00	25:00
AGR/N7512 Sort, grade, size and store the produce **NOS Version- 2.0** **NSQF Level-3**	**20:00**	**40:00**	**0:00**	**0:00**	**60:00**
Module 3: Process of sorting, grading, sizing and storing the produce	20:00	40:00	0:00	0:00	60:00

AGR/N7513 De-green and ripen the horticultural produce **NOS Version- 2.0** **NSQF Level- 3**	**10:00**	**20:00**	**0:00**	**0:00**	**30:00**
Module 4: Process of de-greening and ripening the horticulture produce	10:00	20:00	0:00	0:00	30:00
AGR/N7514 Pack, weigh and ship the produce **NOS Version- 2.0** **NSQF Level- 3**	**20:00**	**40:00**	**0:00**	**0:00**	**60:00**
Module 5: Process of packing, weighing and shipping the produce	20:00	40:00	0:00	0:00	60:00
AGR/N7516: Undertake maintenance of the packhouse, HVAC, tools and equipment **NOS Version- 2.0** **NSQF Level- 3**	**15:00**	**15:00**	**0:00**	**0:00**	**30:00**
Module 6: General maintenance of the packhouse, HVAC, tools and equipment	15:00	15:00	0:00	0:00	30:00
AGR/N9903 Maintain health and safety at the workplace **NOS Version- 3.0** **NSQF Level- 4**	**10:00**	**20:00**	**0:00**	**0:00**	**30:00**
Module 7: Hygiene and cleanliness	03:00	03:00	0:00	0:00	06:00
Module 8: Safety and emergency procedures	07:00	17:00	0:00	0:00	24:00
DGT/VSQ/N0101 Employability Skills **NOS Version-1.0** **NSQF Level-2**	**30:00**	**00:00**	**0:00**	**0:00**	**30:00**
Module 9: Employability Skills	30:00	00:00	0:00	0:00	30:00
Total Duration	**120:00**	**150:00**	**0:00**	**0:00**	**270:00**

Module Details

Module 1: Introduction to the role of a Packhouse Worker
Bridge Module

Terminal Outcomes:

- Discuss the job role of a Packhouse Worker.

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

Module 2: Process of unloading and washing the horticulture produce
Mapped to AGR/N7510 v2.0

Terminal Outcomes:

- Demonstrate the use of appropriate unloading equipment.
- Demonstrate the process of unloading the horticulture produce.
- Demonstrate the process of washing the produce.
- Demonstrate the relevant resource optimisation practices.

Duration: 10:00	Duration: 15:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Describe the handling procedures for different types of horticultural produce. - Explain the use of the relevant manual and power-operated unloading tools and equipment. - List the cleaning material used in washing different types of horticultural produce. - Explain basic accounting and inventory management. - Explain basic quality checks of horticultural produce. - Explain different ways of efficiently managing various materials used in packhouse. - Explain the benefits of resource optimisation.	- Demonstrate the process of using the unloading equipment as per the manufacturer's instructions. - Show how to unload the horticultural produce from the trucks ensuring no damage to it. - Prepare a sample record of the produce received. - Show how to group the produce in batches according to the variety and quality. - Demonstrate how to wash the produce as per the Standard Operating Procedure (SOP). - Demonstrate various practices to optimise the usage of various resources such as water, electricity, and production material.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Round Point Shovel, Square Point Shovel, Drain Spade, Digging/ Tamping Bar	

Module 3: Process of sorting, grading, sizing and storing the produce
Mapped to ARG/N7512 v2.0

Terminal Outcomes:

- Demonstrate the process of sorting, grading and sizing the produce.
- Describe the process of storing the produce in the packhouse.

Duration: 20:00	Duration: 40:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Explain the relevant criteria and the process for sorting, grading and sizing horticultural produce. - Explain the storage requirements for different types of horticultural produce. - List the approved treatments to prevent pest/ insect/ rodent infestation in the storage. - Explain the use of pallets, racks and crates to arrange the produce in the packhouse. - State the appropriate temperature and Relative Humidity (RH) requirement for storing different types of horticultural produce.	- Demonstrate the process of sorting out the produce based on various parameters such as damage, insects, immature, over-mature, etc. - Demonstrate the process of carrying out the sizing of the produce using machine sizers on the relevant parameters such as weight and diameter. - Demonstrate how to grade the produce based on parameters such as colour, shape, firmness, etc. - Prepare a sample record of sorting, grading and sizing of the produce. - Demonstrate the process of applying the necessary treatment in the storage area to prevent pest/ insect/ rodent infestation. - Demonstrate the use of pallets, racks and crates to arrange the produce in the packhouse.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Bedding Fork, Manure Fork, Weeding/ Two-Prong Hoe, Wheelbarrow	

Module 4: Process of de-greening and ripening the horticulture produce
Mapped to AGR/N7513 v2.0

Terminal Outcomes:

- Demonstrate the process of de-greening the citrus produce.
- Demonstrate the process of ripening the produce.

Duration: 10:00	Duration: 20:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Explain the criteria for selecting citrus produce for de-greening. - Explain the safe use of ethylene gas for de-greening. - State the recommended temperature and relative humidity for de-greening. - Describe the process of segregating horticultural produce into climacteric and non-climacteric categories. - Explain the criteria for selecting various horticultural produce for ripening. - Explain how to use a natural ripening chamber and controlled atmospheric ripening chamber. - List approved methods and chemicals for ripening horticultural produce.	- Demonstrate the process of using the ethylene gas in the recommended quantity for de-greening. - Demonstrate the use of relevant Personal Protective Equipment (PPE) during the de-greening operation. - Demonstrate how to segregate the produce into climacteric and non-climacteric categories. - Demonstrate the use of approved ripening methods and chemicals to ripen the produce. - Demonstrate the process of carrying out ripening in batches to ensure different stocks do not get mixed. - Prepare a sample record of de-greening and ripening of produce.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Chemicals/ Disinfectants, Ripening Hormones, Gloves, Packing Materials, Nose Masks, First Aid Kit	

Module 5: Process of packing, weighing and shipping the produce
Mapped to AGR/N7514 v2.0

Terminal Outcomes:

- Demonstrate the process of packing and weighing the produce.
- Demonstrate the process of loading the produce in the transport vehicle.

Duration: 20:00	Duration: 40:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- List appropriate packing material used for packing different types of horticultural produce. - Explain the packing requirements and the process of packing different types of horticultural produce. - Explain the importance of ensuring correct weight in packs and the use of approved weighing equipment. - State the labelling requirement and relevant information to include on the labels for horticultural produce. - Describe the process of pre-cooling the packed horticultural produce. - State the recommended temperature and humidity required to store the produce at the packhouse. - Explain the use of the relevant equipment such as fork-lifts, rail cars, high stackers to carry and load the produce. - Explain the transport vehicle requirements and the process of preparing the transport vehicle for transporting the horticultural produce. - Explain various practices to protect the produce while loading and in transit.	- Demonstrate the process of packing the produce in batches while complying with the packing requirements for the produce. - Show how to weigh the produce using the approved weighing equipment to ensure correct weight in the packs. - Demonstrate the process of applying labels on the packs with the relevant information. - Demonstrate how to pre-cool the packed produce as per the requirement before shipping. - Demonstrate the process of carrying and loading the produce in the transport vehicle using the selected loading equipment as per the manufacturer's instructions, ensuring no damage to the produce and packing material.

Classroom Aids
Training Kit (Trainer guide, Presentations). Whiteboard, Marker, Projector, Laptop

Tools, Equipment and Other Requirements
Weighing Machine, Packing Materials, Disinfectants, Respiratory Masks, Fire Extinguisher, Safety Shoes

Module 6: General maintenance of the pack house, HVAC, tools and equipment

Mapped to AGR/N7516 v2.0

Terminal Outcomes:

- Demonstrate the process of maintaining the packhouse, HVAC, tools and equipment.
- Demonstrate the relevant waste management practices.
- Explain different ways to promote diversity and inclusion at work.

Duration: 15:00	Duration: 15:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Explain how to maintain the cleanliness of a packhouse floor, pellets, racks and crates. - List necessary treatment to prevent the outbreak of pests and diseases in a packhouse. - Explain common repair and maintenance needs of Heating, Ventilation, and Air Conditioning (HVAC), tools and equipment used in a packhouse. - Explain how to carry out minor repair and maintenance of HVAC and the relevant tools/ equipment. - Explain the benefits of effective waste management. - Define the need for appropriate verbal and non-verbal communications while interacting with all genders and PwD.	- Demonstrate how to sweep and mop the packhouse floor to maintain cleanliness. - Show how to clean and disinfect the pallets, racks and crates using the approved cleaning material. - Demonstrate the process of applying the necessary treatment in the packhouse at regular intervals to prevent the outbreak of pests and diseases. - Show how to drain out water accumulated in the packhouse. - Demonstrate the process of carrying out minor repair and maintenance of the HVAC, tools and equipment. - Prepare a sample record of repair and maintenance activities. - Demonstrate the process of segregating, recycling and disposing different types of waste in compliance with the applicable laws and regulations. - Demonstrate various practices required to maintain a conducive environment for Persons with Disabilities (PwD) and all genders at work.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Conveyors/ Stools/ Packing Tables, Ripening Hormone/ Chemicals,	

Module 7: Hygiene and cleanliness

Mapped to NOS AGR/N9903 v3.0

Terminal Outcomes:

- Discuss how to adhere to personal hygiene practices.
- Demonstrate ways to ensure cleanliness around the workplace.

Duration: 03:00	Duration: 03:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Explain the requirements of personal health, hygiene and fitness at work. - Describe common health-related guidelines laid down by the organizations/ Government at the workplace. - Explain the importance of good housekeeping at the workplace. - Explain the importance of informing the designated authority on personal health issues related to injuries and infectious diseases.	- Demonstrate personal hygiene practices to be followed at the workplace. - Demonstrate the correct way of washing hands using soap and water, and alcohol-based hand rubs. - Demonstrate the steps to follow to put on and take off a mask safely. - Show how to sanitize and disinfect one's work area regularly. - Demonstrate adherence to the workplace sanitization norms. - Show how to ensure cleanliness of the work area.
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and Software, Facilitator's Guide, Participant's Handbook.	
Tools, Equipment and Other Requirements	
Personal Protective Equipment, Cleaning Equipment and Materials, Sanitizer, Soap, Mask	

Module 8: Safety and emergency procedures
Mapped to NOS AGR/N9903 v3.0

Terminal Outcomes:

- Describe how to adhere to safety guidelines.
- Show how to administer appropriate emergency procedures.

Duration: 07:00	Duration: 17:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- List the Personal Protective Equipment (PPE) required at the workplace. - Describe the commonly reported hazards at the workplace. - Describe the hazards caused due to chemicals/pesticides/fumigants. - Describe the basic safety checks to be done before the operation of any equipment/machinery. - Describe the common first aid procedures to be followed in case of emergencies. - State measures that can be taken to prevent accidents and damage s at the workplace. - Explain the importance of reporting details of first aid administered, to the reporting officer/doctor, in accordance with workplace procedures. - State common health and safety guidelines to be followed at the workplace.	- Check various areas of the workplace for leakages, water-logging, pests, fire, etc. - Demonstrate how to safely use the PPE and implements as applicable to the workplace. - Display the correct way of donning, doffing and discarding PPE such as face masks, hand gloves, face shields, PPE suits, etc. - Sanitize the tools, equipment and machinery properly. - Demonstrate the safe disposal of waste. - Demonstrate procedures for dealing with accidents, fires and emergencies. - Demonstrate emergency procedures to the given workplace requirements. - Demonstrate the use of emergency equipment in accordance with manufacturers' specifications and workplace requirements. - Demonstrate the administration of first aid. - Prepare a list of relevant hotline/ emergency numbers.
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook.	
Tools, Equipment and Other Requirements	
Personal Protective Equipment, First Aid Kit, Equipment used in Medical Emergencies.	

Module 9: Employability Skills (30 hours)
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

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
12th Class		4	Post-harvest Supply Chain Management	0		Ex-Service-Man including Ex-Paramilitary personnel: Minimum Qualification is 10+2 with an Honorable Discharge/ Pension.SSC would consider a relaxation/waiver of sector-specific experience on case-to-case basis.
Diploma	Agriculture	3	Post-harvest Supply Chain Management	0		
Graduate		3	Post-harvest Supply Chain Management	0		For the school Program minimum qualification of the Trainer should be Graduate. Their Teaching experience will be considered industry experience
BBA		2	Post-harvest Supply Chain Management	0		
Graduate	Agriculture/ Horticulture/ Forestry	2	Post-harvest Supply Chain Management	0		
Postgraduate/ Diploma/MBA	Supply Chain Management/ Agri Business Management	0.5	Post-harvest Supply Chain Management	0		

Trainer Certification	
Domain Certification	**Platform Certification**
Certified for Job Role "**Packhouse Worker**", mapped to QP: "AGR/Q7503, 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*	
Diploma	Food processing and related streams	5	Experience in Mega food parks, Food processing industries, post-harvest operations or other related experience			Practical skills and knowledge required in grading, packing and storing horticulture and other produce in packhouses
Graduation	B.sc /B.Tech (Agriculture/Horticulture/ Post Harvest/ Agri-Business/Food processing and related streams)	4	Experience in Mega food parks, Food processing industries, post-harvest operations or other related experience	0		Practical skills and knowledge required in grading, packing and storing horticulture and other produce in packhouses
Post-Graduation	M.sc/M.Tech in food processing/Horticulture and related streams	2	Experience in Mega food parks, Food processing industries, post-harvest operations or other related experience			Practical skills and knowledge required in grading, packing and storing horticulture and other produce in packhouses
Post-Graduation/ Post Graduate Diploma/MBA	Agri-Business/ SCM/ Food processing	2	Experience in Mega food parks, Food processing industries, post-harvest operations or other related experience	0		Practical skills and knowledge required in grading, packing and storing horticulture and other produce in packhouses

| PhD | Post-Harvest/ Agri Business/ Horticulture/Food processing and related streams | 1 | Experience in Mega food parks, Food processing industries, post-harvest operations or other related experience | 0 | | Practical skills and knowledge required in grading, packing and storing horticulture and other produce in packhouses |

Assessor Certification	
Domain Certification	**Platform Certification**
Certified for Job Role "**Packhouse Worker**", mapped to QP: "AGR/Q7503, v3.0", Minimum accepted score is 80%	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

Assessment System Overview

In Agriculture Sector it is of ultimate importance that individuals dealing with crop production or livestock have the requisite knowledge and competencies to undertake the task. Based on the Assessment Criteria, SSC in association with empaneled AAs, define the test structure for the given job roles to cover the required skills and competencies. Assessment strategy consists of the following:

1. <u>Multiple Choice Questions</u>: To assess basic knowledge (Objective/Subjective)
2. <u>Viva:</u> To assess awareness on processes (Oral and/or written questioning)
3. <u>Practical:</u> To evaluate skills and identify competencies. (Observation)

Assessments for knowledge and awareness on processes may be conducted through 'real-time' internet-based evaluation or by conducting the same 'offline' through TABs. Skills and competencies are to be assessed by conducting 'practical' on the ground through qualified and ToA certified assessors.

An individual must have adequate knowledge and skills to perform a specific task; weightage for different aspects of the assessment is given as follows:

- Multiple Choice Questions: 20%-30%, depending on the specific QP
- Viva: 20%
- Practical: 50% - 60% (Involves demonstrations of applications and presentations of procedures/tasks and other components)
- Assessment will be carried out by certified assessors through empaneled assessment partners. Based on the results of the assessment; ASCI will certify the learners/candidates

Testing Environment

Assessments are conducted on laptops, Mobiles and android tablets via both offline and online mode depending on the internet connectivity at the assessment location.

In remote locations/villages, assessments get delivered through tablets without the requirement of the Internet.

- Multilingual assessments (ASCI is conducting the assessments in 13 + languages pan India)
- Rubric driven assessments in Practical/Viva sections and responses recorded accordingly
- All responses, data, records and feedback stored digitally on the cloud
- Advanced auto-proctoring features – photographs, time-stamp, geographic-tagging, toggle- screen/copy-paste disabled, etc.
- Android-based monitoring system
- End to end process from allocation of a batch to final result upload, there is no manual intervention

- Assessment will normally be fixed for a day after the end date of the training / within 7 days of completion of training.

- Assessment will be conducted at the training venue

- The room where assessment is conducted will be set with proper seating arrangements with enough space to curb copying or other unethical activities

- Question bank of theory and practice will be prepared by ASCI /assessment agency and approved ASCI. Only from approved Question Bank assessment agency will prepare the question paper. Theory testing will include multiple-choice questions, pictorial questions, etc. which will test the trainee on his theoretical knowledge of the subject.

- The theory, practical and viva assessments will be carried out on the same day. In case of a greater number of candidates, the number of assessors and venue facilitation be increased and facilitated

Assessment			
Assessment Type	**Formative or Summative**	**Strategies**	**Examples**
Theory	Summative	MCQ/Written exam	Knowledge of facts related to the job role and functions. Understanding of principles and concepts related to the job role and functions
Practical	Summative	Structured tasks/Demonstration	Practical application /Demonstration /Application tasks
Viva	Summative	Questioning and Probing	Mock interviews on the usability of job roles/advantages /importance of adherence to procedures. Viva will be used to gauge trainee's confidence and correct knowledge in handling the job situation

The question paper pre-loaded in the computer /Tablet and it will be in the language as requested by the training partner.

Assessment Quality Assurance framework

Assessment Framework and Design:

Based on the Assessment Criteria, SSC in association with AAs will define the test structure for the given roles to cover the required skills and competencies. ASCI offer a bouquet of tools for multi-dimensional evaluation of candidates covering language, cognitive skills, behavioural traits and domain knowledge.

Theoretical Knowledge - Item constructs and types are determined by a theoretical understanding of the testing objectives and published research about the item types and constructs that have shown statistical validity towards measuring the construct. Test item types that have been reported to be coachable are not included. Based on these, items are developed by domain experts. They are provided with comprehensive guidelines of the testing objectives of each question and other quality measures.

Type – Questions based on Knowledge Required, Case-based practical scenario questions and automated simulation-based questions.

Practical Skills - The practical assessments are developed taking into consideration two aspects: what practical tasks is the candidate expected to perform on the job and what aspects of the job cannot be judged through theoretical assessments. The candidates shall be asked to perform either an entire task or a set of subtasks depending on the nature of the job role

Type – Standardized rubrics for evaluation against a set of tasks in a demo/practical task

Viva Voce - Those practical tasks which cannot be performed due to time or resource constraints are evaluated through the viva mode. Practical tasks are backed up with Viva for thorough assessment and complete evaluation

Type – Procedural questions, dos and don'ts, subjective questions to check the understanding of practical tasks.

The assessor has to go through an orientation program organized by the Assessment Agency. The training would give an overview to the assessors on the overall framework of QP evaluation. The assessor shall be given a NOS and PC level overview of each QP as applicable. The overall structure of assessment and objectivity of the marking scheme will be explained to them. The giving of marks will be driven by an objective framework that will maintain the standardisation of the marking scheme.

Type of Evidence and Evidence Gathering Protocol:

During the assessment the evidence collected by AAs and ASCI are:

- Geo Tagging to track ongoing assessment
- AA's coordinator emails the list of documents and evidence (photos and videos) to the assessor one day before the assessment. The list is mentioned below:
  - Signed Attendance sheet
  - Assessor feedback sheet
  - Candidate feedback sheet

- o Assessment checklist for assessor
- o Candidate Aadhar/ID card verification
- o Pictures of the classroom, labs to check the availability of adequate equipment's and tool to conduct the training and assessment
- o Pictures and videos of Assessment, training feedback and infrastructure.

- Apart from the Assessor, a Technical assistant is popularly known as Proctor also ensures the proper documentation and they verify each other's tasks.

- To validate their work on the day of the assessment, regular calls and video calls are done.

- On-boarding and training of the assessor and proctor is done on a timely basis to ensure that the quality of the assessment should be maintained.

- Training covers the understanding of QP, NSQF level, NOS and assessment structure

Methods of Validation

- <u>Morning Check (Pre-Assessment)</u>: Backend team of AA calls and confirms assessor/technical SPOC event status. Assessor/Technical SPOC are instructed to reach the centre on time by 9:30 AM / as decided with TC and delay should be highlighted to the Training Partner in advance.

- <u>Video Calls</u>: Random video calls are made to the technical SPOC/assessor so as to keep a check on assessment quality and ensure assessment is carried out in a fair and transparent manner

- <u>Aadhar verification</u> of candidates

- <u>Evening Check (Post Assessment)</u>: Calls are made to the ground team to ensure the event is over by what time and the documentation is done properly or not.

- <u>TP Calling</u>: To keep a check on malpractices, an independent audit team calls the TP on a recorded line to take confirmation if there was any malpractice activity observed in the assessment on part of the AA/SSC team. If calls are not connected, an email is sent to TP SPOC for taking their confirmation

- <u>Video and Picture Evidence</u>: Backend team collects video and pictures for assessment on a real-time basis and highlights any issue such as students sitting idle/ trainer helping the candidates during the assessment.

- <u>Surprise Visit</u>: Time to time SSC/AA Audit team can visit the assessment location and conduct a surprise audit for the assessment carried out by the ground team.

- <u>Geo Tagging</u>: On the day of the assessment, each technical SPOC is required to login into our internal app which is Geotagged. Any deviation with the centre address needs to be highlighted to the assessment team on a real-time basis.

Method for assessment documentation, archiving, and Access:

- ASCI have a fully automated result generation process in association with multiple AAs

- Theory, Practical and Viva marks form the basis of the results and encrypted files generated to avoid data manipulation. All responses were captured and stored in the System with Time-Stamps at the end of AAs and SSC. NOS-wise and PC-wise scores can

be generated.

- Maker Checker concept: One person prepares the results and another audit result which is internally approved by AA at first and then gets vetted at the end of SSC

- All softcopies of documents are received from the on-ground tech team over email. The same is downloaded by our internal backend team and saved in Repository. The repository consists of scheme-wise folders. These scheme-wise folders have two job role-specific folders. These specific folders have Year wise and Month wise folders where all documents are saved in Batch specific folders. All Hard copies are filed and stored in the storeroom.

Result Review & Recheck Mechanism –

- Time-stamped assessment logs

- Answer/Endorsement sheets for each candidate

- Attendance Sheet

- Feedback Forms: Assessor feedback form, Candidate feedback form, TP feedback form

- The results for each of the candidate shall be stored and available for review (retained for 5 years/ till the conclusion of the project or scheme)

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
AGR	Agriculture
HVAC	Heating, Ventilation and Air Conditioning
NOS	National Occupational Standard (s)
NSQF	National Skills Qualifications Framework
PwD	People with Disability
PPE	Personal Protective Equipment
OJT	On-the-job Training
QP	Qualifications Pack
SOP	Standard Operating Procedure