Model Curriculum

QP Name: Supply Chain Field Executive

QP Code: AGR/Q7501

Version: 3.0

NSQF Level: 4

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

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Training Parameters

Sector	Agriculture
Sub-Sector	Agriculture Industries
Occupation	Post-Harvest Supply Chain Management
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/3323.0602
Minimum Educational Qualification and Experience	Minimum Educational Qualification: 12th grade pass OR Completed 2nd year of 3-year diploma (after 10th) and pursuing regular diploma OR 10th grade pass plus 2-year NTC OR 10th grade pass plus 1-year NTC plus 1 year NAC OR 8th pass plus 2-year NTC plus 1-Year NAC plus CITS OR 10th grade pass and pursuing continuous schooling OR 10th Grade Pass with 2-year relevant experience OR Previous relevant Qualification of NSQF Level 3.0 with minimum education as 8th Grade pass with 3- year relevant experience OR Previous relevant Qualification of NSQF Level 3.5 with 1.5- year relevant experience
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 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	390 Hours
Maximum Duration of the Course	390 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:

- Describe the process of preparing the supply chain field operations.
- Describe the process of procuring and preparing the produce for transportation.
- Demonstrate the process of managing the transportation and payments.
- Explain the basic entrepreneurial activities for small enterprise.
- Describe the process of undertaking employability and entrepreneurial practices.
- Explain the importance of following inclusive practices for all genders and PwD at work.
- Demonstrate various practices to maintain health, hygiene 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**	**00:00**	**0:00**	**0:00**	**05:00**
Module 1: Introduction to the role of a Supply Chain Field Executive	05:00	0:00	0:00	0:00	05:00
AGR/N7501 Prepare for the supply chain field operations **NOS Version- 2.0** **NSQF Level- 4**	**20:00**	**35:00**	**0:00**	**0:00**	**55:00**
Module 2: Process of preparing the supply chain field operations	20:00	35:00	0:00	0:00	55:00
AGR/N7502 Procure and prepare the produce for transportation **NOS Version- 2.0** **NSQF Level- 4**	**25:00**	**65:00**	**0:00**	**0:00**	**90:00**
Module 3: Process of procuring and preparing the produce for transportation	25:00	65:00	0:00	0:00	90:00

AGR/N7504 Manage the transportation and payments **NOS Version- 2.0** **NSQF Level- 4**	**25:00**	**65:00**	**0:00**	**0:00**	**90:00**
Module 4: Process of managing the transportation and payments	25:00	65:00	0:00	0:00	90:00
AGR/N9903 Maintain health and safety at the workplace **NOS Version- 3.0** **NSQF Level-4**	**15:00**	**15:00**	**0:00**	**0:00**	**30:00**
Module 5: Hygiene and cleanliness	03:00	03:00	0:00	0:00	06:00
Module 6: Safety and emergency procedures	12:00	12:00	0:00	0:00	24:00
DGT/VSQ/N0103 **Employability Skills** **NOS Version-1.0** **NSQF Level-5**	**90:00**	**00:00**	**0:00**	**0:00**	**90:00**
Module 7: Employability Skills	90:00	00:00	0:00	0:00	90:00
Total Duration	**180:00**	**180:00**	**0:00**	**0:00**	**360:00**
OJT : 30 hours					

Module Details

Module 1: Introduction to the role of a Supply Chain Field Executive
Bridge Module

Terminal Outcomes:

- Discuss the job role of a Supply Chain Field Executive.

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

Module 2: Process of preparing the supply chain field operations
Mapped to AGR/N7501 v2.0

Terminal Outcomes:

- Explain how to coordinate with the suppliers and buyers.
- Describe the process of assisting the farmers with production planning.
- Demonstrate the process of setting up collection points.

Duration: 20:00	Duration: 35:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Explain the prevalent market channels for agricultural commodities. - Explain the components of an Agri supply chain. - Explain the benefits of coordinated supply chains. - Explain the use of a market information system for making marketing decisions. - State the relevant legal issues involved in managing contracts with farmers. - Describe the process of analysing the trade environment and coordinating with the buyers to determine the demand for different types of agricultural produce. - Describe the process of preparing the long-term plans, terms of the contract, pricing strategy, etc. - State the applicable regulatory requirements to be complied with in supply chain operations. - Explain the importance of maintaining regular and effective communication with the suppliers and buyers. - Explain the benefits of selecting crops to be produced based on the market demand and profitability. - Describe the process of selecting and procuring required resources such as appropriate fertilizers pesticides, insecticides, herbicides, tools and	- Demonstrate the process of carrying out demand analysis so that suppliers produce agricultural produce as per the demand. - Demonstrate how to maintain the necessary documentation regarding the demand analysis. - Demonstrate the process of setting up collection points in different villages to collect the stock from various suppliers.

equipment for agricultural production.	
• Explain the recommended practices to be followed to maintain the quality and freshness of produce and the applicable value-addition practices.	
• Explain the benefits and process of availing of crop insurance.	
• Describe the process of setting up produce collection points and the importance of maintaining effective coordination between the collection points.	

Classroom Aids

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

Tools, Equipment and Other Requirements

Module 3: Process of procuring and preparing the produce for transportation
Mapped to ARG/N7502 v2.0

Terminal Outcomes:

- Describe the process of procuring the produce from suppliers.
- Demonstrate the process of sorting, grading, cleaning and storing the produce.
- Demonstrate the process of packing the produce.
- Demonstrate various practices for effective resource optimisation.
- Demonstrate various waste management practices.
- Discuss ways to promote diversity and inclusion at the workplace.

Duration: 25:00	Duration: 65:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Describe the process of negotiating the price of agricultural produce with vendors. - State the appropriate safety measures to be taken for the protection of procured stock of agricultural produce. - Explain the applicable taxes and the importance of complying with the relevant tax laws. - Explain the Agricultural Produce Market Committee (APMC) mechanism. - Explain the applicable organisational management practices such as contracting, and signing of strategic alliances and partnerships. - Explain various components of vertical integration, such as long-term storage, packaging technology, cold chain management, energy-efficient transport, quality management and safety of agricultural produce. - Describe the process of negotiating with suppliers and procuring produce according to the demand. - Explain the importance of ensuring the supply meets the demand without interruption.	- Demonstrate the use of the appropriate tracking system to provide accurate information on the quality of stock. - Demonstrate how to maintain the record of collection from each supplier, recording the appropriate details such as the location, quantity, quality, cost of production, price, etc. - Demonstrate how to pre-cool the produce as required to remove the field heat - Demonstrate the process of sorting and grading the produce on the applicable parameters. - Show how to wash or clean the produce following the recommended practices. - Demonstrate the process of preparing the storage by applying the recommended treatment to remove rodents, pests and insects. - Demonstrate the process of packing the produce using appropriate packing material such as containers, gunny bags and sacks. - Demonstrate various practices to optimise the usage of various resources such as water and electricity.

• Describe the process of collecting the produce through the collection points.	• Demonstrate the process of recycling and disposing different types of waste appropriately.
• Explain how to check and ensure that produce meets the applicable quality standards.	• Demonstrate appropriate verbal and non-verbal communication that is respectful of genders and disability.
• Explain the use of the relevant tracking and tracking system to ensure transparency in the flow of agricultural inputs and produce.	
• List the relevant details to be recorded while procuring the produce.	
• Describe the process of sorting, grading, cleaning and storing the produce.	
• Explain the importance of storing the produce at the recommended temperature and humidity.	
• State the appropriate packing material to be used for packing different types of agricultural produce.	
• Explain the benefits of resource optimisation.	
• Explain the importance of recycling and disposing different types of waste as per the applicable regulations.	
• Explain the importance of inclusion of all genders and People with Disability (PwD) at the workplace.	

Classroom Aids

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

Tools, Equipment and Other Requirements

NA

Module 4: Process of managing the transportation and payments
Mapped to AGR/N7504 v2.0

Terminal Outcomes:

- Describe the process of arranging for transportation of the produce.
- Explain the importance of overseeing the loading of produce.
- Describe the process of managing the deliveries and payments.

Duration: 25:00	Duration: 65:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Explain the concept of reverse logistics and its benefits. - Describe the process of supply chain benchmarking. - Explain the importance of supply chain coordination. - Explain the importance and process of supply chain digitalisation. - Explain the relevant practices to be followed to create a green supply chain and the process of managing it. - Explain the applicable financial and management accounting practices. - Explain the use of the managerial economics method for managerial decision-making. - Explain the relevant business research methodologies. - Explain the modern logistics network model, its operations and advantages. - Explain the applicable material management practices. - Explain the importance of arranging an appropriate mode of transport to maintain the freshness and quality of produce during transit. - State the recommended practices for safe loading and unloading of agricultural produce and the use of relevant tools and equipment. - Explain the importance of ensuring timely delivery of the produce to the	- Demonstrate the process of pre-cooling of the transport vehicle, as required according to the produce to be transported and the prevailing weather. - Demonstrate the process of loading, unloading and positioning appropriately. - Demonstrate the process of carrying out invoicing using the relevant computer application, including returns and refunds. - Prepare a sample manual and/ or electronic record of payments and deliveries in the manual registers and/ or the relevant computer application.

buyer.

- Explain the use of various e-payment methods and the importance of ensuring the suppliers are paid as per the agreed price.

Classroom Aids

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

Tools, Equipment and Other Requirements

Vehicle, Card Swap Machine, Packing Material, Loading and Unloading Tools

Module 5: 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 the 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 6: 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: 12:00	Duration: 12:00
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 it 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 7: Employability Skills (90 hours)
Mapped to NOS DGT/VSQ/N0103 v1.0

Duration: 90:00
Key Learning Outcomes

Introduction to Employability Skills Duration: 3 Hours
After completing this programme, participants will be able to:
1. Outline the importance of Employability Skills for the current job market and future of work
2. List different learning and employability related GOI and private portals and their usage
3. Research and prepare a note on different industries, trends, required skills and the available opportunities

Constitutional values - Citizenship Duration: 1.5 Hours
4. Explain the constitutional values, including civic rights and duties, citizenship, responsibility towards society and personal values and ethics such as honesty, integrity, caring and respecting others that are required to become a responsible citizen
5. Demonstrate how to practice different environmentally sustainable practices

Becoming a Professional in the 21st Century Duration: 5 Hours
6. Discuss relevant 21st century skills required for employment
7. Highlight the importance of practicing 21st century skills like Self-Awareness, Behavior Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn etc. in personal or professional life
8. Create a pathway for adopting a continuous learning mindset for personal and professional development

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

Career Development & Goal Setting Duration: 4 Hours
12. Create a career development plan
13. Identify well-defined short- and long-term goals

Communication Skills Duration: 10 Hours
14. Demonstrate how to communicate effectively using verbal and nonverbal communication etiquette
15. Write a brief note/paragraph on a familiar topic
16. Explain the importance of communication etiquette including active listening for effective communication
17. Role play a situation on how to work collaboratively with others in a team

Diversity and Inclusion Duration: 2.5 Hours
18. Demonstrate how to behave, communicate, and conduct appropriately with all genders and PwD

19. Discuss the significance of escalating sexual harassment issues as per POSH act

Financial and Legal Literacy Duration: 10 Hours
20. Discuss various financial institutions, products, and services
21. Demonstrate how to conduct offline and online financial transactions, safely and securely and check passbook/statement
22. Explain the common components of salary such as Basic, PF, Allowances (HRA, TA, DA, etc.), tax deductions
23. Calculate income and expenditure for budgeting
24. Discuss the legal rights, laws, and aids

Essential Digital Skills Duration: 20 Hours
25. Describe the role of digital technology in day-to-day life and the workplace
26. Demonstrate how to operate digital devices and use the associated applications and features, safely and securely
27. Demonstrate how to connect devices securely to internet using different means
28. Follow the dos and don'ts of cyber security to protect against cyber crimes
29. Discuss the significance of displaying responsible online behavior while using various social media platforms
30. Create an e-mail id and follow e- mail etiquette to exchange e -mails
31. Show how to create documents, spreadsheets and presentations using appropriate applications
32. utilize virtual collaboration tools to work effectively

Entrepreneurship Duration: 7 Hours
33. Explain the types of entrepreneurship and enterprises
34. Discuss how to identify opportunities for potential business, sources of funding and associated financial and legal risks with its mitigation plan
35. Describe the 4Ps of Marketing-Product, Price, Place and Promotion and apply them as per requirement
36. Create a sample business plan, for the selected business opportunity

Customer Service Duration: 9 Hours
37. Classify different types of customers
38. Demonstrate how to identify customer needs and respond to them in a professional manner
39. Discuss various tools used to collect customer feedback
40. Discuss the significance of maintaining hygiene and dressing appropriately

Getting ready for apprenticeship & Jobs Duration: 8 Hours
41. Draft a professional Curriculum Vitae (CV)
42. Use various offline and online job search sources to find and apply for jobs
43. Discuss the significance of maintaining hygiene and dressing appropriately for an interview
44. Role play a mock interview
45. List the steps for searching and registering for apprenticeship opportunities

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	**Specialization**	**Relevant Industry Experience**		**Training Experience**		**Remarks**
		Years	*Specialization*	*Years*	*Specialization*	
Diploma	Agriculture /Horticulture	3	Post-Harvest Supply Chain Management	0		
Graduate	Graduate in any stream except Agriculture/ Horticulture/ Agri finance / Supply Chain Management	3	Post-Harvest Supply Chain Management	0		
BBA	Supply Chain Management/ Logistics and Supply Chain Management and related streams	2	Post-Harvest Supply Chain Management	0		
Graduate	Agriculture/ Horticulture/ Agri finance and related streams	2	Post-Harvest Supply Chain Management	0		For the school Program minimum qualification of the Trainer should be Graduate (Agriculture / Horticulture/ Commerce/ Botany) with minimum 3 years Teaching experience (will be considered industry experience)
Post-Graduate	Supply Chain management/Agribusiness Management/Marketing / Agribusiness management	0.5	Post-Harvest Supply Chain Management	0		
Trainer Certification						
Domain Certification				**Platform Certification**		
Certified for Job Role "**Supply Chain Field Executive**", mapped to QP: "AGR/Q7501, 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*	
Graduation	B.Sc (Agriculture/ Agronomy/ Agri finance/ Horticulture and related streams)	5	Agriculture/ Supply Chain/ Logistics/ Agri Finance and related experience	0		Practical skills and knowledge required in Agri Logistics and Supply Chain Management
Post-Graduation	Agri Business/ Agri Marketing/ Agri Finance/ Logistics/ SCM and related streams	2	Agriculture/ Supply Chain/ Logistics/ Agri Finance and related experience	0		Practical skills and knowledge required in Agri Logistics and Supply Chain Management
Post-Graduation	M.Sc (Agri Business/ Agri Marketing/ Agri Finance/ Logistics/ SCM and related streams)	2	Agriculture/ Supply Chain/ Logistics/ Agri Finance and related experience	0		Practical skills and knowledge required in Agri Logistics and Supply Chain Management
PhD	Agri Business/ Agri Marketing/ Agri Finance/ Logistics/ SCM and related streams	1	Agriculture/ Supply Chain/ Logistics/ Agri Finance and related experience	0		Practical skills and knowledge required in Agri Logistics and Supply Chain Management

Assessor Certification	
Domain Certification	**Platform Certification**
Certified for Job Role "**Supply Chain Field Executive**", mapped to QP: "AGR/Q7501, 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 are 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 is 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 standardization 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 tools 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 are 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

- Morning Check (Pre-Assessment): 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.

- Video Calls: 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

- Aadhar verification of candidates

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

- TP Calling: 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

- Video and Picture Evidence: 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.

- Surprise Visit: 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.

- Geo Tagging: 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 candidates 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	The 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	The 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	The 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
AEPS	Aadhar Enabled Payment System
AGR	Agriculture
APMC	Agricultural Produce Market Committee
NOS	National Occupational Standard (s)
NSQF	National Skills Qualifications Framework
OJT	On-the-job Training
PwD	People with Disability
PPE	Personal Protective Equipment
QP	Qualifications Pack
UPI	Unified Payment Interface
USSD	Unstructured Supplementary Service Data