



Model Curriculum

QP Name: Cold Storage Supervisor

QP Code: AGR/Q7505

Version: 2.0

NSQF Level: 5

Model Curriculum Version: 1.0

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

Table of Contents

Contents

Training Parameters.....	3
Program Overview	5
Training Outcomes.....	5
Compulsory Modules.....	5
Module 1: Introduction to the role of a Cold Storage Supervisor	7
Module 2: Process of procuring the resources required for cold storage operations	8
Module 3: Process of supervising the cold storage operations and workers.....	9
Module 4: Process of ensuring the maintenance of cold storage infrastructure	11
Module 5: Health and safety at work	12
Module 7: Employability Skills	13
Module 6: On-the-Job Training.....	15
Annexure.....	16
Trainer Requirements	16
Assessor Requirements.....	18
Assessment Strategy.....	19
References	24
Glossary.....	24
Acronyms and Abbreviations.....	25

Training Parameters

Sector	Agriculture
Sub-Sector	Agriculture Industries
Occupation	Post-Harvest Supply Chain Management
Country	India
NSQF Level	5
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7127
Minimum Educational Qualification and Experience	<p>Completed 2nd year of UG OR Pursuing 2nd year of UG and continuous education OR Completed 2nd year of diploma (after 12th) OR Pursuing 2nd year of 2-year diploma after 12th OR 12th grade pass with 2 years of relevant experience OR Previous relevant qualification of NSQF Level 4 and with minimum education as 8th grade pass with 3 years of relevant experience OR Previous relevant qualification of NSQF Level 4.5 with 1.5 years of relevant experience</p>
Pre-Requisite License or Training	NA
Minimum Job Entry Age	19 Years
Last Reviewed On	29/03/2023
Next Review Date	29/03/2026
NSQC Approval Date	29/03/2023
QP Version	2.0
Model Curriculum Creation Date	29/03/2023
Model Curriculum Valid Up to Date	29/03/2026
Model Curriculum Version	1.0

Minimum Duration of the Course	510 Hours
Maximum Duration of the Course	510 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:

- Explain the criteria of procuring the resources required for cold storage operations.
- Describe the process of supervising the cold storage operations and workers.
- Explain the importance of ensuring the maintenance of cold storage infrastructure.
- Demonstrate various practices to ensure health and safety at work.

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	00:00	05:00
Module 1: Introduction to the role of a Cold Storage Supervisor	05:00	00:00	0:00	00:00	05:00
AGR/N7519: Procure the resources required for cold storage operations NOS Version- 2.0 NSQF Level- 5	40:00	45:00	0:00	00:00	85:00
Module 2: Process of procuring the resources required for cold storage operations	40:00	45:00	0:00	00:00	85:00
AGR/N7521: Supervise the cold storage operations and workers NOS Version- 2.0 NSQF Level- 5	45:00	45:00	0:00	00:00	90:00
Module 3: Process of supervising the cold storage operations and workers	45:00	45:00	0:00	00:00	90:00
AGR/N7520: Ensure the maintenance of cold storage infrastructure NOS Version- 2.0 NSQF Level- 5	55:00	35:00	0:00	00:00	90:00

Module 4: Process of ensuring the maintenance of cold storage infrastructure	55:00	35:00	0:00	00:00	90:00
AGR/N9911 Ensure adherence to health and safety guidelines at work NOS Version- 2.0 NSQF Level- 6	05:00	25:00	0:00	00:00	30:00
Module 5: Health and safety at work	05:00	25:00	0:00	00:00	30:00
DGT/VSQ/N0103: Employability Skills NOS Version- 1.0 NSQF Level- 5	90:00	00:00	0:00	00:00	90:00
Module 6: Employability Skills	90:00	00:00	0:00	00:00	90:00
Total Duration	240:00	150:00	0:00	00:00	390:00
OJT: 120 Hours					

Module Details

Module 1: Introduction to the role of a Cold Storage Supervisor

Bridge Module

Terminal Outcomes:

- Discuss the job role of a Cold Storage Supervisor.

Duration: 05:00	Duration: 0:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Describe the size and scope of the agriculture industry and its sub-sectors. • Discuss the role and responsibilities of a Cold Storage Supervisor. • Identify various employment opportunities for a Cold Storage Supervisor. 	
Classroom Aids	
Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
NA	

Module 2: Process of procuring the resources required for cold storage operations

Mapped to AGR/N7519 v2.0

Terminal Outcomes:

- Elucidate ways to identify and negotiate with suppliers and place the purchase order.
- Explain the criteria of selecting suppliers and procuring the required resources.
- Explain the process of checking the procured resources.

Duration: 40:00	Duration: 45:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Elucidate the requirement and benefits of cold storage. • State different types of agricultural and horticultural produce that require to be stored in a cold storage. • Describe the process of identifying and evaluating the relevant suppliers to select them. • Discuss supplier negotiation practices to negotiate a profitable price for procurements. • List the relevant documentation to be carried out for procurements. • Discuss the safe handling practices for different types of agricultural and horticultural produce. • Explain the importance of checking the resources at the time of supply and reporting any issues to the supplier promptly. 	<ul style="list-style-type: none"> • Demonstrate the process of carrying out appropriate documentation to place the purchase order and timely procure the required resources from the selected supplier(s). • Prepare a sample record of procurement as per the organizational policies. • Show how to examine the quality of procured resources to ensure compliance with the applicable quality standards.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Laptops/Computers, White board, Marker, Projector, Fire extinguisher, Laptops/ Computers, Cold storage, First aid box, Installed Video camera with high resolution and recording facility	

Module 3: Process of supervising the cold storage operations and workers

Mapped to ARG/N7521 v2.0

Terminal Outcomes:

- Explain the criteria of allocating work to workers.
- Elucidate ways to monitor the workers and cold storage operations.

Duration: 45:00	Duration: 45:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • List the infrastructural requirements for storing fresh produce. • State the recommended stocking density and spacing for packed vegetables and fruits. • Discuss the relevant storage techniques. • State the relevant temperature and humidity requirements in cold storage in different climatic conditions. • Discuss the seasonal cold storage management practices. • Explain the importance of maintaining effective ventilation and appropriate moisture levels for storing the fresh produce. • Explain the importance of explaining the work requirements to workers to ensure they are aware of the applicable KPIs and quality standards. • List the relevant tools, equipment, materials and PPE required for cold storage operations. • Explain the importance of monitoring the workers during work operations to ensure the quality of work. • Describe the process of identifying the areas of lapses and scope of improvement and providing feedback to the relevant personnel. • Elucidate the importance and process of identifying the training and skill enhancement needs for workers and arranging the relevant training sessions and demonstrations. • Explain the importance of ensuring 	<ul style="list-style-type: none"> • Prepare a sample work schedule and allocate work to cold storage workers. • Roleplay how to monitor the workers during work operations to ensure they complete the assigned tasks, e.g. packing and storing the produce, appropriately. • Show how to examine the fruits and vegetables stored in the cold storage to ensure their quality as per market demands and customer preference.

<p>compliance with the applicable quality and health and safety standards/procedures.</p> <ul style="list-style-type: none"> • Describe the process of planning and coordinating the incoming goods, storage and dispatch of goods in a timely and efficient manner. • Elucidate the importance and process of examining the fruits and vegetables stored in the cold storage to ensure their quality and the appropriate remedial measures to be taken to resolve the issues identified. 	
<p>Classroom Aids</p>	
<p>Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop</p>	
<p>Tools, Equipment and Other Requirements</p>	
<p>Laptops/Computers, White board, Marker, Projector, Fire extinguisher, Laptops/ Computers, Cold storage, First aid box, Installed Video camera with high resolution and recording facility</p>	

Module 4: Process of ensuring the maintenance of cold storage infrastructure

Mapped to ARG/N7520 v2.0

Terminal Outcomes:

- Explain the importance of ensuring maintenance of the machinery and equipment and physical infrastructure.

Duration: 55:00	Duration: 35:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • List different types of tools, equipment and machinery used in a cold storage. • Explain the importance of inspecting the tools, equipment and machinery regularly and conducting their regular repair and maintenance. • State the common repair and maintenance needs of cold storage tools, equipment, machinery and physical infrastructure. • Explain the importance of ensuring effective drainage and the recommended temperature and humidity in the cold storage. • Describe the process of disinfecting and filtering water for reuse. • Elucidate the repair and maintenance needs of ventilation and air-conditioning systems. 	<ul style="list-style-type: none"> • Demonstrate the process of carrying out regular repair and maintenance of the machinery and equipment, e.g. cleaning, oiling/ greasing, and replacing worn-out components. • Demonstrate the process of carrying out repair and maintenance for the issues identified with the building infrastructure.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Laptops/Computers, White board, Marker, Projector, Fire extinguisher, Laptops/ Computers, Cold storage, First aid box, Installed Video camera with high resolution and recording facility	

Module 5: Health and safety at work

Mapped to NOS AGR/N9911 v2.0

Terminal Outcomes:

- Demonstrate various practices to be followed to ensure health and safety at work.
- Describe different ways to deal with emergencies at work.

Duration: 04:00	Duration: 12:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain the importance of following health and safety procedures at work such as using Personal Protective Equipment (PPE). • Explain the importance of ensuring the PPE, emergency equipment and first-aid kit are usable and updated. • Explain the importance of sanitising the workplace, tools and equipment. • Explain the importance of ensuring only authorised personnel have access to hazardous work areas • Describe the process to be followed in case of emergencies such as fire, accidents, disease outbreaks or natural calamities. • Explain how to identify health and safety hazards at work and take appropriate preventive measures. • Describe the process of reporting workplace emergencies and accidents to the relevant authority in compliance with the organisational and regulatory requirements. 	<ul style="list-style-type: none"> • Demonstrate the use of appropriate PPE. • Show how to sanitise the workplace along with the relevant tools and equipment. • Demonstrate safe handling of hazardous materials such as chemicals and flammable objects. • Show how to administer first aid to an injured person. • Demonstrate appropriate actions to take to deal with fire, accidents and emergencies. • Demonstrate the use of emergency equipment in accordance with the manufacturer’s instructions.
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, Sanitiser, Soap, Mask	

Module 7: Employability Skills

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

Module 6: On-the-Job Training

Mapped to Cold Storage Supervisor

Mandatory Duration: 120:00	Recommended Duration: 00:00
Location: On-Site	
<p>Terminal Outcomes</p> <ul style="list-style-type: none"> • Elucidate the requirement and benefits of cold storage. • Prepare a sample record of procurement as per the organizational policies. • Examine the quality of procured resources to ensure compliance with the applicable quality standards. • Prepare a sample work schedule and allocate work to cold storage workers. • Examine the fruits and vegetables stored in the cold storage to ensure their quality as per market demands and customer preferences. • Carry out regular repair and maintenance of the machinery and equipment, e.g. cleaning, oiling/ greasing, and replacing worn-out components. 	

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
Diploma	Diploma in Agriculture	3	Cold Storage Management	0		
Graduate	Graduate	3	Cold Storage Management	0		For school Program minimum qualification of Trainer should be Graduate. Their Teaching experience will be considered industry experience
BBA	BBA	2	Cold Storage Management	0		
Graduate	Graduate (Agriculture / Horticulture/ Forestry)	2	Cold Storage Management	0		
Post Graduate	Post Graduate Diploma/MBA-Supply Chain management/ Agribusiness Management/ Marketing / Agribuisness management	0		0		
Certificate-NSQF	Cold Storage Manager	5	Cold Storage Management	0		Cold Storage Supervisor with 5 Years of experience with corporate

Trainer Certification	
Domain Certification	Platform Certification
<p>Certified for Job Role “Cold Storage Supervisor”, mapped to QP: “AGR/Q7505, v2.0”, Minimum accepted score is 80%</p>	<p>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%.</p>

Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
Diploma	Food processing/ Cold chain management and related streams	5	Experience in cold chain management/ SCM/logistics or other related experience			Practical skills and knowledge required in Cold storage operations
Graduation	B.sc /B.Tech (Agriculture/ Horticulture/ Post-Harvest/ Agri-Business/ Food processing/ Logistics/ SCM / Cold chain and related streams)	4	Experience in cold chain management/ SCM/logistics or other related experience	0		Practical skills and knowledge required in Cold storage operations
Post-Graduation	M.sc/ M.Tech in food processing/ Horticulture/ Cold chain/ SCM/ logistics and related streams	2	Experience in cold chain management/ SCM/logistics or other related experience			Practical skills and knowledge required in Cold storage operations
Post-Graduation/Post-Graduate Diploma/ MBA	Agri-Business/ SCM/ Logistics/ Cold chain Food processing	2	Experience in cold chain management/ SCM/logistics or other related experience	0		Practical skills and knowledge required in Cold storage operations
PhD	Post-Harvest/ Agri Business/ Logistics/ SCM/ Horticulture/ Food processing and related streams	1	Experience in cold chain management/ SCM/logistics or other related experience	0		Practical skills and knowledge required in Cold storage operations

Assessor Certification	
Domain Certification	Platform Certification
Certified for Job Role “ Cold Storage Supervisor ”, mapped to QP: “AGR/Q7505, v2.0”, 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. Multiple Choice Questions: To assess basic knowledge (Objective/Subjective)
2. Viva: To assess awareness on processes (Oral and/or written questioning)
3. Practical: 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.

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 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

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 standardization of the marking scheme.

Type of Evidence and Evidence Gathering Protocol:

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

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

- 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 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
NOS	National Occupational Standard (s)
NSQF	National Skills Qualifications Framework
OJT	On-the-job Training
QP	Qualifications Pack
PwD	People with Disability
PPE	Personal Protective Equipment