



# Model Curriculum

**QP Name: Dairy Farm Supervisor**

**QP Code: AGR/Q4103**

**QP Version: 3.0**

**NSQF Level: 5**

**Model Curriculum Version: 2.0**

Agriculture Skill Council of India || Agriculture Skill Council of India (ASCI), 6th Floor, GNG Tower, Plot No. 11, Sector -44

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# Training Parameters

<b>Sector</b>	Agriculture & Allied
<b>Sub-Sector</b>	Dairying
<b>Occupation</b>	Dairy Farm Management
<b>Country</b>	India
<b>NSQF Level</b>	5
<b>Aligned to NCO/ISCO/ISIC Code</b>	NCO-2015/6121.0601
<b>Minimum Educational Qualification and Experience</b>	<p>Minimum Educational Qualification:            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 pass with 1-year Vocational Education &amp; training (NTC or NAC or CITS)            OR            Completed 3-year diploma after 10th with 1- year relevant experience            OR            12th Grade pass with 2- year relevant experience            OR            10th Grade pass with 4-year relevant experience            OR            Previous relevant Qualification of NSQF Level 4 and with minimum education as 8th Grade pass with 3-year relevant experience            OR            Previous relevant Qualification of NSQF Level 4.5 with 1.5- year relevant experience</p>
<b>Pre-Requisite License or Training</b>	N/A
<b>Minimum Job Entry Age</b>	21 Years
<b>Last Reviewed On</b>	31-03-2022
<b>Next Review Date</b>	31-03-2025
<b>NSQC Approval Date</b>	31-03-2022

<b>QP Version</b>	3.0
<b>Model Curriculum Creation Date</b>	31-03-2022
<b>Model Curriculum Valid Up to Date</b>	31-03-2025
<b>Model Curriculum Version</b>	2.0
<b>Minimum Duration of the Course</b>	480 Hours
<b>Maximum Duration of the Course</b>	480 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 overall supervision of activities of the dairy farm- ensure stress free environment, feed ration calculation, feeding, milking, disease prevention, herd health management, understand dairy economics, budgeting of dairy farm

Explain the inventory management, classify the inventory and ensure timely supplies

Demonstrate documentation & record keeping, maintain various registers, financial records, inventory records, attendance register, etc.

Explain the safety, hygiene & sanitation of the dairy farm, conduct workplace audit ensuring safety & hygiene of the workplace and the workers

Demonstrate team management at the dairy farm, delegate work, address issues of the workers, upskill the workers

### 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
<b>Bridge Module</b>	<b>05:00</b>	<b>00:00</b>	<b>00:00</b>	<b>00:00</b>	<b>05:00</b>
Module 1: Introduction to the role of a Dairy Farm Supervisor	05:00	00:00	00:00	00:00	05:00
<b>AGR/N4109 - Dairy herd management, feeding and milking</b> <b>NOS Version No. 1.0</b> <b>NSQF Level 5</b>	<b>25:00</b>	<b>30:00</b>	<b>00:00</b>	<b>00:00</b>	<b>55:00</b>
Module 2: Activities of overall dairy herd management	25:00	30:00	00:00	00:00	55:00
<b>AGR/N4110 - Dairy Herd Health Management</b> <b>NOS Version No. 1.0</b> <b>NSQF Level 5</b>	<b>20:00</b>	<b>40:00</b>	<b>00:00</b>	<b>00:00</b>	<b>60:00</b>

Module 3: Practices of effective Herd Health Management	20:00	40:00	00:00	00:00	60:00
<b>AGR/N4111 - Complete documentation and record keeping and inventory management related to dairy farm operations</b> <b>NOS Version No. 1.0</b> <b>NSQF Level 5</b>	<b>10:00</b>	<b>20:00</b>	<b>00:00</b>	<b>00:00</b>	<b>30:00</b>
Module 4: Budgeting and financial record management of the farm	10:00	20:00	00:00	00:00	30:00
<b>AGR/N4112 - Ensure safety, hygiene and sanitation in a Dairy Farm</b> <b>NOS Version No. 1.0</b> <b>NSQF Level 5</b>	<b>20:00</b>	<b>40:00</b>	<b>00:00</b>	<b>00:00</b>	<b>60:00</b>
Module 5: Know-how of maintaining a clean, safe and hygienic Dairy Farm	20:00	40:00	00:00	00:00	60:00
<b>AGR/N4113 – Manage and lead a team for Dairy Farm Management</b> <b>NOS Version No. 1.0</b> <b>NSQF Level 5</b>	<b>10:00</b>	<b>20:00</b>	<b>00:00</b>	<b>00:00</b>	<b>30:00</b>
Module 6: Practices for effective team management at the dairy farm	10:00	20:00	00:00	00:00	30:00
<b>DGT/VSQ/N0103</b> <b>Employability Skills</b> <b>NOS Version-1.0</b> <b>NSQF Level-5</b>	<b>90:00</b>	<b>00:00</b>	<b>00:00</b>	<b>00:00</b>	<b>90:00</b>
Module 7: Employability Skills	90:00	00:00	00:00	00:00	90:00
<b>Total Duration</b>	<b>180:00</b>	<b>150:00</b>	<b>0:00</b>	<b>0:00</b>	<b>330:00</b>
<b>OJT: 150 hours</b>					

# Module Details

## Module 1: Introduction to the role of a Dairy Farm Supervisor

### Bridge Module

#### Terminal Outcomes:

- Discuss the roles and responsibilities of Dairy Farm Supervisor

<b>Duration: 05:00</b>	<b>Duration: 00:00</b>
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Describe the size and scope of the Dairy Industry and its market</li> <li>• Discuss the role and responsibilities of a Dairy Farm Supervisor</li> <li>• Identify various employment opportunities and career progression for a Dairy Farm Supervisor</li> <li>• Explain the process of milk procurement</li> <li>• Discuss the concept of clean and antibiotic free milk</li> <li>• List types of synthetic milk and its effects on human health</li> <li>• Explain emerging dimension for dairy business (viz. market technology and innovation)</li> </ul>	
<b>Classroom Aids:</b>	
Laptop, White Board, Marker, Projector	
<b>Tools, Equipment and Other Requirements</b>	

## Module 2: Activities of overall dairy herd management

### Terminal Outcomes:

- Demonstrate supervision of feeding process at the farm
- Demonstrate supervision of milking activities at the farm

<b>Duration: 25:00</b>	<b>Duration: 30:00</b>
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Enlist different types of locally available feed &amp; fodder for dairy cattle</li> <li>• Explain different feeding strategies and formulation of feed ration according to the animal's growth stage</li> <li>• Describe the process of silage, haymaking and straw</li> <li>• Explain about milk-borne diseases, teat dips and udder management</li> <li>• Describe the techniques of clean milk production and handling</li> <li>• Describe FSSAI compliances</li> <li>• Describe measures of waste segregation and disposal of waste in eco-friendly way</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstration of identification of various feeds, fodders, feed supplements and additives in different seasons</li> <li>• Show how to calculate and evaluate feed rations for healthy performance of the cattle</li> <li>• Demonstrate planning and allocating feed using feed budgeting techniques and preparing feeding schedule</li> <li>• Demonstrate stress free environment for smooth &amp; hygienic milking</li> <li>• Show how to identify animals with potential health problem and take corrective measures</li> <li>• Show how to ensure that milk is cooled or delivered for processing within the specified time</li> <li>• Demonstrate plotting the milk yield and ration on a chart and analyse feeding and milking pattern of the animals</li> </ul>
<b>Classroom Aids:</b>	
Laptop, White Board, Marker, Projector	
<b>Tools, Equipment and Other Requirements</b>	
Audio-Visual Aids, Milking Pails, Milking Machine, Bucket, Chaff Cutter, Grinder, Wheel Barrow, Strip Cup, Milk Strainer	

## Module 3: Practices of effective Herd Health Management

### Terminal Outcomes:

- Demonstrate process of creating a herd
- Describe the measures of disease prevention in the farm
- Demonstrate effective herd health management and administration of drugs and medicines

<b>Duration: 20:00</b>	<b>Duration: 40:00</b>
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Enlist various types of diseases and disturbances that can affect animal health</li> <li>• Explain common contagious and infectious diseases &amp; their Preventive Measures</li> <li>• Describe the dairy animal physiology, life cycle and factors affecting health and milk production</li> <li>• Explain about hazardous chemicals and materials</li> <li>• Explain about stress management system and procedures for animals</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate the selection of breeds and determine herd size suited to local environment and farming</li> <li>• Show how to establish proper identification system for dairy animals</li> <li>• Demonstrate vaccination of all animals as recommended or required by local animal health authorities</li> <li>• Show how to observe signs of health in dairy animals and identify symptoms of certain specific diseases in animals</li> <li>• Demonstrate separation of sick animals from healthy ones and their proper treatment</li> <li>• Show how to identify the signs of heat in animal and select the process of insemination</li> <li>• Demonstrate maintaining safe storage &amp; usage of chemicals and veterinary medicines as prescribed by the veterinarians</li> <li>• Demonstrate maintaining safe &amp; sanitary environment for animals</li> </ul>
<b>Classroom Aids:</b>	
Laptop, White Board, Marker, Projector	
<b>Tools, Equipment and Other Requirements</b>	
Audio-Visual Aids, Sanitizer, Disinfectant, Syringe, Vaccines	

## Module 4: Budgeting and financial record management of the farm

### Terminal Outcomes:

- Demonstrate the process of animal record management
- Demonstrate the process of inventory management of the farm
- Demonstrate the process of budgeting and financial record management

<b>Duration: 10:00</b>	<b>Duration: 20:00</b>
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Describe the documentation system followed in the organization</li> <li>• Explain basic accounting practices and inventory management</li> <li>• Explain the basic dairy economics</li> <li>• Describe about identification and characterization of dairy farm articles</li> <li>• Discuss about creation of quality and quantity checklist</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate maintaining the records containing all the information of animals like; breed, age, health condition and milk yield, etc.</li> <li>• Show how to classify and maintain records of the inventory</li> <li>• Demonstrate maintaining records of the feed purchased, consumed and stored</li> <li>• Demonstrate maintaining financial records to interpret and improve the financial health of the dairy farm</li> <li>• Show how to prepare budget of the dairy farm operations and compare with actual cash flow for each month/week</li> </ul>
<b>Classroom Aids:</b>	
Laptop, White Board, Marker, Projector	
<b>Tools, Equipment and Other Requirements</b>	
Audio-Visual Aids, Various Registers and Log Book	

## Module 5: Know-how of maintaining a clean, safe and hygienic Dairy Farm

### Terminal Outcomes:

- Demonstration of the management of clean and hygienic dairy farm

<b>Duration: 20:00</b>	<b>Duration: 40:00</b>
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Explain the risks to health and safety and the measures to be taken to control those risks in your area of work</li> <li>• Enlist the workplace procedures and requirements for the treatment of workplace injuries/illnesses</li> <li>• Describe the basic emergency first aid procedure</li> <li>• Explain the food safety and hygiene standard and personal hygiene requirements at the farm</li> <li>• Describe the norms for chemicals and gases, etc.</li> <li>• Describe the measures of waste segregation and waste disposal correctly</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate maintaining a clean &amp; efficient workplace</li> <li>• Show how to wear safety gears</li> <li>• Show how to perform appropriate emergency procedures and practice general safety and first aid</li> <li>• Demonstrate conducting workplace checklist audits before and after the work to ensure safety and hygiene</li> <li>• Demonstrate safe milking and safe milk handling</li> <li>• Demonstrate the proper use of emergency equipment</li> <li>• Demonstrate proper disposal of waste and hazardous material</li> </ul>
<b>Classroom Aids:</b>	
Laptop, White Board, Marker, Projector	
<b>Tools, Equipment and Other Requirements</b>	
Personal Protective Equipment Like: Helmet / Head Gear, Safety Gloves, Safety Boots, First Aid Kit: Bandages, Adhesive Bandages, Betadine Solution / Ointment, Pain Relief Spray / Ointment, Antiseptic Liquid; Antidote, Phone Directory, Search Lights, Fire Extinguisher, Vacuum Cleaner, Dust Pins, Sanitizers	

## Module 6: Practices for effective team management at the dairy farm

### Terminal Outcomes:

- Demonstrate leading the team for Dairy Farm Management

<b>Duration: 10:00</b>	<b>Duration: 20:00</b>
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Explain the organizational norms, HR Policies and guidelines</li> <li>• Explain how and when to measure performance of the team</li> <li>• Describe how to share feedback with team members</li> </ul>	<ul style="list-style-type: none"> <li>• Show how to delegate work to the team</li> <li>• Demonstrate communicating job expectations and any process requirements</li> <li>• Demonstrate counselling and addressing issues of the team</li> <li>• Show how to carry out periodic training, upskilling and knowledge sharing in the team</li> <li>• Demonstrate evaluating performance of the team and provide feedback to the team</li> </ul>
<b>Classroom Aids:</b>	
Laptop, White Board, Marker, Projector	
<b>Tools, Equipment and Other Requirements</b>	
Audio-Visual Aids	

## 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

## Module 8: On-the-Job Training

### *Mapped to Dairy Farm Supervisor*

Mandatory Duration: 150:00	Recommended Duration: 00:00
<b>Location: On Site</b>	
<p><b>Terminal Outcomes</b></p> <ul style="list-style-type: none"> <li>•planning and allocating feed using feed budgeting techniques and preparing feeding schedule</li> <li>• smooth &amp; hygienic milking</li> <li>•Selection of breeds and determine herd size suited to local environment and farming</li> <li>•Establish proper identification system for dairy animals</li> <li>•Vaccination of all animals as recommended or required by local animal health authorities</li> <li>•Observe signs of health in dairy animals and identify symptoms of certain specific diseases in animals</li> <li>•Demonstrate how to prepare and maintain various records using a computer</li> <li>•Show how to Communicate effectively at the workplace with internal and external stakeholders</li> <li>•Process payments using the relevant e-payment method.</li> <li>•Prepare training schedule for an apprentice.</li> <li>•Explain the requirements of personal health, hygiene and fitness at work.</li> <li>•Discuss the industry recommended practices for the safe utilization of agri-inputs</li> <li>•Implement the practices related to gender and PwD sensitization.</li> </ul>	

# Annexure

## Trainer Requirements

Job Role Name	Minimum Educational Qualification of the Trainer	Specialization	Relevant Industry Experience		Training Experience		Remarks
			Years	Specialization	Years	Specialization	
Dairy Farm Supervisor	12th Class	Science	7	Dairy Management	0		Dairy farm supervisor with 7 Years' experience of working with registered Corporates or Not for Profit Organizations after 12th Pass
Dairy Farm Supervisor	Graduate	Graduate in any stream except Agriculture / Dairy related stream	3	Dairy Management	0		For the school Program minimum qualification of the Trainer should be Graduate (Agriculture/ Zoology/Dairy) with minimum 3 years Teaching experience (will be considered industry experience )

Dairy Farm Supervisor	Diploma	Dairy Science/ Dairy Technology	3	Dairy Management	0	Regular Diploma more than 15 months in veterinary /Animal Husbandry / Dairying
Dairy Farm Supervisor	Graduate	Agriculture	2	Dairy Management	0	
Dairy Farm Supervisor	B. V. Sc.		0		0	
Dairy Farm Supervisor	Graduate	Dairy Science/ Dairy Technology	0		0	

### Trainer Certification

Domain Certification	Platform Certification
Certified for Job Role: "Dairy Farm Supervisor" mapped to QP: "AGR/Q4103, v3.0". Minimum accepted score is 80%.	Certified for the Job Role: "Trainer (Vet and Skills)", mapped to the Qualification Pack: "MEP/Q2601, v2.0". Minimum accepted score is 80%

## Assessor Requirements

Assessor Prerequisites - Dairy Farm Supervisor						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
B. V. Sc.		4	In Dairy Science/Animal Science/Veterinary Science or related streams	0		Practical skills and knowledge required to operate, inspect, monitor, maintain, clean, and repair the farm's facilities and equipment
B.Sc	Animal Sciences/ Dairy Science/ Dairy Technology	5	In Dairy Science/Animal Science/Veterinary Science or related streams	0		Practical skills and knowledge required to operate, inspect, monitor, maintain, clean, and repair the farm's facilities and equipment
M. V. Sc		2	In Dairy Science/Animal Science/Veterinary Science or related streams	0		Practical skills and knowledge required to operate, inspect, monitor, maintain, clean, and

						repair the farm's facilities and equipment
M Sc	Animal Sciences/ Dairy Science/ Dairy Technology	2	In Dairy Science/Animal Science/Veterinary Science or related streams	0		Practical skills and knowledge required to operate, inspect, monitor, maintain, clean, and repair the farm's facilities and equipment
PhD	Animal Science/ Veterinary Science/Dairy Technology/Dairy Science	1	In Dairy Science/Animal Science/Veterinary Science or related streams	0		Practical skills and knowledge required to operate, inspect, monitor, maintain, clean, and repair the farm's facilities and equipment

### Assessor Certification

Domain Certification	Platform Certification
AGR/Q4103, v3.0_Dairy Farm Supervisor	MEP/Q2701, V2.0 Assessor

## 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 ground through qualified and ToA certified assessors.

While it is important that an individual has adequate knowledge and skills to perform a specific task, weight age for different aspects for assessment are 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 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 assessment location.

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

- Multilingual assessments (ASCI is conducting 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 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 training / within 7 days of completion of training.
- Assessment will be conducted at the training venue
- 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 practical 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 question, etc. which will test the trainee on his theoretical knowledge of the subject.
- The theory, practical and viva assessments will be carried out on same day. In case of more number of candidates, 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 usability of job roles/advantages /importance of adherence to procedures. Viva will be used to gauge trainee's confidence and correct knowledge in handling 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, behavioral traits and domain knowledge.

**Theoretical Knowledge** - Item constructs and types are determined by 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 which 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 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 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, Do's & Don'ts, subjective questions to check understanding of practical tasks.

Assessor has to go through orientation program organized by Assessment Agency. The training would give an overview to the assessors on the overall framework of QP evaluation. Assessor shall be given a NOS and PC level overview of each QP as applicable. 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 which will maintain standardization of marking scheme.

**Type of Evidence and Evidence Gathering Protocol:**

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

- Geo Tagging to track ongoing assessment
- AA's coordinator emails the list of documents and evidences (photos and videos) to the assessor one day prior to the assessment. List is mentioned below:
  - Signed Attendance sheet
  - Assessor feedback sheet
  - Candidate feedback sheet
  - Assessment checklist for assessor
  - Candidate Aadhar/ID card verification
  - Pictures of 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, Technical assistant popularly known as Proctor also ensures the proper documentation and they verify each other's tasks.
- To validate their work on the day of assessment, regular calls and video calls are done.
- On-boarding and training of assessor and proctor is done on timely basis to ensure that 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 check on assessment quality and ensure assessment is carried out in fair and transparent manner
- Aadhar verification of candidates

- **Evening Check (Post Assessment):** Calls are made to the ground team to ensure event is over by what time and the documentation is done in proper manner or not.
- **TP Calling:** To keep check on malpractice activity, independent audit team calls to TP on recorded line to take confirmation if there was any malpractice activity observed in assessment on part of AA/SSC team. If calls are not connected, email is send to TP SPOC for taking their confirmation
- **Video and Picture Evidence:** Backend team collects video and pictures for assessment on real time basis and highlights any issue like, Students sitting idle/trainer allowed for helping out candidates during assessment.
- **Surprise Visit:** Time to time SSC/AA Audit team can visit the assessment location and do surprise audit for assessment process carried out by ground team.
- **Geo Tagging:** On day of assessment, each technical SPOC is required to login in our internal app which is Geo tagged. Any deviation with centre address needs to be highlighted to assessment team on real-time basis.

**Method for assessment documentation, archiving, and Access:**

- ASCI has fully automated result generation process in association with multiple AAs
- Theory, Practical and Viva marks forms the basis of the results and encrypted files generated to avoid data manipulation. All responses captured and stored in System with Time-Stamps at the end of AAs and SSC. NOS-wise and PC-wise scores can be generated.
- Maker Checker concept: 1 person prepares results and other audit result which is internally approved by AA at first and then gets vetted at the end of SSC
- All soft copy of documents is received from the on-ground tech team over mail. The same are downloaded by our internal backend team and saved in Repository. The repository consists of scheme wise folders. These scheme wise folders have 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 storeroom.
- **Result Review and 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 conclusion of project or scheme)