



# Model Curriculum

**QP Name: Piggery Farmer (Small Unit)**

**QP Code: AGR/Q4504**

**Version: 1.0**

**NSQF Level: 2**

**Model Curriculum Version: 1.0**

Agriculture Skill Council of India || Unit No. 101, First Floor, Greenwoods Plaza,  
Block 'B', Greenwoods City, Sector 45, Gurugram -122009, Haryana.

# Table of Contents

Training Parameters.....	3
Program Overview .....	4
Training Outcomes.....	4
Compulsory Modules .....	4
Module 1: Introduction to the role of a Small Piggery Farmer.....	6
Module 2: Process of coordinating the construction activities at the pig farm .....	7
Module 3: Process of undertaking feed and health management and marketing of pigs .....	9
Module 4: Process of undertaking the fattening of pigs .....	11
Module 5: Process of procuring and maintaining pigs for breeding .....	13
Module 6: Employability Skills (30 hours).....	14
Annexure.....	16
Trainer Requirements .....	16
Assessor Requirements.....	17
Assessment Strategy.....	18
References .....	23
Glossary.....	23
Acronyms and Abbreviations.....	24

## Training Parameters

Sector	Agriculture
Sub-Sector	Animal Husbandry
Occupation	Small Ruminants & Others
Country	India
NSQF Level	2
Aligned to NCO/ISCO/ISIC Code	NCO-2015/6121.0100
Minimum Educational Qualification and Experience	No formal education
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	29/09/2023
Next Review Date	29/09/2026
NSQC Approval Date	29/09/2023
QP Version	1.0
Model Curriculum Creation Date	31/08/2023
Model Curriculum Valid Up to Date	29/09/2026
Model Curriculum Version	1.0
Minimum Duration of the Course	210 Hours
Maximum Duration of the Course	210 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:

- Elucidate ways to coordinate the construction activities at the pig farm.
- Describe the process of undertaking feed and health management and marketing of pigs.
- Describe the process of undertaking the fattening of pigs.

### 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>AGR/N4512: Coordinate the construction activities of the pig farm</b> NOS Version- 1.0 NSQF Level- 2	20:00	10:00	0:00	00:00	30:00
<b>(Bridge Module)</b> Module 1: Introduction to the role of a Piggery Farmer (Small Unit)	04:00	0:00	0:00	00:00	04:00
Module 2: Process of coordinating the construction activities at the pig farm	16:00	10:00	0:00	00:00	26:00
<b>AGR/N4513: Undertake feed, health management and marketing of pigs</b> NOS Version- 1.0 NSQF Level- 2	20:00	40:00	0:00	00:00	60:00
Module 3: Process of undertaking feed and health management and marketing of pigs	20:00	40:00	0:00	00:00	60:00
<b>AGR/N4514: Undertake fattening of pigs</b> NOS Version- 1.0 NSQF Level- 2	20:00	40:00	0:00	00:00	60:00

Module 4: Process of undertaking the fattening of pigs	20:00	40:00	0:00	00:00	60:00
<b>AGR/N4515: Procure and maintain pigs for breeding purpose</b> <b>NOS Version- 1.0</b> <b>NSQF Level- 2</b>	<b>10:00</b>	<b>20:00</b>	<b>0:00</b>	<b>00:00</b>	<b>30:00</b>
Module 5: Process of procuring and maintaining pigs for breeding	10:00	20:00	0:00	00:00	30:00
<b>DGT/VSQ/N0101: Employability Skills (30 Hours)</b> <b>NOS Version- 1.0</b> <b>NSQF Level- 2</b>	<b>30:00</b>	<b>00:00</b>	<b>0:00</b>	<b>00:00</b>	<b>30:00</b>
Module 6: Employability Skills	30:00	00:00	0:00	00:00	30:00
<b>Total Duration</b>	<b>100:00</b>	<b>110:00</b>	<b>0:00</b>	<b>00:00</b>	<b>210:00</b>

## Module Details

### Module 1: Introduction to the role of a Piggery Farmer (Small Unit)

*Bridge Module, Mapped to AGR/N4512 v1.0*

#### Terminal Outcomes:

- Discuss the job role of a Piggery Farmer (Small Unit).

<b>Duration: 04:00</b>	<b>Duration: 0:00</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 agriculture industry and its sub-sectors.</li> <li>• Discuss the role and responsibilities of a Piggery Farmer (Small Unit).</li> <li>• Identify various employment opportunities for a Piggery Farmer (Small Unit).</li> </ul>	
<b>Classroom Aids</b>	
Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
<b>Tools, Equipment and Other Requirements</b>	
NA	

## Module 2: Process of coordinating the construction activities at the pig farm

### Mapped to AGR/N4512 v1.0

#### Terminal Outcomes:

- Explain the process of selecting the site and planning the construction activities.
- Elucidate ways to coordinate the pig farm construction activities.

Duration: 16:00	Duration: 10:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> <li>• Elucidate the terminology used in pig farming.</li> <li>• Explain the criteria for selecting a site for setting up a pig farm, e.g. a reliable supply of clean water, supply at a pig farm and proximity to the relevant markets.</li> <li>• List the appropriate material required for the construction of a pig farm.</li> <li>• Explain how to estimate space requirements of a pigsty.</li> <li>• Explain the benefit of laying a concrete floor in the pens of a pig farm.</li> <li>• State the appropriate bedding required for pigs.</li> <li>• Explain the importance of ensuring adequate space, ventilation and effective drainage at a pig farm.</li> <li>• State the appropriate considerations to be made while setting up feeders and water troughs at a pig farm.</li> <li>• Explain the importance of ensuring protection from adverse weather for pigs.</li> <li>• Elucidate the potential hazards in the construction activities and how to mitigate them, e.g. use of appropriate PPE while handling sharp tools and electrical equipment.</li> <li>• Explain the importance of cleaning the site after the construction activities and storing hazardous tools, equipment and materials safely in a storage.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate the process of installing durable and strong fences around the pig farm to prevent the escaping of pigs.</li> <li>• Demonstrate the process of installing appropriate bedding in the pig arks for the comfortable sleeping of pigs.</li> </ul>

<ul style="list-style-type: none"> <li>Discuss the regulations applicable to the construction of animal housing facilities.</li> </ul>	
<b>Classroom Aids</b>	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
<b>Tools, Equipment and Other Requirements</b>	
Ear Tag, Feeding material for pig, Disinfectants, Pigs and piglets, Record book, Purchase book, Hoof trimmer, Respiratory Masks, Pig shed, Inventory Register/ book, Helmet, Rubber gloves, Safety Shoes, First aid box, Fire Extinguisher, Installed Video camera with high resolution and recording facility, Pig board	



## Module 3: Process of undertaking feed and health management and marketing of pigs

*Mapped to AGR/N4513 v1.0*

### Terminal Outcomes:

- Describe the process of performing feed management of pigs.
- Elucidate ways to maintain the health of pigs.
- Elucidate ways to market the pigs.

Duration: 20:00	Duration: 40:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> <li>• Explain the applicable health and safety requirements in pig farming and the relevant regulations concerning the health and welfare of livestock.</li> <li>• List the appropriate ingredients to be used to prepare the pig feed to meet their nutritional requirements.</li> <li>• State the recommended feeding schedule for feeding pigs.</li> <li>• State the water requirements of pigs and the importance of watering them with clean and fresh water.</li> <li>• Explain the appropriate corrective measures to be taken for feeding-related issues in pigs.</li> <li>• Elucidate the appropriate preventive measures to be followed to protect pigs from parasites and relevant diseases.</li> <li>• Explain the symptoms of disease and disorders in pigs, e.g. loss of appetite, rapid breathing, high body temperature, inflammation of eyes, dull skin &amp; hair, limped tail, skin irritation, severe diarrhoea, etc.</li> <li>• Explain the basic anatomy and physiology of pigs.</li> <li>• State the normal body temperature and pulse rate of pigs.</li> <li>• Explain various body parts of pigs on which vital parameters are recorded and the use of relevant equipment.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate the process of preparing the pig feed using the recommended ingredients to meet the varied nutritional needs of pigs.</li> <li>• Show how to use the appropriate feeders and water troughs to feed and water pigs, maintaining the cleanliness of feeders and water troughs to prevent the spread of food-borne diseases in pigs.</li> <li>• Demonstrate the process of carrying out creep feeding and fostering in piglets when necessary.</li> <li>• Show how to monitor pigs during their feeding and identify pigs not feeding or feeding inadequately.</li> <li>• Show how to maintain cleanliness in the feed/feed ingredient storage and apply the appropriate pesticides to prevent pest/rodent infestations.</li> <li>• Show how to monitor the pigs for signs of diseases and disorders, e.g. loss of appetite, rapid breathing, high body temperature, etc.</li> <li>• Demonstrate the process of treating the pigs for common diseases and disorders with the appropriate medication.</li> <li>• Demonstrate the process of carrying out deworming following the recommended deworming schedule.</li> <li>• Demonstrate the process of maintaining the cleanliness of pigs by washing them regularly using the</li> </ul>

<ul style="list-style-type: none"> <li>• Explain the appropriate medication to be used to treat pigs for common diseases and disorders.</li> <li>• Explain the importance of seeking prompt assistance from a veterinarian to treat pigs when required.</li> <li>• State the applicable vaccination schedule for pigs and the importance of ensuring timely vaccination.</li> <li>• Discuss the appropriate bio-security procedures to be followed to control the spread of zoonotic diseases among pigs.</li> <li>• Explain the appropriate measures to be taken to protect piglets from common health issues and minimize mortality among them.</li> <li>• Explain the importance of determining the market demand for pigs for their effective marketing.</li> <li>• Explain how to determine the demand for pigs.</li> <li>• State the appropriate mode of transport to be used to deliver pigs safely and in hygienic condition to the buyers.</li> </ul>	<p>appropriate animal care products.</p> <ul style="list-style-type: none"> <li>• Demonstrate the use of the appropriate Personal Protection Equipment (PPE) in the pig farm operations to ensure self-protection from the relevant health and safety hazards.</li> <li>• Demonstrate how to process the payments using the appropriate e-payment methods.</li> <li>• Demonstrate the process of maintaining the relevant manual and electronic records.</li> </ul>
<b>Classroom Aids</b>	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
<b>Tools, Equipment and Other Requirements</b>	
Ear Tag, Feeding material for pig, Disinfectants, Pigs and piglets, Record book, Purchase book, Hoof trimmer, Respiratory Masks, Pig shed, Inventory Register/ book, Helmet, Rubber gloves, Safety Shoes, First aid box, Fire Extinguisher, Installed Video camera with high resolution and recording facility, Pig board	

## Module 4: Process of undertaking the fattening of pigs

### Mapped to AGR/N4514 v1.0

#### Terminal Outcomes:

- Explain the process of procuring the fatteners.
- Describe the process of performing nutrient and health management of fatteners.

Duration: 20:00	Duration: 40:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> <li>• Explain the types of pig housing and different types of materials used in them</li> <li>• the tools and equipment used in livestock management.</li> <li>• Explain the characteristics, e.g. size, shape and colour, of different pig breeds.</li> <li>• Elucidate the different classifications of pig breeds, e.g. exotic, local and cross-breed.</li> <li>• Explain the signs of healthy and unhealthy pigs.</li> <li>• Explain the importance of a multi-livestock farming model such as fishery and piggery.</li> <li>• Discuss the safe work practices to be followed while rearing litters for breeding.</li> <li>• Explain the importance of procuring piglets for fattening from the government-approved sources.</li> <li>• Explain the criteria for procuring piglets for fattening.</li> <li>• Explain the appropriate checks to be conducted while procuring fatteners.</li> <li>• State the appropriate housing facilities required for fatteners.</li> <li>• Explain the importance of maintaining the appropriate temperature in the fattening pens.</li> <li>• Explain the feed and nutritional requirements of fatteners for their healthy growth.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate the process of maintaining records concerning the procurement of fatteners and their health assessment.</li> <li>• Show how to prepare and feed the fatteners with the appropriate feed containing the necessary nutrients for their healthy growth and fattening.</li> <li>• Show how to monitor the fatteners during feeding to ensure their optimum feeding and follow the appropriate measures to minimize the wastage of feed.</li> <li>• Demonstrate how to conduct regular inspections of the fatteners and identify the signs of diseases, disorders, parasitic infections, and injuries.</li> <li>• Demonstrate the process of treating the fatteners by providing them appropriate treatment.</li> <li>• Show how to maintain cleanliness in the fattening pens, removing the animal and other waste regularly.</li> <li>• Show how to monitor the fatteners and prevent them from scavenging.</li> <li>• Demonstrate how to check the growth of fatteners and determine if they are mature for marketing.</li> </ul>

<ul style="list-style-type: none"> <li>• Explain the importance of monitoring the fatteners during feeding.</li> <li>• Explain the importance of effectively monitoring and maintaining the health of fatteners.</li> <li>• State the fatteners maturity indicators.</li> </ul>	
<b>Classroom Aids</b>	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
<b>Tools, Equipment and Other Requirements</b>	
Ear Tag, Feeding material for pig, Disinfectants, Pigs and piglets, Record book, Purchase book, Hoof trimmer, Respiratory Masks, Pig shed, Inventory Register/ book, Helmet, Rubber gloves, Safety Shoes, First aid box, Fire Extinguisher, Installed Video camera with high resolution and recording facility, Pig board	

## Module 5: Process of procuring and maintaining pigs for breeding

### Mapped to AGR/N4515 v1.0

#### Terminal Outcomes:

- Explain the process of procuring pigs for breeding.
- Elucidate ways to maintain the procured pigs.

Duration: 10:00	Duration: 20:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> <li>• Explain the criteria for procuring boars and sows for breeding.</li> <li>• State the appropriate varieties of boars and sows/gilts, e.g. Large White Yorkshire, Landrace, Middle White Yorkshire, etc.</li> <li>• Elucidate the importance and process of checking the health and maturity of boars and sows/gilts during their procurement.</li> <li>• Explain the importance of maintaining the records concerning the procurement and health examination of boars and sows/gilts.</li> <li>• State the appropriate housing required for boars and sows/gilts.</li> <li>• State the feed and water requirements of boars and sows/gilts to prepare them for breeding.</li> <li>• Explain the importance of seeking the help of a veterinarian for the health management of the breeding lot.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate the process of maintaining the appropriate records concerning the procurement and health examination of boars and sows/gilts.</li> <li>• Show how to monitor the procured boars and sows/gilts for signs of disease and disorders.</li> <li>• Demonstrate how to identify unhealthy boars and sows/gilts, and treat them appropriately.</li> </ul>
<b>Classroom Aids</b>	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
<b>Tools, Equipment and Other Requirements</b>	
Ear Tag, Feeding material for pig, Disinfectants, Pigs and piglets, Record book, Purchase book, Hoof trimmer, Respiratory Masks, Pig shed, Inventory Register/ book, Helmet, Rubber gloves, Safety Shoes, First aid box, Fire Extinguisher, Installed Video camera with high resolution and recording facility, Pig board	

## Module 6: Employability Skills (30 hours)

Mapped to NOS DGT/VSQ/N0101 v1.0

**Duration: 30:00**

### Key Learning Outcomes

#### Introduction to Employability Skills Duration: 1 Hour

After completing this programme, participants will be able to:

1. Discuss the importance of Employability Skills in meeting the job requirements

#### Constitutional values - Citizenship Duration: 1 Hour

2. Explain constitutional values, civic rights, duties, citizenship, responsibility towards society etc. that are required to be followed to become a responsible citizen.
3. Show how to practice different environmentally sustainable practices

#### Becoming a Professional in the 21st Century Duration: 1 Hours

4. Discuss 21st century skills.
5. Display positive attitude, self-motivation, problem solving, time management skills and continuous learning mindset in different situations.

#### Basic English Skills Duration: 2 Hours

6. Use appropriate basic English sentences/phrases while speaking

#### Communication Skills Duration: 4 Hour

7. Demonstrate how to communicate in a well-mannered way with others.
8. Demonstrate working with others in a team

#### Diversity & Inclusion Duration: 1 Hour

9. Show how to conduct oneself appropriately with all genders and PwD
10. Discuss the significance of reporting sexual harassment issues in time

#### Financial and Legal Literacy Duration: 4 Hours

11. Discuss the significance of using financial products and services safely and securely.
12. Explain the importance of managing expenses, income, and savings.
13. Explain the significance of approaching the concerned authorities in time for any exploitation as per legal rights and laws

#### Essential Digital Skills Duration: 3 Hours

14. Show how to operate digital devices and use the associated applications and features, safely and securely
15. Discuss the significance of using internet for browsing, accessing social media platforms, safely and securely

#### Entrepreneurship Duration: 7 Hours

16. Discuss the need for identifying opportunities for potential business, sources for arranging money and potential legal and financial challenges

#### Customer Service Duration: 4 Hours

17. Differentiate between types of customers

18. Explain the significance of identifying customer needs and addressing them
19. Discuss the significance of maintaining hygiene and dressing appropriately

**Getting ready for apprenticeship & Jobs Duration: 2 Hours**

20. Create a biodata
21. Use various sources to search and apply for jobs
22. Discuss the significance of dressing up neatly and maintaining hygiene for an interview
23. Discuss how to search and register for apprenticeship opportunities

## Annexure

### Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
Diploma	Regular Diploma more than 15 months in veterinary /Animal Husbandry/ Dairying	5	Small ruminant rearing	0		
Graduate	B.Sc. Agriculture	4	Small ruminant rearing	0		For school Program minimum qualification of Trainer should be Graduate in (Agriculture/ Zoology). Their Teaching experience will be considered industry experience
B. Tech	B. Tech (Dairy)	3	Small ruminant rearing	0		
Graduate	B. V. Sc.	1	Small ruminant rearing	0		
Post Graduate	M. V Sc / MSc (Animal science)	0		0		

Trainer Certification	
Domain Certification	Platform Certification
Certified for Job Role “ <b>Piggery Farmer (Small Unit)</b> ”, mapped to QP: “AGR/Q4504, v1.0”, 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. V. Sc.	4	In Animal Science/ Veterinary Science / related experience	0		Practical skills and knowledge required in rearing pigs
Post-Graduation	M. V. Sc	2	In Animal Science/ Veterinary Science / related experience	0		Practical skills and knowledge required in rearing pigs
Ph. D	Veterinary Science/ Animal Husbandry/ Veterinary Clinical Medicine/ Veterinary Clinical Sciences	1	In Animal Science/ Veterinary Science / related experience	0		Practical skills and knowledge required in rearing pigs

Assessor Certification	
Domain Certification	Platform Certification
Certified for Job Role “Piggery Farmer (Small Unit)”, mapped to QP: “AGR/Q4504, v1.0”, 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.
- The theory, practical and viva assessments will be carried out on the same day. In case of a greater number of candidates, the number of assessors and venue facilitation be increased and facilitated

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

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

## Assessment Quality Assurance framework

### Assessment Framework and Design:

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

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

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

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

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

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

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

The assessor has to go through an orientation program organized by the Assessment Agency. The training would give an overview to the assessors on the overall framework of QP evaluation. The assessor shall be given a NOS and PC level overview of each QP as applicable. The overall structure of assessment and objectivity of the marking scheme will be explained to them. The giving of marks will be driven by an objective framework that will maintain the 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
<b>Declarative Knowledge</b>	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.
<b>Key Learning Outcome</b>	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).
<b>OJT (M)</b>	On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site
<b>OJT (R)</b>	On-the-job training (Recommended); trainees are recommended the specified hours of training on site
<b>Procedural Knowledge</b>	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.
<b>Training Outcome</b>	Training outcome is a statement of what a learner will know, understand and be able to do upon the completion of the training.
<b>Terminal Outcome</b>	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