# Model Curriculum

**QP Name: Agri Research Analyst**

**QP Code: AGR/Q7901**

**Version: 2.0**

**NSQF Level: 6**

**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

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# Training Parameters

| | |
|---|---|
| **Sector** | Agriculture |
| **Sub-Sector** | Agriculture Industries |
| **Occupation** | Commodity Management |
| **Country** | India |
| **NSQF Level** | 6 |
| **Aligned to NCO/ISCO/ISIC Code** | NCO-2015/1324 |
| **Minimum Educational Qualification and Experience** | Pursuing first year of 2-year PG program after completing 3-year UG degree OR Pursuing PG diploma after 3-year UG degree OR Completed 4-year B.Tech/B.E/UG (in case of 4-year UG with honours/ honours with research) OR Pursuing completed 4-year B.Tech/B.E/UG (in case of 4-year UG with honours/ honours with research) OR Previous relevant qualification of NSQF Level 5.5 with 1.5 years of relevant experience OR Previous relevant qualification of NSQF Level 5 with 3 years of relevant experience |
| **Pre-Requisite License or Training** | NA |
| **Minimum Job Entry Age** | 25 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** | 630 Hours |
| **Maximum Duration of the Course** | 630 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 process of conducting commodity market research.
- Elucidate ways to monitor the factors that impact the commodity demand and supply.
- Describe the process of preparing the analysis reports and communicate the findings.
- Describe the process of maintaining records concerning commodity management.
- Explain the importance of collaborating with team members and work effectively.
- 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 an Agri Research Analyst | 05:00 | 00:00 | 0:00 | 00:00 | 05:00 |
| **AGR/N7901: Conduct commodity market research** **NOS Version- 2.0** **NSQF Level- 6** | **70:00** | **45:00** | **0:00** | **00:00** | **115:00** |
| Module 2: Process of conducting commodity market research | 70:00 | 45:00 | 0:00 | 00:00 | 115:00 |
| **AGR/N7902: Monitor the factors that impact the commodity demand and supply** **NOS Version- 2.0** **NSQF Level- 6** | **30:00** | **60:00** | **0:00** | **00:00** | **90:00** |
| Module 3: Process of monitoring the factors that impact the commodity demand and supply | 30:00 | 60:00 | 0:00 | 00:00 | 90:00 |
| **AGR/N7903: Prepare the analysis reports and communicate the findings** **NOS Version- 2.0** **NSQF Level- 6** | **25:00** | **35:00** | **0:00** | **00:00** | **60:00** |

| Module 4: Process of preparing the analysis reports and communicating the findings | 25:00 | 35:00 | 0:00 | 00:00 | 60:00 |
|---|---|---|---|---|---|
| **AGR/N7904: Maintain records concerning commodity management**<br>**NOS Version- 2.0**<br>**NSQF Level- 6** | **45:00** | **45:00** | **0:00** | **00:00** | **90:00** |
| Module 5: Process of maintaining records concerning commodity management | 45:00 | 45:00 | 0:00 | 00:00 | 90:00 |
| **AGR/N9911: Ensure adherence to health and safety guidelines at work**<br>**NOS Version- 2.0**<br>**NSQF Level- 6** | **05:00** | **25:00** | **0:00** | **00:00** | **30:00** |
| Module 6: Health and Safety at work | 05:00 | 25:00 | 0:00 | 00:00 | 30:00 |
| **DGT/VSQ/N0103: Employability Skills**<br>**NOS Version- 1.0**<br>**NSQF Level- 5** | **90:00** | **00:00** | **0:00** | **00:00** | **90:00** |
| Module 7: Employability Skills | 90:00 | 00:00 | 0:00 | 00:00 | 90:00 |
| **Total Duration** | **270:00** | **210:00** | **0:00** | **00:00** | **480:00** |
| **OJT: 150 Hours** | | | | | |

# Module Details

## Module 1: Introduction to the role of an Agri Research Analyst
### *Bridge Module*

**Terminal Outcomes:**

- Discuss the job role of an Agri Research Analyst.

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

## Module 2: Process of conducting commodity market research
### Mapped to AGR/N7901 v2.0

**Terminal Outcomes:**

- Explain the process of collecting the relevant data.
- Elucidate ways to liaise with industry members and experts.
- Describe the process of conducting crop studies and analyzing crop reports.
- Describe the process of conducting market analysis.

| Duration: 70:00 | Duration: 45:00 |
|---|---|
| **Theory – Key Learning Outcomes** | **Practical – Key Learning Outcomes** |
| <ul><li>Explain the importance of conducting agricultural research and analysis.</li><li>Explain basic principles of data research and collating information.</li><li>Elucidate agricultural supply chain and its components.</li><li>List the relevant sources to collect data and information for agricultural research.</li><li>Describe the appropriate data collection procedures.</li><li>Explain the importance of ensuring the collection of the latest data from reliable sources.</li><li>Explain how to conduct primary and secondary research.</li><li>Explain the importance of performing data cleaning.</li><li>Describe the process of validating the collected data through liaison with the relevant experts.</li><li>Explain how to format and organize data.</li><li>Elucidate the benefit of liaising with industry members and experts and the relevant information to be obtained from them.</li><li>Elucidate the importance and process of conducting crop studies and analyzing crop reports.</li></ul> | <ul><li>Demonstrate how to collect data from government studies on agricultural commodity markets.</li><li>Demonstrate the process of carrying out data cleaning, identifying and removing the incorrect, corrupt, duplicate, or incomplete data.</li><li>Show how to conduct field visits to agricultural produce growers and commodity handling units to collect the relevant information.</li><li>Show how to conduct discussions with industry members and experts to get their views.</li><li>Demonstrate the process of carrying out a comparison of the data collected from different sources to get relevant insights.</li><li>Show how to analyze the relevant crop reports to determine the expected demand, imports and exports.</li><li>Demonstrate how to identify the substitute crops and analyze the trends concerning their use.</li><li>Show how to conduct studies of the relevant markets where similar crops are produced.</li><li>Demonstrate how to monitor the conditions in the identified markets to estimate the pricing strategies.</li></ul> |
| **Classroom Aids** | |
| Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop | |

## Tools, Equipment and Other Requirements

First Aid Kit, White Board, Audio/ Visual Aids, MS Office or Its Equivalent, Markers, Software for generation of different types of reports, SPSS Software, Computers/Laptops, Installed Video camera with high resolution and recording facility

## Module 3: Process of monitoring the factors that impact the commodity demand and supply
### Mapped to ARG/N7902 v2.0

**Terminal Outcomes:**

- Explain the process of analysing the production reports.
- Elucidate ways to monitor the impact of relevant factors.
- Explain the process of analysing the commodity prices.

| Duration: 30:00 | Duration: 60:00 |
|---|---|
| **Theory – Key Learning Outcomes** | **Practical – Key Learning Outcomes** |
| <ul><li>Elucidate the importance and process of analyzing the production reports for the relevant commodities.</li><li>Explain various factors that affect the demand and supply of commodities.</li><li>Elucidate how to identify and obtain the relevant data from various reports for agricultural analysis.</li><li>Explain the importance of monitoring the impact of relevant factors on demand and supply.</li><li>Explain different factors that affect the demand and supply of agricultural commodities.</li><li>Explain the use of different analytical tools for analyzing the relevant factors.</li><li>Elucidate the importance and process of analyzing the commodity prices.</li></ul> | <ul><li>Demonstrate how to collect production data of relevant commodities from the relevant producers.</li><li>Show how to monitor the trends and identify deviations.</li><li>Demonstrate how to conduct market studies to determine the consumption pattern of the relevant commodities.</li><li>Demonstrate how to analyze the impact of import-export policies on agricultural commodity price fluctuations.</li><li>Prepare sample relevant reports based on the analysis of weather, acreage, crop diseases, technology consumption patterns, substitute commodities and relevant policies.</li><li>Demonstrate the process of monitoring and analyzing the price trends of relevant commodities.</li><li>Show how to conduct research and analyze the historical data of price history and volume traded.</li></ul> |
| **Classroom Aids** ||
| Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop ||
| **Tools, Equipment and Other Requirements** ||
| First Aid Kit, White Board, Audio/ Visual Aids, MS Office or Its Equivalent, Markers, Software for generation of different types of reports, SPSS Software, Computers/Laptops, Installed Video camera with high resolution and recording facility ||

# Module 4: Process of preparing the analysis reports and communicating the findings

*Mapped to AGR/N7903 v2.0*

**Terminal Outcomes:**

- Describe the process of preparing the relevant reports.
- Elucidate ways to communicate the report findings.

| Duration: 25:00 | Duration: 35:00 |
|---|---|
| **Theory – Key Learning Outcomes** | **Practical – Key Learning Outcomes** |
| <ul><li>Describe the process of preparing and presenting reports.</li><li>Explain different formats for preparing reports.</li><li>Explain the importance of seeking feedback from the relevant experts to improve the reports.</li><li>Elucidate the importance of reviewing the reports for data and language accuracy and consistency before finalizing them.</li><li>Discuss the applicable data security guidelines.</li><li>Explain how to use the different software tools to prepare reports.</li><li>Describe different methods of sharing data reports.</li><li>Describe the process of making decisions based on report analysis.</li></ul> | <ul><li>Demonstrate the use of the appropriate software tools for preparing reports.</li><li>Show how to check the data being used to prepare reports.</li><li>Show how to develop the reports in the appropriate formats as per the organizational policies.</li><li>Demonstrate how to explain the report findings to the clients and stakeholders as required.</li></ul> |
| **Classroom Aids** | |
| Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop | |
| **Tools, Equipment and Other Requirements** | |
| | |

## Module 5: Process of maintaining records concerning commodity management

*Mapped to AGR/N7904 v2.0*

**Terminal Outcomes:**

- Describe the process of maintaining the records.
- Explain the importance of storing the records safely.

| Duration: 45:00 | Duration: 45:00 |
|---|---|
| **Theory – Key Learning Outcomes** | **Practical – Key Learning Outcomes** |
| <ul><li>Describe the appropriate procedures for documentation and record keeping.</li><li>List the relevant details to be recorded on market trends and patterns.</li><li>Describe the appropriate impact analysis method.</li><li>Explain the use of relevant Enterprise Resource Planning (ERP) system/ information management computer software for effective management of information/data.</li><li>Explain the use of relevant computer software for the statistical analysis of data.</li><li>State the applicable reporting requirements.</li><li>Describe different methods of safely storing organizational records and documents.</li><li>Explain the importance of creating data backup and ensuring data access by the authorized personnel only.</li></ul> | <ul><li>Demonstrate the process of maintaining records concerning the trends, patterns, factors impacting commodity prices and other relevant observations.</li><li>Demonstrate the use of the appropriate computer software to maintain electronic records.</li><li>Show how to conduct a regular review of the records as per the organizational policies.</li><li>Demonstrate the process of maintaining the electronic backup of the critical records to protect against accidental damage or loss of physical documents.</li></ul> |
| **Classroom Aids** ||
| Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop ||
| **Tools, Equipment and Other Requirements** ||
|  ||

## Module 6: 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: 05:00 | Duration: 25:00 |
|---|---|
| **Theory – Key Learning Outcomes** | **Practical – Key Learning Outcomes** |
| <ul><li>Explain the importance of following health and safety procedures at work such as using Personal Protective Equipment (PPE).</li><li>Explain the importance of ensuring the PPE, emergency equipment and first-aid kit are usable and updated.</li><li>Explain the importance of sanitising the workplace, tools and equipment.</li><li>Explain the importance of ensuring only authorised personnel have access to hazardous work areas</li><li>Describe the process to be followed in case of emergencies such as fire, accidents, disease outbreaks or natural calamities.</li><li>Explain how to identify health and safety hazards at work and take appropriate preventive measures.</li><li>Describe the process of reporting workplace emergencies and accidents to the relevant authority in compliance with the organisational and regulatory requirements.</li></ul> | <ul><li>Demonstrate the use of appropriate PPE.</li><li>Show how to sanitise the workplace along with the relevant tools and equipment.</li><li>Demonstrate safe handling of hazardous materials such as chemicals and flammable objects.</li><li>Show how to administer first aid to an injured person.</li><li>Demonstrate appropriate actions to take to deal with fire, accidents and emergencies.</li><li>Demonstrate the use of emergency equipment in accordance with the manufacturer's instructions.</li></ul> |
| **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 8: On-the-Job Training

### *Mapped to Agri Research Analyst*

| Mandatory Duration: 150:00 | Recommended Duration: 00:00 |
|---|---|
| **Location: On-Site** | |

**Terminal Outcomes**

- Explain the importance of conducting agricultural research and analysis.
- Carry out data cleaning, identifying and removing the incorrect, corrupt, duplicate, or incomplete data.
- Analyze the relevant crop reports to determine the expected demand, imports and exports.
- Monitor the conditions in the identified markets to estimate the pricing strategies.
- Monitor the trends and identify deviations.
- Prepare the relevant reports based on the analysis of weather, acreage, crop diseases, technology consumption patterns, substitute commodities and relevant policies.
- Develop the reports in the appropriate formats as per the organizational policies.
- Explain the report findings to the clients and stakeholders as required.
- Maintain the electronic backup of the critical records to protect against accidental damage or loss of physical documents.

# Annexure

## Trainer Requirements

<table>
<tr><td colspan="7"><strong>Trainer Prerequisites</strong></td></tr>
<tr><td rowspan="2">Minimum Educational Qualification</td><td rowspan="2"><strong>Specialization</strong></td><td colspan="2"><strong>Relevant Industry Experience</strong></td><td colspan="2"><strong>Training Experience</strong></td><td rowspan="2"><strong>Remarks</strong></td></tr>
<tr><td><em>Years</em></td><td><em>Specialization</em></td><td><em>Years</em></td><td><em>Specialization</em></td></tr>
<tr><td><strong>Graduate</strong></td><td>Graduate in Agriculture/ Economics/ Finance</td><td>2</td><td>Agri Commodity Management</td><td>0</td><td></td><td>For school Program minimum qualification of Trainer should be Graduate (Agriculture/ Economics/ Finance). Their Teaching experience will be considered industry experience</td></tr>
<tr><td><strong>Post Graduate</strong></td><td>Post Graduate in Agriculture/ Economics/ Finance</td><td>1</td><td>Agri Commodity Management</td><td>0</td><td></td><td></td></tr>
</table>

<table>
<tr><td colspan="2"><strong>Trainer Certification</strong></td></tr>
<tr><td><strong>Domain Certification</strong></td><td><strong>Platform Certification</strong></td></tr>
<tr><td>Certified for Job Role "<strong>Agri Research Analyst</strong>", mapped to QP: "AGR/Q7901, v2.0", Minimum accepted score is 80%</td><td>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%.</td></tr>
</table>

## Assessor Requirements

| Assessor Prerequisites | | | | | | |
|---|---|---|---|---|---|---|
| Minimum Educational Qualification | Specialization | Relevant Industry Experience | | Training/Assessment Experience | | Remarks |
| | | Years | Specialization | Years | Specialization | |
| **Graduation** | Bsc (Agriculture Horticulture) | 5 | Agri Research analyst/ Agriculture research and related experience | 0 | | Practical skills and knowledge required in agriculture marker research and analysis |
| **Graduation** | BSc/ BBA (Bachelor of Business Administration) in Logistics and Supply Chain Management, Accounting or Agri Finance or equivalent Bachelor degree/CA (Chartered accountancy) | 5 | Agri Research analyst/ Agriculture research and related experience | 0 | | Practical skills and knowledge required in agriculture market research and analysis |
| **Post-graduation** | MBA in Financial Management/ Agri Finance, Procurement and Contract Management, Accounting, Material Management, Inventory Management, Logistics and Supply Chain Management OR Post Graduate Diploma/ MBA-Agribusiness Management OR Master of Agribusiness Management or other equivalent degree. | 2 | Agri Research analyst/ Agriculture research and related experience | 0 | | Practical skills and knowledge required in agriculture marker research and analysis |

| PhD | Doctoral (Financial management/ Agri Finance, Procurement and Contract Management, Accounting, Material Management, Inventory Management, Logistics and Supply Chain management/ Agri Business) | 1 | Agri Research analyst/ Agriculture research and related experience | 0 | | Practical skills and knowledge required in agriculture market research and analysis |
|---|---|---|---|---|---|---|
| PhD | PhD (Agriculture/Horti culture/Agri Business and related streams) | 1 | Agri Research analyst/ Agriculture research and related experience | 0 | | Practical skills and knowledge required in agriculture market research and analysis |

| Assessor Certification | |
|---|---|
| **Domain Certification** | **Platform Certification** |
| Certified for Job Role "**Agri Research Analyst**", mapped to QP: "AGR/Q7901, 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. <u>Multiple Choice Questions</u>: To assess basic knowledge (Objective/Subjective)
2. <u>Viva:</u> To assess awareness on processes (Oral and/or written questioning)
3. <u>Practical:</u> To evaluate skills and identify competencies. (Observation)

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

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

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

**Testing Environment**

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

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

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

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

- Assessment will be conducted at the training venue

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

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

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

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

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

# Assessment Quality Assurance framework

## Assessment Framework and Design:

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

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

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

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

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

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

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

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

ASCI
Agriculture Skill Council of India

Skill India
कौशल भारत-कुशल भारत

N·S·D·C
National Skill Development Corporation
Transforming the skill landscape

- 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*

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

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

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

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

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

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

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

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

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

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

- Theory, Practical and Viva marks form the basis of the results and encrypted files generated to avoid data manipulation. All responses were captured and stored in the

System with Time-Stamps at the end of AAs and SSC. NOS-wise and PC-wise scores can be generated.

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

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

### *Result Review & Recheck Mechanism –*

- Time-stamped assessment logs

- Answer/Endorsement sheets for each candidate

- Attendance Sheet

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

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

# References

## Glossary

| Term | Description |
| --- | --- |
| Declarative Knowledge | Declarative knowledge refers to facts, concepts and principles that need to be known and/or understood in order to accomplish a task or to solve a problem. |
| Key Learning Outcome | Key learning outcome is the statement of what a learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and skills (practical application). |
| OJT (M) | On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site |
| OJT (R) | On-the-job training (Recommended); trainees are recommended the specified hours of training on site |
| Procedural Knowledge | Procedural knowledge addresses how to do something, or how to perform a task. It is the ability to work, or produce a tangible work output by applying cognitive, affective or psychomotor skills. |
| Training Outcome | Training outcome is a statement of what a learner will know, understand and be able to do upon the completion of the training. |
| Terminal Outcome | Terminal outcome is a statement of what a learner will know, understand and be able to do upon the completion of a module. A set of terminal outcomes help to achieve the training outcome. |

## Acronyms and Abbreviations

| Term | Description |
|------|-------------|
| AGR | Agriculture |
| 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 |