







## **Model Curriculum**

Micro Credential: Quality Assurance and Price Risk Management in Agri Commodities at farm level

Micro Credential Code: AGR/MCr-0002

Version: 1.0

**NSQF Level: 3.0** 

**Model Curriculum Version: 1.0** 

Agriculture Skill Council of India | | Unit No. 101, First Floor, Greenwoods Plaza,

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## **Training Parameters**

| Sector                                           | Agriculture                                                                                                                                                                                             |
|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sub-Sector                                       | Agriculture Industries                                                                                                                                                                                  |
| Occupation                                       | Commodity Management                                                                                                                                                                                    |
| Country                                          | India                                                                                                                                                                                                   |
| NSQF Level                                       | 3                                                                                                                                                                                                       |
| Aligned to NCO/ISCO/ISIC Code                    | NCO-2015/1324                                                                                                                                                                                           |
| Minimum Educational Qualification and Experience | 10th Grade Pass OR 8 <sup>th</sup> Grade Pass with 2 years of relevant experience in Agri Commodity Segment OR 5 <sup>th</sup> Grade Pass with 5 years of relevant experience in Agri Commodity Segment |
| Pre-Requisite License or Training                | NA                                                                                                                                                                                                      |
| Minimum Job Entry Age                            | NA                                                                                                                                                                                                      |
| Last Reviewed On                                 | 31-01-2024                                                                                                                                                                                              |
| Next Review Date                                 | 31-01-2027                                                                                                                                                                                              |
| NSQC Approval Date                               | 31-01-2024                                                                                                                                                                                              |
| MCr Version                                      | 1.0                                                                                                                                                                                                     |
| Model Curriculum Creation Date                   | 13-12-2023                                                                                                                                                                                              |
| Model Curriculum Valid Up to Date                | 31-01-2027                                                                                                                                                                                              |
| Model Curriculum Version                         | 1.0                                                                                                                                                                                                     |
| Minimum Duration of the Course                   | 30 Hours                                                                                                                                                                                                |
| Maximum Duration of the Course                   | 30 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:

- Discuss the prices of various agricultural produce and compare the prices
- Analyze the market information to gain insights into market conditions, such as the fluctuations in the prices of agricultural inputs and commodities and usage in making informed decision
- Discuss rates of different produce and the fluctuation in the pricing
- select the appropriate vendor(s) as per the budget and organizational criteria
- Demonstrate negotiating skills with the input sellers
- set up an appropriate number of collection points to facilitate efficient collection of produce
- Explain about the considerations to be taken for the finalization of the collection points
- Discuss quality assurance methods for the produce
- Identify quality parameters of produce and specifications for packaging materials, containers, filling techniques and labelling
- Explain about Electronic Negotiable Warehouse Receipt (eNWR) and it's benefits and challenges
- Create a repository account to trade Electronic Negotiable Warehouse Receipt (ENWR)
- Demonstrate relevant documentation with the buyers to enter into an agreement with them
- Explain general contract specifications of the commodity agreements
- Discuss how to negotiate with the buyers
- Describe various Hedging Strategies using commodity derivatives, such as futures contracts, options
- Explain the factors that influence the prices of commodity derivatives
- Demonstrate price risk management strategies
- Explain about various appropriate investment strategies for invest
- Discuss about the govt schemes and how to avail the same







### **Compulsory Modules**

The table lists the modules and their duration corresponding to the Compulsory NOS of the QP.

| NOS and Module Details                                                              | Theory<br>Duration | Practical<br>Duration | On-the-Job Training<br>Duration<br>(Mandatory) | On-the-Job Training<br>Duration<br>(Recommended) | Total<br>Duration |
|-------------------------------------------------------------------------------------|--------------------|-----------------------|------------------------------------------------|--------------------------------------------------|-------------------|
| Quality Assurance and Price<br>Risk Management in Agri<br>Commodities at farm level | 20:00              | 10:00                 | 0:00                                           | 0:00                                             | 30:00             |
| AGR/MCr-0002/ NSQF<br>Level -3 v1                                                   |                    | 20.00                 | ••••                                           | <b></b>                                          |                   |
| Module 1: Carry out improved agricultural practices                                 | 04:00              | 02:00                 | 0:00                                           | 0:00                                             | 06:00             |
| Module 2: Undertake quality assessment and grading of produce                       | 02:00              | 01:00                 | 0:00                                           | 0:00                                             | 03:00             |
| Module 3: Carry out safe storage and transportation of produce                      | 02:00              | 01:00                 | 0:00                                           | 0:00                                             | 03:00             |
| Module 4: warehouse receipt financing and its use for pledging                      | 02:00              | 01:00                 | 0:00                                           | 0:00                                             | 03:00             |
| Module 5: Use of market information for efficient price negotiation                 | 02:00              | 01:00                 | 0:00                                           | 0:00                                             | 03:00             |
| Module 6: commodity price risk and its management through derivatives market        | 06:00              | 03:00                 | 0:00                                           | 0:00                                             | 09:00             |
| Module 7: Maintain relevant records and manage the finances                         | 02:00              | 01:00                 | 0:00                                           | 0:00                                             | 03:00             |
| Total Duration                                                                      | 20:00              | 10:00                 | 0:00                                           | 0:00                                             | 30:00             |







## **Module Details**

### **Module 1: Carry out improved agricultural practices**

Bridge Module, Mapped to AGR/MCr-0002 v1.0

- Discuss the prices of various agricultural produce and compare the prices
- Analyze the market information to gain insights into market conditions, such as the fluctuations in the prices of agricultural inputs and commodities and usage in making informed decision

| Duration: 04:00                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Duration: 02:00                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Theory – Key Learning Outcomes                                                                                                                                                                                                                                                                                                                                                                                                                                        | Practical – Key Learning Outcomes                                                                                                                                                                                                                                                                                   |
| <ul> <li>Explain the importance of using high yielding smart variety of seeds</li> <li>Discuss the effects of excessive use of pesticides and fertilizers on the quality of the produce and environment</li> <li>Explain the significance of crop rotation and soil and water conservation practices</li> <li>Discuss various improved agricultural practices</li> <li>Explain the process of harvesting different crops and their post-harvest management</li> </ul> | <ul> <li>Ensure judicious use of fertilizers and pesticides</li> <li>Demonstrate Integrated Nutrient Management and Pest &amp; Disease Management practices</li> <li>Demonstrate water use and water conveyance efficiency practices/methods</li> <li>Demonstrate use of energy efficient farm equipment</li> </ul> |
| Classroom Aids White board, Marker, Overhead projector, Laptop,                                                                                                                                                                                                                                                                                                                                                                                                       | Internet access.                                                                                                                                                                                                                                                                                                    |
| Tools, Equipment and Other Requirements                                                                                                                                                                                                                                                                                                                                                                                                                               | microsc dececes,                                                                                                                                                                                                                                                                                                    |
| NA                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                     |







# Module 2: Undertake Quality Assessment and Grading of produce Mapped to AGR/MCr-0002 v1.0

- Discuss rates of different produce and the fluctuation in the pricing
- select the appropriate vendor(s) as per the budget and organizational criteria
- Demonstrate negotiating skills with the input sellers

| Duration: 02:00                                                                                                                                                                                                                                     | Duration: 01:00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Theory – Key Learning Outcomes                                                                                                                                                                                                                      | Practical – Key Learning Outcomes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <ul> <li>Explain the significance of optimum moisture content levels in the agri produce</li> <li>Discuss the quality testing of the produce in the authorized laboratory</li> <li>Explain the quality assurance methods for the produce</li> </ul> | <ul> <li>Inspect the moisture content of the produce</li> <li>Demonstrate drying of produce to reduce moisture content level to the appropriate levels</li> <li>Coordinate quality testing of the produce in the authorized laboratory for checking the quality parameter of the produce</li> <li>Demonstrate cleaning, sorting and grading of the harvested produce</li> <li>Demonstrate the appropriate type of packing material according to the type of produce and ensure safe and hygienic packaging of the produce</li> <li>Demonstrate the proper weighing and labelling of the produce</li> </ul> |
| Classroom Aids                                                                                                                                                                                                                                      | lake week a second                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| White board, Marker, Overhead projector, Laptop, Tools, Equipment and Other Requirements                                                                                                                                                            | internet access,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| . 33.3, Equipment and Other negationes                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| NA                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |







### Module 3: Carry out Safe storage and transportation of produce Mapped to AGR/MCr-0002 v1.0

- set up an appropriate number of collection points to facilitate efficient collection of produce
- Explain about the considerations to be taken for the finalization of the collection points

|                                                                                                                                                                                                                                                                          | en for the finalization of the collection points |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| Duration: 02:00                                                                                                                                                                                                                                                          | Duration: 1:00                                   |
| Theory – Key Learning Outcomes                                                                                                                                                                                                                                           | Practical – Key Learning Outcomes                |
| <ul> <li>Explain about cleaning of storage facility and packing container</li> <li>Explain the optimum required conditions in the field storage for various commodities</li> <li>Discuss about the cost-effective and safe transportation to the market/buyer</li> </ul> | recommended temperature and humidity,            |
| Classroom Aids                                                                                                                                                                                                                                                           |                                                  |
| White board, Marker, Overhead projector, Lapto                                                                                                                                                                                                                           | pp, Internet access,                             |
| Tools, Equipment and Other Requirements                                                                                                                                                                                                                                  |                                                  |
| NA                                                                                                                                                                                                                                                                       |                                                  |







### Module 4: warehouse receipt financing and its use for pledging Mapped to AGR/MCr-0002 v1.0

### **Terminal Outcomes:**

- Explain about Electronic Negotiable Warehouse Receipt (eNWR) and it's benefits and challenges
- Create a repository account to trade Electronic Negotiable Warehouse Receipt (ENWR)

| Duration: 02:00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Duration: 1:00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Theory – Key Learning Outcomes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Practical – Key Learning Outcomes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |  |
| <ul> <li>Discuss about appropriate weighing and measurement methods</li> <li>Describe scientific warehouse practices, and preservation practices to minimize post-harvest losses</li> <li>Explain the importance of maintaining transparency in the flow of goods</li> <li>Discuss efficient supply management practices</li> <li>Explain industry standards for packaging</li> <li>Explain types of commodity derivatives, such as futures, options, swaps and forwards</li> <li>Explain about Electronic Negotiable Warehouse Receipt (eNWR) and it's benefits and challenges</li> <li>Explain the importance of assaying of the produce in the warehouse</li> </ul> | <ul> <li>Arrange to store the produce in a WDRA accredited warehouse to ensure quality standards required by the exchange</li> <li>Demonstrate assaying of the produce in the warehouse</li> <li>Demonstrate use of Negotiable Warehouse Receipt (NWR) as a collateral to access credit and financing from financial institutions.</li> <li>Create a repository account to trade Electronic Negotiable Warehouse Receipt (ENWR)</li> <li>Demonstrate the procedure for pledging and sales of ENWR as required</li> </ul> |  |  |
| Classroom Aids                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |  |

White board, Marker, Overhead projector, Laptop, Internet access,

**Tools, Equipment and Other Requirements** 

NA







# Module 5: Use market information for efficient price negotiation Mapped to AGR/MCr-0002 v1.0

- Discuss the prices of various agricultural produce and compare the prices
- Analyze the market information to gain insights into market conditions, such as the fluctuations in the prices of agricultural inputs and commodities and usage in making informed decision

| decision                                                                                                                                    |                                                                                                                                                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Duration: 02:00                                                                                                                             | Duration: 01:00                                                                                                                                                                                                                             |
| Theory – Key Learning Outcomes                                                                                                              | Practical – Key Learning Outcomes                                                                                                                                                                                                           |
| Explain how to access the market demand for agricultural produce                                                                            | Demonstrate collection of market-related information from reliable sources                                                                                                                                                                  |
| Discuss the prices of various agricultural produce and compare the prices                                                                   | <ul> <li>analyze the market information to gain<br/>insights into market conditions, such as the<br/>fluctuations in the prices of agricultural inputs</li> </ul>                                                                           |
| <ul> <li>Explain different types of marketing channels<br/>for marketing agricultural produce</li> </ul>                                    | and commodities and usage in making informed decision                                                                                                                                                                                       |
| <ul> <li>Explain the significance of market information<br/>for making decisions about cost-effective and<br/>quality production</li> </ul> |                                                                                                                                                                                                                                             |
|                                                                                                                                             | <ul> <li>utilize the market information for<br/>appropriate post-harvesting decisions, such<br/>as drying, sorting, grading, bagging, storage<br/>transportation, etc</li> </ul>                                                            |
|                                                                                                                                             | <ul> <li>utilize the analysis of market information to<br/>make effective marketing-related decisions,<br/>e.g. selection of appropriate marketing<br/>channels, when to sell, to whom to sell and<br/>what quantity to sell etc</li> </ul> |
|                                                                                                                                             | <ul> <li>project the price fluctuations in the price of<br/>agricultural commodities in different markets<br/>and make appropriate decisions</li> </ul>                                                                                     |
| Classroom Aids                                                                                                                              |                                                                                                                                                                                                                                             |
| White board, Marker, Overhead projector, Lapto                                                                                              | pp, Internet access,                                                                                                                                                                                                                        |
| Tools, Equipment and Other Requirements                                                                                                     |                                                                                                                                                                                                                                             |
| NA                                                                                                                                          |                                                                                                                                                                                                                                             |







# Module 6: Commodity price risk and its management through derivatives market

Mapped to AGR/MCr-0002 v1.0

- Describe various Hedging Strategies using commodity derivatives, such as futures contracts, options
- Explain the factors that influence the prices of commodity derivatives
- Demonstrate price risk management strategies

| Duration: 06:00                                                                                                                                                                                                                                                                                                                                                                                                                       | Duration: 3:00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Theory – Key Learning Outcomes                                                                                                                                                                                                                                                                                                                                                                                                        | Practical – Key Learning Outcomes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <ul> <li>Explain dynamics of Agri Commodities Market</li> <li>Discuss commodity derivatives market ecosystem in India</li> <li>Explain types of commodity derivatives, such as futures, options, swaps and forwards</li> <li>Explain various method of Risk Identification and Assessment and Risk Management</li> <li>Describe various Hedging Strategies using commodity derivatives, such as futures contracts, options</li> </ul> | <ul> <li>Identify the main participants and their roles in commodity derivatives markets</li> <li>Analyze the factors that influence the prices of commodity derivatives</li> <li>Identify the key function and features of commodity derivatives market in terms of price discovery and risk management</li> <li>Analyze the factors that influence the supply and demand of commodities and their impact on the prices and volatility of commodity derivatives</li> <li>Evaluate the risks and challenges associated with commodity derivatives trading, such as market risk, credit risk, liquidity risk, operational risk and regulatory risk</li> <li>Demonstrate use of different commodity derivatives instruments for price risk management-forwards, futures, options, etc.</li> <li>Combat price risk by taking offsetting positions on commodities derivatives exchanges</li> <li>execute future contracts and Put Option as a measure for price protection</li> </ul> |
| Classroom Aids<br>White board, Marker, Overhead projector, Lapto                                                                                                                                                                                                                                                                                                                                                                      | p. Internet access.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Tools, Equipment and Other Requirements                                                                                                                                                                                                                                                                                                                                                                                               | F,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| NA                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |







# Module 7: Maintain relevant records and manage the finances Mapped to AGR/MCr-0002 v1.0

### **Terminal Outcomes:**

- Describe various Hedging Strategies using commodity derivatives, such as futures contracts, options
- Explain the factors that influence the prices of commodity derivatives
- Demonstrate price risk management strategies

| Duration: 02:00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Duration: 01:00                                                                                                                                                                                                                                                                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Theory – Key Learning Outcomes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Practical – Key Learning Outcomes                                                                                                                                                                                                                                                                                                      |
| <ul> <li>Explain the total cost of crop production, including various costs, such as field preparation, labour, equipment, fuel costs, etc.</li> <li>Explain method of calculation of production costs, yields, and prices</li> <li>Discuss various costs involved in crop production</li> <li>Explain about various government schemes related to agriculture and the eligibility criteria for the same</li> <li>Explain about the financial assistance available from various financial institutions for technology enhancement and business expansion</li> </ul> | preparation, labour, equipment, fuel costs, etc.  Demonstrate the procedure to avail the relevant government schemes  Demonstrate the procedure to avail financial assistance from the financial institutions for technology enhancement and business expansion  identify the appropriate investment opportunities and make investment |
| Classroom Aids                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                        |
| White board, Marker, Overhead projector, Lapto                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | p, Internet access,                                                                                                                                                                                                                                                                                                                    |
| Tools, Equipment and Other Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                        |

NA







## **Annexure**

## **Trainer Requirements**

|                        |                                                                                      |                                 | Trainer      | Prerequi              | sites              |                  |                                                                                                                                                                                                            |               |         |
|------------------------|--------------------------------------------------------------------------------------|---------------------------------|--------------|-----------------------|--------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------|
| Minimum<br>Educational | Specialization                                                                       | Relevant Industry<br>Experience |              | Training Experience   |                    |                  |                                                                                                                                                                                                            | ng Experience | Remarks |
| Qualification          |                                                                                      | Years                           | Specializa   | ation                 | Years              | Specialization   |                                                                                                                                                                                                            |               |         |
| Graduate               | Agriculture/<br>Horticulture/<br>Commerce/Science/<br>Business management            | 1                               | Agri- sector |                       |                    |                  | For school Program minimum qualification of Trainer should be Graduate (Agriculture/ Horticulture/ Commerce/ Business management). Their Teaching experience will be considered industry experience        |               |         |
| Post<br>Graduate       | Agronomy/ Horticulture/ Commerce/Science/ Business management                        | 6 months                        | Agri- sector |                       | 0                  |                  | For school Program minimum qualification of Trainer should be Graduate (Agriculture/ Horticulture/ Commerce/Science/Business management). Their Teaching experience will be considered industry experience |               |         |
|                        |                                                                                      |                                 | Trainer      | Certifica             | tion               |                  |                                                                                                                                                                                                            |               |         |
|                        | Domain Certification                                                                 | n                               |              |                       |                    | Platform C       | ertification                                                                                                                                                                                               |               |         |
| Managemen              | NOS "Quality Assurance at in Agri Commodities at MCr: "AGR/MCr-0002, v1.0 ore is 80% | farm leve                       | l",          | "Trainer (<br>"MEP/Q2 | (Vet an<br>1601, v | d Skills)", mapı | r is certified for the Job Role:<br>ped to the Qualification Pack:<br>num accepted score as per                                                                                                            |               |         |







## **Assessor Requirements**

| Minimum             | Educational Specialization Relevant mustry Hamilig/Assessment N                                                                                                                                                                                                   |            |                               |            |                    |                                                                                                 |  |  |  |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------------------------|------------|--------------------|-------------------------------------------------------------------------------------------------|--|--|--|
| Qualification       |                                                                                                                                                                                                                                                                   | Experience | •                             | Experience |                    |                                                                                                 |  |  |  |
|                     |                                                                                                                                                                                                                                                                   | Years      | Specialization                | Year<br>s  | Specializatio<br>n |                                                                                                 |  |  |  |
| Graduation          | Agriculture/ horticulture/ commerce/science/other related streams                                                                                                                                                                                                 | 3          | Agri Sector                   | 0          |                    | Practical skills and knowledge required in agriculture market research and analysis             |  |  |  |
| Graduation          | Bachelor of Business Administration) in Logistics and Supply Chain Management, Accounting or Agri Finance or equivalent Bachelor degree/ and other related streams                                                                                                | 2          | Agri Sector                   | 0          |                    | Practical skills and knowledge required in agriculture market research and analysis             |  |  |  |
| Post-<br>Graduation | Masters in Agricultural/ other related streams /MBA in Finance/Financial Management/Agri Finance, Procurement and Contract Management, Accounting, Material Management, Inventory Management, Logistics and Supply Chain Management OR Post Graduate Diploma/ MBA | 2          | Agri<br>Commodities<br>Sector | 0          |                    | Practical<br>skills<br>and<br>knowledge<br>required in<br>market<br>research<br>and<br>analysis |  |  |  |







| of Agrib<br>Manage | ement OR Master |  |  |
|--------------------|-----------------|--|--|
|                    |                 |  |  |

| Assessor Certification                       |                                                                                                                                            |  |  |  |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| Domain Certification                         | Platform Certification                                                                                                                     |  |  |  |
| manned to MCr: "AGR/MCr-0002, v1.0", Minimum | 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. 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 are stored digitally on the cloud
- Advanced auto-proctoring features photographs, time-stamp, geographic-tagging, toggle- screen/copy-paste disabled, etc.
- Android-based monitoring system
- End to end process from allocation of a batch to final result upload, there is no manual intervention
- Assessment will normally be fixed for a day after the end date of the training / within
   7 days of completion of training.
- Assessment will be conducted at the training venue
- The room where assessment is conducted will be set with proper seating arrangements with enough space to curb copying or other unethical activities
- Question bank of theory and practice will be prepared by ASCI /assessment agency and approved ASCI. Only from approved Question Bank assessment agency will prepare the question paper. Theory testing will include multiple-choice questions, pictorial questions, etc. which will test the trainee on his theoretical knowledge of the subject.
- The theory, practical and viva assessments will be carried out on the same day. In case of a greater number of candidates, the number of assessors and venue facilitation be increased and facilitated







The question paper is pre-loaded in the computer /Tablet and it will be in the language as

| Assessment         |                        |                                |                                                                                                                                                                                                      |  |
|--------------------|------------------------|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Assessment<br>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 |  |

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 tools 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 the assessor and proctor are done on a timely basis to ensure that the quality of the assessment should be maintained.
- Training covers the understanding of QP, NSQF level, NOS and assessment structure

### **Methods of Validation**

- Morning Check (Pre-Assessment): Backend team of AA calls and confirms assessor/technical SPOC event status. Assessor/Technical SPOC are instructed to reach the centre on time by 9:30 AM / as decided with TC and delay should be highlighted to the Training Partner in advance.
- <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 rolespecific folders. These specific folders have Year wise and Month wise folders where all
  documents are saved in Batch specific folders. All Hard copies are filed and stored in the
  storeroom.

#### Result Review & Recheck Mechanism -

- Time-stamped assessment logs
- Answer/Endorsement sheets for each candidate
- Attendance Sheet
- Feedback Forms: Assessor feedback form, Candidate feedback form, TP feedback form
- The results for each of the candidates shall be stored and available for review (retained for 5 years/ till the conclusion of the project or scheme)







## **References**

## Glossary

| Term                     | Description                                                                                                                                                                                                                                                                                                                           |  |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Declarative<br>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<br>Outcome  | The key learning outcome is the statement of what a learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and skills (practical application). |  |
| OJT (M)                  | On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on-site                                                                                                                                                                                                                                |  |
| OJT (R)                  | On-the-job training (Recommended); trainees are recommended the specified hours of training on-site                                                                                                                                                                                                                                   |  |
| Procedural<br>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         | The terminal outcome is a statement of what a learner will know, understand and be able to do upon the completion of a module. A set of terminal outcomes help to achieve the training outcome.                                                                                                                                       |  |







## **Acronyms and Abbreviations**

| Term | Description                                     |
|------|-------------------------------------------------|
| AGR  | Agriculture                                     |
| NOS  | National Occupational Standard(s)               |
| NSQF | National Skills Qualifications Framework        |
| QP   | Qualifications Pack                             |
| TVET | Technical and Vocational Education and Training |