



# Model Curriculum

**QP Name: Plantation Worker**

**Options: Oilpalm/Palmyrah/Arecanut and Beterlvine/Cocoa/ Cashew nut**

**QP Code: AGR/Q0509**

**Version: 1.0**

**NSQF Level: 3.0**

**Model Curriculum Version: 1.0**

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## Training Parameters

<b>Sector</b>	Agriculture
<b>Sub-Sector</b>	Agriculture Crop Production
<b>Occupation</b>	Plantation Crops Cultivation
<b>Country</b>	India
<b>NSQF Level</b>	3.0
<b>Aligned to NCO/ISCO/ISIC Code</b>	NCO-2015/6111.0800
<b>Minimum Educational Qualification and Experience</b>	10 <sup>th</sup> or equivalent OR 8th grade pass with 3-years of relevant experience in Agriculture and allied sectors OR 5th grade pass with 6-year experience in Agriculture and allied sectors OR Previous relevant Qualification of NSQF Level 2 with 3-year experience in Agriculture and allied sectors OR Previous relevant qualification of NSQF Level 2.5 with 1.5-year experience in Agriculture and allied sectors
<b>Pre-Requisite License or Training</b>	NA
<b>Minimum Job Entry Age</b>	18 Years
<b>Last Reviewed On</b>	22/10/2024
<b>Next Review Date</b>	22/10/2027
<b>NSQC Approval Date</b>	22/10/2024
<b>QP Version</b>	1.0
<b>Model Curriculum Creation Date</b>	22/10/2024
<b>Model Curriculum Valid Up to Date</b>	22/10/2027
<b>Model Curriculum Version</b>	1.0
<b>Minimum Duration of the Course</b>	270 Hours
<b>Maximum Duration of the Course</b>	420 Hours

## Program Overview

This section summarises 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:

- Describe the steps involved in preparing land for planting.
- Explain the importance of plant and tree maintenance for optimal growth.
- Describe the procedures for harvesting various crops in Plantation.
- Discuss the post-harvest activities, including sorting, packing, and storage.
- Explain the process and considerations involved in growing oil palm in a plantation.
- Discuss the cultivation methods and benefits of growing palmyrah in a plantation.
- Describe the techniques and factors to consider when cultivating arecanut and betelvine in a plantation.
- Elucidate the steps and requirements for successfully growing cocoa in a plantation.
- Determine the optimal practices for cultivating cashew nuts in a plantation and the associated challenges.
- Explain the importance of maintaining health and safety standards in a temperate fruit cultivation workplace.

### Compulsory Modules

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

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
<b>AGR/N0545: Perform land preparation activities in plantation</b> NOS Version- 1.0 NSQF Level- 3.0	20:00	40:00	00:00	00:00	60:00
Module 1: Introduction to the role of a Plantation Worker	05:00	00:00	00:00	00:00	05:00
Module 2: Land preparation activities in plantation	15:00	40:00	00:00	00:00	55:00
<b>AGR/N0546: Perform maintenance of plants and trees in plantation</b> NOS Version- 1.0 NSQF Level- 3.0	30:00	30:00	00:00	00:00	60:00

Module 3: Maintenance of plants and trees	30:00	30:00	00:00	00:00	60:00
<b>AGR/N0547: Carry out harvesting and post-harvesting tasks in plantations</b> <b>NOS Version- 1.0</b> <b>NSQF Level - 3.0</b>	<b>20:00</b>	<b>40:00</b>	<b>00:00</b>	<b>00:00</b>	<b>60:00</b>
Module 4: Harvesting and post-harvesting activities in plantations	20:00	40:00	00:00	00:00	60:00
<b>AGR/N9903: Maintain health and safety at the workplace</b> <b>NOS Version- 4.0</b> <b>NSQF Level - 4.0</b>	<b>20:00</b>	<b>10:00</b>	<b>00:00</b>	<b>00:00</b>	<b>30:00</b>
Module 5: Hygiene and cleanliness	03:00	03:00	0:00	0:00	06:00
Module 6: Safety and emergency procedures	17:00	07:00	0:00	0:00	24:00
<b>DGT/VSQ/N0101: Employability Skills</b> <b>NOS Version- 1.0</b> <b>NSQF Level- 2.0</b>	<b>30:00</b>	<b>00:00</b>	<b>00:00</b>	<b>00:00</b>	<b>30:00</b>
Module 7: Employability Skills	30:00	00:00	00:00	00:00	30:00
<b>OJT (Mandatory)</b>	<b>00:00</b>	<b>00:00</b>	<b>30:00</b>	<b>00:00</b>	<b>30:00</b>
<b>Total Duration</b>	<b>120:00</b>	<b>120:00</b>	<b>30:00</b>	<b>00:00</b>	<b>270:00</b>

## Optional Modules

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

### Option 1: Oilpalm

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
<b>AGR/N0548: Grow oilpalm in a Plantation</b>	<b>15:00</b>	<b>15:00</b>	<b>00:00</b>	<b>00:00</b>	<b>30:00</b>

<b>NOS Version- 1.0</b>					
<b>NSQF Level- 3.0</b>					
Module 8: Growing Oilpalm in a Plantation	15:00	15:00	00:00	00:00	30:00
<b>Total Duration</b>	<b>15:00</b>	<b>15:00</b>	<b>00:00</b>	<b>00:00</b>	<b>30:00</b>

### Option 2: Palmyrah

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
<b>AGR/N0549: Grow palmyrah in a Plantation</b> NOS Version- 1.0 NSQF Level- 3.0	15:00	15:00	00:00	00:00	30:00
Module 9: Growing Palmyrah in an Plantation	15:00	15:00	00:00	00:00	30:00
<b>Total Duration</b>	<b>15:00</b>	<b>15:00</b>	<b>00:00</b>	<b>00:00</b>	<b>30:00</b>

### Option 3: Arecanut and Betelvine

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
<b>AGR/N0550: Grow arecanut and betelvine in a Plantation</b> NOS Version- 1.0 NSQF Level- 3.0	15:00	15:00	00:00	00:00	30:00
Module 10: Growing Arecanut and Betelvine in a Plantation	15:00	15:00	00:00	00:00	30:00
<b>Total Duration</b>	<b>15:00</b>	<b>15:00</b>	<b>00:00</b>	<b>00:00</b>	<b>30:00</b>

### Option 4: Cocoa



NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
<b>AGR/N0551: Grow cocoa in a Plantation</b> NOS Version- 1.0 NSQF Level- 3.0	15:00	15:00	00:00	00:00	30:00
Module 11: Growing Cocoa in a Plantation	15:00	15:00	00:00	00:00	30:00
<b>Total Duration</b>	<b>15:00</b>	<b>15:00</b>	<b>00:00</b>	<b>00:00</b>	<b>30:00</b>

#### Option 5: Cashew Nut

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
<b>AGR/N0552: Grow cashew nut in a Plantation</b> NOS Version- 1.0 NSQF Level- 3.0	15:00	15:00	00:00	00:00	30:00
Module 12: Growing Cashew Nut in a Plantation	15:00	15:00	00:00	00:00	30:00
<b>Total Duration</b>	<b>15:00</b>	<b>15:00</b>	<b>00:00</b>	<b>00:00</b>	<b>30:00</b>

## Module Details

### Module 1: Introduction to the role of an Orchard/Plantation Worker

*Mapped to Bridge Module AGR/N0545, v1.0*

#### Terminal Outcomes:

- Discuss the job role of an Orchard/Plantation Worker.

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



## Module 2: Land Preparation Activities in Orchard and Plantation

Mapped to AGR/N0545, v1.0

### Terminal Outcomes:

- Describe the procedures for carrying out land preparation activities in orchards and plantations.
- Explain the techniques involved in preparing the field for planting in accordance with given instructions.
- Discuss the steps for effective land preparation in orchards and plantations.

Duration: 15:00	Duration: 40:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> <li>• Explain the land preparation activities required for orchards and plantations.</li> <li>• Describe the safety measures necessary while using tools, implements, and equipment for land preparation.</li> <li>• Define the purpose and methods of deep ploughing, emphasizing the removal of large roots to ensure effective land preparation.</li> <li>• List the tools, implements, and equipment needed for land preparation activities.</li> <li>• Elucidate the importance of removing unwanted vegetation, rocks, and debris during land preparation for orchards and plantations.</li> <li>• Describe the process of levelling the land and applying manure to enhance soil fertility.</li> <li>• Elaborate on the significance of thorough ploughing in orchard land preparation.</li> <li>• Define the appropriate pit depth and dimensions required for planting various fruit plants and trees in orchards.</li> <li>• Explain the methods of preparing compost and incorporating it into the soil for improved fertility.</li> <li>• Discuss the common materials used in mulching, such as straw, wood chips, and tree bark.</li> <li>• Describe the importance of constructing</li> </ul>	<ul style="list-style-type: none"> <li>• Show how to organize and prepare the necessary tools, implements, equipment, and PPE for orchard land preparation activities.</li> <li>• Demonstrate the proper technique for removing unwanted vegetation, rocks, and debris from the land using tools like ploughs and discs.</li> <li>• Show how to apply appropriate soil amendments, including organic matter, lime, and specific fertilizers, to improve soil fertility.</li> <li>• Demonstrate the use of tools and materials for marking lines, curves, and shapes on the field as instructed.</li> <li>• Show how to install an irrigation system, such as drip irrigation, in the orchard to ensure consistent and efficient water supply.</li> <li>• Demonstrate the proper technique for creating planting holes with recommended dimensions and spacing for different fruit varieties.</li> <li>• Show how to plant trees at the appropriate depth, ensuring straight alignment and proper placement of the root collar.</li> <li>• Show how to carry out mulching around the base of trees for soil moisture conservation and weed suppression.</li> <li>• Demonstrate the installation of support structures, such as stakes or trellises, to</li> </ul>

<p>proper drainage systems in orchards.</p> <ul style="list-style-type: none"> <li>• Explain the methods, tools, and materials involved in constructing proper drainage systems in orchards.</li> <li>• Explain the significance of marking lines, curves, and shapes on the field for activities like planting using relevant tools.</li> </ul>	<p>aid young tree establishment.</p> <ul style="list-style-type: none"> <li>• Show how to create drains in the orchard to facilitate proper drainage of excess water.</li> <li>• Demonstrate the proper maintenance of tools, implements, and equipment used in orchard land preparation.</li> </ul>
<b>Classroom Aids</b>	
Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video <b>Films</b>	
<b>Tools, Equipment and Other Requirements</b>	
<p>Levelling Implements, Harrow, Rotary Slasher, Brush Cutter, Chain Saw, Bamboo Canes, Measuring Tapes (Greater than 25Ft), Ranging Poles/Rods, V Drill, Rope (Jute or Cotton or Nylon) (At Least 50 Meters), Sand, Fawda, Khurpi, Shovel, Stirring Rod</p>	

## Module 3: Maintenance of Plants and Trees

Mapped to AGR/N0546, v1.0

### Terminal Outcomes:

- Explain the procedures for carrying out basic trimming and pruning activities in orchards.
- Describe the methods for applying pesticides, herbicides, and fertilizers to maintain plant and tree health.
- Discuss the steps involved in carrying out irrigation activities for effective maintenance in orchards.

Duration: 30:00	Duration: 30:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> <li>• Explain the importance of pruning, training, and trimming of plants, vines, and trees in an orchard.</li> <li>• Discuss the tools and implements for basic trimming and pruning activities.</li> <li>• Describe the appropriate methods for pruning, training, and trimming.</li> <li>• Explain the symptoms and control of pest and disease infestation in fruit trees, plants, and vines.</li> <li>• Define the categories and purpose of chemicals used for protecting fruit crops.</li> <li>• Discuss the process of preparing and applying pesticides, herbicides, and fungicides for the management of plant diseases and pests.</li> <li>• Discuss the composition and use of different organic and inorganic fertilizers.</li> <li>• Explain the Integrated Pest and Disease Management (IPDM) approach and its application in controlling pest and disease infestation.</li> <li>• Discuss the different types of weeds found in orchards and describe weed control measures.</li> <li>• Explain the basics of regulations applicable to the use of pesticides, herbicides, fungicides, and inorganic fertilizers in orchards.</li> <li>• Describe different methods of applying fertilizers and factors influencing the</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate the proper technique for removing dead, diseased, and damaged branches.</li> <li>• Show how to sterilize pruning and trimming tools using recommended disinfectants to prevent disease spread.</li> <li>• Demonstrate the installation of traps and monitoring devices to detect pests and identify pest and disease symptoms.</li> <li>• Show how to use appropriate cultural, biological, mechanical, and chemical control methods for pest and disease management.</li> <li>• Demonstrate the use of Personal Protective Equipment (PPE) while preparing and applying pesticides, herbicides, and fertilizers.</li> <li>• Show how to apply chemical treatments in the recommended quantity to avoid adverse impacts on plants, trees, crops, and the environment.</li> <li>• Demonstrate the proper use of plant protection equipment, such as dusters and foggers, ensuring safety and effectiveness.</li> <li>• Show how to apply organic mulch and use appropriate tools for weed control in orchards.</li> <li>• Demonstrate the identification and removal of different types of weeds using suitable tools and implements.</li> <li>• Show how to apply appropriate herbicides selectively, following label</li> </ul>

<p>timing and dose of fertilizer application in orchards.</p> <ul style="list-style-type: none"> <li>• Explain the purpose, preparation, application, advantages, and disadvantages of farmyard and green manure in orchard maintenance.</li> <li>• Define the water requirements of different fruit trees, plants, and vines at various growth stages.</li> <li>• Describe the importance of appropriate irrigation systems for orchards.</li> </ul>	<p>instructions for weed control in orchards.</p> <ul style="list-style-type: none"> <li>• Demonstrate the removal and disposal of infected or infested plant material from the orchard.</li> <li>• Show how to assist in maintaining records related to pest and disease occurrences, treatments applied, and their effectiveness.</li> <li>• Demonstrate the application of organic and inorganic fertilizers in orchards using appropriate methods, adjusting quantities based on crop growth stages.</li> <li>• Show how to utilize organic waste generated in the orchard for preparing green and farmyard manure.</li> <li>• Demonstrate the installation of an appropriate irrigation system, such as drip irrigation, for efficient orchard irrigation.</li> <li>• Show how to determine the water requirements of different fruit plants, trees, and vines at different growth stages.</li> <li>• Show how to monitor soil moisture, make appropriate adjustments in irrigation activities, and drain excess water to prevent water stagnation.</li> <li>• Demonstrate regular weeding practices in the orchard to prevent competition for irrigation water and nutrients.</li> </ul>
<b>Classroom Aids</b>	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
<b>Tools, Equipment and Other Requirements</b>	
Pruning Saw, Pruning Shears, Long Reach Pruner, Sharp Knife, Sickel, Picking Mat, Foliar Spray, Moisture Meter, Copper Sulphate	

## Module 4: Harvesting and Post-Harvesting Activities in Plantations

Mapped to AGR/N0547, v1.0

### Terminal Outcomes:

- Describe the procedures for carrying out harvesting activities in orchards/plantations.
- Explain the tasks involved in carrying out post-harvest activities for orchards/plantations.
- Discuss the steps for effective implementation of harvesting and post-harvest tasks in orchards/plantations.

Duration: 20:00	Duration: 40:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> <li>• Explain the factors influencing the optimal stage of fruit maturity for harvesting.</li> <li>• Describe the elements and considerations in efficient harvesting planning.</li> <li>• Discuss the importance of selecting and using appropriate harvesting tools.</li> <li>• Elucidate techniques for minimizing damage during harvesting.</li> <li>• Explain hygiene practices for clean tool usage during fruit detachment.</li> <li>• Discuss methods and importance of identifying and segregating infested fruits.</li> <li>• Discuss the Factors Influencing Sorting of Harvested Fruits</li> <li>• Elucidate the Role of Weighing Machines in Post-Harvest Activities</li> <li>• Explain the Significance of Packaging Materials in Fruit Packing</li> <li>• Discuss Marketing Strategies for Promoting Harvested Fruits</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate identifying the optimal stage of fruit maturity for harvesting, considering color, size, texture, and taste.</li> <li>• Show planning harvesting activities efficiently, considering targets and quality specifications.</li> <li>• Demonstrate arranging and using suitable harvesting tools, such as hand shears or pole pickers, based on fruit type and height.</li> <li>• Show implementing appropriate harvesting techniques to minimize damage, particularly bruising.</li> <li>• Demonstrate ensuring the use of clean tools during the cutting or detachment of fruits from trees.</li> <li>• Show handling harvested fruits carefully to prevent damage, utilizing containers with cushioning materials for mechanical injury reduction.</li> <li>• Demonstrate conducting fruit harvesting during the coolest part of the day to minimize temperature-related stress.</li> <li>• Show following proper hygiene and personal safety procedures throughout the harvesting process.</li> <li>• Demonstrate identifying and segregating fruits with biological infestation and physical injuries during post-harvest activities.</li> <li>• Show sorting harvested fruits based on size, color, and quality for marketing purposes, ensuring uniformity in the final</li> </ul>

	product.
<b>Classroom Aids:</b>	
Computer, Projection Equipment, PowerPoint Presentation and Software, Facilitator's Guide, Participant's Handbook.	
<b>Tools, Equipment and Other Requirements</b>	
Fruit Packaging Tools, Harvest Weighing Machine, Hand-Held Knife, Picking Mat, Long Rubber Gloves, Hats/Caps/Helmets, Polythene Bags, Face Mask / Face Shield, Respirator, Waterproof Aprons, Safety Shoes, Powdered Fertilizers (Urea, DAP, MOP)	

## Module 5: Hygiene and cleanliness

### Mapped to NOS AGR/N9903 v4.0

#### Terminal Outcomes:

- Discuss how to adhere to personal hygiene practices.
- Demonstrate ways to ensure cleanliness around the workplace.

Duration: 03:00	Duration: 03:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> <li>● Explain the requirements of personal health, hygiene and fitness at work.</li> <li>● Describe common health-related guidelines laid down by the organizations/ Government at the workplace.</li> <li>● Explain the importance of good housekeeping at the workplace.</li> <li>● Explain the importance of informing the designated authority on personal health issues related to injuries and infectious diseases.</li> </ul>	<ul style="list-style-type: none"> <li>● Demonstrate personal hygiene practices to be followed at the workplace.</li> <li>● Demonstrate the correct way of washing hands using soap and water, and alcohol-based hand rubs.</li> <li>● Demonstrate the steps to follow to put on and take off a mask safely.</li> <li>● Show how to sanitize and disinfect one's work area regularly.</li> <li>● Demonstrate adherence to the workplace sanitization norms.</li> <li>● Show how to ensure cleanliness of the work area.</li> </ul>
<b>Classroom Aids:</b>	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook.	
<b>Tools, Equipment and Other Requirements</b>	
Personal Protective Equipment, Cleaning Equipment and Materials, Sanitizer, Soap, Mask	



## Module 6: Safety and emergency procedures

### Mapped to NOS AGR/N9903 v4.0

#### Terminal Outcomes:

- Describe how to adhere to safety guidelines.
- Show how to administer appropriate emergency procedures.

Duration: 17:00	Duration: 07:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> <li>• List the Personal Protective Equipment (PPE) required at the workplace.</li> <li>• Describe the commonly reported hazards at the workplace.</li> <li>• Describe the hazards caused due to chemicals/pesticides/fumigants.</li> <li>• Describe the basic safety checks to be done before the operation of any equipment/machinery.</li> <li>• Describe the common first aid procedures to be followed in case of emergencies.</li> <li>• State measures that can be taken to prevent accidents and damages at the workplace.</li> <li>• Explain the importance of reporting details of first aid administered, to the reporting officer/doctor, in accordance with workplace procedures.</li> <li>• State common health and safety guidelines to be followed at the workplace.</li> </ul>	<ul style="list-style-type: none"> <li>• Check various areas of the workplace for leakages, water-logging, pests, fire, etc.</li> <li>• Demonstrate how to safely use the PPE and implements as applicable to the workplace.</li> <li>• Display the correct way of donning, doffing and discarding PPE such as face masks, hand gloves, face shields, PPE suits, etc.</li> <li>• Sanitize the tools, equipment and machinery properly.</li> <li>• Demonstrate the safe disposal of waste.</li> <li>• Demonstrate procedures for dealing with accidents, fires and emergencies.</li> <li>• Demonstrate emergency procedures to the given workplace requirements.</li> <li>• Demonstrate the use of emergency equipment in accordance with manufacturers' specifications and workplace requirements.</li> <li>• Demonstrate the administration of first aid.</li> <li>• Prepare a list of relevant hotline/emergency numbers.</li> </ul>
<b>Classroom Aids:</b>	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook.	
<b>Tools, Equipment and Other Requirements</b>	
Personal protective equipment, first aid kit, equipment used in medical emergencies.	

## Module 7: Employability Skills

Mapped to DGT/VSQ/N0101, v1.0

**Duration: 30:00**

### Key Learning Outcomes

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

After completing this programme, participants will be able to:

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

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

2. Explain constitutional values, civic rights, duties, citizenship, responsibility towards society etc. that are required to be followed to become a responsible citizen.

3. Show how to practice different environmentally sustainable practices

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

4. Discuss 21st-century skills.

5. Display a positive attitude, self-motivation, problem-solving, time management skills and continuous learning mindset in different situations.

#### Basic English Skills Duration: 2 Hours

6. Use appropriate basic English sentences/phrases while speaking

#### Communication Skills Duration: 4 Hours

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

8. Demonstrate working with others in a team

#### Diversity & Inclusion Duration: 1 Hour

9. Show how to conduct oneself appropriately with all genders and PwD

10. Discuss the significance of reporting sexual harassment issues in time

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

11. Discuss the significance of using financial products and services safely and securely.

12. Explain the importance of managing expenses, income, and savings.

13. Explain the significance of approaching the concerned authorities in time for any exploitation as per legal rights and laws

#### Essential Digital Skills Duration: 3 Hours

14. Show how to operate digital devices and use the associated applications and features, safely and securely

15. Discuss the significance of using the internet for browsing, and accessing social media platforms, safely and securely

**Entrepreneurship Duration: 7 Hours**

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

**Customer Service Duration: 4 Hours**

17. Differentiate between types of customers

18. Explain the significance of identifying customer needs and addressing them

19. Discuss the significance of maintaining hygiene and dressing appropriately

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

20. Create a biodata

21. Use various sources to search and apply for jobs

22. Discuss the significance of dressing up neatly and maintaining hygiene for an interview

23. Discuss how to search and register for apprenticeship opportunities

## Module 8: Growing Oilpalm in a Plantation

*Mapped to, AGR/N0548, v1.0*

### Terminal Outcomes:

- Explain the process of planting oil palm seedlings.
- Discuss the essential tasks involved in maintaining oil palm trees.
- Describe the key steps in harvesting oil palm fruit.

Duration: 15:00	Duration: 15:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> <li>• Explain the significance of having well-drained loamy soil with good fertility and drainage for an oil palm orchard.</li> <li>• Elucidate the importance of incorporating organic matter into the soil to improve soil structure and fertility in the context of oil palm cultivation.</li> <li>• Discuss the optimal planting seasons for oil palm trees, considering climatic requirements and shade preferences.</li> <li>• Describe the specific maintenance requirements for oil palm trees, including the recommended dimensions for planting holes and spacing between them.</li> <li>• Determine the advantages of planting oil-palm seedlings or pre-nursery germinated seeds at the beginning of the rainy season with high soil moisture levels.</li> <li>• Explain the role of applying recommended organic/inorganic fertilizers in providing essential nutrients to oil palm trees.</li> <li>• Discuss the key principles of Integrated Pest and Disease Management (IPDM) strategies and their application in controlling pests and diseases in oil palm cultivation.</li> <li>• Describe the appropriate pruning and training techniques for oil palm trees to ensure optimal growth and productivity.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate site selection for oil palm cultivation in a tropical orchard, considering climate, temperatures, and rainfall.</li> <li>• Show field preparation for oil palm by removing weeds, rocks, and debris.</li> <li>• Demonstrate the process of selecting disease-resistant, high-yielding oil palm varieties adapted to local conditions.</li> <li>• Show proper irrigation techniques for oil palm trees based on recommended schedules.</li> <li>• Demonstrate the identification of maturity indicators in oil palm fruit.</li> <li>• Show the appropriate tools and techniques for harvesting oil palm fruit.</li> <li>• Demonstrate post-harvest processing steps to extract palm oil from harvested fruit.</li> </ul>
<b>Classroom Aids:</b>	

Black/White board, marker, Projector/LED Monitor, Computer, Trade specific charts, Safety tags, Safety Notice board, registers and other teaching aids

### **Tools, Equipment and Other Requirements**

Respiratory Masks, Pruning Saw, Levelling Implements, Garden Hose Pipe, Fruit Packaging Tools, Harvest Weighing Machine, Harrow, Measuring Tapes (Greater Than 25Ft), Ranging Poles/Rods, Chain Saw, Bamboo Canes, Rotary Slasher, Installed Video Camera With High Resolution And Recording Facility, Hand-Held Knife, Long Rubber Gloves, Hats/Caps/Helmets, Polythene Bags, Face Mask / Face Shield, Respirator, Waterproof Aprons, Lime, Sprayer, Fire Extinguisher, Spray Marker/Paint, Pegs, V Drill, Rope (Jute Or Cotton Or Nylon) (At Least 50 Meters), Sand, Fawda, Khurpi, Moisture Meter, Stapler, Pesticide Spraying Machine, Wet And Dry Coffee Seeds, Shovel, Sickle, Pruning Shears, Long Reach Pruner, Sharp Knife, Stirring Rod, Plastic Bucket, Picking Mat, Powdered Fertilizers (Urea, DAP, MOP), Foliar Spray, Safety Shoes, Copper Sulfate

## Module 9: Growing Palmyrah in a Plantation

*Mapped to, AGR/N0549, v1.0*

### Terminal Outcomes:

- Explain the process of planting palmyrah trees.
- Discuss the maintenance practices involved in caring for palmyrah trees.
- Describe the methods used for harvesting palmyrah fruit.

Duration: 15:00	Duration: 15:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> <li>• Explain the significance of ensuring that the orchard has well-drained sandy or loamy soil with good fertility for palmyrah cultivation.</li> <li>• Elucidate the process of preparing planting holes of recommended dimensions to accommodate the root system of palmyrah seedlings.</li> <li>• Discuss the importance of adjusting fertilizer application according to the growth stages of palmyrah trees.</li> <li>• Describe the appropriate measures one should follow to control weed infestation among palmyrah trees.</li> <li>• Determine the steps involved in applying recommended organic/inorganic fertilizers to provide essential nutrients to palmyrah trees.</li> <li>• Explain the concept of Integrated Pest and Disease Management (IPDM) strategies and how they can be applied to control pests and diseases in palmyrah cultivation.</li> <li>• Discuss the recommended irrigation schedule for palmyrah trees and supplemental irrigation during dry periods.</li> <li>• Discuss the maturity indicators that can be used to identify ripe palmyrah fruit.</li> <li>• Elucidate the appropriate pruning techniques for palmyrah trees and their significance in orchard management.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate selecting a suitable site in the orchard for palmyrah cultivation in a tropical or subtropical climate with moderate rainfall.</li> <li>• Show field preparation for palmyrah cultivation, including weed, rock, and debris removal.</li> <li>• Demonstrate the process of selecting high-yielding, disease-resistant palmyrah varieties adapted to local climate and soil conditions.</li> <li>• Show how to maintain recommended spacing between planting holes for palmyrah trees.</li> <li>• Demonstrate planting palmyrah seedlings or germinated seeds at the onset of the rainy season with optimal soil moisture.</li> <li>• Demonstrate appropriate harvesting techniques for palmyrah fruit to ensure optimal yield and quality.</li> <li>• Demonstrate post-harvest processing methods suitable for palmyrah fruit.</li> </ul>
<b>Classroom Aids:</b>	

Black/White board, marker, Projector/LED Monitor, Computer, Trade specific charts, Safety tags, Safety Notice board, registers and other teaching aids

### **Tools, Equipment and Other Requirements**

Respiratory Masks, Pruning Saw, Levelling Implements, Garden Hose Pipe, Fruit Packaging Tools, Harvest Weighing Machine, Harrow, Measuring Tapes (Greater Than 25Ft), Ranging Poles/Rods, Chain Saw, Bamboo Canes, Rotary Slasher, Installed Video Camera With High Resolution And Recording Facility, Hand-Held Knife, Long Rubber Gloves, Hats/Caps/Helmets, Polythene Bags, Face Mask / Face Shield, Respirator, Waterproof Aprons, Lime, Sprayer, Fire Extinguisher, Spray Marker/Paint, Pegs, V Drill, Rope (Jute Or Cotton Or Nylon) (At Least 50 Meters), Sand, Fawda, Khurpi, Moisture Meter, Stapler, Pesticide Spraying Machine, Wet And Dry Coffee Seeds, Shovel, Sickle, Pruning Shears, Long Reach Pruner, Sharp Knife, Stirring Rod, Plastic Bucket, Picking Mat, Powdered Fertilizers (Urea, DAP, MOP), Foliar Spray, Safety Shoes, Copper Sulfate



## Module 10: Growing Arecanut and Betelvine in a Plantation

Mapped to, AGR/N0550, v1.0

### Terminal Outcomes:

- Explain the process of planting arecanut and betelvine crops.
- Discuss the methods involved in maintaining arecanut and betelvine crops.
- Describe the steps in harvesting arecanut and betelvine crops.
- Elucidate the post-harvest activities associated with arecanut and betelvine crops.

Duration: 15:00	Duration: 15:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> <li>• Explain the process of coordinating soil testing with a government-approved laboratory to ensure it is suitable for arecanut and betelvine cultivation.</li> <li>• Discuss the recommended spacing for planting arecanut suckers or seeds and explain the importance of adhering to these guidelines.</li> <li>• Describe the steps involved in preparing betelvine cuttings, including the criteria for selecting healthy vines and the necessity of having at least two nodes in each cutting.</li> <li>• Discuss the preventive and remedial measures that should be followed to protect arecanut and betelvine crops from pests and diseases.</li> <li>• Elucidate the significance of pruning arecanut and betelvine vines and describe the techniques used to promote their healthy growth.</li> <li>• Determine the harvesting techniques that are appropriate for arecanut and betelvine crops.</li> <li>• Explain the relevant handling practices and post-harvest processing methods applicable to arecanut and betelvine crops.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate how to select a suitable location in the orchard with well-drained soil and adequate access to sunlight.</li> <li>• Show how to collect soil samples from the orchard and label them with the required information.</li> <li>• Demonstrate the process of preparing the field by tilling and incorporating organic matter and other recommendations from the soil-testing laboratory.</li> <li>• Show how to install appropriate support for the growing arecanut palms.</li> <li>• Demonstrate the proper irrigation practices for arecanut and betelvine vines according to the applicable irrigation schedule.</li> <li>• Demonstrate the process of identifying and removing weeds growing among arecanut and betelvine crops.</li> <li>• Show how to identify the maturity indicators of arecanut and betelvine crops.</li> <li>• Demonstrate the proper techniques for harvesting arecanuts and betel leaves using the appropriate tools and equipment.</li> </ul>
<b>Classroom Aids:</b>	
Black/White board, marker, Projector/LED Monitor, Computer, Trade specific charts, Safety tags, Safety Notice board, registers and other teaching aids	

### Tools, Equipment and Other Requirements

Respiratory Masks, Pruning Saw, Levelling Implements, Garden Hose Pipe, Fruit Packaging Tools, Harvest Weighing Machine, Harrow, Measuring Tapes (Greater Than 25Ft), Ranging Poles/Rods, Chain Saw, Bamboo Canes, Rotary Slasher, Installed Video Camera With High Resolution And Recording Facility, Hand-Held Knife, Long Rubber Gloves, Hats/Caps/Helmets, Polythene Bags, Face Mask / Face Shield, Respirator, Waterproof Aprons, Lime, Sprayer, Fire Extinguisher, Spray Marker/Paint, Pegs, V Drill, Rope (Jute Or Cotton Or Nylon) (At Least 50 Meters), Sand, Fawda, Khurpi, Moisture Meter, Stapler, Pesticide Spraying Machine, Wet And Dry Coffee Seeds, Shovel, Sickle, Pruning Shears, Long Reach Pruner, Sharp Knife, Stirring Rod, Plastic Bucket, Picking Mat, Powdered Fertilizers (Urea, DAP, MOP), Foliar Spray, Safety Shoes, Copper Sulfate

## Module 11: Growing Cocoa in a Plantation

Mapped to, AGR/N0551, v1.0

### Terminal Outcomes:

- Explain the process of planting cocoa seedlings.
- Discuss the maintenance practices involved in caring for cocoa trees.
- Describe the steps taken in carrying out harvesting and post-harvest activities for cocoa.

Duration: 15:00	Duration: 15:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> <li>• Explain how to incorporate organic matter into the soil to improve its fertility and structure.</li> <li>• Discuss the criteria for selecting cocoa varieties that are well-suited to the local climate and soil conditions.</li> <li>• Describe the planning considerations for cocoa planting that utilize the shade of orchard trees to protect cocoa trees from sunlight.</li> <li>• Elucidate the process of preparing planting holes of recommended dimensions to accommodate the root system of cocoa seedlings.</li> <li>• Determine the importance of maintaining recommended spacing between cocoa planting holes.</li> <li>• Elucidate the appropriate measures for controlling weed infestation among cocoa trees.</li> <li>• Discuss the strategies involved in Integrated Pest and Disease Management (IPDM) for controlling pests and diseases in cocoa cultivation.</li> <li>• Describe the pruning and training techniques used for cocoa trees.</li> <li>• Explain the tools, equipment, and techniques relevant to harvesting cocoa pods.</li> <li>• Discuss the handling practices and post-harvest processing methods for cocoa.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate how to select a suitable site within the orchard for cocoa cultivation, considering a warm, humid climate and well-drained soil.</li> <li>• Show how to prepare the field for cocoa cultivation by clearing weeds, rocks, and debris.</li> <li>• Demonstrate the application of recommended organic/inorganic fertilizers to provide essential nutrients to cocoa trees.</li> <li>• Show the proper technique for mulching around the base of cocoa trees to conserve soil moisture.</li> <li>• Demonstrate the irrigation process for cocoa trees in accordance with the recommended schedule.</li> <li>• Show how to identify maturity indicators of cocoa crops.</li> <li>• Demonstrate the harvesting of cocoa pods, either by hand-picking or using appropriate harvesting tools.</li> <li>• Show how to ensure careful handling during cocoa pod and tree harvesting to avoid damage.</li> <li>• Demonstrate the process of fermenting, drying, and roasting cocoa beans to develop the characteristic cocoa flavor.</li> </ul>
<b>Classroom Aids:</b>	

Black/White board, marker, Projector/LED Monitor, Computer, Trade specific charts, Safety tags, Safety Notice board, registers and other teaching aids

### **Tools, Equipment and Other Requirements**

Respiratory Masks, Pruning Saw, Levelling Implements, Garden Hose Pipe, Fruit Packaging Tools, Harvest Weighing Machine, Harrow, Measuring Tapes (Greater Than 25Ft), Ranging Poles/Rods, Chain Saw, Bamboo Canes, Rotary Slasher, Installed Video Camera With High Resolution And Recording Facility, Hand-Held Knife, Long Rubber Gloves, Hats/Caps/Helmets, Polythene Bags, Face Mask / Face Shield, Respirator, Waterproof Aprons, Lime, Sprayer, Fire Extinguisher, Spray Marker/Paint, Pegs, V Drill, Rope (Jute Or Cotton Or Nylon) (At Least 50 Meters), Sand, Fawda, Khurpi, Moisture Meter, Stapler, Pesticide Spraying Machine, Wet And Dry Coffee Seeds, Shovel, Sickle, Pruning Shears, Long Reach Pruner, Sharp Knife, Stirring Rod, Plastic Bucket, Picking Mat, Powdered Fertilizers (Urea, DAP, MOP), Foliar Spray, Safety Shoes, Copper Sulfate

## Module 12: Growing Cashew Nut in a Plantation

Mapped to, **AGR/N0552, v1.0**

### Terminal Outcomes:

- Explain the process of planting cashew nut seedlings.
- Discuss the essential steps involved in maintaining cashew nut trees.
- Describe the activities associated with carrying out harvesting and post-harvest activities for cashew nuts.

Duration: 15:00	Duration: 15:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> <li>• Explain soil assessment for loaminess and drainage and discuss amending soil pH as needed for cashew cultivation.</li> <li>• Elucidate the incorporation of organic matter to enhance fertility and structure in cashew tree cultivation.</li> <li>• Discuss criteria for selecting high-yielding, disease-resistant cashew varieties suited to local climate and soil conditions.</li> <li>• Describe strategies for Integrated Pest and Disease Management (IPDM) in cashew trees.</li> <li>• Determine recommended pruning techniques for maintaining cashew tree health and productivity.</li> <li>• Discuss irrigation requirements for cashew trees at different growth stages.</li> <li>• Explain preventive measures and control strategies for managing cashew tree pests and diseases.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate how to select a suitable site within the orchard with a warm climate and good sunlight exposure for cashew tree cultivation.</li> <li>• Show how to prepare the field for cashew cultivation by removing weeds, rocks, and debris from the land.</li> <li>• Demonstrate the process of preparing planting holes of recommended dimensions to accommodate the root system of cashew seedlings.</li> <li>• Illustrate the proper irrigation practices for cashew trees according to the applicable irrigation schedule.</li> <li>• Show how to identify and remove weeds around cashew trees using the appropriate tools.</li> <li>• Demonstrate the application of mulch around the base of cashew trees to suppress weed growth and conserve soil moisture.</li> <li>• Show how to identify the maturity indicators of cashew nuts.</li> <li>• Show the use of appropriate harvesting tools, equipment, and techniques for harvesting cashew nuts.</li> <li>• Demonstrate relevant handling practices for cashew nuts during and after harvesting.</li> </ul>
<b>Classroom Aids:</b>	
Black/White board, marker, Projector/LED Monitor, Computer, Trade specific charts, Safety tags, Safety Notice board, registers and other teaching aids	

### Tools, Equipment and Other Requirements

Respiratory Masks, Pruning Saw, Levelling Implements, Garden Hose Pipe, Fruit Packaging Tools, Harvest Weighing Machine, Harrow, Measuring Tapes (Greater Than 25Ft), Ranging Poles/Rods, Chain Saw, Bamboo Canes, Rotary Slasher, Installed Video Camera With High Resolution And Recording Facility, Hand-Held Knife, Long Rubber Gloves, Hats/Caps/Helmets, Polythene Bags, Face Mask / Face Shield, Respirator, Waterproof Aprons, Lime, Sprayer, Fire Extinguisher, Spray Marker/Paint, Pegs, V Drill, Rope (Jute Or Cotton Or Nylon) (At Least 50 Meters), Sand, Fawda, Khurpi, Moisture Meter, Stapler, Pesticide Spraying Machine, Wet And Dry Coffee Seeds, Shovel, Sickle, Pruning Shears, Long Reach Pruner, Sharp Knife, Stirring Rod, Plastic Bucket, Picking Mat, Powdered Fertilizers (Urea, DAP, MOP), Foliar Spray, Safety Shoes, Copper Sulfate

## Module 13: On-the-Job Training

### Mapped to Plantation Worker

<b>Mandatory Duration: 30:00</b>	<b>Recommended Duration: 00:00</b>
<b>Location: On-Site</b>	
<b>Terminal Outcomes</b> <ul style="list-style-type: none"> <li>• Demonstrate or show how to prepare land for planting in orchards.</li> <li>• Demonstrate or show how to maintain plants and trees in orchards for optimal growth.</li> <li>• Demonstrate or show how to harvest various crops in orchards.</li> <li>• Demonstrate or show how to perform post-harvest activities, including sorting, packing, and storage in orchards.</li> <li>• Demonstrate or show how to grow oilpalm in an orchard, including the process and considerations involved.</li> <li>• Demonstrate or show how to cultivate palmyrah in an orchard, highlighting cultivation methods and benefits.</li> <li>• Demonstrate or show how to cultivate arecanut and betelvine in an orchard, considering techniques and factors.</li> <li>• Demonstrate or show how to successfully grow cocoa in an orchard, explaining the steps and requirements.</li> <li>• Demonstrate or show the optimal practices for cultivating cashew nuts in an orchard and discuss associated challenges.</li> </ul>	



## Annexure

### Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialisation	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
class 10th		7	Fruit Crops Cultivation	0		Orchard/Plantation Worker with 7 year-experience of working with registered Orchard after 10th Pass
Class 12th		4	Fruit Crops Cultivation	0		Ex-Service-Man including Ex-Paramilitary personnel: Minimum Qualification is 10+2 with an Honorable Discharge/Pension. SSC would consider a relaxation/waiver of sector specific experience on case to case basis.
Diploma	Agriculture/ Horticulture	3	Fruit Crops Cultivation	0		
Graduate		2	Fruit Crops Cultivation	0		For school Program minimum qualification of Trainer should be Graduate. Their Teaching experience will be considered industry experience
B.Sc.	Agriculture / Horticulture / Botany	0.5	Fruit Crops Cultivation			
Post Graduate	Agriculture / Horticulture / Botany	0				

Trainer Certification	
Domain Certification	Platform Certification
Certified for Job Role “Orchard/Plantation Worker”, mapped to QP: “AGR/Q0308, v2.0”, Minimum accepted score is 80%	Recommended that the Trainer is certified for the Job Role: “Trainer (Vet and Skills)”, mapped to the Qualification Pack: “MEP/Q2601, v2.0”. The minimum accepted score as per MEPSC guidelines is 80%.

## Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
Graduation	Agriculture/ Botany/ Horticulture and related streams	5	Pomiculture			
Post-Graduation	Agriculture/ Botany/ Horticulture and related streams	2	Pomiculture			
PhD	Agriculture/ Botany/ Horticulture and related streams	1	Pomiculture			

Assessor Certification	
Domain Certification	Platform Certification
Certified for Job Role “Orchard/Plantation Worker”, mapped to QP: “AGR/Q0308, v2.0”, Minimum accepted score is 80%	Certified for the Job Role: “Assessor (Vet and Skills)”, mapped to the Qualification Pack: “MEP/Q2701, v2.0”, with a minimum score of 80%.

## Assessment Strategy

### Assessment System Overview

In Agriculture Sector, it is of ultimate importance that individuals dealing with crop production or livestock have the requisite knowledge and competencies to undertake the task. Based on the Assessment Criteria, SSC in association with empaneled AAs, define the test structure for the given job roles to cover the required skills and competencies. Assessment strategy consists of the following:

1. Multiple Choice Questions: To assess basic knowledge (Objective/Subjective)
2. Viva: To assess awareness on processes (Oral and/or written questioning)
3. Practical: To evaluate skills and identify competencies. (Observation)

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

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

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

### Testing Environment

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

- In remote locations/villages, assessments get delivered through tablets without the requirement of the Internet.
- Multilingual assessments (ASCI is conducting the assessments in 13 + languages pan India)
- Rubric driven assessments in Practical/Viva sections and responses recorded accordingly
- All responses, data, records and feedback 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

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

## Assessment Quality Assurance framework

### Assessment Framework and Design:

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

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

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

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

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

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

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

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

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

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

- GeoTagging to track ongoing assessment
- AA's coordinator emails the list of documents and evidence (photos and videos) to the assessor one day before the assessment. The list is mentioned below:
  - Signed Attendance sheet
  - Assessor feedback sheet
  - Candidate feedback sheet
  - Assessment checklist for assessor
  - Candidate Aadhar/ID card verification
  - Pictures of the classroom, labs to check the availability of adequate equipment's and 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.
- Video Calls: Random video calls are made to the technical SPOC/assessor so as to keep a check on assessment quality and ensure assessment is carried out in a fair and transparent manner
- Aadhar verification of candidates
- Evening Check (Post Assessment): Calls are made to the ground team to ensure the event is over by what time and the documentation is done properly or not.
- TP Calling: To keep a check on malpractices, an independent audit team calls the TP on a recorded line to take confirmation if there was any malpractice activity observed in the assessment on part of the AA/SSC team. If calls are not connected, an email is sent to TP SPOC for taking their confirmation
- Video and Picture Evidence: Backend team collects video and pictures for assessment on a real-time basis and highlights any issue such as students sitting idle/ trainer helping the candidates during the assessment.

- **Surprise Visit:** Time to time SSC/AA Audit team can visit the assessment location and conduct a surprise audit for the assessment carried out by the ground team.
- **Geo Tagging:** On the day of the assessment, each technical SPOC is required to login into our internal app which is Geotagged. Any deviation with the centre address needs to be highlighted to the assessment team on a real-time basis.

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

- ASCI have a fully automated result generation process in association with multiple AAs
- Theory, Practical and Viva marks form the basis of the results and encrypted files generated to avoid data manipulation. All responses were captured and stored in the System with Time-Stamped 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 candidates shall be stored and available for review (retained for 5 years/ till the conclusion of the project or scheme)

## References

## Glossary

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



## Acronyms and Abbreviations

Term	Description
<b>AGR</b>	Agriculture
<b>IPM</b>	Integrated Pest Management
<b>NOS</b>	National Occupational Standard (s)
<b>NSQF</b>	National Skills Qualifications Framework
<b>OJT</b>	On-the-job Training
<b>PwD</b>	People with Disability
<b>PPE</b>	Personal Protective Equipment
<b>QP</b>	Qualifications Pack
<b>IPDM</b>	Integrated Pest and Disease Management