Model Curriculum

QP Name: Floriculturist

Electives: Rose/ Gerbera/ Chrysanthemum/ Orchid/ Marigold

QP Code: AGR/Q0701

Version: 3.0

NSQF Level: 4

Model Curriculum Version: 2.0

Agriculture Skill Council of India || Agriculture Skill Council of India (ASCI), 6th Floor, GNG Tower, Plot No. 10, Sector - 44

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Training Parameters

Sector	Agriculture
Sub-Sector	Agriculture Crop production
Occupation	Floriculture Farming
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/6113.0601
Minimum Educational Qualification and Experience	8th Class with 4 Years of relevant experience OR 10th Class Pass and pursuing continuous regular schooling OR 10th Class with 2 Years of relevant Experience OR Certificate-NSQF Level-4(Field Crop/Vegetable) with 6 months of relevant experience) Age: 17 Years
Pre-Requisite License or Training	NA
Minimum Job Entry Age	17 Years
Last Reviewed On	17/11/2022
Next Review Date	17/11/2025
NSQC Approval Date	17/11/2022
QP Version	3.0
Model Curriculum Creation Date	17/11/2022
Model Curriculum Valid Up to Date	17/11/2025
Model Curriculum Version	2.0
Minimum Duration of the Course	390 Hours
Maximum Duration of the Course	600 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:

- Describe the process of preparing for the cultivation of flower crop.
- Demonstrate the process of propagating flower plant saplings.
- Demonstrate the process of harvesting, transplanting and maintaining sapling to grow flowers.
- Demonstrate the process of carrying out harvesting and post-harvest management of flower crop.
- Explain the basic entrepreneurial activities for small enterprise.
- Describe the process of undertaking employability and entrepreneurial practices.
- Describe the process of engaging in collective farming/activity.
- Demonstrate various practices to maintain health, hygiene and safety at the workplace.
- Demonstrate the process of carrying out cultivation of rose flowers.
- Demonstrate the process of carrying out cultivation of gerbera flowers.
- Demonstrate the process of carrying out cultivation of chrysanthemum flowers.
- Demonstrate the process of carrying out cultivation of orchid flowers.
- Demonstrate the process of carrying out cultivation of marigold flowers.

Compulsory Modules

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

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
Bridge Module	**05:00**	**00:00**	**0:00**	**0:00**	**05:00**
Module 1: Introduction to the role of a Floriculturist	05:00	0:00	0:00	0:00	05:00
AGR/N0701 Prepare for the cultivation of flower crop **NOS Version- 2.0** **NSQF Level- 4**	**10:00**	**15:00**	**0:00**	**0:00**	**30:00**
Module 2: Process of preparing for the cultivation of flower crop	10:00	15:00	0:00	0:00	30:00
AGR/N0718 Propagate flower plant saplings **NOS Version- 1.0** **NSQF Level- 4**	**10:00**	**20:00**	**0:00**	**0:00**	**30:00**
Module 3: Process of propagating flower plant saplings	10:00	20:00	0:00	0:00	30:00

AGR/N0702 Harvest, transplant and maintain saplings to grow flowers **NOS Version- 2.0** **NSQF Level- 4**	**10:00**	**20:00**	**0:00**	**0:00**	**30:00**
Module 4: Process of harvesting, transplanting and maintaining sapling to grow flowers	10:00	20:00	0:00	0:00	30:00
AGR/N0703 Carry out harvesting and post-harvest management of flower crop **NOS Version-2.0** **NSQF Level- 4**	**15:00**	**45:00**	**0:00**	**0:00**	**60:00**
Module 5: Process of carrying out harvesting and post-harvest management of flower crop	15:00	45:00	0:00	0:00	60:00
AGR/N9908 Undertake basic entrepreneurial activities for small **Enterprise** **NOS Version- 2.0** **NSQF Level- 4**	**15:00**	**15:00**	**0:00**	**0:00**	**30:00**
Module 6: Basic entrepreneurial activities for small enterprise	15:00	15:00	0:00	0:00	30:00
AGR/N9922 Engage in collective farming/activity **NOS Version-1.0** **NSQF Level- 4**	**20:00**	**10:00**	**0:00**	**0:00**	**30:00**
Module 7: Engagement in collective/ farming activities	20:00	10:00	0:00	0:00	30:00
AGR/N9903 Maintain health and safety at the workplace **NOS Version- 3.0** **NSQF Level-4**	**15:00**	**15:00**	**0:00**	**0:00**	**30:00**
Module 8: Hygiene and cleanliness	05:00	05:00	0:00	0:00	10:00
Module 9: Safety and emergency procedures	10:00	10:00	0:00	0:00	20:00

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
DGT/VSQ/N0102 Employability Skills NOS Version-1.0 NSQF Level-4	**60:00**	**00:00**	**0:00**	**0:00**	**60:00**
Module 10: Employability Skills	60:00	00:00	0:00	0:00	60:00
Total Duration	**160:00**	**140:00**	**0:00**	**0:00**	**300:00**
OJT (Recommended): 30 hours					

Elective Module

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

Elective 1: Rose

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
AGR/N0719: Carry out cultivation of rose flowers NOS Version- 1.0 NSQF Level- 4	**20:00**	**40:00**	**0:00**	**0:00**	**60:00**
Module 11: Process of carrying out cultivation of rose flowers	20:00	40:00	0:00	0:00	60:00
Total Duration	**20:00**	**40:00**	**0:00**	**0:00**	**60:00**

Elective 2: Gerbera

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
AGR/N0720 Carry out cultivation of Gerbera flowers NOS Version- 1.0 NSQF Level- 4	**20:00**	**40:00**	**0:00**	**0:00**	**60:00**
Module 12: Process of carrying out cultivation of gerbera flowers	20:00	40:00	0:00	0:00	60:00
Total Duration	**20:00**	**40:00**	**0:00**	**0:00**	**60:00**

Elective 3: Chrysanthemum

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
AGR/N0721 Carry out cultivation of Chrysanthemum flowers **NOS Version- 1.0** **NSQF Level- 4**	**20:00**	**40:00**	**0:00**	**0:00**	**60:00**
Module 13: Process of carrying out cultivation of chrysanthemum flowers	20:00	40:00	0:00	0:00	60:00
Total Duration	**20:00**	**40:00**	**0:00**	**0:00**	**60:00**

Elective 4: Orchid

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
AGR/N0722 Carry out cultivation of Orchid flowers **NOS Version- 1.0** **NSQF Level- 4**	**20:00**	**40:00**	**0:00**	**0:00**	**60:00**
Module 14: Process of carrying out cultivation of orchid flowers	20:00	40:00	0:00	0:00	60:00
Total Duration	**20:00**	**40:00**	**0:00**	**0:00**	**60:00**

Elective 5: Marigold

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
AGR/N0723 Carry out cultivation of Marigold flowers **NOS Version- 1.0** **NSQF Level- 4**	**20:00**	**40:00**	**0:00**	**0:00**	**60:00**
Module 15: Process of carrying out cultivation of marigold flowers	20:00	40:00	0:00	0:00	60:00
Total Duration	**20:00**	**40:00**	**0:00**	**0:00**	**60:00**

Module Details

Module 1: Introduction to the role of a Floriculturist
Bridge Module

Terminal Outcomes:

- Discuss the job role of a Floriculturist.

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

Module 2: Process for preparing for the cultivation of flower crop
Mapped to AGR/N0701 v2.0

Terminal Outcomes:

- Describe the process of selecting the site and flower varieties to be grown.
- Describe the process of arranging the required resources.
- Demonstrate the process of preparing the field for flower cultivation.

Duration: 10:00	Duration: 15:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Explain the criteria for selecting a site for flower cultivation such as the recommended temperature, atmospheric humidity, and various limiting factors such as strong winds and hailstorms. - List various inputs required for flower cultivation. - Explain the soil requirements for growing different types of flowers. - Explain the criteria for selecting the relevant varieties of flower crop to be grown such as the climatic conditions, soil type, market demand and profitability. - Describe the process of procuring planting material and storing it appropriately. - Explain the importance of getting the soil tested through an approved lab to identify its treatment requirements. - Explain various treatments to be applied to the soil to improve its fertility, and adjust the pH, alkalinity and salinity levels. - Explain the importance of mixing sand and farmyard manure in the soil. - Explain the importance of creating drains in the field for the effective drainage of water. - Explain the importance of erecting fences around the field to protect it from animals.	- Demonstrate the process of applying the appropriate treatment to the soil as per the lab's recommendation. - Demonstrate how to remove all roots, debris, and waste materials from the field. - Demonstrate how to till the field to the required depth using the relevant farm machineries and mix sand in the soil in the prescribed quantity. - Show how to level the field appropriately. - Demonstrate the process of carrying out soil fumigation to prevent the growth of soil-borne pathogens. - Demonstrate the process of preparing ridges and furrows of the recommended dimensions and applying the recommended fertilisers to them. - Demonstrate the process of preparing sunken, level or raised nursery beds according to the requirement for raising saplings. - Demonstrate the process of installing the irrigation or fertigation system in the field. - Show how to create drains in the field for the effective drainage of water. - Show how to erect fences around the field to protect it from animals.
Classroom Aids	

Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop
Tools, Equipment and Other Requirements
Tractor, Leveller, Soil Sampling Equipment, Soil Testing Instruments, Spade

Module 3: Process of propagating flower plant saplings
Mapped to ARG/N0718 v1.0

Terminal Outcomes:

- Demonstrate the process of propagating saplings through seeds.
- Demonstrate the process of propagating saplings through the cutting method, division method, layering and budding method.

Duration: 10:00	Duration: 20:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Explain the importance and process of preparing the seedbed according to the local conditions. - Explain the importance of using treated soil for raising saplings. - Explain the importance of sowing seeds in the seedbed, polybags and containers at the recommended depth. - State the recommended quantity of water and organic or inorganic fertilisers to be applied to the sown seeds. - State the recommended period for maintaining saplings in the seedbed, polybags or containers before being harvested. - Explain the importance and process of acclimatizing saplings before transplanting them. - Explain the importance and process of extracting cuttings from a healthy plant and using them to propagate saplings. - Explain the importance of maintaining the required level of moisture and sunlight exposure for propagating saplings. - Explain the criteria for selecting a plant for extracting cuttings or roots. - Explain different ways of layering to propagate plants such as stem layering, tip layering and trunk layering. - State the approved pesticides and	- Demonstrate how to sort out the poor-quality or damaged seeds. - Demonstrate the process of carrying out the pre-sowing treatment of seeds. - Demonstrate the process of preparing the seedbed according to the local conditions. - Show how to fill in the polybags and containers with the recommended quantity of treated soil. - Demonstrate the process of sowing seeds in the seedbed, poly bags and containers at the recommended depth. - Demonstrate the process of applying the recommended quantity of water and organic or inorganic fertilisers on the sown seeds. - Demonstrate how to harvest and acclimatise the saplings before transplanting. - Show how to extract stems of the recommended specifications from the plant. - Demonstrate how to use rooting mixtures and plant growth hormones in appropriate quantities. - Show how to create root divisions from the plant's root. - Demonstrate the process of using the root divisions to propagate plants maintaining the recommended conditions.

insecticides to be used on saplings to protect them from pests and diseases.	• Demonstrate the process of applying the recommended quantity of water and fertilisers to support the growth of roots.
	• Demonstrate the process of preparing the rootstock for budding.
	• Show how to cut a bud-stick from a healthy and disease-free plant with the required characteristics.
	• Demonstrate the process of preparing and using bud-scion to propagate plants.
	• Demonstrate the process of applying the approved pesticides and insecticides to protect the saplings from pests and diseases.

Classroom Aids
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop
Tools, Equipment and Other Requirements
NA

Module 4: Process of harvesting, transplanting and maintaining saplings to grow flowers

Mapped to AGR/N0702 v2.0

Terminal Outcomes:

- Demonstrate the process of harvesting and transplanting the saplings.
- Describe the process of maintaining the flower plants and flowers.
- Demonstrate various practices for effective resource optimisation.
- Demonstrate various waste management practices.

Duration: 10:00	Duration: 20:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- State the indicators of maturity of a variety of saplings for being harvested. - List the relevant tools, implements and accessories required for harvesting and collecting saplings. - Explain the importance of transplanting saplings at the recommended planting depth and density. - Explain the importance of watering saplings with the recommended quantity and applying appropriate organic or inorganic fertilisers soon after transplanting. - Explain the importance of installing support such as bamboo sticks to train and support the saplings. - Explain the importance of protecting saplings from strong winds and excessive heat or cold. - Explain the importance of watering the plants with the recommended quantity, as per the irrigation schedule and prevailing weather conditions. - State various practices to be followed to protect the plants and flowers from pests and diseases. - Explain the use of a variety of organic preparations, pesticides, insecticides and fungicides for treating the	- Demonstrate the process of harvesting and collecting the saplings in appropriate baskets or containers, ensuring no damage to them. - Demonstrate the process of transplanting the saplings in the field using the appropriate tools and implements, at the recommended planting depth and density. - Show how to water the saplings with the recommended quantity and apply the recommended organic or inorganic fertilisers appropriately soon after transplanting. - Demonstrate the process of installing support such as bamboo sticks to train and support the saplings. - Demonstrate the process of applying the recommended organic and inorganic fertilisers in the prescribed quantity for the optimum growth of plants. - Show how to water the plants with the recommended quantity, as per the irrigation schedule and prevailing weather conditions. - Demonstrate the process of applying the recommended organic preparations and/ or pesticides, insecticides or fungicides to treat the infected plants and flowers. - Demonstrate the process of carrying out pruning to remove dead and

infected plants and flowers.

- Explain the importance and process of pruning different types of flower plants.

- Explain the use of mulch to prevent the growth of weeds and improve soil fertility.

- Describe the process of weeding out unwanted plants.

- Explain the importance of draining out water accumulated in the field to prevent root rot among the flower crop plants.

- Explain the benefits of resource optimisation.

- Explain the importance of recycling and disposing different types of waste as per the applicable regulations.

unwanted leaves and branches from plants.

- Show how to apply mulch in the field to prevent weed growth.

- Demonstrate the process of carrying out weeding to remove unwanted plants.

- Show how to drain out any water accumulated in the field to prevent root rot among the flower crop plants.

- Demonstrate various practices to optimise the usage of various resources such as water and electricity.

- Demonstrate the process of recycling and disposing different types of waste appropriately.

Classroom Aids
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop

Tools, Equipment and Other Requirements
Fertilisers, Plant Protection Chemicals, Sprayer Machine, Gloves, Tractor and Other Implements, Irrigation Equipment

Module 5: Process of carrying out harvesting and post-harvest management of flower crop
Mapped to NOS AGR/N0703 v2.0

Terminal Outcomes:

- Demonstrate the process of harvesting the flower crop.
- Demonstrate the process of carrying out post-harvest management.
- Demonstrate the process of preparing the storage area and storing the flower crop.
- Describe the process of marketing the flower crop.

Duration: 15:00	Duration: 45:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Explain the maturity indicators for varieties of flowers. - Explain various techniques for harvesting the flower crop. - Explain the criteria for sorting and grading the harvested flowers. - State the recommended temperature and humidity for storing flowers. - Describe the process of identifying the market demand for the flower crop, connecting with potential buyers and negotiating with them. - List different types of packing material suitable for flowers. - State the appropriate mode of transport for safe and hygienic delivery of flowers. - Explain the importance and process of maintaining the record of sales and payments.	- Demonstrate the process of harvesting the flower crop following the recommended harvesting technique, ensuring no damage to flowers. - Demonstrate the process of carrying out precooling of flowers to remove the field heat. - Show how to sort and grade the harvested flowers on the basis of applicable parameters such as appearance, size, stem thickness etc. - Demonstrate the process of applying the relevant treatment in the storage area to remove any pests, insects and rodents. - Demonstrate the process of preparing and applying the preservative solution on flowers to protect their freshness. - Show how to condition the flowers and pack them safely. - Demonstrate the use of relevant e-payment methods to process the payments. - Prepare a sample record of sales and payments.
Classroom Aids:	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Transportation, Vehicle, Packing Materials- Scissor, Polythene, Storage Infrastructure	

Module 6: Basic entrepreneurial activities for small enterprise

Mapped to AGR/N9908 v2.0

- Describe the process of planning the agricultural enterprise/ business.
- Describe the process of managing the agricultural production process.
- Describe the process of managing the post-production and marketing processes.

Duration: 15:00	Duration: 15:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Explain how to analyse the demand and supply of the relevant agricultural produce in the market - Describe the process of identifying the target customers and assess their needs and expectations with respect to the quality and price of the produce. - Explain how to identify various types of agricultural entrepreneurship/ business opportunities. - Explain how to prepare a basic business plan for agricultural entrepreneurship/business activities. - State the appropriate sources of funding for the agricultural entrepreneurship/ businesses - State the relevant government schemes and programs - Explain the importance of ensuring compliance with the government structural reforms and - framework, along with the applicable rules and regulations. - List various resources required for agricultural production - Describe the process of planning agricultural production and the use of relevant technologies to enhance production - Explain the importance of ensuring no cause adverse impact on the environment and produce during production - State the recommended practices to be followed for efficient input	- Demonstrate how to analyse the demand and supply of the relevant agricultural produce in the market. - Prepare a sample basic business plan for agricultural entrepreneurship/business activities. - Demonstrate how to calculate the costs incurred and determine the price of the product for profitability. - Prepare a sample marketing plan considering the 4Ps i.e., product, price, promotion, and place and 4As i.e., acceptability, affordability, accessibility, and awareness. - Demonstrate the process of using the relevant digital services such as e-commerce, e-payments, electronic recordkeeping, etc.

- resource management.

- Describe the process of optimising the production processes and output through the amalgamation of existing practices with smart technologies.

- Explain the recommended sustainability practices to be followed during agricultural production to prevent and deal with deforestation, loss of biodiversity, soil degradation, etc.

- Explain how to collect information related to the wholesale and retail price of agricultural produce.

- Explain how to calculate the economics of the produce viz. production cost, price of the produce, B:C Ratio etc.

- Explain the relevant government schemes with the provision of subsidies/funds for the promotion of agricultural produce.

- Describe the process of selecting appropriate marketing channels for marketing agricultural produce, and the applicable requirements and constraints.

- List the relevant buyers of different types of agricultural produce.

- Explain how to identify and manage various risks to production and post-production processes.

- Explain how to undertake outreach programs to promote agricultural products and services, and expand agri-business.

- Explain the 4Ps i.e., product, price, promotion, and place and 4As i.e., acceptability, affordability, accessibility, and awareness considered while preparing and executing a marketing plan.

- Explain the use of the relevant digital services such as e-commerce, e-payments, electronic recordkeeping, etc.

• Explain the importance of using efficient post-production logistics. • Explain the importance of maintaining various records accurately.	

Classroom Aids

Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop

Tools, Equipment and Other Requirements

NA

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Module 7: Engagement in collective farming/activities
Mapped to NOS AGR/N9922 v1.0

Terminal Outcomes:

- Describe the process of creating PGs/ FIGs/ SHGs and preparing for its operations.
- Demonstrate the process of conducting group meetings and training sessions.
- Demonstrate the process of carrying out collective farming/activities.

Duration: 20:00	Duration: 10:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Describe the process of preparing for the Producer Groups (PGs)/Farmers Interest Groups (FIGs)/ Self-Help Groups (SHGs) operations such as fundraising, induction of Subject Matter Experts (SMEs), investing in Information and Communication Technology (ICT) products, etc. - Explain how to obtain access to the relevant government development programmes and funds. - Describe the process of commodity convergence with the relevant developmental programmes. - Explain the importance of planning optimal production to meet the market and household food security needs. - Explain the importance of setting the group objectives and deciding the group income-generating enterprises/ activities, methods of operation, benefits, etc. - Explain the importance of organising the PG/FIG/ SHG meetings and training sessions to resolve common concerns and get information about the latest developments in the field of work. - Explain the benefits of various capacity building exercises such as skill development and training programmes. - Explain the importance and process of conducting field trials to identify and resolve problems encountered	- Roleplay to illustrate how to conduct the initial group meetings to introduce the members, discuss the group objectives, group income-generating enterprises/ activities, methods of operation, etc. - Roleplay to illustrate how to organise field trials to identify and resolve problems encountered by group members in the field operations.

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by farmers in the field operations.

- Explain the concept of the group-owned bank to provide quality seeds, fertilisers, pesticides, tools and equipment to the member farmers.

- Describe the process of using the group's credit facility.

- Explain various core collective farming activities such as procuring inputs in bulk, large-scale farming, etc.

- Explain the concept and benefits of forming forward and backward linkages.

- State the relevant value addition practices such as processing, packing, upgrading the quality, etc.

- Explain the benefits of connecting with similar groups to address common problems on a large scale.

Classroom Aids
Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop
Tools, Equipment and Other Requirements
NA

Module 8: Hygiene and cleanliness

Mapped to NOS AGR/N9903 v3.0

Terminal Outcomes:

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

Duration: 05:00	Duration: 05:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Explain the requirements of personal health, hygiene and fitness at work. - Describe common health-related guidelines laid down by the organizations/ Government at the workplace. - Explain the importance of good housekeeping at the workplace. - Explain the importance of informing the designated authority on personal health issues related to injuries and infectious diseases.	- Demonstrate personal hygiene practices to be followed at the workplace. - Demonstrate the correct way of washing hands using soap and water, and alcohol-based hand rubs. - Demonstrate the steps to follow to put on and take off a mask safely. - Show how to sanitize and disinfect one's work area regularly. - Demonstrate adherence to the workplace sanitization norms. - Show how to ensure the cleanliness of the work area.
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and Software, Facilitator's Guide, Participant's Handbook.	
Tools, Equipment and Other Requirements	
Personal Protective Equipment, Cleaning Equipment and Materials, Sanitizer, Soap, Mask	

Module 9: Safety and emergency procedures

Mapped to NOS AGR/N9903 v3.0

Terminal Outcomes:

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

Duration: 10:00	Duration: 10:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- List the PPE required at the workplace. - Describe the commonly reported hazards at the workplace. - Describe the hazards caused due to chemicals/pesticides/fumigants. - Describe the basic safety checks to be done before the operation of any equipment/machinery. - Describe the common first aid procedures to be followed in case of emergencies. - State measures that can be taken to prevent accidents and damage s at the workplace. - Explain the importance of reporting details of first aid administered, to the reporting officer/doctor, in accordance with workplace procedures. - State common health and safety guidelines to be followed at the workplace.	- Check various areas of the workplace for leakages, water-logging, pests, fire, etc. - Demonstrate how to safely use the PPE and implements as applicable to the workplace. - Display the correct way of donning, doffing and discarding PPE such as face masks, hand gloves, face shields, PPE suits, etc. - Sanitize the tools, equipment and machinery properly. - Demonstrate the safe disposal of waste. - Demonstrate procedures for dealing with accidents, fires and emergencies. - Demonstrate emergency procedures to the given workplace requirements. - Demonstrate the use of emergency equipment in accordance with manufacturers' specifications and workplace requirements. - Demonstrate the administration of first aid. - Prepare a list of relevant hotline/ emergency numbers.
Classroom Aids:	
Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook.	
Tools, Equipment and Other Requirements	
Personal Protective Equipment, First Aid Kit, Equipment used in Medical Emergencies.	

Module 10: Employability Skills (60 hours)
Mapped to NOS DGT/VSQ/N0102 v1.0

Duration: 60:00
Key Learning Outcomes

Introduction to Employability Skills Duration: 1.5 Hours
After completing this programme, participants will be able to:
1. Discuss the Employability Skills required for jobs in various industries
2. List different learning and employability related GOI and private portals and their usage

Constitutional values - Citizenship Duration: 1.5 Hours
3. Explain the constitutional values, including civic rights and duties, citizenship, responsibility towards society and personal values and ethics such as honesty, integrity, caring and respecting others that are required to become a responsible citizen
4. Show how to practice different environmentally sustainable practices.

Becoming a Professional in the 21st Century Duration: 2.5 Hours
5. Discuss importance of relevant 21st century skills.
6. Exhibit 21st century skills like Self-Awareness, Behavior Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn etc. in personal or professional life.
7. Describe the benefits of continuous learning.

Basic English Skills Duration: 10 Hours
8. Show how to use basic English sentences for everyday conversation in different contexts, in person and over the telephone
9. Read and interpret text written in basic English
10. Write a short note/paragraph / letter/e -mail using basic English

Career Development & Goal Setting Duration: 2 Hours
11. Create a career development plan with well-defined short- and long-term goals

Communication Skills Duration: 5 Hours
12. Demonstrate how to communicate effectively using verbal and nonverbal communication etiquette.
13. Explain the importance of active listening for effective communication
14. Discuss the significance of working collaboratively with others in a team

Diversity & Inclusion Duration: 2.5 Hours
15. Demonstrate how to behave, communicate, and conduct oneself appropriately with all genders and PwD
16. Discuss the significance of escalating sexual harassment issues as per POSH act.

Financial and Legal Literacy Duration:5 Hours
17. Outline the importance of selecting the right financial institution, product, and service
18. Demonstrate how to carry out offline and online financial transactions, safely and securely
19. List the common components of salary and compute income, expenditure, taxes, investments etc.
20. Discuss the legal rights, laws, and aids

Essential Digital Skills Duration: 10 Hours

21. Describe the role of digital technology in today's life

22. Demonstrate how to operate digital devices and use the associated applications and features, safely and securely

23. Discuss the significance of displaying responsible online behavior while browsing, using various social media platforms, e-mails, etc., safely and securely

24. Create sample word documents, excel sheets and presentations using basic features

25. utilize virtual collaboration tools to work effectively

Entrepreneurship Duration: 7 Hours

26. Explain the types of entrepreneurship and enterprises

27. Discuss how to identify opportunities for potential business, sources of funding and associated financial and legal risks with its mitigation plan

28. Describe the 4Ps of Marketing-Product, Price, Place and Promotion and apply them as per requirement

29. Create a sample business plan, for the selected business opportunity

Customer Service Duration: 5 Hours

30. Describe the significance of analyzing different types and needs of customers

31. Explain the significance of identifying customer needs and responding to them in a professional manner.

32. Discuss the significance of maintaining hygiene and dressing appropriately

Getting Ready for apprenticeship & Jobs Duration: 8 Hours

33. Create a professional Curriculum Vitae (CV)

34. Use various offline and online job search sources such as employment exchanges, recruitment agencies, and job portals respectively

35. Discuss the significance of maintaining hygiene and confidence during an interview

36. Perform a mock interview

37. List the steps for searching and registering for apprenticeship opportunities

Module 11: Process of carrying out cultivation of rose flowers

Mapped to AGR/N0719 v1.0

Terminal Outcomes:

- Describe the process of selecting the site and preparing the soil.
- Describe the process of selecting the rose variety and propagation method.
- Demonstrate the process of harvesting and transplanting the saplings.
- Describe the process of maintaining the rose plants.
- Demonstrate the process of carrying out harvesting and post-harvest management.

Duration: 20:00	Duration: 40:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Explain the criteria for selecting a site for rose crop cultivation. - State the recommended soil characteristics required for the cultivation of rose. - Explain the criteria for selecting an appropriate variety of roses to be grown according to the region. - Describe different methods of propagating rose saplings, such as seeding, budding, cutting, etc. - Explain different signs of pests and disease infestation in rose plants and their recommended treatment. - Explain the importance and process of pruning rose plants. - Explain the importance and process of carrying out weeding to remove unwanted plants growing among rose plants. - State the recommended quantity of water to irrigate the rose plants and the applicable irrigation schedule. - State the recommended organic and inorganic fertilisers to be used for the rose crop. - Explain the importance and process of defoliation to induce flowering in rose plants.	- Demonstrate how to mix sand and farmyard manure in the soil in the quantity recommended for the rose flower crop. - Demonstrate the process of harvesting the rose saplings from the nursery bed when they are ready for being transplanted. - Demonstrate the process of transplanting rose saplings in the field at the recommended planting density, protecting them from damage. - Demonstrate the process of applying the recommended organic and inorganic fertilisers to the rose saplings appropriately and water them with the required quantity immediately after transplanting. - Demonstrate the process of applying the recommended pesticide or insecticide as per the prescription. - Demonstrate the process of carrying out pruning of rose plants using the appropriate implements. - Demonstrate the process of carrying out weeding regularly to remove unwanted plants growing among rose plants. - Show how to water the rose plants

- Explain the indicators of the readiness of rose flowers for being harvested.
- Explain the use of appropriate implements such as secateurs for harvesting the rose flowers.
- Explain the importance of ensuring no damage to flowers during harvesting.
- State the recommended temperature and humidity for storing the harvested rose flowers.
- Explain the applicable criteria for sorting and grading the harvested rose flowers.

- with the recommended quantity as per the irrigation schedule.
- Demonstrate the process of applying the recommended organic and inorganic fertilisers in the prescribed quantity.
- Demonstrate the process of carrying out defoliation according to the rose variety to induce flowering.
- Demonstrate the process of harvesting rose flowers, ensuring no damage to the flowers and plants.
- Show how to collect the harvested rose flowers in appropriate baskets or crates.
- Show how to sort and grade rose flowers on the basis of applicable parameters.
- Demonstrate the process of preparing and applying the preservative solution to the rose flowers to preserve their freshness.
- Demonstrate the process of bunching and packing rose flowers.
- Prepare a sample manual and/ or electronic record of harvesting and processing of rose flowers using the physical registers and/ or the relevant computer application.

Classroom Aids

Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop

Tools, Equipment and Other Requirements

Hand Cultivator, Harrow, Spade, Secateurs, Hand Trowel, Garden Fork, Sprinklers, Rake, Pruning Saw, Spray Pumps, Grass Shear, Budding and Grafting Knives, etc.

Module 12: Process of carrying out cultivation of gerbera flowers
Mapped to AGR/N0720 v1.0

Terminal Outcomes:

- Describe the process of selecting the site and preparing the soil.
- Describe the process of selecting the gerbera variety and propagation method.
- Demonstrate the process of propagating, harvesting and transplanting the saplings.
- Describe the process of maintaining the gerbera plants.
- Demonstrate the process of carrying out harvesting and post-harvest management.

Duration: 20:00	Duration: 40:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Explain the criteria for selecting a site for gerbera crop cultivation such as temperature, shading, ventilation, etc. - State the recommended soil characteristics required for the cultivation of gerbera. - Explain the criteria for selecting the appropriate variety of gerbera to be grown according to the region. - Explain. the importance of mixing sand and farmyard manure in the soil in the quantity recommended for gerbera flower crop. - Describe different methods of propagating gerbera saplings such as seeding, or cutting of side shoots and suckers. - Explain the importance of protecting the gerbera saplings from excessive heat and strong winds. - State the immediate care to be given to saplings after being transplanted. - Describe the process of installing support for gerbera plants and training them. - State the recommended irrigation schedule for gerbera plants. - Explain the importance and process of weeding out unwanted plants growing among gerbera plants. - Explain different signs of pests and	- Demonstrate how to disinfect the soil with the recommended chemicals. - Demonstrate the process of applying plastic sheet cover on the soil and water it thoroughly after the recommended duration to wash away the disinfectants. - Show how to mix sand and farmyard manure in the soil in the quantities recommended for the gerbera flower crop. - Demonstrate the process of propagating gerbera saplings in the required quantity in the nursery. - Demonstrate the process of harvesting the gerbera saplings from the nursery bed. - Demonstrate the process of transplanting gerbera saplings in the field at the recommended planting density. - Show how to water the saplings with the recommended quantity and apply fertilisers in an appropriate quantity immediately after transplanting. - Demonstrate the process of installing support for the gerbera plants and training them. - Show how to water the gerbera plants with the recommended quantity as per the irrigation schedule.

- disease infestation in gerbera plants and their recommended treatment.
- Explain the importance of pruning gerbera plants at appropriate intervals.
- State the recommended organic and inorganic fertilisers to be used for the gerbera crop.
- Explain the importance and process of raking the soil in the field to facilitate easy absorption of water and fertilisers, and providing air to the roots.
- State the indicators of the readiness of gerbera flowers for being harvested.
- Explain the use of appropriate implements such as secateurs for harvesting the gerbera flowers.
- Explain the importance of ensuring no damage to flowers during harvesting.
- Explain the importance of maintaining the harvested gerbera flowers in freshly chlorinated water and storing them at the recommended temperature and humidity.
- Explain the applicable criteria for sorting and grading the harvested gerbera flowers.
- Explain the practice of soaking gerbera flower stalks in Sodium Hypochlorite solution for the recommended duration to improve their vase life.

- Demonstrate the process of carrying out weeding to remove unwanted plants.
- Demonstrate the process of applying the recommended pesticide or insecticide as per the prescription.
- Demonstrate the process of carrying out pruning of gerbera plants using the appropriate implements.
- Demonstrate the process of applying the recommended organic and inorganic fertilisers in the prescribed quantity.
- Show how to rake the soil in the field at the recommended intervals to facilitate easy absorption of water and fertilisers.
- Demonstrate the process of harvesting and collecting gerbera flowers.
- Demonstrate the process of sorting and grading gerbera flowers on the basis of applicable parameters.
- Demonstrate the process of. preparing and applying the preservative solution to the gerbera flowers to preserve their freshness.
- Demonstrate the process of bunching the gerbera flowers and packing them using poly pouches and carton boxes in layers.
- Prepare a sample manual and/ or electronic record of harvesting and processing of gerbera flowers using the physical registers and/ or the relevant computer application.

Classroom Aids
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop

Tools, Equipment and Other Requirements
Hand Cultivator, Harrow, Spade, Secateurs, Hand Trowel, Garden Fork, Sprinklers, Rake, Pruning Saw, Spray Pumps, Grass Shear, Budding and Grafting Knives, etc.

Module 13: Process of carrying out cultivation of chrysanthemum flowers
Mapped to AGR/N0721 v1.0

Terminal Outcomes:

- Describe the process of selecting the site and preparing the field.
- Describe the process of selecting the chrysanthemum variety and propagation method.
- Demonstrate the process of propagating, harvesting and transplanting the saplings.
- Describe the process of maintaining the chrysanthemum plants.
- Demonstrate the process of carrying out harvesting and post-harvest management.

Duration: 20:00	Duration: 40:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
- Explain the criteria for selecting a site for chrysanthemum crop cultivation such as temperature, relative humidity, adequate exposure to sunlight, etc. - State the recommended soil characteristics required for the cultivation of chrysanthemum. - Explain the criteria for selecting the appropriate variety of chrysanthemum to be grown according to the region. - Explain the importance of mixing sand and farmyard manure in the soil in the quantity recommended for the chrysanthemum flower crop. - Describe different methods of propagating chrysanthemum saplings such as terminal cutting or suckers. - Explain the importance of protecting the chrysanthemum saplings from excessive heat and strong winds. - State the immediate care to be given to saplings after being transplanted. - State the recommended irrigation schedule for chrysanthemum plants. - Explain the importance and process of weeding out unwanted plants growing among chrysanthemum plants. - Explain different signs of pests and disease infestation in	- Demonstrate the process of carrying out ploughing and harrowing in the field using the relevant farm machineries and applying farmyard manure in the recommended quantity. - Demonstrate the process of applying the recommended chemicals to the soil as per the prescription to disinfect the soil. - Demonstrate the process of applying plastic sheet cover on the soil and water it thoroughly after the recommended duration to wash away the disinfectants. - Demonstrate the process of installing the appropriate irrigation or fertigation system in the field. - Show how to create drains in the field for effective drainage of water. - Demonstrate how to propagate chrysanthemum saplings in the required quantity in the nursery. - Demonstrate the process of harvesting the chrysanthemum saplings from the nursery bed when they are ready for being transplanted. - Show how to transplant chrysanthemum saplings in the field at the recommended planting density. - Show how to water the saplings with the recommended quantity and apply

chrysanthemum plants and their recommended treatment.

- Explain the importance of pruning chrysanthemum plants at appropriate intervals.

- State the recommended organic and inorganic fertilisers to be used for the chrysanthemum crop.

- Explain the importance and process of raking the soil in the field to facilitate easy absorption of water and fertilisers, and providing air to the roots.

- Explain the indicators of the readiness of chrysanthemum flowers for being harvested.

- Explain the use of appropriate implements such as secateurs for harvesting the chrysanthemum flowers.

- Explain the importance of ensuring no damage to flowers during harvesting.

- Explain the importance of maintaining the harvested chrysanthemum flowers in freshly chlorinated water and storing them at the recommended temperature and humidity.

- Explain the applicable criteria for sorting and grading the harvested chrysanthemum flowers.

fertilisers in an appropriate quantity immediately after transplanting.

- Demonstrate the process of applying the recommended organic and inorganic fertilisers in the prescribed quantity at appropriate intervals.

- Demonstrate the process of applying the recommended pesticide or insecticide as per the prescription.

- Show how to water the chrysanthemum plants with the recommended quantity as per the irrigation schedule and prevailing weather conditions.

- Show how to drain out any water accumulated in the field.

- Demonstrate the process of carrying out pinching to induce the growth of lateral branches and installing appropriate support to train the plants.

- Demonstrate the process of carrying out disbudding, removing buds from the stems of plants and leaving only terminal buds to ensure the growth of large blooms.

- Demonstrate the process of carrying out pruning of chrysanthemum plants using the appropriate implements at regular intervals, removing the side suckers.

- Demonstrate the process of carrying out weeding at the recommended intervals to remove unwanted plants growing among the chrysanthemum plants.

- Show how to harvest and collect chrysanthemum flowers ensuring no damage to them and plants.

- Demonstrate how to sort and grade chrysanthemum flowers on the basis of applicable parameters.

- Demonstrate the process of preparing and applying the preservative solution on the chrysanthemum flowers to preserve

	their freshness.
	• Demonstrate the process of bunching the chrysanthemum flowers and packing them using appropriate packing material such as bamboo baskets or gunny bags.
	• Prepare a sample manual and/ or electronic record of harvesting and processing of chrysanthemum flowers using the physical registers and/ or the relevant computer application.

Classroom Aids

Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop

Tools, Equipment and Other Requirements

Hand Cultivator, Harrow, Spade, Secateurs, Hand Trowel, Garden Fork, Sprinklers, Rake, Pruning Saw, Spray Pumps, Grass Shear, Budding and Grafting Knives, etc.

ASCI
Agriculture Skill Council of India

Skill India
कौशल भारत-कुशल भारत

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

Module 14: Process of carrying out cultivation of orchid flowers
Mapped to AGR/N0722 v1.0

Terminal Outcomes:

- Describe the process of selecting the site and preparing for orchid flower cultivation.
- Demonstrate the process of propagating orchid plants.
- Describe the process of maintaining the orchid plants.
- Demonstrate the process of carrying out harvesting and post-harvest management.

Duration: 20:00	Duration: 40:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Explain the criteria for selecting a site for orchid crop cultivation such as moderate temperature and humidity along with good ventilation, and moderate sunlight exposure, etc. - List various inputs required for orchid flower cultivation. - Explain the criteria for selecting the appropriate variety of orchids to be grown according to the region. - Explain. the importance of ensuring drainage holes in the pots for the drainage of excess water. - State the recommended depth and density for planting orchid seeds in pots. - State the appropriate temperature and humidity to be maintained to induce the germination of orchid seeds. - Explain the importance of protecting the orchid plants from strong winds and direct sunlight. - State. their prescribed quantity of recommended organic and inorganic fertilisers to be used with orchid plants. - Explain the use of recommended growth regulators. - List various signs of pests and disease in orchid plants. - State the water requirements of orchid plants and the recommended	- Demonstrate how to prepare a green shade net house or polyhouse to provide sunlight to orchid flower plants through shades. - Demonstrate how to prepare the growth media using the recommended materials and fill in the pots with its recommended quantity. - Demonstrate the process of planting the orchid seeds in pots at the recommended depth and density. - Demonstrate the process of installing support in the pots such as bamboo sticks to help the orchid plants grow vertically. - Demonstrate the process of applying the recommended organic and inorganic fertilisers to orchid plants in the prescribed quantity. - Show how to spray the recommended pesticide or insecticide on orchid plants as per the prescription. - Show how to water the orchid plants with the recommended quantity as per the irrigation schedule. - Demonstrate how to remove the dead leaves from orchid plants and weeds from the pots. - Demonstrate the process of harvesting the orchid flowers with or without stalk as per the requirement and collecting them in baskets or

- irrigation schedule.

- Explain the importance of ensuring no accumulation of water in the orchid plant pots to prevent root rot.

- Explain the importance of removing the dead leaves from orchid plants and weeds from the pots.

- Explain the importance of maintaining orchid plants in moderate temperature, recommended humidity and good air circulation.

- Explain the indicators of the readiness of orchid flowers for being harvested.

- Explain the use of appropriate implements such as secateurs to harvest orchid flowers with or without stalk, ensuring no damage to flowers and stalk.

- Explain the applicable criteria for sorting and grading the harvested orchid flowers.

- Explain the practice of soaking orchid flower stalks in Sodium Hypochlorite solution for the recommended duration to improve their vase life.

- crates, ensuring no damage to the flowers.

- Demonstrate the process of sorting and grading the harvested orchid flowers on the basis of applicable parameters.

- Show how to prepare and apply the preservative solution on the orchid flowers to preserve their freshness.

- Demonstrate the process of bunching the orchid flowers and packing them using appropriate packing material such as bamboo baskets or gunny bags.

- Prepare a sample record of harvesting and processing of orchid flowers.

Classroom Aids

Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop

Tools, Equipment and Other Requirements

Hand Cultivator, Harrow, Spade, Secateurs, Hand Trowel, Garden Fork, Sprinklers, Rake, Pruning Saw, Spray Pumps, Grass Shear, Budding and Grafting Knives, etc.

Module 15: Process of carrying out cultivation of marigold flowers
Mapped to AGR/N0723 v1.0

Terminal Outcomes:

- Describe the process of selecting the site and preparing the field.
- Describe the process of selecting the marigold variety and propagation method
- Demonstrate the process of propagating, harvesting and transplanting the saplings.
- Describe the process of maintaining the marigold plants.
- Demonstrate the process of carrying out harvesting and post-harvest management.

Duration: 20:00	Duration: 40:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Explain the criteria for selecting a site for marigold crop cultivation such as recommended temperature, exposure to the sunlight and not being prone to waterlog. - Explain the characteristics of soil suitable for marigold cultivation such as the recommended alkalinity, salinity, acidity and pH levels. - Explain the importance of creating drains in the field for effective drainage of water. - Explain the criteria for selecting an appropriate variety of marigolds to be grown according to the region. - Explain the importance of mixing sand and farmyard manure in the soil in the quantity recommended for the marigold flower crop. - Explain the criteria for selecting an appropriate variety of marigolds to be grown according to the region. - Describe different methods of propagating marigold saplings such as terminal seeding or cuttings. - Explain the importance of protecting the marigold saplings from excessive heat/ cold and strong winds. - Explain the importance of maintaining the recommended moisture levels in the nursery bed for	- Demonstrate the process of carrying out ploughing and harrowing in the field, and creating ridges and furrows of recommended dimensions. - Demonstrate the process of applying farmyard manure in the field in the recommended quantity. - Show how to disinfect the soil using the recommended chemicals as per the prescription. - Demonstrate the process of installing the appropriate irrigation or fertigation system in the field. - Show how to create drains in the field for effective drainage of water. - Demonstrate how to treat the marigold seeds with the recommended pesticide or insecticide before sowing. - Demonstrate the process of propagating marigold saplings in the required quantity in the nursery. - Show how to harvest the marigold saplings from the nursery bed they when are ready for being transplanted. - Demonstrate the process of transplanting marigold saplings in the field at the recommended depth and planting density.

optimum growth of marigold saplings.

- State immediate care to be given to saplings after being transplanted.
- State the recommended irrigation schedule for marigold plants.
- Explain the practice of pinching to induce the growth of lateral branches and installing appropriate support to train the plants.
- Explain the importance and process of weeding out unwanted plants growing among marigold plants.
- Explain different signs of pests and disease in marigold plants and their recommended treatment.
- Explain the importance of removing dead leaves and branches from marigold plants.
- State the recommended organic and inorganic fertilisers to be used for the marigold flower crop.
- State the indicators of the readiness of marigold flowers for being harvested.
- Explain the use of appropriate implements such as secateurs for harvesting the marigold flowers.
- Explain the importance of ensuring no damage to flowers during harvesting.
- Explain the applicable criteria for sorting and grading the harvested marigold flowers.

- Show how to press soil around the root zone to avoid the formation of air pockets.
- Show how to water the saplings with the recommended quantity and apply fertilisers in an appropriate quantity immediately after transplanting.
- Demonstrate the process of applying the recommended organic and inorganic fertilisers in the prescribed quantity.
- Demonstrate the process of applying the recommended pesticide or insecticide as per the prescription.
- Show how to water the marigold plants with the recommended quantity as per the irrigation schedule.
- Demonstrate how to drain out any water accumulated in the field.
- Demonstrate the process of carrying out pinching to induce the growth of lateral branches.
- Show how to remove dead leaves and branches from marigold plants.
- Demonstrate the process of carrying out weeding at the recommended intervals to remove unwanted plants growing among the marigold plants.
- Show how to harvest the marigold flowers with or without stalk as per the market requirements.
- Show how to collect the harvested flowers in appropriate baskets or containers and store them at the recommended temperature and humidity.
- Demonstrate the process of sorting and grading marigold flowers on the basis of applicable parameters.
- Show how to pack the harvested marigold flowers in gunny bags or bamboo baskets.

	• Prepare a sample record of harvesting and processing marigold flowers.

Classroom Aids

Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop

Tools, Equipment and Other Requirements

Hand Cultivator, Harrow, Spade, Secateurs, Hand Trowel, Garden Fork, Sprinklers, Rake, Pruning Saw, Spray Pumps, Grass Shear, Budding and Grafting Knives, etc.

Annexure

Trainer Requirements

<table>
<tr><td colspan="7" align="center">Trainer Prerequisites</td></tr>
<tr><td rowspan="2">Minimum Educational Qualification</td><td rowspan="2">Specialization</td><td colspan="2">Relevant Industry Experience</td><td colspan="2">Training Experience</td><td rowspan="2">Remarks</td></tr>
<tr><td><i>Years</i></td><td><i>Specialization</i></td><td><i>Years</i></td><td><i>Specialization</i></td></tr>
<tr><td>10th Class</td><td></td><td>5</td><td>Floriculture farming</td><td>0</td><td></td><td>Floriculturist (Open Cultivation) with 5 Years of experience with 10th Pass. Experience certificate issued by BDO/Agriculture Officer/Head of Gram Panchayat/Loan disbursing bank or financial institution on official letter Head</td></tr>
<tr><td>12th Class</td><td></td><td>4</td><td>Floriculture farming</td><td>0</td><td></td><td>Ex-Service-Man including Ex-Paramilitary personnel: Minimum Qualification is 10+2 with an Honourable Discharge/ Pension. SSC would consider a relaxation/waiver of sector-specific experience on a case-to-case basis.</td></tr>
<tr><td>Diploma</td><td>Agriculture/ Horticulture</td><td>3</td><td>Floriculture farming</td><td>0</td><td></td><td></td></tr>
<tr><td>Graduate</td><td>Graduate in any stream except Agriculture/ Horticulture/ Forestry</td><td>2</td><td>Floriculture farming</td><td>0</td><td></td><td>For the school Program minimum qualification of the Trainer should be Graduate (Agriculture / Horticulture / Botany/ Forestry) with minimum 3 years Teaching experience (will be considered industry experience)</td></tr>
<tr><td>Graduate</td><td>Agriculture/ Horticulture/ Forestry</td><td>0.5</td><td>Floriculture farming</td><td>0</td><td></td><td></td></tr>
<tr><td colspan="7" align="center">Trainer Certification</td></tr>
<tr><td colspan="3" align="center">Domain Certification</td><td colspan="4">Platform Certification</td></tr>
<tr><td colspan="3">Certified for Job Role "Floriculturist", mapped to QP: "AGR/Q0701, v2.0", Minimum accepted score is 80%</td><td colspan="4">Recommended that the Trainer is certified for the Job Role: "Trainer (Vet and Skills)", mapped to the Qualification Pack: "MEP/Q2601, v2.0". The minimum accepted score as per MEPSC guidelines is 80%.</td></tr>
</table>

Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
B.Sc	Agriculture/ Botany/ Forestry/ Horticulture and related streams	5	Floriculture/ Horticulture and related experience	0		Practical skills and knowledge required in Floriculture
M.Sc	Agriculture/ Botany/ Forestry/ Horticulture and related streams	2	Floriculture/ Horticulture and related experience	0		Practical skills and knowledge required in Floriculture
PhD	Agriculture/ Botany/ Forestry/ Horticulture and related streams	1	Floriculture/ Horticulture and related experience	0		Practical skills and knowledge required in Floriculture

Assessor Certification	
Domain Certification	Platform Certification
Certified for Job Role "**Floriculturist**", mapped to QP: "AGR/Q0701, v2.0", Minimum accepted score is 80%	Certified for the Job Role: "Assessor (Vet and Skills)", mapped to the Qualification Pack: "MEP/Q2701, v2.0", with a minimum score of 80%.

Assessment Strategy

Assessment System Overview

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

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

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

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

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

Testing Environment

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

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

- Multilingual assessments (ASCI is conducting the assessments in 13 + languages pan India)
- Rubric driven assessments in Practical/Viva sections and responses recorded accordingly
- All responses, data, records and feedback 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:
    - o Signed Attendance sheet
    - o Assessor feedback sheet
    - o Candidate feedback sheet

ASCI
Agriculture Skill Council of India

Skill India

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

- o Assessment checklist for assessor
- o Candidate Aadhar/ID card verification
- o Pictures of the classroom, labs to check the availability of adequate equipment's and tools to conduct the training and assessment
- o 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-Stamps at the end of AAs and SSC. NOS-wise and PC-wise scores can

be generated.

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

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

Result Review & Recheck Mechanism –

- Time-stamped assessment logs

- Answer/Endorsement sheets for each candidate

- Attendance Sheet

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

- The results for each of the 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 Knowledge	Declarative knowledge refers to facts, concepts and principles that need to be known and/or understood in order to accomplish a task or to solve a problem.
Key Learning Outcome	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 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
OJT	On-the-job Training
QP	Qualifications Pack
PwD	People with Disability
PPE	Personal Protective Equipment