





Model Curriculum

**QP Name: Heritage Gardener** 

QP Code: AGR/Q0810

Version: 2.0

NSQF Level: 5

Model Curriculum Version: 1.0

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





# **Table of Contents**

# **Contents**

Training Parameters
Program Overview
Training Outcomes
Compulsory Modules
Module 1: Introduction to the role of a Heritage Gardener7
Module 2: Process of identifying and naming plants using their botanical names
Module 3: Process of preparing for the conservation of heritage gardens and parks9
Module 4: Process of propagating and transplanting plants and trees12
Module 5: Process of maintaining the heritage garden and park13
Module 6: Process of managing the heritage garden and park workers and visitors
Module 7: Hygiene and cleanliness17
Module 8: Safety and emergency procedures18
Module 9: Employability Skills
Module 10: On-the-Job Training
Annexure
Trainer Requirements
Assessor Requirements23
Assessment Strategy24
References
Glossary
Acronyms and Abbreviations





# **Training Parameters**

Sector	Agriculture
Sub-Sector	Agriculture Crop Production
Occupation	Landscaping, Gardening & Urban Farming
Country	India
NSQF Level	5
Aligned to NCO/ISCO/ISIC Code	NCO-2015/6113.9900
Minimum Educational Qualification and Experience	Completed 2nd year of UG OR Pursuing 2nd year of UG and continuous education OR Completed 2nd year of diploma (after 12th) OR Pursuing 2nd year of 2-year diploma after 12th OR Completed 3-year diploma after 10th with 1-year relevant experience OR 12th grade pass with 2 years of relevant experience OR 10th grade pass with 4 years of relevant experience OR Previous relevant qualification of NSQF Level 4 and with minimum education as 8th grade pass with 3 years of relevant experience OR Previous relevant qualification of NSQF Level 4.5 with 1.5 years of relevant experience
Pre-Requisite License or Training	ΝΑ
Minimum Job Entry Age	21 Years
Last Reviewed On	29/03/2023
Next Review Date	29/03/2026
NSQC Approval Date	29/03/2023
QP Version	2.0





Model Curriculum Creation Date	29/03/2023
Model Curriculum Valid Up to Date	29/03/2026
Model Curriculum Version	1.0
Minimum Duration of the Course	510 Hours
Maximum Duration of the Course	510 Hours





# **Program Overview**

This section summarizes the end objectives of the program along with its duration.

#### **Training Outcomes**

At the end of the program, the learner should have acquired the listed knowledge and skills to:

- Explain the process of identifying and naming plants using their botanical names.
- Explain the process of preparing for the conservation of heritage gardens and parks.
- Describe the process of propagating and transplanting plants and trees.
- Elucidate ways to maintain the heritage garden and park.
- Elucidate ways to manage the heritage garden and park workers and visitors.
- Demonstrate various practices to ensure health and safety at work.

#### **Compulsory Modules**

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

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
Bridge Module	05:00	00:00	0:00	00:00	05:00
Module 1: Introduction to the role of a Heritage Gardener	05:00	00:00	0:00	00:00	05:00
AGR/N0826: Identify and name plants using their botanical names NOS Version- 2.0 NSQF Level- 5	20:00	35:00	0:00	00:00	55:00
Module 2: Process of identifying and naming plants using their botanical names	20:00	35:00	0:00	00:00	55:00
AGR/N0827: Prepare for the conservation of heritage gardens and parks NOS Version- 2.0 NSQF Level- 5	30:00	30:00	0:00	00:00	60:00
Module 3: Process of preparing for the conservation of heritage gardens and parks	30:00	30:00	0:00	00:00	60:00
AGR/N0828: Propagate and transplant plants and trees NOS Version- 2.0 NSQF Level- 5	45:00	15:00	0:00	00:00	60:00





Module 4: Process of propagating and transplanting plants and trees	45:00	15:00	0:00	00:00	60:00
AGR/N0829: Maintain the heritage garden and park NOS Version- 2.0 NSQF Level- 5	30:00	30:00	00:00	00:00	60:00
Module 5: Process of maintaining the heritage garden and park	30:00	30:00	00:00	00:00	60:00
AGR/N0830: Manage the heritage garden and park workers and visitors NOS Version- 2.0 NSQF Level- 5	15:00	15:00	00:00	00:00	30:00
Module 6: Process of managing the heritage garden and park workers and visitors	15:00	15:00	00:00	00:00	30:00
AGR/N9903 Maintain health and safety at the workplace NOS Version- 3.0 NSQF Level- 4	05:00	25:00	0:00	00:00	30:00
Module 7: Hygiene and cleanliness	02:00	10:00	0:00	00:00	12:00
Module 8: Safety and emergency procedures	03:00	15:00	0:00	00:00	18:00
DGT/VSQ/N0103: Employability Skills NOS Version- 1.0 NSQF Level- 5	90:00	00:00	0:00	00:00	90:00
Module 9: Employability Skills	90:00	00:00	0:00	00:00	90:00
Total Duration	240:00	150:00	0:00	00:00	390:00
OJT: 120 Hours					





# **Module Details**

# Module 1: Introduction to the role of a Heritage Gardener

## Bridge Module

#### **Terminal Outcomes:**

• Discuss the job role of a Heritage Gardener.

Duration: 05:00	Duration: 0:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul> <li>Describe the size and scope of the agriculture industry and its subsectors.</li> </ul>	
<ul> <li>Discuss the role and responsibilities of a Heritage Gardener.</li> </ul>	
<ul> <li>Identify various employment opportunities for a Heritage Gardener.</li> </ul>	
Classroom Aids	
Training Kit - Trainer Guide, Presentations, White	board, Marker, Projector, Laptop, Video Films
Tools, Equipment and Other Requirements	
NA	





# Module 2: Process of identifying and naming plants using their botanical names

#### Mapped to AGR/N0826 v2.0

#### **Terminal Outcomes:**

• Explain the process of identifying and naming the plants.

Duration: 20:00	Duration: 35:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul> <li>Elucidate the purpose and importance of classifying plants using their botanical names.</li> </ul>	<ul> <li>Demonstrate how to identify non- indigenous, non-native, invasive and protected plant species.</li> </ul>
<ul> <li>Explain the terminologies used in plant identification, classification and nomenclature, e.g. family, genus, species, cultivar, variety and hybrid.</li> </ul>	<ul> <li>Demonstrate how to use the correct format for writing botanical names.</li> </ul>
<ul> <li>Describe plant characteristics and how they help in their identification.</li> </ul>	
<ul> <li>List the relevant non-indigenous, non-native, invasive and protected species and the appropriate actions to be taken if they are discovered.</li> </ul>	
<ul> <li>Discuss the safe handling practices for a variety of plants.</li> </ul>	
• Explain the plant labelling system.	
Classroom Aids	

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

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

Installed Video camera with high resolution and recording facility, Digging Spades, Tags-labels, Grass Edgers, Flower vases, Trowel, Pruning Shears, Gardening forks, Rakes, Wheel Hoe Weeder, Garden Secateurs, Soil Knife, Hoe, Watering Cane, Wheel Barrow, Hand Sprayer, Hand Gloves, Plastic Pots, Budding-tape, Grass Mower, Pin holder, Rubber gloves, Safety Shoes, First aid box, Netting (Shade net), Stone Pebbles, Dripper, Gunny bags, Earthen Pots, Fumigator, Knapsack Sprayer





## Module 3: Process of preparing for the conservation of heritage gardens and parks *Mapped to ARG/N0827 v2.0*

#### Terminal Outcomes:

- Explain the process of planning the development and conservation work.
- Elucidate ways to arrange the required resources.

Duration: 30:00	Duration: 30:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul> <li>Explain different styles of garden.</li> <li>Explain different types of formal gardens.</li> </ul>	<ul> <li>Demonstrate how to calculate the cost of the required quantity of plants.</li> </ul>
<ul> <li>Explain the various components of the garden, like hedges, shrubbery, pergolas, flower bed, etc.</li> </ul>	<ul> <li>Demonstrate the use of appropriate tools, equipment, machinery and PPE required for heritage gardening.</li> </ul>
<ul> <li>Explain the characteristics of different types of plants.</li> </ul>	
State the plant morphology.	
<ul> <li>Explain the significance and development of heritage gardens and parks.</li> </ul>	
<ul> <li>Explain the importance of collaborating with the relevant experts, e.g. landscape architects, for the development and conservation of heritage gardens.</li> </ul>	
<ul> <li>Explain how to determine the timelines for preparation and conservation.</li> </ul>	
<ul> <li>List the relevant softscape and hardscape components of a heritage garden.</li> </ul>	
<ul> <li>Discuss the principles and practices for park and garden conservation.</li> </ul>	
<ul> <li>Describe the development and conservation procedures for historically or culturally significant parks and gardens.</li> </ul>	
<ul> <li>Explain the agro-climatic conditions required for growing a variety of plants and trees.</li> </ul>	
• Discuss the regulations applicable to the development and conservation	





N S C D C National Skill Development Corporation

work at heritage sites.

- Discuss the maintenance requirements and practices for different plant varieties before and after their establishment.
- Discuss the applicable site evaluation techniques, including the analysis of soil condition, plants and waterways for conservation activities.
- Explain how to assess a site for biophysical factors, historical and cultural attributes, and the relevant modifications required.
- Elucidate the importance and process of determining the environmental implications of conservation work.
- Explain how to develop conservation, concept, and resource management plans and the relevant heritage and cultural values and environmental requirements to be considered.
- Explain how to plan the softscape and hardscape maintenance of heritage gardens/parks.
- Describe the process of developing the budget for the development and conservation work.
- Describe the process of procuring the selected plant and tree varieties.
- Explain the importance of checking and ensuring the quality of plants and trees during procurement.
- Explain the importance of assessing the relevant health and safety hazards and implementing the appropriate preventive measures.
- Explain the requirement of obtaining the necessary approvals from the relevant authorities for heritage gardening.

#### **Classroom Aids**

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

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

Installed Video camera with high resolution and recording facility, Digging Spades, Tags-labels, Grass Edgers, Flower vases, Trowel, Pruning Shears, Gardening forks, Rakes, Wheel Hoe Weeder,





Garden Secateurs, Soil Knife, Hoe, Watering Cane, Wheel Barrow, Hand Sprayer, Hand Gloves, Plastic Pots, Budding-tape, Grass Mower, Pin holder, Rubber gloves, Safety Shoes, First aid box, Netting (Shade net), Stone Pebbles, Dripper, Gunny bags, Earthen Pots, Fumigator, Knapsack Sprayer





## Module 4: Process of propagating and transplanting plants and trees Mapped to AGR/N0828 v2.0

#### **Terminal Outcomes:**

- Describe the process of propagating plants and trees.
- Describe the process of transplanting plants and trees.

Duration: 45:00	Duration: 15:00
heory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul> <li>Explain how to manage the nutrient requirements of seedlings/saplings.</li> <li>Explain the appropriate measures to be followed during the nursery operations to ensure the propagation of pest and disease-free seedlings/ saplings.</li> <li>Explain how to protect seedlings/ saplings from adverse weather and animals.</li> <li>State the appropriate aftercare to be provided to plants and trees following transplanting.</li> <li>Explain the appropriate support to be installed to train the growth of plants and trees.</li> <li>Explain the appropriate measures to be followed to ensure the survival of transplanted plants and trees.</li> </ul>	<ul> <li>Demonstrate how to propagate the appropriate plant and tree varieties following the recommended propagation methods.</li> <li>Demonstrate the process of undertaking polyhouse cultivation of the selected plants and trees, as required.</li> <li>Show how to create pits of the recommended specifications according to the type of plant and tree species to be transplanted.</li> <li>Demonstrate the process of transplanting the propagated plants and trees in the heritage garden/park.</li> <li>Demonstrate the process of applying the recommended fertilizers and water the transplanted plants and trees with the recommended quantity following transplanting.</li> <li>Demonstrate the process of installing appropriate support such as stakes to train their growth.</li> </ul>
lassroom Aids	

#### Tools, Equipment and Other Requirements

Installed Video camera with high resolution and recording facility, Digging Spades, Tags-labels, Grass Edgers, Flower vases, Trowel, Pruning Shears, Gardening forks, Rakes, Wheel Hoe Weeder, Garden Secateurs, Soil Knife, Hoe, Watering Cane, Wheel Barrow, Hand Sprayer, Hand Gloves, Plastic Pots, Budding-tape, Grass Mower, Pin holder, Rubber gloves, Safety Shoes, First aid box, Netting (Shade net), Stone Pebbles, Dripper, Gunny bags, Earthen Pots, Fumigator, Knapsack Sprayer





## Module 5: Process of maintaining the heritage garden and park Mapped to ARG/N0829 v2.0

#### **Terminal Outcomes:**

- Elucidate ways to maintain the heritage garden and park.
- Explain the process of using and maintaining the gardening tools and equipment.
- Explain the importance of ensuring hygiene and biosecurity in the heritage garden and park.

Duration: 30:00 Duration: 30:00		
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes	
<ul> <li>Explain the importance of identifying the need of pruning plants and trees and pruning them appropriately.</li> </ul>	<ul> <li>Demonstrate how to prune plants and trees using the relevant tools and implements.</li> </ul>	
<ul> <li>List different types of weeds found in gardens and parks and the appropriate measures to control them.</li> </ul>	<ul> <li>Demonstrate how to remove and dispose of weeds.</li> <li>Show how to prepare compost using green waste generated in the</li> </ul>	
<ul> <li>Explain how to identify and replace unhealthy plants and trees.</li> <li>Explain the importance of applying appropriate fertilizers to achieve a healthy growth of plants and trees.</li> </ul>	<ul> <li>garden/park.</li> <li>Demonstrate the process of applying mulch, compost, and other appropriate fertilizers to achieve a healthy growth of plants and trees.</li> </ul>	
<ul> <li>List the signs of pest and disease infestation in plants and trees and the appropriate treatment for them.</li> </ul>	• Demonstrate the process of applying the appropriate treatment to remove the identified pests and diseases.	
<ul> <li>Elucidate the importance and ways of maintaining an appealing display of heritage garden/park plants, trees and features.</li> </ul>	<ul> <li>Demonstrate the process of installing appropriate signage in the garden/park and labels for the plants and trees, ensuring their accuracy.</li> </ul>	
<ul> <li>Describe the process of maintaining the lawn by mowing, edging and aerating it.</li> </ul>	<ul> <li>Demonstrate the process of carrying out regular repair and maintenance of the irrigation system.</li> </ul>	
<ul> <li>Explain the importance of storing hazardous items, such as pesticides and sharp tools and implements, safely in a storage.</li> </ul>	• Demonstrate the use of the relevant manual and mechanical tools and equipment and machinery, e.g. shovel, trowel, secateurs,	
<ul> <li>Explain the importance of making appropriate security arrangements in the garden to prevent unauthorized access and vandalism.</li> <li>Discuss the recommended practices</li> </ul>	<ul> <li>lawnmower, hedge trimmer, etc.</li> <li>Demonstrate the process of carrying out regular repair and maintenance of the gardening tools and equipment.</li> </ul>	
<ul> <li>Discuss the recommended practices to be followed to promote sustainability and biodiversity in the heritage garden/ park and mitigate environmental risks.</li> </ul>	<ul> <li>Show how to remove waste materials from the heritage garden/park to maintain it in a presentable condition.</li> </ul>	





N·S·D·C National Skill Development Corporation

- Explain the importance of following environmental and biodiversity conservation practices.
- Explain the importance of procuring gardening inputs from certified suppliers to prevent the entry of pests and diseases into the heritage garden/ park.
- Explain the importance of communicating the applicable hygiene and biosecurity protocols to the garden workers, contractors, visitors, etc.
- List the appropriate measures to be followed to prevent the entry of pests and contaminants into the garden through workers, visitors, vehicles, raw material, tools and equipment.
- Explain different management requirements of different types of heritage gardens.
- Explain the importance of growing plants and trees of botanical and cultural significance, according to the regions.
- Describe the legislations concerning health and safety, biosecurity, and land management in heritage gardens and parks at culturally important sites.

#### **Classroom Aids**

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

#### Tools, Equipment and Other Requirements

Installed Video camera with high resolution and recording facility, Digging Spades, Tags-labels, Grass Edgers, Flower vases, Trowel, Pruning Shears, Gardening forks, Rakes, Wheel Hoe Weeder, Garden Secateurs, Soil Knife, Hoe, Watering Cane, Wheel Barrow, Hand Sprayer, Hand Gloves, Plastic Pots, Budding-tape, Grass Mower, Pin holder, Rubber gloves, Safety Shoes, First aid box, Netting (Shade net), Stone Pebbles, Dripper, Gunny bags, Earthen Pots, Fumigator, Knapsack Sprayer





# Module 6: Process of managing the heritage garden and park workers and visitors

### Mapped to AGR/N0830 v2.0

#### **Terminal Outcomes:**

- Elucidate ways to manage the heritage garden/park workers and visitors.
- Explain the process of assisting in event organizing and filming.

Duration: 15:00	Duration: 15:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul> <li>Explain the importance of allocating tasks to the garden workers according to their job profile and skills.</li> </ul>	<ul> <li>Demonstrate the process of maintaining the manual and electronic record of heritage garden/park visitors.</li> </ul>
<ul> <li>Elucidate the importance and process of monitoring the work of garden workers to ensure the applicable quality standards are met in the upkeep and maintenance activities.</li> </ul>	<ul> <li>Show how to deal with enquiries from contractors, event organizers and others through telephone and meetings.</li> </ul>
<ul> <li>Explain the appropriate arrangements required for heritage garden/ park visitors.</li> </ul>	
<ul> <li>Explain how to manage and guide visitors.</li> </ul>	
<ul> <li>Explain how to present the heritage garden/park to increase its appeal and interest of visitors.</li> </ul>	
<ul> <li>Explain how to connect with people from diverse social, cultural and ethnic backgrounds.</li> </ul>	
<ul> <li>Describe the appropriate arrangement required to cater to PwD visitors in heritage gardens and parks.</li> </ul>	
<ul> <li>Explain the importance of taking feedback from visitors and relevant stakeholders to identify the scope of improvement in services and making appropriate improvements.</li> </ul>	
<ul> <li>Explain how to effectively deal with enquiries from contractors, event organizers and others through telephone and meetings.</li> </ul>	
<ul> <li>State the appropriate assistance to be offered in event organizing and</li> </ul>	





filming at heritage garden/park.

- Explain the appropriate arrangements required for events and filming.
- Explain the importance of ensuring effective supervision during events and filming in the heritage garden/park.

#### **Classroom Aids**

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

#### Tools, Equipment and Other Requirements

Installed Video camera with high resolution and recording facility, Digging Spades, Tags-labels, Grass Edgers, Flower vases, Trowel, Pruning Shears, Gardening forks, Rakes, Wheel Hoe Weeder, Garden Secateurs, Soil Knife, Hoe, Watering Cane, Wheel Barrow, Hand Sprayer, Hand Gloves, Plastic Pots, Budding-tape, Grass Mower, Pin holder, Rubber gloves, Safety Shoes, First aid box, Netting (Shade net), Stone Pebbles, Dripper, Gunny bags, Earthen Pots, Fumigator, Knapsack Sprayer





# Module 7: 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: 02:00	Duration: 10:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul> <li>Explain the requirements of personal health, hygiene and fitness at work.</li> <li>Describe common health-related guidelines laid down by the</li> </ul>	<ul> <li>Demonstrate personal hygiene practices to be followed at the workplace.</li> <li>Demonstrate the correct way of practice because a second se</li></ul>
organizations/ Government at the workplace	washing hands using soap and water, and alcohol-based hand rubs.
<ul> <li>Explain the importance of good housekeeping at the workplace.</li> </ul>	<ul> <li>Demonstrate the steps to follow to put on and take off a mask safely.</li> </ul>
<ul> <li>Explain the importance of informing the designated authority on personal health issues related to injuries and infectious diseases.</li> </ul>	<ul> <li>Show how to sanitize and disinfect one's work area regularly.</li> </ul>
	<ul> <li>Demonstrate adherence to workplace sanitization norms.</li> </ul>
	<ul> <li>Show how to ensure the cleanliness of the work area.</li> </ul>
Classroom Aids:	
Computer, Projection Equipment, PowerPoint P Participant's Handbook.	resentation and Software, Facilitator's Guide,

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

Personal Protective Equipment, Cleaning Equipment and Materials, Sanitizer, Soap, Mask





# Module 8: 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: 15:00		
heory – Key Learning Outcomes	Practical – Key Learning Outcomes		
<ul> <li>List the Personal Protective Equipment (PPE) required at the workplace.</li> </ul>	<ul> <li>Check various areas of the workplace for leakages, water-logging, pests, fire, etc.</li> </ul>		
<ul> <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 damage s 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> <li>Demonstrate how to safely use the PPE and implement it 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</li> </ul>		
	<ul><li>first aid.</li><li>Prepare a list of relevant hotline/ emergency numbers</li></ul>		

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 9: Employability Skills**

#### Mapped to NOS DGT/VSQ/N0103 v1.0

#### Duration: 90:00

#### Key Learning Outcomes

#### Introduction to Employability Skills Duration: 3 Hours

After completing this programme, participants will be able to:

- 1. Outline the importance of Employability Skills for the current job market and future of work
- 2. List different learning and employability related GOI and private portals and their usage
- 3. Research and prepare a note on different industries, trends, required skills and the available opportunities

#### **Constitutional values – Citizenship Duration: 1.5 Hours**

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

#### Becoming a Professional in the 21st Century Duration: 5 Hours

- 6. Discuss relevant 21st century skills required for employment
- 7. Highlight the importance of practicing 21st century skills like Self-Awareness, Behavior Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn etc. in personal or professional life
- 8. Create a pathway for adopting a continuous learning mindset for personal and professional development

#### Basic English Skills Duration: 10 Hours

- 9. Show how to use basic English sentences for everyday conversation in different contexts, in person and over the telephone
- 10. Read and understand text written in basic English
- 11. Write a short note/paragraph / letter/e -mail using correct basic English

#### Career Development & Goal Setting Duration: 4 Hours

- 12. Create a career development plan
- 13. Identify well-defined short- and long-term goals

#### **Communication Skills Duration: 10 Hours**

- 14. Demonstrate how to communicate effectively using verbal and nonverbal communication etiquette
- 15. Write a brief note/paragraph on a familiar topic
- 16. Explain the importance of communication etiquette including active listening for effective communication
- 17. Role play a situation on how to work collaboratively with others in a team

#### Diversity and Inclusion Duration: 2.5 Hours

- Demonstrate how to behave, communicate, and conduct appropriately with all genders and PwD
- 19. Discuss the significance of escalating sexual harassment issues as per POSH act

#### Financial and Legal Literacy Duration: 10 Hours

20. Discuss various financial institutions, products, and services





- 21. Demonstrate how to conduct offline and online financial transactions, safely and securely and check passbook/statement
- 22. Explain the common components of salary such as Basic, PF, Allowances (HRA, TA, DA, etc.), tax deductions
- 23. Calculate income and expenditure for budgeting
- 24. Discuss the legal rights, laws, and aids

#### Essential Digital Skills Duration: 20 Hours

- 25. Describe the role of digital technology in day-to-day life and the workplace
- 26. Demonstrate how to operate digital devices and use the associated applications and features, safely and securely
- 27. Demonstrate how to connect devices securely to internet using different means
- 28. Follow the dos and don'ts of cyber security to protect against cyber crimes
- 29. Discuss the significance of displaying responsible online behavior while using various social media platforms
- 30. Create an e-mail id and follow e- mail etiquette to exchange e -mails
- 31. Show how to create documents, spreadsheets and presentations using appropriate applications
- 32. utilize virtual collaboration tools to work effectively

#### Entrepreneurship Duration: 7 Hours

- 33. Explain the types of entrepreneurship and enterprises
- 34. Discuss how to identify opportunities for potential business, sources of funding and associated financial and legal risks with its mitigation plan
- 35. Describe the 4Ps of Marketing-Product, Price, Place and Promotion and apply them as per requirement
- 36. Create a sample business plan, for the selected business opportunity

#### **Customer Service Duration: 9 Hours**

- 37. Classify different types of customers
- 38. Demonstrate how to identify customer needs and respond to them in a professional manner
- 39. Discuss various tools used to collect customer feedback
- 40. Discuss the significance of maintaining hygiene and dressing appropriately

#### Getting ready for apprenticeship & Jobs Duration: 8 Hours

- 41. Draft a professional Curriculum Vitae (CV)
- 42. Use various offline and online job search sources to find and apply for jobs
- 43. Discuss the significance of maintaining hygiene and dressing appropriately for an interview
- 44. Role play a mock interview
- 45. List the steps for searching and registering for apprenticeship opportunities





# Module 10: On-the-Job Training

# Mapped to Heritage Gardener

Mandatory Duration: 120:00	Recommended Duration: 00:00	
Location: On-Site		
Terminal Outcomes		
• Explain the terminologies used in p e.g. family, genus, species, cultivar, v	lant identification, classification and nomenclature, variety and hybrid.	
<ul> <li>Identify non-indigenous, non-native, invasive and protected plant species.</li> </ul>		
<ul> <li>Propagate the appropriate plant a propagation methods.</li> </ul>	nd tree varieties following the recommended	
Transplant the propagated plants an	d trees in the heritage garden/ park.	
<ul> <li>Apply mulch, compost, and other ap plants and trees.</li> </ul>	propriate fertilizers to achieve the healthy growth of	
• Carry out regular repair and maintenance of the gardening tools and equipment.		
<ul> <li>Maintain the manual and electronic records of heritage garden/park visitors.</li> </ul>		
<ul> <li>Sanitize the tools, equipment and machinery properly.</li> </ul>		





# Annexure

# **Trainer Requirements**

Trainer Prerequisites						
Minimum Educational	Specialization	Specialization Relevant Industry Experience		Training Experience		Remarks
Qualification		Years	Specialization	Years	Specialization	
10th class class 10th	7	Gardening/ Landscaping	0		Heritage Gardener with 7 Years of experience with Government/civic authority/registered nursery/corporates	
12th Class	Class 12th	4	Gardening/ Landscaping	0		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.
Diploma	Diploma (landscaping/ Agriculture/ Horticulture)	3	Gardening/ Landscaping	0		
Graduate	Graduate	2	Gardening/ Landscaping	0		For school Program minimum qualification of Trainer should be Graduate. Their Teaching experience will be considered industry experience

Trainer Certification			
Domain Certification	Platform Certification		
Certified for Job Role " <b>Heritage Gardener</b> ", mapped to QP: "AGR/Q0810, v1.0", Minimum accepted score is 80%	Recommended that the Trainer is certified for the Job Role: "Trainer (Vet and Skills)", mapped to the Qualification Pack: "MEP/Q2601, v2.0". The minimum accepted score as per MEPSC guidelines is 80%.		





# **Assessor Requirements**

Assessor Prerequisites						
Minimum Educational	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
Qualification		Years	Specialization	Years	Specialization	
Graduation	B.Sc (Agriculture/ Botany/ Forestry/ Horticulture/ Floriculture Landscape gardening and related streams)	5	Gardening and landscaping or related experience	0		Practical skills and knowledge required in the conservation and maintenance o the Gardens
Post- graduation	M.Sc (Agriculture/ Botany/ Forestry/ Horticulture/ Landscape gardening and related streams)	2	Gardening and landscaping or related experience	0		Practical skills and knowledge required in the conservation and maintenance o the Gardens
PhD	Agriculture/Botany/ Forestry/ Horticulture/ Landscape gardening and related streams	1	Gardening and landscaping or related experience	0		Practical skills and knowledge required in the conservation and maintenance o the Gardens

Assessor Certification				
Domain Certification	Platform Certification			
Certified for Job Role " <b>Heritage Gardener</b> ", mapped to QP: "AGR/Q0810, v1.0", Minimum accepted score is 80%	Certified for the Job Role: "Assessor (Vet and Skills)", mapped to the Qualification Pack: "MEP/Q2701, v2.0", with a minimum score of 80%.			





### **Assessment Strategy**

#### Assessment System Overview

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

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

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

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

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

#### **Testing Environment**

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

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

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





- Assessment will normally be fixed for a day after the end date of the training / within 7 days of completion of training.
- Assessment will be conducted at the training venue
- The room where assessment is conducted will be set with proper seating arrangements with enough space to curb copying or other unethical activities
- Question bank of theory and practice will be prepared by ASCI /assessment agency and approved ASCI. Only from approved Question Bank assessment agency will prepare the question paper. Theory testing will include multiple-choice questions, pictorial questions, etc. which will test the trainee on his theoretical knowledge of the subject.
- The theory, practical and viva assessments will be carried out on the same day. In case of a greater number of candidates, the number of assessors and venue facilitation be increased and facilitated

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

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





## **Assessment Quality Assurance framework**

#### Assessment Framework and Design:

Based on the Assessment Criteria, SSC in association with AAs will define the test structure for the given roles to cover the required skills and competencies. ASCI offer a bouquet of tools for multidimensional 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
- o Assessment checklist for assessor
- Candidate Aadhar/ID card verification
- Pictures of the classroom, labs to check the availability of adequate equipment's and tool to conduct the training and assessment
- Pictures and videos of Assessment, training feedback and infrastructure.
- Apart from the Assessor, a Technical assistant is popularly known as Proctor also ensures the proper documentation and they verify each other's tasks.
- To validate their work on the day of the assessment, regular calls and video calls are done.
- On-boarding and training of assessor and proctor is done on a timely basis to ensure that the quality of the assessment should be maintained.
- Training covers the understanding of QP, NSQF level, NOS and assessment structure

#### Methods of Validation

- <u>Morning Check (Pre-Assessment)</u>: Backend team of AA calls and confirms assessor/technical SPOC event status. Assessor/Technical SPOC are instructed to reach the centre on time by 9:30 AM / as decided with TC and delay should be highlighted to the Training Partner in advance.
- <u>Video Calls</u>: Random video calls are made to the technical SPOC/assessor so as to keep a check on assessment quality and ensure assessment is carried out in a fair and transparent manner
- <u>Aadhar verification</u> of candidates
- <u>Evening Check (Post Assessment)</u>: Calls are made to the ground team to ensure the event is over by what time and the documentation is done properly or not.
- <u>TP Calling</u>: To keep a check on malpractices, an independent audit team calls the TP on a recorded line to take confirmation if there was any malpractice activity observed in the assessment on part of the AA/SSC team. If calls are not connected, an email is sent to TP SPOC for taking their confirmation
- <u>Video and Picture Evidence</u>: Backend team collects video and pictures for assessment on a real-time basis and highlights any issue such as students sitting idle/ trainer helping the candidates during the assessment.
- <u>Surprise Visit:</u> Time to time SSC/AA Audit team can visit the assessment location and conduct a surprise audit for the assessment carried out by the ground team.
- <u>Geo Tagging</u>: On the day of the assessment, each technical SPOC is required to login into our internal app which is Geotagged. Any deviation with the centre address needs to be highlighted to the assessment team on a real-time basis.

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

- ASCI have a fully automated result generation process in association with multiple AAs
- Theory, Practical and Viva marks form the basis of the results and encrypted files generated to avoid data manipulation. All responses were captured and stored in the





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

- Maker Checker concept: One person prepares the results and another audit result which is internally approved by AA at first and then gets vetted at the end of SSC
- All softcopies of documents are received from the on-ground tech team over email. The same is downloaded by our internal backend team and saved in Repository. The repository consists of scheme-wise folders. These scheme-wise folders have two job role-specific folders. These specific folders have Year wise and Month wise folders where all documents are saved in Batch specific folders. All Hard copies are filed and stored in the storeroom.

#### Result Review & Recheck Mechanism -

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



# References



# Glossary

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





# Acronyms and Abbreviations

Term	Description	
AGR	Agriculture	
NOS	National Occupational Standard (s)	
NSQF	National Skills Qualifications Framework	
TLO	On-the-job Training	
QP	Qualifications Pack	
PwD	People with Disability	
PPE	Personal Protective Equipment	