

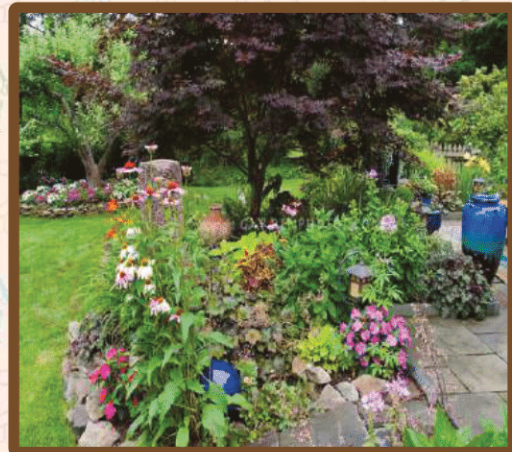


ASCI
Agriculture Skill Council of India



SCPwD
दिव्यांग व्यक्तियों के लिए कौशल परिषद्
Skill Council for Persons with Disability

Facilitator Guide



Sector
Agriculture and Allied

Sub-Sector
Agriculture Crop Production

Occupation
Landscaping, Gardening and Urban Farming

Reference ID: **AGR/Q0801, Version 1.0**
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NSQF Level 4

Gardener (Divyangjan)

for Locomotor Disability
for Speech and Hearing Impairment
for Low Vision



Shri Narendra Modi
Prime Minister of India

“ Skilling is building a better India.
If we have to move India towards
development then Skill Development
should be our mission. ”

Acknowledgements

We are thankful to all organizations and individuals who have helped us in preparation of this Participant manual. We also wish to extend our gratitude to all those who reviewed the content and provided valuable inputs for improving quality, coherence and content presentation of chapters. This handbook will lead to successful roll out the skill development initiatives, helping greatly our stakeholders particularly trainees, trainers and assessors etc. We are thankful to our Subject Matter Expert **Ms Renu Guia** who has given the content and helped us in preparation of Participant Handbook.

It is expected that this publication would meet the complete requirements of QP/NOS based training delivery, we welcome the suggestions from users, Industry experts and other stakeholders for any improvement in future.

About this Guide

Dear Trainer,

This Trainers Manual is intended to empower preparing for the Gardener Qualification Pack (QP). Every National Occupational (NOS) is spread over Unit/s. Key Learning Objectives for the NOS check the start of the Unit/s for that NOS. The images utilized as a part of this book are portrayed beneath. Gardener is in charge of Installation, Testing, Commissioning of Gardener at agriculturist's field for better water administration and increment in yield of product. The National Occupational Standards indicate the measures of execution an individual must accomplish when doing a capacity in the work environment, together with the information and comprehension they have to meet that standard reliably. These word related guidelines are appropriate both in the Indian and worldwide settings. According to these measures the Gardener ought not work freely, ought to be relentless and must be able to settle on operational choices relating to his range of work. The student ought to pick up clarity of work and ought to be result situated; The Trainee ought to likewise have the capacity to exhibit abilities to utilize different devices in the Gardener. The mentor should guide and prepare the students' in the accompanying abilities:

- **Knowledge and Understanding:** Satisfactory operational learning and comprehension to play out the required chore
- **Performance Criteria:** Pick up the required aptitudes through hands on preparing and play out the required operations inside the predetermined measures
- **Professional Skills:** Capacity to settle on operational choices relating to the zone of work

The course incorporates Trainer Guide including student handbook for the learners and coach's aide; appraisal guide; session arrangement; and syllabus for you. The course material likewise incorporates a couple of blurbs as showing helps in the classroom. The appraisal guide subtle elements the assessment system. As a mentor you will assess the learners' execution and grade them in light of the assessment parameters given in the aide. The system additionally incorporates field visit for the students where they will watch the method/operations and administrations of the Gardener. Chapter are prepared to build up the expert abilities like – choices making, systematic and basic considering. We hope you will be able to impart your knowledge with our help to make this program a success and up-skill the workers to the recommended standards.

We trust you will have the capacity to confer your insight with our help to make this program a win and up-skill the workers to the suggested norms.

All the best!

Role of the Trainer

As a trainer, keep in mind the following guidelines:

Know your job thoroughly

The Trainer ought to first know his/her learners (the students) keeping in mind the end goal to guarantee their productive contribution in the learning procedure. Fundamentally the majority of these contemplations are guided by the reasoning of participatory preparing, which advocates that preparation, not at all like instructing, is more worried with the general improvement of the human identity.

- As a Trainer, remember the accompanying rules:
- Training is not learning
- The trainer needs to learn for himself/herself, through his/her own particular activity and movement
- The trainer can just guide the understudy movement in a way that prompts a decent learning background
- The trainer can create reasonable situations fancied to deliver a powerful learning (curricular, co-curricular and additional curricular) experience
- Trainees' response with the earth is relied upon to achieve an adjustment in conduct
- The trainer is the key component, as on him/her depends the arranging of the learning circumstance for accomplishing the sought result

Practice these common courtesies

- Greet the students
- Be warm and neighborly
- Introduce yourself
- Ask their names
- Explain the reason and objectives of preparing project
- Ask their desires
- Always make inquiries
- Listen to then quietly and answer their inquiries
- In case you can't react to an inquiry say that you will hit them up
- Respect the students
- Do not hang over them, their work, or get in their work-space
- Do not take their work or move it without requesting their consent
- Be a decent onlooker
- Offer rededication for weaker students Correct the flawed practices of learners at work before they transform into propensities
- Do not condemn
- Show gratefulness where it is expected
- Always say 'please', 'thank you', and "too bad"
- Be a tutor

Responsibilities

- The trainer has a unique position and assumes a few parts. He/she is a go between the student and administration.
- The trainer has moral and lawful duties and guarantees the expert advancement as well as the prosperity of the young. You need to counteract:
 - Discrimination as a result of sexual orientation, race or nationality or some other kind
 - Bullying and/or lewd behavior
 - Abuse of liquor, prescription or whatever other substance
 - Physical threats through mischance, air contamination, commotion or risky chemicals
 - Overstepping the student's physical limit
- You likewise need to secure that time directions or other lawful controls are not infringing– neither by you nor by the disciple.

Symbols Used



Steps



Time



Tips



Notes



Objectives



Do



Ask



Explain



Elaborate



Field Visit



Practical



Lab



Demonstrate



Exercise



Team Activity



Facilitation Notes



Learning Outcomes



Say



Resources



Activity



Summary



Role Play



Example

Table of Contents

S.No	Modules and Units	Page No
1.	Introduction	1
	Unit 1.1 - Introduction to Gardening	3
	Unit 1.2 - Types of Garden	7
2.	Nursery Management and Propagation of Plant Material	11
	Unit 2.1 - Nursery Management	13
	Unit 2.2 - Plant Propagation	17
3.	Designing of Garden Components	22
	Unit 3.1 - Garden Design	24
	Unit 3.2 - Components of a garden	28
4.	Plantation, Maintenance and Care of Garden	32
	Unit 4.1 - Plantation, Maintenance and care of Garden	34
5.	Maintain health & Safety at the work place	40
	Unit 5.1 - Garden hazards	42
	Unit 5.2 - Gardening Health and Safety	45
6.	Annexures	49
	Annexure I: Training Delivery Plan	50
	Annexure II: Assessment Criteria	55





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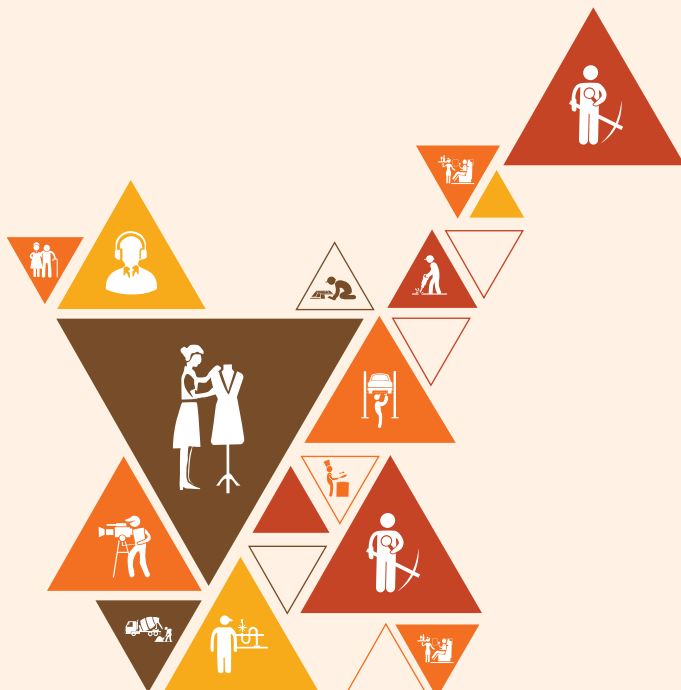
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1. Introduction

Unit 1.1 - Introduction to Gardening

Unit 1.2 - Types of Garden



Key Learning Outcomes

After completing this session the trainees will be able to:

- Build rapport with fellow participants of the program and state the objective of the program
- Discuss basic concept of Gardening with the participants and guide them to apply these concept in their day to day work in Garden.
- Discuss role, scope and importance of gardening and build self-esteem of participants as important service provider and change agent of society.
- Build capacity amongst participants to understand the functioning of different forms of gardens, economic importance of Garden, type of Garden, value of garden.
- Discuss with participants about their role and responsibility as Gardener.
- Motivate and guide participants to dedicate their life to continuous learning and suggest available referral support system.
- Gain knowledge about the Aesthetic Value of Garden

UNIT 1.1: Introduction to Gardening

Unit Objectives

At the end of this unit, you will be able to assist participants to:

- Understand the program overviews
- Understand key words used in gardening
- Understand the Scope and importance of gardening
- Understand the role of a gardener and necessary skills on which participants will be trained

Resources

- Participant Handbook, Pens / pencils, Sticky Notes, Notepad, Computer, Projector, White board, Flip charts/paper, Marker, duster
- Power point slides, Pictures / posters e.g. that can depict various role of Gardener and specific innovative images related to gardening

Notes

This is the first session of the training program. Greet the participants & give your brief introduction to participants, background and your role in the training program. Describe participants the purpose of the program, session plan, assessment criteria etc. Also discuss about scope & career progression in gardening. Answer the query of participants.

Say

- Greetings to the participants and thank everyone for their participation in the program.

Do

1. Take introduction of participants by following group activity
 - Make the students stand in a circle, close enough to the person each side of them that they can pass the parcel quickly.

- Say 'Stop' when the students least expect it. The person who has the parcel at that time should get out.
- Those who get out should introduce themselves by providing their names and a little additional information such as name of his / her village, famous garden in their district, favorite flower and why etc.
- The winner of the game should stand and introduce himself/herself along with the additional information as above at the end of the game.

Say

- Thank you for participating in the activity
- Describe some comments of participants during the game regarding gardening
- Now, Start the session by discussing about gardening

Elaborate

- Describe on the Value of garden, Scope & importance of gardening & commercial floriculture
- Economic Importance of garden and Job role of a gardener
- Elaborate on work environment of gardener
- Discuss on model service delivery examples in India, where Gardener is working under registered institutions
- In situations where trainees are likely to be inducted directly into any organization, discuss about the work of the organization and how trainees will have to contribute.
- While describing the role and importance of gardener help participants to develop a sense of pride amongst them as would-be service providers of a sector that is important for social and cultural well-being.
- Introduce participants to definition of Skill, Garden, Flowers etc
- Explain comparison between gardening and farming
- Legal / government guidelines applicable in Gardening

Team Activity

- Divide the class into three teams. Assign one question to each group from below list. No team should be given the same topic Give sufficient time for teams to refer to the text in participant manual related to assigned topics and discuss among them. Facilitate team members to answer any query related to topics.
 1. Definition of Garden, its comparison with farming and importance of garden,
 2. Planting in a garden and Scope of gardening & commercial floriculture
 3. Job role as a Gardener and their Importance

After completion of discussion of group, each team will take their turn and will present the assigned topic in front of class. This will facilitate peer learning.

Ask

- Explore with participants what they understand about the word Skill, Garden etc.
- Ask three volunteers to give a short speech as what will they do to improve their own Skills in gardening
- Ask few participants to describe people and their occupations who are directly dependent on garden to earn living.

Say

- Sum up the key learning of above group discussion topics and relate it to the role and responsibility of Gardener.
- Everyone, regardless of their field or profession, operate within a legal and ethical framework of some kind. This simply means that we all work within the boundaries defined by applicable laws and ethical standards. Introduce and the participants to the legal provision in India .Encourage participants to ensure compliance of law
- Emphasize and elaborate the Job role of gardener and their importance

Notes for Facilitation

- A brief general explanation of terms used in participant manual will help participants to take part in discussions.
- Help participants to get rid of inhibition and anxiety (if any) thus ensuring maximum class participation.
- Make participants understand the Gardening, comparison with farming, Planting in a garden, Importance of garden, Scope of gardening & commercial floriculture
- Encourage participants of group discussion to ask questions so that they can clear their doubts (if any) on future job role.
- Assist participants to streamline their thought process while discussing the question.
- You can invite representative of any organization who employs Gardener to speak on 'expectations from trainees'.
- Understand their job role as a Gardener
- Indicate briefly the option for career progression and career mobility of Gardener completing training under NSQF framework. He /she can work anywhere in India or even seek employment outside the country.
- Create a sense of pride amongst the participants as would be service provider of a sector that is important to social and cultural well-being.
- Inculcate the serving attitudes and create awareness of 'people' dimensions associated with gardening.
- Learn about their limitations as service provider and pre-requisite to follow legal / government guidelines.
- Empower participants to systematically think about Gardening activities

UNIT 1.2: Types of Garden

Unit Objectives

At the end of this unit, you will be able to assist participants to:

- Understand the types of gardening and their importance

Resources

- Participant Handbook, Pens / pencils, Sticky Notes, Notepad, Computer, Projector, White board, Flip charts/paper, Marker, duster
- Slides in power point presentation showing specific innovative images e.g. Service area, Play area, Lily pool, Electric lawn mower, Water garden
- Slides in power point presentation showing images of flowers like Amherstia nobilis, Gulmohar, Amaryllis, Daffodils, Impatiens sultanii, Geranium, Bauhinia purpurea, Cassia fistula, Cassia spectabilis, Ixora singaporensis, Mussaenda philippica, Michelia champaca, Hibiscus rosa-sinensis, Tabernaemontana coronaria etc

Elaborate

- Explain the key features of Garden in broad details i.e. importance of type of flowers selected and tree in the fields
- Describe how to make a Plan of garden, Rules and regulations related to gardening, what should be key consideration of approach or public Area, Work or Service Area, Private Garden Area or Living Area etc.
- Describe the key features of each garden mentioned below
 - ❖ Landscaping of Home
 - ❖ Landscaping of Institute
 - ❖ Landscaping of Industry
 - ❖ Roof Garden
- Describe ways by which salvaging an Old Garden can be done, Plans for very small compounds, what are trees and flowers suitable for all types gardens, how to do landscaping a Country Home

Example

- Give example of each type of garden in India and in world and show them via Power point presentations and describe their features in details

Demonstrate



- Demonstrate type of Garden available in demonstration area to participants in field and describe their features in details.
- Ask participants to identify the various type of flower used in gardening like Amherstia nobilis, Gulmohar, Amaryllis, Daffodils, Impatiens sultanii, Geranium, Bauhinia purpurea, Cassia fistula, Cassia spectabilis, Ixora singaporensis, Mussaenda philippica etc.

Team Activity



- Divide the class into four teams. Assign one topic to each group from below list. No team should be given the same topic Give sufficient time for teams to refer to the text in participant manual related to assigned topics and discuss among them. Facilitate team members to answer any query related to topics. After this, each team will take their turn and present the assigned topic.
- At the end of four rounds of discussion ask each team to suggest other teams' pointers that they may have missed while discussing on their chosen topic. The group making maximum suggestions to others should be awarded as winner
 - Landscaping of Home
 - Landscaping of Institute
 - Landscaping of Industry
 - Roof Garden

Say



- Sum up the key learning of above group discussion topics
- Emphasize and elaborate on important aspects of each type of garden and their main key consideration.
- Emphasize and elaborate the Job role of gardener and their importance

Ask



Ask participants to describe the key features of each garden on Chart Paper

- Landscaping of Home
- Landscaping of Institute
- Landscaping of Industry
- Roof Garden

Notes for Facilitation

- A brief general explanation of all terms used in participant manual in unit type of Garden
- Encourage participants of group discussion to ask questions so that they can clear their doubts (if any) on any topic
- Encourage peer learning among participants in the class by answering other participant's questions
- Assist participants to streamline their thought process while discussing the above question
- Give award to winning group in team activity based on quality of used presentation, content relevancy, group participation etc.
- Ensure more pictorial presentation of learning where ever possible in classroom
- Ensure practical session where ever required

Exercise

1. Write a note on Garden Maintenance. Explain?

Answer: _____

2. Briefly write about type of garden and their key features?

Answer: _____

3. Write about Landscaping of Institute and Industry?

Answer: _____

Notes



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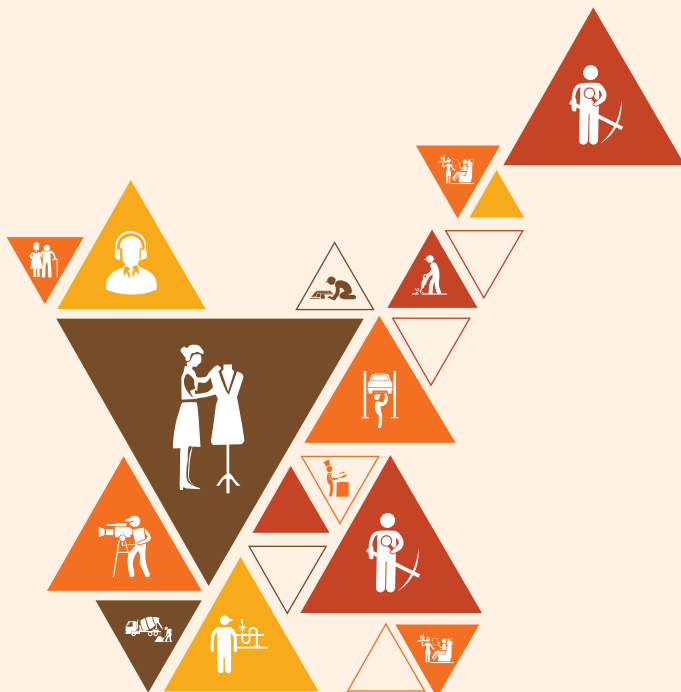
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2. Nursery Management and Propagation of Plant Material

Unit 2.1 - Nursery Management

Unit 2.2 - Plant Propagation



AGR/Q0801

Key Learning Outcomes

After completing this session the trainees will be able to:

- Prepare nursery bed & seedlings
- Prepare the root stocks and practice Propagation techniques.
- Practice cutting, grafting, budding and layering techniques

UNIT 2.1: Nursery Management

Unit Objectives

At the end of this unit, you will be able to assist participants to:

- Understand the Nursery bed preparation
- Understand the nursery management practices

Resources

- Participant Handbook, Pens / pencils, Sticky Notes, Notepad, Computer, Projector, White board, duster, Flip charts/paper
- Slides in power point presentation showing specific innovative images of Tools and equipment used in Nursery, Type of Nursery etc.

Say

- Greet the participants and welcome to training session “**Nursery Management**”. Before beginning the session, recapitulate the previous session discussion.

Do

1. Begin with revising the topics covered in the previous session. Ask the following questions
 - Role of Gardener?
 - What are scope and importance of Gardener?
 - Describe Aesthetic value of garden?
 - Difference between landscaping of home, institute and industry?
 - What is Roof Garden?
2. Motivate participants to give answers to questions
3. Clarify the doubts of participants if any

Elaborate



- Describe nursery, its importance and their classification basis
- Describe the plants are propagated by various ways like Seed propagation, Asexual propagation, Micro propagation
- Describe types of Nurseries depending upon the type of plants propagated and developed like Seasonal flower nursery, Tree Nurseries, Vegetable Nurseries, Herb Nurseries and Tissue Culture and Polyhouse Nurseries
- Describe types of Nurseries based on the sale of plants like whole sale nursery or a retail nursery.
- Describe prerequisites for a good nursery like Good Site, Beds in the nursery etc.
- Key features of various containers are used in the nurseries for propagating plants and type of plants for which these containers are used.

Example



- Give example of herbs propagated in herb nurseries like Basils, Citronella, Lemon grass, Lettuce, Aloe-vera, Mint, Rosemerry, Stevia, etc.

Demonstrate



Take the participants for field visit. Show them following along with description of their key features/uses/management etc:

- Seasonal Flower nursery, Tree nurseries, Vegetable nurseries , Herb nurseries ,Tissue Culture, Polyhouse Nurseries, Whole sale Nursery, Retail Nursery
- Various container used in the nurseries for propagating plants like Terracota pots, Seed Pan, Polythene bags, Plastic Trays.
- A mixture of soil, sand, peat moss or cocopeat, vermiculite, perlite and compost used for preparation of growing medium
- Preparations of Growing Medium & characteristics of good growing medium
- Site selection for Nursery Preparation and Beds in the nursery

Team Activity



- Divide the class into eight teams and assign each team from following topics to go through text in participant's handbook and prepare on chart paper depicting key features. Assist each team to discuss amongst them and prepare the chart paper. After this ask each team to present the topic via chart paper

- Seasonal Flower nursery
- Tree nurseries
- Vegetable nurseries
- Herb nurseries
- Tissue Culture
- Polyhouse Nurseries
- Whole sale Nursery
- Retail Nursery

Elaborate



- Describe how to establish physical infrastructure like shade house, mist chamber, irrigation system. Also discuss preparation of soil mixtures, prepare seed beds, Transplanting of seedlings, potting of seedlings, hardening of seedlings.

Demonstrate



- Take the participants to demonstration area and show them the tools and equipments used in nursery and ask them to identify. Describe maintenance of tools and equipments to prevent their wear and tear, increase their life and prepare the tools for next time use.

Ask



- Prevailing weeds in nursery
- Major diseases of seedlings grown in Nurseries and their control measures

Elaborate



Refer Participants handbook for topic Nursery Management and describe following points in details:

1. Once the seedlings in the beds have strengthened, seedlings are prepared from seeds and hardening of cultured seedlings is done, a proper maintenance and take care of the nursery is very important. Proper hygiene and cleanliness is very important to keep the nursery plants free from pests and deceases.
2. Nursery Management includes all the operations from raising healthy seedlings to transplanting and repotting of the small plants and seedlings either for commercial sale or for transplanting in fields.
3. Describe and demonstrate Field operations important in Nursery Management:
 - Potting the seedlings
 - Manuring & Irrigation
 - Plant Protection

4. Major diseases of seedlings grown in Nurseries
5. Control Measures for damping off, Powery mildew, yellow vein mosaic, Leaf spot and bacterial blight etc.
6. Proper precautions that should be taken while raising the seedlings in nurseries like Disinfection of seeds, Soil treatment
7. Weed control in nursery
8. Control of temperature
9. Commercial Management

Notes for Facilitation

- Ask the participants if they have any questions and clarify all doubts of the participants
- Encourage peer learning among participants in the class by answering other participant's questions
- Visual demonstration of various tools and equipment used in nursery
- Show the photograph of various of type of nursery
- Demonstrate various type of diseases of seedlings grown in Nurseries
- Make class room more participatory

Exercise

1. List out the Tools/ equipments required for the Nursery Management.

Answer: _____

2. Write a note on Types of Nurseries.

Answer: _____

3. Write note on preparation of soil mixtures, prepare seed beds, Transplanting of seedlings, potting of seedlings, hardening of seedlings.

Answer: _____

Notes

UNIT 2.2: Plant Propagation

Unit Objectives

At the end of this unit, you will be able to assist participants to:

- Prepare the root stocks and practice Propagation techniques.
- Practice cutting, grafting, budding and layering techniques

Resources

- Participant Handbook, Pens / pencils, Sticky Notes, Notepad, Computer, Projector, White board, Flip charts/ paper etc.

Say

- Greet the participants and welcome to training session “**Plant Propagation**”. Before beginning the session, recapitulate the previous session discussion.

Do

1. Begin with revising the topics covered in the previous session. Ask the following questions
 - How to prepare soil mixtures?
 - How to prepare seed beds?
 - How to take up hardening of seedlings?
2. Motivate participants to give answers to questions
3. Clarify the doubts of participants if any

Ask

- Ask from participants about questions related basic botany

Elaborate

- Describe basic botany
- Refer Participants handbook for topic Plant Propagation Techniques and describe following points in details:
 1. Plant Propagation Techniques and where it will be used, variety of plant propagation tools and methods

2. Describe Rooting Media and their features and constituents
3. Elaborate Rooting Enhancement Conditions
4. Describe type of Plant Propagation methods and various tools and equipments will be required
5. Describe the Cuttings in details like
 - a. Stems Cuttings
 - b. Tip cuttings
 - c. Medial cuttings (also stem-section cuttings)
 - d. Cane cuttings
 - e. Single Eye
 - f. Double Eye
 - g. Heel cutting
 - h. Leaf Cuttings
 - i. Whole leaf with petiole
 - j. Whole leaf without petiole
 - k. Split vein
 - l. Leaf sections
 - m. Root Cuttings
 - n. Plants with large roots
 - o. Plants with small roots
5. Layering
 - a. Tip layering
 - b. Simple layering
 - c. Compound layering
 - d. Mound (stool) layering
 - e. Air layering
6. Describe Division & Separation
 - a. Stolons/Runners (Examples: strawberry, begonia, spider plant)
 - b. Offsets (Examples: date palm, haworthia, bromeliads etc)
 - c. Bulbs (Examples: narcissus and tulip)
 - d. Corms (Examples: crocus, gladiolus)
 - e. Crowns (Examples: snake plant, iris, prayer plant, day lilies)

Example

Give example of all propagation techniques like:

1. Cuttings

- Whole leaf with petiole (Example: African violet)
- Whole leaf without petiole (Example: donkey's tail)
- Split vein (Example: Rex Begonia)
- Plants with large roots (Example: horse radish)
- Plants with small roots (Example: bleeding heart)

2. Layering

- Tip layering (Examples: purple and black raspberries, trailing blackberries)
- Simple layering (Examples: forsythia, honeysuckle)
- Compound layering (Examples: pothos and heart-leaf philodendron)
- Mound (stool) layering (Examples: gooseberries, apple rootstocks.)

Elaborate

Asexual Propagation of Perennials

1. Cuttings
2. Budding
 - a. T-Budding / shield budding
 - b. Patch Budding
 - c. Chip budding
3. Grafting
 - a. Tongue Grafting
 - b. Cleft Grafting
 - c. Approach Grafting
 - d. Veneer Grafting
4. Runner (Example : strawberries)
5. Sucker (Example : pear, banana etc)

Demonstrate

- Demonstrate and describe propagation techniques like cuttings, layering and stooling (Guava), grafting (Mango) and budding in rose / citrus .Also discuss and show to raise root stocks for grafting and budding

Team Activity

- Divide the class into three teams and assign each team one topic from Cuttings, Budding and Grafting to refer to the text in participant handbook. No two teams should be given the same topic. Give sufficient time to team to refer text in handbook and discuss.
- When all team have gone through the text and have discussed, ask each team to demonstrate and explain to remaining participants about topic selected. Each team should be given necessary tools and equipments and demonstration materials. Ensure that the other teams listen to any particular discussion and note down key points.
- Monitor the demonstration of participants carefully and guide them if some mistakes are there in demonstration.

Elaborate

- Identification and use proper root stock and scion for propagation
- Describe how to identify and grow indoor plants and their basic requirements
- Tissue Culture & their advantages
- Describe safety methods in pesticides use & disposal
- Describe how to maintain cleanliness in nursery by sweeping trashes and pulling out dead plant parts etc.

Notes for Facilitation

- Ask the participants if they have any questions and clarify all doubts of the participants
- Encourage peer learning among participants in the class by answering other participant's questions
- Demonstrate and describe propagation techniques and safety methods in pesticides use & disposal

Exercise

1. Write a note on Propagation techniques.

Answer: _____

2. Write a note on pest & disease management in nursery.

Answer: _____

3. Write a note on tissue culture and their advantages?

Answer: _____

Notes



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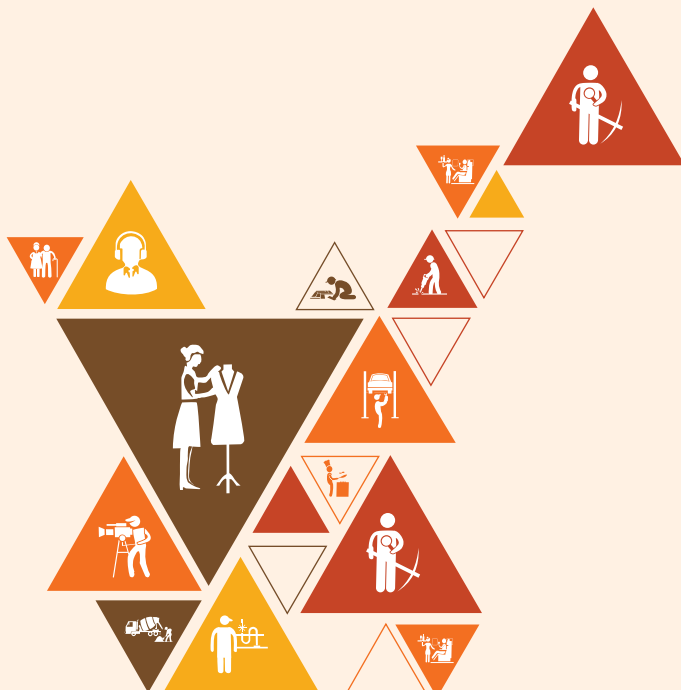
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3. Designing of Garden Components

Unit 3.1 - Garden Design

Unit 3.2 - Components of a garden



AGR/Q0802

Key Learning Outcomes

After completing this session the trainees will be able to:

- Understand the different types of Garden
- Plan for the Design and Layout of Gardens.
- Layout & prepare the lawn
- Layout of orchard, plant fruit plants in the field
- Understand the different components of garden.
- Implement the techniques to beautify the gardens etc.
- Practice cutting, grafting, budding and layering techniques

UNIT 3.1: Designing of Garden Components

Unit Objectives

At the end of this unit, you will be able to assist participants to:

- Understand the garden designing
- Understand the garden components
- Understand the different types of garden

Resources

- Participant Handbook, Pens / pencils, Sticky Notes, Notepad, Computer, Projector, White board, Flip charts

Say

- Greet the participants and welcome to training session “Designing of Garden Components”. Before beginning the session, recapitulate the previous session discussion.

Do

1. Begin with revising the topics covered in the previous session. Ask the following questions
 - Describe propagation of plants through cuttings, layering, grafting and budding?
 - How to raise root stocks for grafting and budding?
 - How to identify and grow indoor plants of their basic requirements?
 - How to identify and use proper root stock and scion for propagation?
2. Motivate participants to give answers to questions
3. Clarify the doubts of participants if any

Elaborate

Refer Participants handbook for topic Garden Design and describe following points in details:

- Describe Garden Design with example Children's park, residence, vegetable garden, farmhouse etc.
- Describe creating and designing the various garden components in the field for beautification of garden and landscape
- Describe with example features of Garden, types of Garden and Process of making a design, actual Design and Layout of Gardens
- Types of gardens - Formal, informal, landscape, institutions, public gardens, parks, Hindu, Mughal, Japanese and English gardens etc.
- Describe at what distance various trees, shrubs, topiaries, hedges, ground covers etc. are to be planted, thus helping to determine the exact quantities of various plants required.

- Describe a layout plan that makes it easier to understand the exact position of various buildings, pathways, gazebos and other concrete features, thus helping in proper positioning of plants on the ground.
- Describe Site examination & List of items to be observed while examining a site
- designing different types of gardens and utilization of the available space effectively for different type of gardens

Team Activity



- Make ten groups and assign each group one type of garden as assignment in which they will discuss among them and will draw on chart paper the key features of garden. After completion of assignment, each group will present their topics.
- Topic of assignment: Types of gardens - Formal, informal, landscape, institutions, public gardens, parks, Hindu, Mughal, Japanese and English gardens

Say



- Sum up the key learning of above group discussion topics
- Emphasize and elaborate on important aspects of each type of garden and their main key consideration.

Ask



1. Suggest participants to make checklist before Site examination (Checklist)

- Existing trees
- Existing shrubs
- Location of building
- Other plantation
- Walkways and roads
- Other structures on the property
- Irrigation and electrical lines above and under the ground
- Property markings
- Soil texture and fertility
- Views to be hidden or screened
- Style of the house

2. Taking inputs from the customers and understanding their needs and requirement is one of the most important aspects of garden design. It is important to learn about their taste, likes and dislikes in a garden space, any particular or specific requirements or utility of place that they wish to have.

List of items to be asked by Customer

- Choice / selection of plant varieties.
- Preference of type of a garden – formal / informal.

- Public and private area
- Kids area
- Vegetable / Herb garden
- Lights
- Fruit trees or only ornamental plants.
- Flower beds for annual flowers
- Gazebo or pergola requirement or any other sitting area
- Size of gatherings for party purpose
- Other utility areas
- Pet space
- Fences
- Areas to be screened
- Desirable views if any

Elaborate

Explain type of drawings

- Rough sketch
- Concept drawing

Describe Working drawing

Principles of designing

While designing a garden, few important things should be kept in mind. They are:-

(I) Background

(ii) Contrast

- a. Proportion
- b. Balance
- c. Rhythm
- d. Variety

Demonstrate

Show participants innovative photographs of following garden designing. If such gardening/landscaping demonstration area is available show to participants

- Garden Designing
- Proportion Gardening
- Garden Designing – Balance
- Non rhythmic gardening
- Rhythmic Gardening
- Garden Designing - variety

UNIT 3.2: Components of Garden

Unit Objectives

At the end of this unit, you will be able to assist participants to:

- Understand the Garden components

Resources

- Participant Handbook, Pens / pencils, Sticky Notes, Notepad, Computer, Projector, White board, Flip charts

Say

- Greet the participants and welcome to training session “**Components of Garden**”. Before beginning the session, recapitulate the previous session discussion.

Do

1. Begin with revising the topics covered in the previous session. Ask the following questions
 - What do you understand by garden designing and garden component
 - What are items to be observed while examining a site of garden
 - What are type of drawing
2. Motivate participants to give answers to questions
3. Clarify the doubts of participants if any

Elaborate

Refer participant's handbook to explain in details about following topics:

To create a look of a mini nature, a garden should have some components. These components have different characters, which add value to a basic garden and enhances its beauty. Few garden components are described below:-

- Lawn
- Shrubbery
- Hedges
- Edges
- Avenue Trees
- Topiaries
- Rockery
- Ground covers
- Climbers and creepers
- Flower Beds
- Walkways & Pathways

Example

Give example of the following and explain:

- Shrubs along with key characteristics which are used in Shubbery like the key characteristics of Tecoma (*Tecoma capensis*) is its Orange flowers etc
- Hedges along with their purpose like Murraya is used for purpose of Boundary / Fragrant flower etc
- Edges with their purpose like Lal ghas, Duranta variegated etc
- Avenue Trees along with their purpose like Gulmohar (*Delonix regia*), Amaltas (*Cassia fistula*) etc
- Topiaries along with their purpose like *Ficus retusa*, *Casurina*
- Rockery like cactus varieties, ferns, grasses etc
- Different types of climbers / creepers along with their purpose like Bignonia Venesta is used for Orange bloom in winters, Bougainvillea is used for flowers round the year etc
- Name of seasonal used for flower beds like Petunia, Zinnia, Marigold etc

Team Activity

- Describe how to design & visualize various components of Garden like hedge, edge, shrubbery, pergolas, flower bed, lawn, etc. according to actual field

Demonstrate

- Garden components like Lawn, Shrubbery, Hedges, Edges, Avenue Trees, Topiaries, Rockery, Ground covers, Climbers and creepers, Flower Beds, Walkways & Pathways etc

Elaborate

Types of Gardens

Elaborate how to design different types of gardens and how to utilize the available space effectively for different type of gardens

- Informal Gardens
- Formal Gardens

Example

Give example of type of garden and describe its features by pictures like

- **Informal Gardens:** Herb garden, trench gardens, vegetable gardens etc.
- **Formal Gardens:** English gardens and Mughal Gardens like Pinjore Garden.

Key Learning Outcomes

After completing this session the trainees will be able to:

- Understand the seasonal Gardening and Ground maintenance.
- Understand the different planting and Culture of Floral Display.
- Understand and perform the irrigation maintenance in the garden.
- Practice Pest and Disease management.
- Perform field operations like Maintain Lawn and Turf, Mowing, Fertilizing, Weeding, Irrigation, Aeration and Renovation etc

UNIT 4.1: Plantation, Maintenance and care of Garden

Unit Objectives

At the end of this unit, you will be able to assist participants to:

- Practice care and maintenance of a garden
- Understand the requirement of tools/ equipments for the management practices

Resources

- Participant Handbook, Pens / pencils, Sticky Notes, Notepad, Computer, Projector, White board, Flip charts

Say

- Greet the participants & welcome to training session “**Plantation, Maintenance and care of Garden**”. Before beginning the session, recapitulate the previous session discussion.

Do

1. Begin with revising the topics covered in the previous session. Ask about following topics:
 - Garden components like Lawn, Shrubbery, Hedges, Edges, Avenue Trees, Topiaries, Rockery, Ground covers, Climbers and creepers, Flower Beds, Walkways & Pathways etc
 - Type of garden and describe its features by pictures like
 - Informal Gardens: Herb garden, trench gardens, vegetable gardens etc.
 - Formal Gardens: English gardens and Mughal Gardens like Pinjore Garden.
2. Motivate participants to give answers to questions
3. Clarify the doubts of participants if any

Elaborate

Refer participant's handbook to explain in details about safety measures:

- Describe Plantation, Planting of seeds
- Describe various factors mentioned below are important to be kept in mind while raising seedlings from seeds:
 - ❖ Time of Sowing
 - ❖ Selection of the right container
 - ❖ Preparing the right Potting Mixture
 - ❖ Light
 - ❖ Seed Sowing
- Benefits of using container or seedling tray

Demonstrate



- Seedlings preparation in containers
- Preparation of potting mixture
- Seed Sowing Steps

Elaborate



Types of Gardens

Elaborate how to design different types of gardens and how to utilize the available space effectively for different type of gardens

- Informal Gardens
- Formal Gardens

Example



Example of shrubs are used in many ways in a garden shrubbery, specimen plant, screening and hedges, topiaries

Example of shrubs: Bougainvillea, Ixora, Murrya exoica etc.

Demonstrate



Multiple uses of shrubs in a garden:

- Used in shrubbery
- Individual shrub trained as a specimen plant
- Used as screening and hedges
- Shrubs formed as topiaries

Elaborate



1. Maintenance of a garden is very important. Ignorance in any maintenance activity can damage the garden within few days. Hence various maintenance activities should be carried out timely in a very professional manner. Maintenance of a garden includes the following major activities:-

- Irrigation of plants
- Nutriment Management
- Pest and disease management
- Field operations like

2. Factors should be taken into consideration for irrigating plants

- Active growing period
- Type of soil
- Season

3. Types of irrigation system

- Sprinkler irrigation
- Drip irrigation
- Flooding

Say**Sprinkler irrigation has advantages like**

- Fertigation– Adding fertilizers in water tank and giving it to plants while irrigating
- Uniform spread of water over the crops
- More absorption and less wastage of water

Drip irrigation has a lot of advantages:

- Saves a lot of water
- Fertigation
- Better yield and growth of plant.

Elaborate

- Nutrient Management
- Three most essential nutrient elements to plants like Nitrogen, Phosphorus, Potassium
- Describe fertilizer application methods:
 - Top dressing
 - Base application
 - Foliar Application
- Describe micro nutrients and their dose and benefits while Manuring or fertilizing the garden
- Describe time of Manuring or fertilizing the garden

Say

- Granular fertilizer dissolves with water and gradually releases nutrient elements over a period of time, while the water soluble fertilizer is for instant supply of nutrient elements, but applied frequently. Granular fertilizers can be applied as broadcast or top dressing whereas powdered NPK is generally used for dissolving the nutrients in water and apply as foliar spray or base application.

Elaborate

- Ask the participants if they have any questions and clarify all doubts of the participants
- Encourage peer learning among participants in the class by answering other participant's questions



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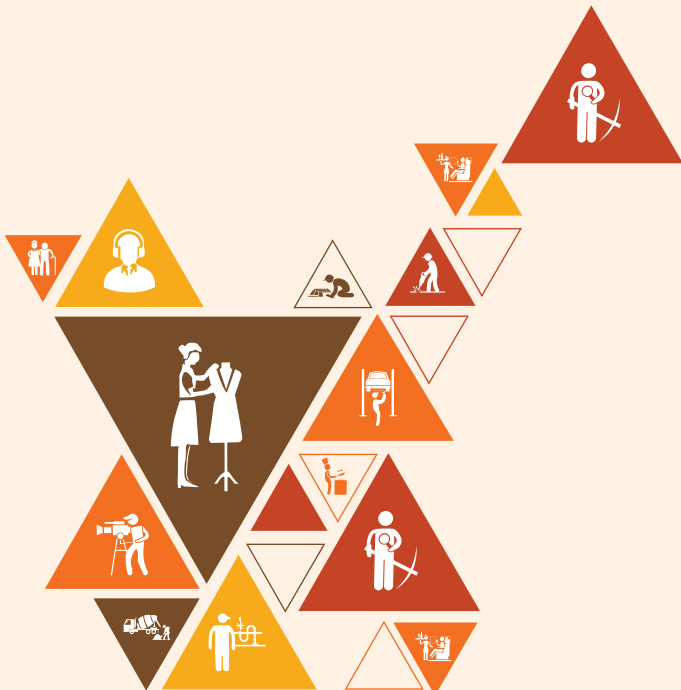
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5. Maintain health & safety at the work place

Unit 5.1 - Garden hazards

Unit 5.2 - Gardening Health and Safety



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Key Learning Outcomes

After completing this session the trainees will be able to:

- Understand the basic safety measures and maintaining health of self and others coworkers working in the Garden
- Understand how to maintain clean and efficient workplace and render appropriate emergency procedures
- Understand the minimization of environmental damage during farm operations
- Proper use of equipment
- Practice General safety and first aid

UNIT 5.1: Garden hazards

Unit Objectives

At the end of this unit, you will be able to assist participants to:

- Understand the basic hazards occur in the Garden

Resources

- Participant Handbook, Pens / pencils, Sticky Notes, Notepad, Computer, Projector, White board, Flip charts

Say

- Greet the participants & welcome to training session “**Garden hazards**”. Before beginning the session, recapitulate the previous session discussion.

Do

- 1. Begin with revising the topics covered in the previous session. Ask about following topics:
 - What are methods & advantages of integrated nutrient management?
 - What are principles of Nutrient Management?
 - Methods of training & Pruning, their advantages & limitations?
 - Types of and methods of irrigation?
 - Integrated pest & Disease Management
- 2. Motivate participants to give answers to questions
- 3. Clarify the doubts of participants if any

Elaborate

Refer participant's handbook to explain in details about safety measures:

The starting point is conducting a risk assessment of the garden up to the boundary fence. A risk assessment will identify the potential hazards within a garden and highlight any further controls needed to ensure it remains safe for all users. The main types of hazards to consider in a risk assessment are:

- Flora and fauna
- Garden equipment
- Garden shed and asbestos
- Poisonous plants
- Trees and leaves
- Slip, trips, falls

- Glass from glasshouse (i.e. broken windows)
- Rust
- Pesticides and insecticides
- Electrical cabling from lawnmowers

Ask

- Prevailing flora and fauna in garden, available garden equipment, Poisonous plants

Demonstrate

1. Use of equipments in safety maintenance
2. The main types of hazards to consider in a risk assessment in gardener like Flora and fauna, Garden equipment, Garden shed and asbestos, Poisonous plants, trees and leaves, slip, trips, falls, glass from glasshouse (i.e. broken windows), rust, pesticides and insecticides, electrical cabling from lawnmowers etc

Elaborate

- How to conduct basic safety checks before operation of all machinery and vehicles and hazards
- Assess risks prior to performing manual handling jobs, and work according to currently recommended safe practice.
- Risk recognition to reduce risk associated with jobs in the workplace and minimizes environmental damage

Team Activity

Divide the class into four groups. Give sufficient time for each teams to refer to the text in participant handbook about **Garden hazards**. Facilitate team members to discuss among them and prepare a list of main types of hazards to consider in a risk assessment in garden.

After this, each team will take their turn and sit in circle for discussion and chart preparation. Ask each team to give presentation. Ensure that the other teams listen to presentation and note down key points.

UNIT 5.2: Gardening Health and Safety

Unit Objectives

At the end of this unit, you will be able to assist participants to:

- Understand the safety precautions while working in the Garden

Resources

- Participant Handbook, Pens / pencils, Sticky Notes, Notepad, Computer, Projector, White board, Flip charts
- Personal Protective equipment like Hand Gloves, Mask, Pair of shoes, first aid kit

Say

- Greet the participants & welcome to training session “**Gardening Health and Safety**”. Before beginning the session, recapitulate the previous session discussion.

Do

1. Begin with revising the topics covered in the previous session. Ask about following topics:

- What relevant legislation, standards, policies, and procedures are there in work in the company?
- What are relevant health and safety requirements applicable in the work environment?

2. Motivate participants to give answers to questions

3. Clarify the doubts of participants if any

Elaborate

- Explain importance of Dress for protection, sturdy shoes, safety goggles, gloves etc
- Protection against harmful tools, chemicals and equipment
- Know your limits in the heat.
- Tips for persons with physical, mental, or environmental concerns that may impair ability to work in the garden safely
- Describe benefits of physical activity.
- Importance of required vaccinations that must be up to date
- the hazards of use and contamination mentioned on the labels of pesticides/fumigants etc dispose of waste safely and correctly in a designated area

Ask

- Emergency procedures for dealing with accidents, fires and emergencies, including communicating location and directions to emergency.
- First aids equipments
- Maintaining clean and efficient workplace

Demonstrate

1. Personal protective equipment like Hand Gloves, Mask, Pair of shoes, first aid kit
2. Describe the importance and safe and correct use of protective equipment used in Garden
3. Describe importance of following health, hygiene, safety and quality standards

Team Activity

Divide the class in three groups. Give sufficient time for each group to refer to the text in participant handbook about Gardening Health and Safety. Facilitate team members to discuss among them. After this, each team will take their turn and sit in circle for discussion.

Ask each team to give presentation on Gardening Health and Safety. Ensure that the other teams listen to presentation and note down key points.

Say

Gardening can be a great way to enjoy the outdoors, get physical activity, beautify the community, and grow nutritious fruits and vegetables. Whether you are a beginner or expert gardener, health and safety are always important. Below are some Tips to keep you healthy and safe so that you can enjoy the beauty and bounty that gardening can bring.

- Dress to protect.
- Gear up and protect yourself from garden and lawn pests, sharp or motorized equipment, harmful chemicals, insects and harmful rays of sun.
- Wear sturdy shoes and long pants while using lawn mowers and other kinds of machinery.
- Protect your ears when using the machinery.
- If you have raised your voice to talk to someone who is an arm's length away, the noise can be potentially harmful to your hearing.
- Wear gloves to lessen the skin irritations risk, cuts, and certain contaminants.
- Protect yourself from diseases caused by mosquitoes. Use DEET containing insect repellent. Wear long-sleeved shirts, and pants tucked in your socks. You should wear high rubber boots which are usually located close to the ground.
- Lessen your risk of sunburn and skin cancer. Wear wide-brimmed hats, long sleeves, sun shades, and sun screen with sun protective factor (SPF) 15 or higher. Follow instructions and warnings on chemicals and lawn and garden equipment.
- Follow instructions and warning labels on chemicals and lawn and garden equipment
- Make sure equipment is working properly.
- Sharpen tools carefully.
- Keep harmful tools, chemicals and equipment out of children's reach.
- Vary your gardening activities to keep your interest and to broaden the range of benefits.



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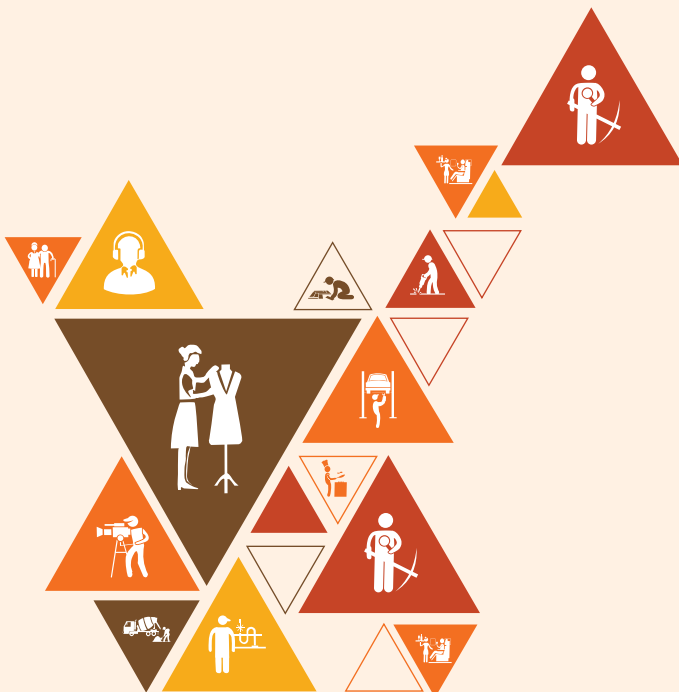
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5. Annexure

Annexure I - Training Delivery Plan

Annexure II - Assessment Criteria



AGR/N9903

Annexure I

Training Delivery Plan

Training Delivery Plan			
Program Name:	Certificate Course in Gardener		
Qualification Pack Name & Ref. ID	Gardener - AGR/Q0801		
Version No.	1.0	Version Update Date	21-01-2016
Pre-requisites to Training (if any)	No entry level barrier; 5th Standard Passed preferable One year prior experience in field (crop) operations		
Training Outcomes	<p>After completing this programme, participants will be able to:</p> <ul style="list-style-type: none"> • Identify and use basic tools, equipment & materials: Effectively identify, select & use the specified tools and equipment relevant to gardening works. • Prepare root stocks: Preparing root stocks for grafting, budding • Layout and design the Garden component: Area Measurement and planning for the layout and design of garden. Proper landscaping. • Maintain the Garden: identify and select the tools for Pruning, training, trimming and develop healthy Garden. • Become well versed with Environment Health & Safety: Well versed with health and safety measures in terms of personal safety and others as well. 		

S. No	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools/Aids	Duration
	Introduction		<ul style="list-style-type: none"> • Understand and perform General Discipline in the class room (Do's & Don'ts) • Understand the Role of a Gardener • Study and understand Types of Gardens • Gain knowledge about the Aesthetic value of garden. • Study the Value in terms of money for gardening • Study the Planting materials for gardening. 		Lecture, demonstration, Practical	Laptop, white board, marker, projector	Theory Duration (hh:mm) 25:00 Practical Duration (hh:mm) 10:00

2.	Nursery Management		<ul style="list-style-type: none"> • Identify appropriate garden crops as per soil & climatic conditions. • Prepare nursery bed & seedlings • Transplant the seedlings • Maintain farm book keeping • Prepare the root stocks and practice Propagation techniques. • Practice cutting, grafting, budding and layering techniques • Establish the physical infrastructure like shade house, green house, mist chamber, irrigation system. • Understand the soil mixtures and seed beds. • Understand the basic botany for garden crops. • Gain knowledge about the Water, Media & Nutrition requirement for garden crops. • Study the Fertilizer requirement of garden crops. • Practice Pest & Disease Management of garden crops. • Understand the irrigation methods /requirements of garden crops. • Maintain cleanliness in nursery by sweeping trashes and pulling out dead plant parts etc. 	AGR / N0801	Lecture, demonstration, Practical	Laptop, white board, marker, projector, Seedling Tray, sacks, polythene, watering cans and equipments, shade net, green house/shade house, plant labels, labellers, spade, khurpi	Theory Duration (hh:mm) 30:00 Practical Duration (hh:mm) 50:00
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3.	Designing of Garden Components		<ul style="list-style-type: none"> • Understand the features of Garden. • Gain knowledge about the different types of Garden • Plan for the Design and Layout of Gardens. • Layout & prepare the lawn • Layout of orchard, plant fruit plants in the field • Understand the different components of garden. • Implement the techniques to beautify the gardens. 	AGR / N0802	Lecture, demonstration, Practical	Laptop, white board, marker, projector, spade, khurpi, shears, loppers, hedge cutters	Theory Duration (hh:mm) 40:00 Practical Duration (hh:mm) 60:00
4.	Plantation, Maintenance and Care of Garden		<ul style="list-style-type: none"> • Understand the seasonal Gardening and Ground maintenance. • Understand the different planting and Culture of Floral Display. • Understand and perform the irrigation maintenance in the garden. • Practice Pest and Disease management. • 	AGR/N0803	Lecture, demonstration, Practical	Laptop, white board, marker, projector, Hedge cutter, shears, loppers, sprayers, plant labels, pesticides, weedicides, fertilizers, water pumps and equipments, watering timers and controllers	Theory Duration (hh:mm) 25:00 Practical Duration (hh:mm) 40:00

			<ul style="list-style-type: none"> • Perform filed operations like Maintain Lawn and Turf, Mowing, Fertilizing, Weeding, Irrigation, Aeration and Renovation. • Gain knowledge about the different Plant and Culture of Trees, shrubs etc • Identify different fruit plants & ornamental plants • Prepare pot mixtures, potting & repotting of plants • Prune shrubs, hedge, edge & topiary Collect soil samples for soil analysis • Identify vegetable seed, garden tools & implements • Prepare Bordeaux mixture • Prepare spray solution, handling sprayers & dusters 				
5.	Health & Safety at the work place		<ul style="list-style-type: none"> • Understand the basic safety measures. • Understand the minimization of environmental damage during farm operations. • Proper use of equipment. • Practice General safety and first aid 	AGR/N9903	Lecture, demonstration, Practical	Hand Gloves, Mask, Pair of shoes, first aid kit	Theory Duration (hh:mm) 10:00 Practical Duration (hh:mm) 10:00

Annexure II

Assessment Criteria

CRITERIA FOR ASSESSMENT OF TRAINEES

Assessment Criteria for ASCI- Gardener	
Job Role	Gardener
Qualification Pack	AGR/Q0801
Sector Skill Council	Agriculture

S.No.	Guidelines for Assessment
1.	Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2.	The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3.	Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
4.	Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria.
5.	To pass the Qualification Pack, every trainee should score a minimum of 50% in aggregate.
6.	In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.
7.	The marks are allocated PC wise, however, every NOS will carry a weight age in the total marks allocated to the specific QP.

Assessment Outcome	Assessment Criteria	Total Marks (300)	Marks Allocation		
			Out of	Theory	Skills Practical
1. AGR / N 0801- Nursery Management and Propagation of Plant Material	Pc1. Establish of physical infrastructure – shade house, mist chamber, irrigation system		5	2	3
	Pc2. Prepare of soil mixtures		3	1	2
	Pc3. Prepare of seed beds		3	2	1
	Pc4. Transplant		2	1	1
	Pc5. Take up Potting		3	2	1
	Pc6. Take up Hardening		5	2	3
	Pc7. Propagate of plants through cuttings		5	2	3

	Pc8. Practice layering and stooling (Guava)		5	2	3
	Pc9. Practice grafting (Mango)		5	2	3
	Pc10. Practice budding in rose / citrus		5	2	3
	Pc11. Raise of root stocks for grafting and budding		5	2	3
	Pc12. Use of Plastics for Nursery Operations		5	5	0
	Pc13. Identify and grow indoor plants of their basic requirements		3	1	2
	Pc14. Layout Nursery Area		5	0	5
	Pc15. Identify and use of proper root stock and scion for propagation		4	1	3
	Total	60	60	26	34
2. AGR / N 0802 - Designing of Garden Components	PC1. Design various components of Garden like hedge, edge, shrubbery, pergolas, flower bed, lawn, etc.	75	15	8	7
	PC2. Visualize various components according to actual field		5	3	2
	PC3. Use various components available in the garden area		5	3	2
	PC4. Design different types of gardens		15	9	6
	PC5. Utilise the available space effectively for different type of gardens		5	3	2
	PC6. Measure area for layout of garden components		5	3	2
	PC7. Layout for components of garden in the field		10	7	3
	PC8. Plan field design		10	5	5
	PC9. Maintain the plants according to design		5	2	3
	Total		75	43	32

3. AGR / N 0803 - Plantation, Maintenance and Care of Garden	PC1. Maintain Lawn and Turf	150	10	5	5
	PC2. Plant and Culture of Trees		15	7	8
	PC3. Plant and Culture Trees shrubs and plant covers		10	5	5
	PC4. Maintain texture and structure		4	2	2
	PC5. Take care of Water and Water Movement		4	2	2
	PC6. Take up Soil Nutrient Management		5	3	2
	PC7. Control Erosion		4	2	2
	PC8. Plan and preparation of Bed		5	3	2
	PC9. Plant & culture of annuals, bulbs etc		5	2	3
	PC10. Recommend plant Spacing		5	2	3
	PC11. Deheading of flowers as per the recommended procedures		5	3	2
	PC12. Prune and trim trees, shrubs, and hedges, using shears, pruners, or chain saw etc		5	3	2
	PC13. Use techniques to shape trees and shrubs as per the recommended procedures		4	2	2
	PC14. Install drip and sprinkler system as per the design		10	5	5
	PC15. Clean of filters & drips for optimum flow		4	2	2
	PC16. Understand Water requirements of different plants		4	2	2
	PC17. Use watering appliances like Drip & Sprinklers, Water can, Seedling water can, Bucket, Syring and Garden hose etc as per the need and procedure		4	2	2
	PC18. Identify Pest and diseases		5	2	3
	PC19. Manage pest and diseases		5	3	2
	PC20. Use chemical & non-chemical methods of pest & disease control		5	2	3
	PC21. Plant woody plants, bulbs and bedding plants, shrubbery, hedges and edges etc as per procedures		4	2	2

	PC22. Identify and growing of indoor plants as per the design layout		4	2	2
	PC23. Practice in making bonsai		10	5	5
	PC24. Prepare potting mixture, potting and repotting.		4	2	2
	PC25. Plant various fruits / crops as per the design and layout		10	5	5
	Total		150	75	75
4. AGR/N9903 Maintain Health and safety at the workplace	PC1. undertake basic safety checks before operation of all machinery and vehicles and hazards are reported to the appropriate supervisor	15	1	0	1
	PC2. Work for which protective clothing or equipment is required is identified and the appropriate protective clothing or equipment is used in performing these duties in accordance with workplace policy.		1	1	0
	PC3. read and understand the hazards of use and contamination mentioned on the labels of pesticides/fumigants etc		1	1	0
	PC4. Assess risks prior to performing manual handling jobs, and work according to currently recommended safe practice.		1	0	1
	PC5. use equipment and materials safely and correctly and return the same to designated storage when not in use		1	0	1
	PC6. dispose of waste safely and correctly in a designated area		1	0	1
	PC7. recognize risks to bystanders and take action to reduce risk associated with jobs in the workplace		1	1	0
	PC8. Perform your work in a manner which minimizes environmental damage all procedures and work instructions for controlling risk are followed closely.		1	0	1
	PC9. Report any accidents, incidents or problems without delay to an appropriate person and take necessary immediate action to reduce further danger.		1	0	1
	PC10. Follow procedures for dealing with accidents, fires and emergencies, including communicating location and directions to emergency.		1	1	0
	PC11. follow emergency procedures to company standard / workplace requirements		1	1	0
	PC12. use emergency equipment in accordance with manufacturers' specifications and workplace requirements		1	0	1

Expository

(SHI) Speech and Hearing Impairment			
MODULE	THEORY	PRACTICAL	TOTAL
	(hours)	(hours)	(hours)
Learn basic Indian Sign Language (ISL)	15	12	27
Use basic English	27	12	39
Personal and Social skills	9	3	12
Professional & Ethical behavior in the workplace	9	3	12
Keyboarding Skills	0	30	30
GRAND TOTAL	60	60	120

Learn Basic Indian Sign Language (ISL)

Terminal Outcomes:

- Communicate using basic Indian Sign Language.

Duration: 15:00	Duration: 12:00
Theory – Key Learning Outcomes <ul style="list-style-type: none"> • Discuss the regional differences in signs used in Indian Sign Language. • Describe ways to greet and respond to others. • Explain significance of facial expressions and gestures in enhancing meaning of signed words. • Discuss the general 	Practical – Key Learning Outcomes <ul style="list-style-type: none"> • Demonstrate introductions and greetings using Indian Sign language • Demonstrate use of finger spellings in ISL (for example: names, places, and abbreviations.) • Express simple actions and feeling using ISL. • Express information

<p>sentence rules used while signing</p>	<p>related to time, directions, numbers, and currency using ISL.</p> <ul style="list-style-type: none"> Express information related to self-using ISL. (e.g., name, native place, city, state, family members, work etc.)
<p>Classroom Aids</p>	
<p>Laptop, white board, marker, projector</p>	
<p>Tools, Equipment and Other Requirements</p>	
<p>LCD TV, Visual curricula, Assistive Aid/Service, Ai-Live, Captions First, Captions 2020, Closed Capp, Let's Talk</p>	

Use Basic English

Terminal Outcomes:

- Apply knowledge of basic English to interpret information received and respond accordingly.
- Recognize familiar words and basic phrases concerning self, family members and immediate workplace.
- Read and write simple sentences in English about self, activities planned and events of the day.

Duration: 27:00	Duration: 12:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Recognize words and phrases related to formal and informal greetings. • Recognize simple personal information about self and others when shared in writing (e.g., name, age, place of residence etc.). • Recognize very simple words related to home, neighborhoods, everyday objects, market place, names of the days of the week, months, time, directions, clothes food and drinks. • Recognize simple pronouns (he/she/ we /they). • Comprehend basic hobby related verbs (like playing, singing, dancing). • Recognize common verbs related to movement of 	<ul style="list-style-type: none"> • Write basic personal information about self and others such as names, date of birth, ID numbers, address, nationality, marital status). • Use simple words related to common diseases in sentences (e.g., cold, cough, headache, fever, pain etc). • Write simple sentences using names of everyday objects, places, directions. (e.g., I live in Delhi.). • Write words related to professions. (like vacancy, sale, associate, manager, supervisor, file etc.). • Write words and short phrases to describe travel, holidays and vacations. • Frame written answer to simple questions related to self, food preferences, feelings etc.

<p>transport (e.g., buses run, boats sail).</p> <ul style="list-style-type: none"> • Recognize words related to common feelings and emotions. (e.g., sad, unhappy, depressed, irritated, furious, angry). • Recognize familiar English words and phrases used in the workplace especially as instructions related to direction, safety instructions, date, and time etc. (vocabulary: stop, close the door etc.). 	<ul style="list-style-type: none"> • Identify and read health, safety, security signage in English at works and public places or on gadgets and appliances when accompanied by related images or graphics. • Read basic familiar words and phrases to identify areas of work, responsibilities and working relationships. • Read and write simple sentences describing activities planned for the next day/week/month etc.
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Sample Classroom Aids

Laptop, white board, marker, projector

Tools, Equipment and Other Requirements

LCD TV, Visual curricula, Assistive Aid/Service, Ai-Live, Captions First, Captions 2020, Closed Capp, Let's Talk

Professional & Ethical Behavior in the Workplace

Terminal Outcomes:

- Maintain professional and ethical behavior in the work environment.

Duration: 9:00	Duration: 03:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the importance of completing task/assignments on time/ by prioritizing. • Discuss the importance and challenges of teamwork in an organization to achieve goals. • Discuss the importance of seeking assistance from peers and supervisor when required. • Outline the importance of maintaining privacy and confidentiality. • Discuss situations that may lead to conflict of interest with peers/organization and ways to resolves them. 	<ul style="list-style-type: none"> • Prepare a work schedule prioritizing given tasks. • Demonstrate effective team behavior to accomplish a given task. • Listactivities/write application to seek assistance of supervisor/peers.
Classroom Aids	
Laptop, white board, marker, projector	
Tools, Equipment and Other Requirements	

Personal and Social Skill

Terminal Outcomes:

- Manage Professional and Social behavior.

Duration: 09:00	Duration: 03:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the importance of professional appearance and behavior at workplace. • Discuss the importance of following social etiquette in formal and informal settings. • Explain the principles of communication. • Discuss the barriers to effective communication and ways to overcome these. • Discuss the importance of managing stress. 	<ul style="list-style-type: none"> • Display professional appearance. • Demonstrate formal and informal communication etiquettes/gestures/body language in dealing with seniors/peers or clients. • Demonstrate ways to manage stress as per choice like breathing exercises/ spending time with friends etc. • Create a method for stress management with reference to self by listing techniques/steps.
Classroom Aids	
Laptop, white board, marker, projector	
Tools, Equipment and Other Requirements	
LCD TV, Visual curricula, Assistive Aid/Service, Ai-Live, Captions First, Captions 2020, Closed Capp, Let's Talk	

LCD TV, Visual curricula, Assistive Aid/Service, Ai-Live,
Captions First, Captions 2020, Closed Capp,
Let's Talk

Low-vision (Visual Impairment) – LV E003			
MODULE	THEORY	PRACTICAL	TOTAL
Learn basic Braille	3	21	24
Learn Basic English	21	24	45
Use Smart Phone	3	18	24
Total	27	63	90
Computer	30	120	150
Total	57	183	240

Module Details for Low-vision (Visual Impairment) – LV E003

Module 1: Learn Basic English

Mapped to: Bridge Module

- **Terminal Outcomes: Apply knowledge of Basic English to interpret information received and respond accordingly.**
- **Recognize familiar words and basic phrases concerning self, family members, and immediate workplace.**
- **Read and write simple sentences in English about self, activities planned, and events of the day.**

Duration: 21:00(In Hours)	Duration: 24:00(In Hours)
Theory: Key Learning Outcomes	Practical: Key Learning Outcomes
<ul style="list-style-type: none"> • Identify and write Alphabet and Letters. • Identify various vowel and consonant sounds in various words. • Recognize words and phrases related to formal and informal greetings. • Recognize simple personal information about self and others (e.g. name, age, place of residence etc.). • Recognize very simple words related to home, neighborhoods, everyday objects, market place, names of the days of the week, months, time, directions, clothes, food, and drinks. 	<ul style="list-style-type: none"> • Demonstrate the correct way to pronounce words with the right stress. • Read and write basic personal information about self and others such as names, date of birth, ID numbers, address, nationality, marital status). • Use simple words related to common diseases in sentences (e.g. cold, cough, headache, fever and pain). • Read and write simple sentences using names of everyday objects, places, directions. (e.g. I live in Delhi.). • Read and write words related to

<ul style="list-style-type: none"> • Recognize simple pronouns(he/she/we/they). • Comprehend basic hobby related verbs(like playing, singing, dancing). • Recognize common verbsrelated to movement of transport (e.g. buses run, boats sail). • Recognize words related to common feelings and emotions. (e.g. sad, unhappy, depressed, irritated, furious, angry). • Recognize familiar English words and phrases used in the workplace for example instructions related to direction,safety, date and time etc.(vocabulary:stop, close the door). • Differentiate between Spoken and Written English. 	<p>professions. (like vacancy, sale, associate, manager, supervisor, file etc.).</p> <ul style="list-style-type: none"> • Read and write words and short phrases to describe travel, holidays, and vacations. • Read and frame written answersto simple questions related to self, food preferences, feelings etc. • Identify and read health, safety, and security signage (images/graphics) in English; at work and public places or on gadgets and appliances. • Read and write basic familiar words and phrases to identify areas of work, responsibilities, and working relationships. • Read and write simple sentences describing activities planned for the next day/week/month. • Pronounce wordsrelated to professions correctly. • Ask and answer questions related to their job correctly. • Discuss activities planned for the next day/week/month at the workplace. • Introduce yourself in English with confidence (such as talk about your job/profession, your educational qualifications).
<p>Classroom Aids</p>	
<p>Laptop, Computer, OCR Scanner, Screen readers, Digital/Handheld Magnifiers</p>	
<p>Tools, Equipment and Other Requirements</p>	
<p>Optical Character Recognition (OCR), Clear View+ Speech, Zoom Ex, Kurzweil, ABBY Fine Reader, Tesseract, Non- Visual Desktop Access (NVDA), Job Access with Speech (JAWS), DAISY players DAISY (Digital Accessible Information System)</p>	

Module 2: Use of Smartphone

Mapped to: Bridge Module

Terminal Outcomes:

- Demonstrate the use of a smartphone to make calls, message, read books & documents, write emails, and web browsing.

Duration: 3:00(In Hours)	Duration: 18:00(In Hours)
Theory: Key Learning Outcomes	Practical: Key Learning Outcomes
<ul style="list-style-type: none"> • Explain the benefits of a smartphone for Persons with Visual Impairment. • Explain the significance and usage of major software Applications for Persons with Visual Impairment (e.g. GPS, Social media Applications and Cab Booking Applications). • Discuss the barriers in accessing some Software Applications (like Gaming Application). 	<ul style="list-style-type: none"> • Demonstrate how to use the different functions of the screen such as power on/off, accessing the main menu, home button, volume rocker, power buttons, memory slot and sim tray. • Demonstrate basic operations on the screen by using, “explore by touch”. • Use talk back, speech, and volume settings. • Use a mobile phone for making calls and for sending and receiving messages. • Use Navigation for accessing context menu, contact list for calling, messaging, and saving new contacts. • Use basic applications like Google Play Store and calculator. • Use book reading apps such as Kota, Daisy Reader, and Simply Reading and access Sugamya Pustakalaya and Book Share online library. • Use Google Chrome to browse the web and search using a keyword and operate e-mail accounts from smartphones. • Use advanced applications like Eye-D, Tap Tap sea, colored ID, Text fairy and Google Maps. • Demonstrate how to download apps on a smartphone.
Classroom Aids	
One smart phone with talkback per trainee	
Tools, Equipment and Other Requirements	

Optical Character Recognition (OCR), Clear View+ Speech, Zoom Ex, Kurzweil, ABBY Fine Reader, Tesseract, Nonvisual Desktop Access (NVDA), Job Access with Speech (JAWS), DAISY players DAISY (Digital Accessible Information System)

Module 3: Learn Basic Braille

Mapped to: Bridge Module

Terminal Outcomes: • Read and write basic Braille

Duration: 3:00(In Hours)	Duration: 21:00(In Hours)
Theory: Key Learning Outcomes	Practical: Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the history and significance of the invention of Braille. • Describe the concept of Dots and Cells in Braille. • Distinguish between Old and modern Braille slates. 	<ul style="list-style-type: none"> • Read and write text in Braille by using appropriate hand movements • Recognize Braille characters, words, sentences, paragraphs, and placement of text. • Demonstrate use of Braille equipment (such as Positioning Braille slate, inserting paper in the slate, use of stylus). • Demonstrate correct sitting posture while using Braille devices. • Demonstrate how to use technology to replace manual Braille typing (such as using Orbit 20).
Classroom Aids	
Braille books. Braille Cubes. Braille Slate and Stylus; Braille Sheets; Braille Typewriter	
Tools, Equipment and Other Requirements	
<ul style="list-style-type: none"> • Audio Films on Braille teaching with visual portions described and demonstrated by the trainer on one to one basis. • Sheets containing words/ sentences/ paragraphs in local language in open (uncontracted) Braille. • Books in interline and inter point local language in open (uncontracted) Braille. • Computer. • Low cost Braille note taker. • Stylus and interline and interpoint Braille slate. • Braille writing paper. • Braille Note taker such as Orbit 20. 	

Module 4: Computer Training

Mapped to: Bridge Module

Terminal Outcomes: ● Learn the basics of computers.

Duration: 30:00(In Hours)	Duration: 120:00(In Hours)
Theory: Key Learning Outcomes	Practical: Key Learning Outcomes
<ul style="list-style-type: none">• Describe the uses of computers.• Distinguish between hardware and software components of computers.• Describe input and output devices.• Describe basic functions of the various parts of computers	<ul style="list-style-type: none">• Demonstrate hand and finger placement for using keyboard and num pad.• Open, create, and save word documents.• Navigate and read commands for creating word documents.• Demonstrate cut, copy, and paste in a word document.• Demonstrate steps to format a word document (for example, change paragraph alignment, bold /italicize text, edit, delete, capitalize letters, insert date and time).
Classroom Aids	
Desktop Computer / Laptops	
Tools, Equipment and Other Requirements	
Optical Character Recognition (OCR), Clear View+ Speech, Zoom Ex, Kurzweil, ABBY Fine Reader, Tesseract, Non Visual Desktop Access (NVDA), Job Access with Speech (JAWS), DAISY players DAISY (Digital Accessible Information System)	



Skill Council for Persons with Disability

Sector Skill Council Contact Details:

Address: 501, City Centre, Plot No. 5 Sector 12 Dwarka New Delhi - 110075

Website: www.scpwd.in

Phone: 01120892791

Price: ₹