

## DIPLOMA IN HORTICULTURE (DHORT)

### Programme Structure

S.No.	Course Code	Course Title	Credits
1.	BAP-002	Basic Horticulture	2
2.	BAPI-004	Production Technology of Fruit Crops	8
3.	BAPI-005	Production Technology of Vegetable Crops	8
4.	BAPI-006	Floriculture and Landscaping	8
5.	BAPI-007	Plant Propagation and Nursery Management	6
<b>TOTAL</b>			<b>32</b>

### SYLLABUS OF THE PROGRAMME

#### BAP-002: BASIC HORTICULTURE

Block & Unit	Title
<b>Block 1</b>	<b>Importance and Scope of Horticulture</b>
Unit 1	Introduction and Importance of Horticulture
Unit 2	Constraints in Horticulture
<b>Block 2</b>	<b>Soil and Climate</b>
Unit 1	Soil Requirement for Horticulture Crops
Unit 2	Climatic Requirement for Horticulture Crops
<b>Block 3</b>	<b>Nutrient, Water and Weed Management</b>
Unit 1	Nutrient Management of Horticultural Crops
Unit 2	Water Management
Unit 3	Weed Management in Horticultural Crops
<b>Block 4</b>	<b>Cultural Practices</b>
Unit 1	Layout, Planting and Aftercare
Unit 2	Training, pruning and top working
Unit 3	Cropping system
Unit 4	Use of plant growth regulators in Horticulture

#### BAPI-004: PRODUCTION TECHNOLOGY OF FRUIT CROPS

Block & Unit	Title
<b>Block 1</b>	<b>Temperate Fruit</b>
Unit 1	Apple and Pear
Unit 2	Peach and Plum
<b>Block 2</b>	<b>Sub Tropical Fruits</b>
Unit 1	Mango
Unit 2	Banana
Unit 3	Citrus
Unit 4	Grape
Unit 5	Litchi and Jamun
Unit 6	Guava and Pomegranate
Unit 7	Sapota and Jackfruit
<b>Block 3</b>	<b>Tropical Fruits</b>

Unit 1	Pineapple
Unit 2	Papaya
Unit 3	Cashew
Unit 4	Coconut
<b>Block 4</b>	<b>Arid Fruits</b>
Unit 1	Ber
Unit 2	Aonla
Unit 3	Bael
Unit 4	Date Palm

## PRACTICAL MANUAL

Experiment No.	Name of Experiment
Experiment 1	Identification of fruit crops
Experiment 2	Layout, Planting, Training and pruning methods
Experiment 3	Identification of nutritional and Physiological disorder
Experiment 4	Crop regulation-garden practices to induce fruitfulness
Experiment 5	Identification of insect, pest, disease and handling of insecticide, pesticides and fungicides
Experiment 6	Handling of fertilizers, hormones, growth regulators and preparation of hormonal solution and their application

## BAPI-005: PRODUCTION TECHNOLOGY OF VEGETABLE CROPS

Block & Unit	Title
<b>Block 1</b>	<b>Major Vegetable Crops</b>
Unit 1	Winter Vegetable Crops
Unit 2	Summer and Rainy Season Crops
<b>Block 2</b>	<b>Minor Vegetable Crops</b>
Unit 1	Winter Vegetable Crops – Radish, Carrot, Garlic
Unit 2	Summer and Rainy Season - Cluster Bean, French Bean and Indian Bean
Unit 3	Summer Vegetable Crops - Bitter Gourd, Sponge Gourd and Snake Gourd
Unit 4	Sweet Potato and Colocasia
<b>Block 3</b>	<b>Other Vegetable Crops</b>
Unit 1	Winter Crops
Unit 2	Kitchen Gardening
Unit 3	Summer and Rainy Season Crops

## PRACTICAL MANUAL

Experiment No.	Name of Experiment
Experiment 1	Identification of different vegetable, seeds and raising of seedlings
Experiment 2	Transplanting/planting methods
Experiment 3	Methods of manuring, irrigation, earthing, hoeing, staking and harvesting
Experiment 4	Weed management
Experiment 5	Identification, study and control of weed, insects, pest and diseases
Experiment 6	Application of plant protection inputs (seed treatment, seedling root dip, dusting, spraying)

Experiment 7	Methods of harvesting, grading, packaging, treatment before storage, transport, marketing and visit to vegetable market and field
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### **BAPI-006: FLORICULTURE AND LANDSCAPING**

<b>Block &amp; Unit</b>	<b>Title</b>
<b>Block 1</b>	<b>Cut Flowers</b>
Unit 1	Major cut flower
Unit 2	Iris ( <i>Bulbous</i> ), Liliium and Narcissus
Unit 3	Orchids and Anthurium
Unit 4	Alsteroemeria and Gladiolus
Unit 5	Tuberose and Tulip
<b>Block 2</b>	<b>Loose Flowers</b>
Unit 1	Marigold, China aster, Jasmine
Unit 2	Gaillardia
Unit 3	Crossandra
<b>Block 3</b>	<b>Lawn</b>
Unit 1	Lawn Establishment
Unit 2	Lawn Maintenance
<b>Block 4</b>	<b>Annuals and Bedding Plants</b>
Unit 1	Winter bedding flowers-I
Unit 2	Winter bedding flowers-II
Unit 3	Winter bedding flowers-III
Unit 4	Summer and Rainy season bedding flowers
Unit 5	Annual/herbaceous border
<b>Block 5</b>	<b>Indoor plants including Cacti and other Succulents</b>
Unit 1	Growing environment
Unit 2	Cacti and Succulents
Unit 3	Semi-woody plants
Unit 4	Climbers
Unit 5	Bulbs
<b>Block 6</b>	<b>Woody Ornamentals</b>
Unit 1	Woody Ornamentals Trees
Unit 2	Woody Ornamentals Shrubs
Unit 3	Woody Ornamentals Climbers
Unit 4	Palms and Conifers
<b>Block 7</b>	<b>Landscaping</b>
Unit 1	Landscaping: Principles, Elements and Adornments
Unit 2	Garden Designs – Types and Styles
Unit 3	Rock garden, water garden and indoor garden
Unit 4	Cacti and Succulent garden
Unit 5	Terrarium, bottle garden and Tray landscape garden
Unit 6	Terrace garden
Unit 7	Bonsai
Unit 8	Hanging basket and flower arrangements

### **PRACTICAL MANUAL**

<b>Experiment No.</b>	<b>Name of Experiment</b>
Experiment 1	Identification and use of garden tools and planting materials
Experiment 2	Making of topiary, hedge, edges, shrubbery border and

	annual/herbaceous border
Experiment 3	Identification of different type of bonsais and their preparation
Experiment 4	Maintenance, Potting, re-potting and recycling of indoor pot plants
Experiment 5	Identification of common weeds, insect-pests and diseases of ornamental plants
Experiment 6	Making of lawns, mowing weeding, rolling and fertilization
Experiment 7	Maintenance and care of polyhouse, green house and net house
Experiment 8	Accessories, containers for different types of flower arrangements (bouquet, corsages, garlands, rangoli, vase arrangements etc.)
Experiment 9	Visit to various gardens and parks

### **BAPI-007: PLANT PROPAGATION AND NURSERY MANAGEMENT**

<b>Block &amp; Unit</b>	<b>Title</b>
<b>Block 1</b>	<b>Propagation Methods</b>
Unit 1	Sexual Method of Propagation
Unit 2	Asexual Method of Propagation
<b>Block 2</b>	<b>Nursery Management</b>
Unit 1	Types and Components of Nursery
Unit 2	Nursery Tools and Equipments
Unit 3	Establishment of Nursery

### **PRACTICAL MANUAL**

<b>Experiment No.</b>	<b>Name of Experiment</b>
Experiment 1	Study of nursery tools, their functions and types of containers
Experiment 2	Preparation and Sterilization of media, seed treatment
Experiment 3	Selection and preparation of rootstock, scion, grafting and budding
Experiment 4	Practice in propagation of plants by through seeds, cutting, layering
Experiment 5	Application of manures and PGRs and weed management
Experiment 6	Methods of packaging, transportation, marketing and visit of nurseries (modern)