**KARIM CITY COLLEGE**

**DEPARTMENT OF BOTANY**

**SYLLABUS DISTRIBUTION**

**AS PER FYUGP, NEP -2022**

 **Paper Title – Advanced Major Paper – III (AMJ-3)**

 **CREDIT-04 [THEORY- 03 + PRACTICAL- 01]**

**Horticultural Practices**

**DR.AFTAB ALAM KHAN:**

**Course Outcomes: -**

At the end of the course the students will be able to:

1. Understand the concept of different types of horticultural crops, their

Conservation and management

2. Examine the various branches of horticulture, fruit and vegetable crops,

Floriculture, medicinal and aromatic plants.

3. Critically evaluate different cultivation practices and disease management 4.

Reflect upon different Landscaping practices and garden design.

**Full Mark - 60 Time: - 3 Hrs.**

**Unit I: 12 lectures:**

Horticultural Crops - Conservation and Management Scope and importance,

Branches of horticulture; Role in rural economy and employment generation;

Importance in food and nutritional security; urban horticulture and

Ecotourism. Documentation and conservation of germplasm; Role of micro-

Propagation and tissue culture techniques; Varieties and cultivars of various

Horticultural crops.

**Unit II: 12 lectures:**

Ornamental Plants, Floriculture Propagation of plants for beauty: Types,

Classification (annuals, perennials, climbers and trees); Identification and

salient features of some ornamental plants [rose, marigold, gladiolus, orchids,

Poppies, gerberas, tuberose, cacti and succulents (Aloe, opuntia, agave and

Spurges)] Ornamental flowering trees (Indian laburnum, gulmohar, Jacaranda,

Lagerstroemia, fishtail and areca palms, semul, coral tree etc.- as are available

in the area). Cut flowers, bonsai, commerce (market demand and supply);

Importance of flower shows and exhibitions.

**DR.SHARMILA CHAKERBORTY:**

**Unit III: 10 lectures:**

Plants for Nutrition and Health: Fruit and Vegetable Plants 11 lectures

Production, origin and distribution; Description of plants and their economic

products; Management and marketing of vegetable and fruit crops;

Identification of some fruits and vegetable varieties (citrus, banana, mango,

Chillies and cucurbits). Production, origin and distribution; Description of plants

and their economic products; Cultivation, processing and marketing of

Products of major medicinal plants (Mints, Ashwagandga, Alma, Saravar,

Vetiver, Damask Rose, Aloe Vera).

**Unit IV: 10 lectures:**

Medicinal and Aromatic Plants, Cultivation and Cultural Practices, Disease

Management and Scaping and Garden Design Application of manure, organic,

Chemical and Bio fertilizers, micronutrients; Weed control; bio pesticides:

Irrigation methods (drip irrigation, surface irrigation, furrow and border

Irrigation); Hydroponics; Propagation Methods: asexual (grafting, cutting,

Layering, budding), sexual (seed propagation), Scope and limitations. Field and

Post-harvest diseases; Identification of deficiency symptoms; remedial

Measures and nutritional management practices; Crop sanitation; IPM

Strategies (genetic, biological and chemical methods for pest control);

Quarantine practices; Identification of common diseases and pests of

Ornamentals, fruits and vegetable crops. Planning and layout

(parks and avenues); gardening traditions - Ancient Indian, European, Mughal

and Japanese Gardens; Urban forestry; policies and practices