

## **SEMESTER IV**

### **Paper- I (404101): Bryophyta Pteridophyta, Paleobotany Gymnosperms Horticulture. and Forestry**

#### **Bryophytes**

General Characters

Structure, Life Cycle, Systematic Position and Alternation of Generation in Anthoceros

#### **Pteridophytes**

General Characters

Structure, Life Cycle, Systematic Position and Alternation of Generation in *Sellaginella* and *Equisetum*

*Evolution of Heterospory and Seed Habit in Pteridophyta*

#### **Gymnosperms**

General Characters

Distinguishing Characters of Cycadophyta and Coniferophyta

Structure Life Cycle, Systematic Position and Alternation of Generation in *Pinus*.

Structure Life Cycle, Systematic Position and Alternation of Generation in *Cycas*.

Economic Importance of Gymnosperms.

#### **Paleobotany**

Geological Time Scale. Evolutionary Trends Fossil Formation

Primitive Land Plants - Precambrian Flora - Algae, Fungi and Bryophyta

#### **Horticulture**

Importance and scope of horticulture.

Components of Garden

Lawns and Landscaping

Trees, shrubs and shrubberies, climbers and creepers

Flower beds and borders

Drives, roads, walks and paths

Carpet beds

Conservatory or green houses

Indoor garden, Roof garden

Bonsai

Flower Arrangement

Containers and requirements for flower arrangements

Free style, Shallow and Mass arrangement  
Japanese – Ikebana  
Bouquet and garland making  
Dry flower arrangement

### **Forestry**

Forests- Natural and Man Made Forests  
Tropical, Temperate, Evergreen Semi-Evergreen, Deciduous; Monoculture,  
Multipurpose, Social and Industrial. Forest and Gene Conservation.  
Social and Agro Forestry  
Silviculture