OPEN COURSE CHOICE- 2
APPLIED BOTANY

Semester	Course code	Credits	Hrs/wk	Marks (Ext.+Int.)	Duration of exam
5	BOT5D02T	3	3	60 + 15	2 hrs

COURSE OUTCOMES (COs)

By the end of the course, students are expected to:

1.Develop general awareness on applied aspects of Plant science.

2.Realize the role of plants in everyday life.

3.Apply vegetative propagation methods in everyday life.

4.Realize the economic importance of plants

DISTRIBUTION OF TEACHING HOURS (18 hrs/semester = 1hr/week)

Sl no	Subject	Total
1	Module –I Plant Propagation	12
2	Module – II Steps of growing plants	12
3	Module – III. Botany in Everyday life	24
4	Module – IV. Economic Botany	6
Total		**54**

QUESTION PAPER PATTERN

Type of questions	No of questions	Total
2 marks	12	Ceiling 20
5 marks	7	Ceiling 30
10 marks	2	1x10 = 10
Total		**60**

Module –I Plant Propagation

1. Seed propagation – Seed dormancy, seed treatment, conditions for successful propagation, rising of seed beds, care of seedling, transplanting techniques.
2. Vegetative propagation:
   - (a) Cutting (stem, roots)
   - (b) Grafting (approach, cleft)
   - (c) Budding (T-budding, patch)
   - (d) Layering (simple, air)
3. Micro propagation- General account

Module – II Steps of Growing Plants

1. Soil- Composition, Types, Texture, Soil pH, Correcting pH, Humus
2. Pots & Potting – Earthen, Fiber, Polythene bags, Potting mixture, Potting, Depotting, Repotting.
3. Chemical fertilizers: types, application, merits and demerits

4. Organic manure; types, application, merits and demerits
5. Need of water: Irrigation – Surface, spray, drip irrigation, sprinklers.
6. Plant protection: Biological, Physical and mechanical, Chemical, biopestcide

Module – III. Botany in Everyday life

1. Vegetable gardening
2. Mushroom cultivation
3. Vermicomposting- technique
4. Biofertlizer Technology
5. Orchid and Anthurium cultivation
6. Creating Bonsai

Module – IV. Economic Botany

1. General account on various plants of economic importance
2. Study the Binomial, Family, Morphology of the useful part of the following plants.

Cereals and Millets – Rice, Wheat
Pulses -Greengram, Bengalgram, Blackgram
Beverages – Coffee, Tea, Cocoa.
Fibre – Coir, Cotton
Timber – Teak, Rose wood, Jack
Spices – Pepper, Ginger, Cardamom
Medicinal – Adhatoda, Phyllanthus, Rauvolfia
Oil- coconut, Gingelly
Ornamental pants of economic importance – Rose, jasmine
Fruit – Mango, Banana

REFERENCES

1. Nishi Sinha: Gardening in India, Abhinav Publications, New Delhi.
2. Andiance and Brison. 1971. Propagation Horticultural Plants.
3. Rekha Sarin. The Art of Flower Arrangement, UBS Publishers, New Delhi.
4. Katyal, S.C., Vegetable growing in India, Oxford, New York.
5. Naik, K.C., South Indian Fruits and their Culture.
6. Chanda, K.L. and Choudhury, B. Ornamental Horticulture in India.
7. Premchand, Agriculture and Forest Pest and their Management, Oxford Publication.
8. George Acquaah, Horticulture: Principles and Practices. Pearson Education, Delhi.
9. Prasad, S., and U. Kumar. Green house Management for Horticultural Crops, Agrobios, Jodhpur.
10. Kumar, U.: Methods in Plant Tissue Culture. Agrobios (India), Jodhpur.
11. Kolay, A.K. Basic Concepts of Soil Science. New Age International Publishers, Delhi.
12. Bal, J.S., Fruit growing, Kalyani Publishers, Delhi.