Bs/BCC–09 (T)

2 0 2 4

(FYUGP)

(5th Semester)

BOTANY

(Major)

Paper Code : BCC–09 (T)

(Plant Ecology and phytogeography)

Full Marks : 75

Pass Marks : 40%

Time : 3 hours

The figures in the margin indicate full marks for the questions

Answer **five** questions, taking **one** from each Unit

UNIT—I

1. Explain in detail the various levels of organization in an ecosystem. How do these levels interact with each other, and what are the key interrelationships between living organisms and their environment? 9+6=15

(Turn Over)

2. Write notes on any *two* of the following :

7½×2=15

(a) Soil profile

(b) Physical, chemical and biological components of soil

(c) Precipitation types

UNIT—II

3. Discuss in detail how plants adapt to environmental factors such as light, temperature, wind and fire. Include specific examples of how plants have evolved to cope with variations in each of these conditions. 15

4. Write notes on any *two* of the following :

7½×2=15

(a) Biotic interactions

(b) Autotrophy and heterotrophy

UNIT—III

5. Discuss ecological succession, detailing the processes involved, the different types of succession, and the concept of a climax community. 15

(Continued)

6. Write notes on any *two* of the following :

7½×2=15

(a) Characteristics of population ecology

(b) Analytical and synthetic characters used in community structure

(c) Ecotone and edge effect

UNIT—IV

7. Explain in detail the principles and models of energy flow in an ecosystem.   15

8. Differentiate between food chain and food web. Describe the ecological pyramids with diagrams to support your explanation.

5+10=15

UNIT—V

9. What is phytogeography? Write a note on the floristic regions of India.   3+12=15

10. Write notes on any *two* of the following :

7½×2=15

(a) Continental drift

(b) Endemism

(c) Theory of tolerance

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