

April 2025
B.A./B.Sc.
Fourth Semester
CORE – 9
BOTANY
Course Code: BOC 4.21
(Plant Ecology & Phytogeography)

Total Mark: 70

Pass Mark: 28

Time: 3 hours

Answer five questions, taking one from each unit.

UNIT-I

1. Give a detailed account on the process of soil formation. Write any two differences between sand, silt, and clay. 8+6=14
2. With suitable diagrams, discuss the forms of water in soil. Name the precipitation types. 10+4=14

UNIT-II

3. State the importance of light as an ecological factor. Describe the various adaptations of plants to variations of light. 4+10=14
4. Write a note each on the following: 7×2=14
 - (a) Adaptation of plants to wind
 - (b) Parasitism with suitable examples

UNIT-III

5. Define population. Describe the different characteristics of a population. 2+12=14
6. What is ecological succession? Explain the general process of ecological succession. 2+12=14

UNIT-IV

7. (a) Define ecosystem. Explain the structure of a pond ecosystem in detail. 7
(b) Explain the concept of food chain. 7

8. Upon which principle is the energy flow in an ecosystem based on?
Explain the energy flow with the help of Y-shaped model. 5+9=14

UNIT-V

9. Write a note each on the following: 7×2=14
(a) Theory of tolerance
(b) Temperate deciduous forests
10. Mention the different phytogeographic regions of India. Describe
any four phytogeographic regions in detail. 2+12=14
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