

**2022**  
**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. Describe the physical, chemical, and biological components of soil. 6+4+4=14
2. Explain the ecological importance of water. Describe the characteristics of water in the soil and its importance. 7+7=14

**UNIT-II**

3. Explain the various adaptations of plants to variation in the light. 14
4. Describe the various symbiotic relationships in plants with appropriate examples. 14

**UNIT-III**

5. Describe the quantitative characteristics of a plant community. 14
6. Write short notes on the following: 7×2=14
  - (a) Ecological niche
  - (b) Ecotone and edge effect

#### UNIT-IV

7. Describe the structural components of the ecosystem. Elucidate the pyramid of number, biomass, and energy using the pond ecosystem. 7+7=14
8. Write notes on the following: 7×2=14
- (a) Models of energy flow
  - (b) Productivity of ecosystem

#### UNIT-V

9. Write short notes on the following: 7×2 =14
- (a) Principles of continental drift
  - (b) Endemism
10. Describe in detail the major terrestrial biomes of the world. 14
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