

**2023**  
**B.A./B.Sc.**  
**Second Semester**  
GENERIC ELECTIVE – 2  
**BOTANY**  
*Course Code: BOG 2.11*  
(Plant Ecology & Taxonomy)

*Total Mark: 70*  
*Time: 3 hours*

*Pass Mark: 28*

*Answer five questions, taking one from each unit.*

**UNIT-I**

1. Give an account on the following: 7×2=14
  - (a) The form of water in the environment
  - (b) Effect of light on the distribution of plants and animals
2. Give an account on the adaptational features of halophytes and xerophytes. 7+7=14

**UNIT-II**

3. Explain the nitrogen cycle with the flowchart. 14
4. Write notes on the following: 7×2=14
  - (a) Energy flow in an ecosystem
  - (b) Ecological pyramids

**UNIT-III**

5. What is botanical garden? Mention the role of botanical garden. Write in brief about two important botanical gardens of India. 2+6+6=14
6. Write short notes on the following: 7×2=14
  - (a) Taxonomic hierarchy
  - (b) Binominal nomenclature

#### UNIT-IV

7. Give the general characteristics of Brassicaceae with examples. 14
8. Give the general characteristics of Orchidaceae with examples. 14

#### UNIT-V

9. Briefly explain artificial, natural, and phylogenetic systems of classification. Give examples. 14
10. Write notes on the following:  $7 \times 2 = 14$
- (a) Numerical taxonomy
  - (b) Operational taxonomic units
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