

**2024**  
**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. Define soil profile. Explain the different zones of soil profile; illustrate your answer with a labelled diagram. 2+9+3=14
2. Write notes on the following: 7×2=14
  - (a) Types of precipitation
  - (b) Response of homoiotherms to temperature

**UNIT-II**

3. What is succession? Enumerate and discuss on the general process of succession. 2+2+10=14
4. Give an account on the following: 7×2=14
  - (a) Ecotone and edge effect
  - (b) Food chain

**UNIT-III**

5. (a) What is a taxon? Explain why classification is considered an important component in the studies of taxonomy. 2+4=6
  - (b) What is a herbarium? Enumerate the importance and functions of a herbarium. 2+6=8
6. (a) Discuss the criteria for the valid and effective publication of botanical names. 5

- (b) What is ICN? A name is rejected when it becomes later homonym and later isonym. Why? 2+7=9

#### UNIT-IV

7. Identify the given families using morphological characters and floral diagram: 7×2=14  
(a) Solanaceae  
(b) Poaceae
8. According to Bentham and Hooker system of classification write the systematic positions and floral formula of the family: 7×2=14  
(a) Magnoliaceae  
(b) Liliaceae

#### UNIT-V

9. (a) Distinguish between natural and phylogenetic system of classification. 5  
(b) Enumerate the salient features of the Bentham and Hooker system of classification and its merits and demerits. 5+4=9
10. (a) Discuss how the variation in plants is studied according to cladistics approach. 10  
(b) Write a note on cluster analysis. 4
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