

2024
B.A./B.Sc.
Fourth Semester
CORE – 10
BOTANY
Course Code: BOC 4.31
 (Plant Systematics)

Total Mark: 70
Time: 3 hours

Pass Mark: 28

Answer five questions, taking one from each unit.

UNIT-I

1. (a) Discuss the importance of description in the studies of plant taxonomy. 4
 (b) Describe the role of cytology in solving taxonomic problem with examples. 10
2. (a) What is an herbarium? Mention the important functions of herbarium. 7
 (b) Write a note on taxonomic literatures. 7

UNIT-II

3. Write three important spot identifying morphological characters and draw floral diagram of the family: 7×2=14
 (a) Lamiaceae
 (b) Solanaceae
4. Write the systematic position and floral formula of the family: 7×2=14
 (a) Brassicaceae
 (b) Rutaceae

UNIT-III

5. What is taxonomic hierarchy? Discuss the different concepts of species. 2+12=14

6. (a) What is author citation? Describe the various rules of author citation. 2+8=10
(b) What is the difference between Lectotype and Paratype type specimen? 4

UNIT-IV

7. Write the salient features, outline and merits and demerits of Bentham and Hooker system of classification. 14
8. Write a summary on the following: 7×2=14
(a) Hutchinson system of classification
(b) APG system of classification

UNIT-V

9. With examples differentiate between 7×2=14
(a) plesiomorphic and apomorphic characters
(b) parallelism and convergence characters
10. (a) Describe the process of assessment of characters according to numerical taxonomy. 8
(b) What are OTUs? How are the OTUs selected? 6
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