

2023
M.Sc.
Fourth Semester
DISCIPLINE SPECIFIC ELECTIVE – 03
BOTANY
Course Code: MBOC 4.11(B)
(Phytogeography & Evolution)

Total Mark: 70
Time: 3 hours

Pass Mark: 28

Answer five questions, taking one from each unit.

UNIT-I

1. Compare and contrast native taxa with exotic taxa and describe the various degrees of naturalization. 7+7=14
2. What is formation? Describe Dansereau's types of formation and their distribution across the globe. 2+12=14

UNIT-II

3. What do you understand by plate tectonics? Explain the basic principles of continental drift and support it with evidences. 3+6+5=14
4. What are the characteristics of organisms that promote successful dispersal? Describe types, strategies, routes, and barriers of dispersal. 4+10=14

UNIT-III

5. Write short notes on the following: 7×2=14
 - (a) Disjunct distribution
 - (b) Endemism
6. How will you distinguish between primary and secondary centres of diversity? Give a general account on centres of diversity. 4+10=14

UNIT-IV

7. Write short notes on the following: 7×2=14
(a) Protein polymorphism
(b) Inbreeding depression
8. Distinguish between anagenesis and cladogenesis? Explain the main mechanisms of selection. 4+10=14

UNIT-V

9. What are the advantages of sexual reproduction in terms of selection fitness? Discuss on the evolution of reproductive organs in plants. 5+9=14
10. What are the stages of evolution of embryophytes? Give an account on the theories of evolution of alternation of generations with illustrative diagrams. 4+10=14
-