

2023

B.A./B.Sc.

First Semester

GENERIC ELECTIVE – 1

BOTANY

Course Code: BOG 1.11

(Biodiversity: Microbes, Algae, Fungi &amp; Archegoniate)

Total Mark: 70

Pass Mark: 28

Time: 3 hours

Answer five questions, taking one from each unit.

## UNIT-I

1. Give an account on the following with appropriate diagram: 7×2=14
  - (a) Lysogenic replication in virus
  - (b) Conjugation in bacteria
2. Write notes on the following: 7×2=14
  - (a) Economic importance of bacteria and virus
  - (b) Generalized transduction in bacteria with diagram

## UNIT-II

3. Write notes on the following: 7×2=14
  - (a) Economic importance of algae
  - (b) Morphology of *Chlamydomonas*
4. Give an account on the ecology and distribution of algae. 14

## UNIT-III

5. Write notes on the following: 7×2=14
  - (a) Mycorrhiza and its significance
  - (b) General characters of fungi
6. Give an account on the life cycle of *Puccinia* with appropriate diagram. 10+4=14

## UNIT-IV

7. Describe the morphology and anatomy of *Funaria* with labelled diagram. 14
8. Write notes on the following: 7×2=14
- (a) Adaptations to land habit
  - (b) General characteristics of bryophytes

## UNIT-V

9. Give an account on the following: 7×2=14
- (a) Morphology and anatomy of *Selaginella*
  - (b) Heterospory
10. Write notes on the following: 7×2=14
- (a) Morphology of *Cycas*
  - (b) Economic importance of gymnosperms
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