

2023
B.A./B.Sc.
First Semester
 CORE – 1
BOTANY
Course Code: BOC 1.11
 (Phycology & Microbiology)

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:
 - (a) Darwin's theory of evolution 8
 - (b) Microbial nutrition 6
2. Write notes on the following:
 - (a) Mechanism of speciation 8
 - (b) Economic importance of viruses and bacteria 6

UNIT-II

3. Give an account on the lytic replication of T4 bacteriophage with appropriate diagram. Give an account on HIV virus with diagram. 8+6=14
4. Give a general account on the following:
 - (a) Virioids and prions 2
 - (b) Lysogenic replication in viruses with diagram 8
 - (c) General characteristics of viruses 4

UNIT-III

5. Write an account on the following: 7×2=14
 - (a) Types of asexual reproduction in bacteria
 - (b) Gram positive and gram negative bacteria

6. Give an account on the difference between conjugation and transformation in bacteria. 7+7=14

UNIT-IV

7. Write a note on the classification of algae and the criteria used. 10+4=14
8. Write notes on the following: 7×2=14
- (a) Motile and non-motile cenobial colony with appropriate examples
 - (b) Types of flagella found in algae

UNIT-V

9. Write notes on the following: 7×2=14
- (a) Reproduction in Cyanophyta
 - (b) Range of thallus organization in Cyanophyta
10. Write notes on the following: 7×2=14
- (a) Reproduction structures in *Chara*
 - (b) Thallus of *Vaucheria*
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