

November 2025
M.Sc.
First Semester
CORE – 01
BOTANY
Course Code: MBOC 1.11
(Microbiology & Algae)

Total Mark: 70
Time: 3 hours

Pass Mark: 28

Answer five questions, taking one from each unit.

UNIT-I

1. Give an account of the distribution of algae in diversified habitats. 14
2. Write a note on each of the following: 7×2=14
 - (a) Cell wall composition in various groups of algae
 - (b) Flagellar structure in algae

UNIT-II

3. Describe the process of asexual reproduction involving formation of spores in algae. 14
4. (a) Describe the process of sexual reproduction in diatoms, explaining the formation of auxospore in detail. 7
(b) Describe the range of thallus organization in Rhodophyceae. 7

UNIT-III

5. What is the relevance of the use of algae in agriculture? Explain in detail the use of algae as biofertilisers. 4+10=14
6. Write a note on each of the following: 7×2=14
 - (a) Use of algae in medicine
 - (b) Closed systems of culturing algae

UNIT-IV

7. Define xenobiotics. Give an account of the important role of microbes play in the degradation of xenobiotic compounds. 2+12=14
8. Write a note on each of the following: 7×2=14
- (a) Role of microbes in food spoilage
 - (b) Microbes in soil and their significance

UNIT-V

9. Give an account of the microbial colonisation, succession and climax using a specific example. 14
10. Write a note on each of the following: 7×2=14
- (a) Any three specific microbial measurement methods
 - (b) Microbial products and their applications in forestry and agriculture
-