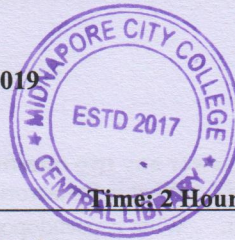


PG (NEW) CBCS
M.Sc. Semester-I Examination, 2019
BOTANY
PAPER: BOT-102
(PHYCOLOGY & BRYOLOGY)



Full Marks: 40

Time: 2 Hours

Write the answer for each unit in separate sheet

UNIT I

PHYCOLOGY

1. Answer any two questions of the following: 2×2=4
 - i. What are the Gm+ve and Gm-ve features of cyanobacterial cell?
 - ii. Mention two salient features of xanthophyceae.
 - iii. Define parallelism and cite one example of it in algae.
 - iv. Mention the algal sources and uses of alginic acid.

2. Write short notes (any two) of the following: 4×2=8
 - i. Write a short note on endosymbiotic theory of origin of chloroplasts.
 - ii. Write down the range of thallus structure in members of chlorophyta.
 - iii. Briefly write the chemical nature, algal sources and uses of agar-agar. 1+1+2
 - iv. What is soil reclamation? Mention the role of algae in maintaining soil fertility. 1+3

3. Answer any one question of the following: 8×1=8
 - i. Write down the major types of thallus organization in members of phaeophyceae. Discuss the evolutionary tendencies exhibited by the different members of this group. 4+4
 - ii. Define pheromone. How is it different from hormone? Enlist the different chemical agents acting as pheromone in algae. Elucidate different modes of action of pheromone in algae. 1+1+2+4

UNIT II:
BRYOLOGY

4. Answer any two questions of the following: 2×2=4
- What is Sphaerocarpia?
 - What is pseudopodium? Mention its function.
 - Mention your concept on bryomonitoring.
 - Write two salient features of Marchantiophyta.
5. Answer any two questions from the following: 4×2=8
- Write down the systematic position of Takakia sp of Takakiales.
 - Give an account on the sporophytic structures of Anthocerotophyta.
 - Write a short note on sex chromosome in bryophytes.
 - Briefly discuss with example the role of bryophytes in plant succession.
6. Answer any one question of the following: 8×1=8
- Describe in detail the characteristics, affinities and phylogeny of sphenocleales.
Mention the economic importance of this group. 6+2
 - Write down the chemical components of bryophytes and discuss how these can help in solving disputed taxa of bryophytes. 2+6

