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 <u>two</u> questions of the following: **2×2=4**

i. What is Sphaeroriccia?
ii. What is pseudopodium? Mention its function.
iii. Mention your concept on bryomonitoring.
iv. Write two salient features of Marchentiophyta.

5. Answer any <u>two</u> questions from the following: **4×2=8**

i. Write down the systematic position of Takakia sp of Takakiales.
ii. Give an account on the sporophytic structures of Anthocerophyta.
iii. Write a short note on sex chromosome in bryophytes.
iv. Briefly discuss with example the role of bryophytes in plant succession.

6. Answer any <u>one</u> question of the following: **8×1=8**

i. Describe in detail the characteristics, affinities and phylogeny of sphanales. Mention the economic importance of this group. 6+2
ii. Write down the chemical components of bryophytes and discuss how these can help in solving disputed texa of bryophytes. 2+6

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