

2009

M.Sc.

1st Semester Examination

BOTANY

PAPER—I

Full Marks : 40

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Write the answers to questions of each unit in separate books.

Unit—I

[Marks : 20]

1. Answer any four questions : 1×4
- (a) Name two components of agar-agar.
 - (b) What is the pellicle strips in euglenoids ?
 - (c) Which division of algae does have one additional membrane of endoplasmic reticulum surrounding the chloroplast ?

(Turn Over)

- (d) What is the constituent of eye spot?
- (e) Which alginates are flame resistant?
- (f) Mention an important feature of Glaucophyta for which the division resembles Cyanophyta.
- (g) What is mastigoneme?
2. Write short notes on any *two* of the following : 4×2
- (a) Green water technology in pisciculture.
- (b) Chloroplasts of Prochlorophyta and Chlorophyta.
- (c) Basis of reclamation of soil with algae and the steps to be followed for it.
- (d) Chemistry, economic uses and demerits of carrageenan.
3. What is pheromone? Name the earliest detected pheromone in algae. Give its chemical name. Write a brief note on the chiral specificity and interspecific interaction of pheromone in brown algae. 1+1+1+5

Or

Illustrate the characteristic features of Heterokontophyta. Contrast this division with Euglenophyta on the basis of two characters. 6+2

Unit—II**[Marks : 20]**

4. Answer any *four* questions : 1×4

- (a) What is 'm' chromosome?
- (b) What is hyaline cell and where is it present?
- (c) How many chromosomes are of *Takakia*?
- (d) Name two aquatic bryophytes.
- (e) What is the full name of IAP?
- (f) What is elaterophore?

5. Write short notes (any *two*) : 4×2

- (a) Systematic position of Takakiales.
- (b) Is *Sphagnum* a true moss?
- (c) Sex-associated chromosomes.
- (d) Bryomonitoring.

6. Who first proposed current system of classification in Bryophytes? Mention the outline of modern bryophyte classification upto family level. What are the basic differences between traditional and current system of classification? 1+6+1

Or

State the taxonomic implications of cellular chemistry in Bryophytes with suitable examples. 8
