

2022

BOTANY

[P.G.]

(CBCS)

(M.Sc. First Semester End Examinations-2022)

PAPER-102

[Phycology and Bryology]

Full Marks: 40

Time: 02 Hrs

The figures in the right hand margin indicate marks

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

Illustrate the answers wherever necessary

[USE SEPERATE ANSWER SCRIPT FOR EACH GROUP]

Unit – I

[Phycology]

F.M. - 20

Group - A

- 1. Answer any four questions of the following: 4x1= 4**
- a) What is single cell protein? Give one example.
 - b) Name the pigments responsible for characteristic colour of red and brown algae respectively.

(2)

- c) Mention different parameters based on which algae can be classified.
- d) Differentiate between streptophyte and streptophyta.
- e) What is Anatoxin? What is its effect?
- f) Name one algal pheromone and its source.

Group - B

2. Answer any two questions: **4x2= 8**
- a) Write a short note on phycocolloids.
 - b) Which algal group is considered as an advanced one? Justify accordingly. Explain.
 - c) Write briefly about soil reclamation by algae.
 - d) Write down the salient features of Bacillariophyceae.

Group - C

3. Answer any one question **1x8= 8**
- a) Discuss the range of thallus organization in algae with diagrams.
 - b) How chloroplast originated according to endosymbiotic theory. Give evidences in support of this theory.(4+4)

(3)

Unit – II
[Bryiology]
F.M. - 20

Group - A

1. Answer any four questions of the following: **4x1= 4**
- a) What is the function of oil bodies in bryophytes?
 - b) What are the functions of hydroids and leptoids.
 - c) Name one aquatic moss?
 - d) Mention two similarities in between Naiadita and living Liverworts.
 - e) Why does the bryomonitoring system use bryophytes as indicators?
 - f) Differentiate between Nematodontous & Arthrodontous species.

Group - B

2. Answer any two questions: **4x2= 8**
- a) Briefly discuss about Phylum Anthocerotophyta with at least 3 examples.
 - b) Write about the ecological and economical importance of bryophyta.
 - c) Write about the tissue organization and morphology of the gametophyte of mosses.

(4)

d) What makes bryophyte sex chromosomes special in the tree of life?

Group – C

3. Answer any one question

1x8= 8

- a) Write a comparative account among the three groups of Bryophyta.
- b) The morphology of the free-living gametophytic generation varies within Marchantiophyta—explain.