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NEPNY—23—2023

FACULTY OF SCIENCE AND TECHNOLOGY

M.Sc. (NEP) (First Year) (First Semester) EXAMINATION

NOVEMBER/DECEMBER, 2023

BOTANY

Paper SBOTC-402

(Diversity of Cryptogams)

(Friday, 22-12-2023)

Time : 10.00 a.m. to 1.00 p.m.

Time—Three Hours

Maximum Marks—80

N.B. :— (i) Question No. 1 is compulsory.

(ii) Of the remaining, attempt any three questions.

(iii) Draw neat and labelled diagrams wherever required.

1. Write brief notes on the following : 20

(a) Types of flagella in algae

(b) Heterocyst

(c) Sporophyte of Riccia

(d) Heterospory in Pteridophytes.

2. Describe in brief :

(a) Thallus organization in algae. 10

(b) Ultrastructure of algal cell. 10

P.T.O.

3. Write in brief :

- (a) General morphology and asexual reproduction in Chlorophyta. 10
- (b) General morphology and sexual reproduction in Xanthophyta. 10

4. Describe in brief :

- (a) Internal structure of Marchantia thallus. 10
- (b) Anatomical features of Anthocerotales. 10

5. Describe in brief :

- (a) Morphological and anatomical characters of Psilotum. 10
- (b) Stelar evolution in Pteridophytes. 10

6. Write brief notes on the following : 20

- (a) Pigments and reserve food in algae
- (b) Macrandrous and Nannandrous conditions in Oedogonium
- (c) Economical and ecological importance of Sphagnum
- (d) Strobilus in Equisetum.