

19/591**M.Sc. (First Semester) Examination, 2019****Botany****Third Paper****(Phycology and Lichens)****Time : Three Hours****Maximum Marks : 100**

Note : Answer **five** questions in all. Short answer type **Question No. 1** carrying **40** marks is **compulsory**. Answer **one** question carrying **15** marks from each unit.

Note : The answer to short Answer type questions should not exceed 200 words and the answer to long Answer type questions should not exceed 500 words.

1. Write short notes of the following:

4 × 10 = 40

(i) Nutrient medium for algal culture

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- (ii) Pamella stage
- (iii) Pycnidium in Lichens
- (iv) Siphonaceous algae
- (v) Chlorophyll in Xanthophyceae
- (vi) Food reserve in brown algae
- (vii) Contribution of MOP Iyengar in Phycology
- (viii) Whole thallus culture of lichens
- (ix) Cephalodium
- (x) Chantransia stage

Unit-I

2. Write a descriptive account on life cycle pattern in various algae forms and their evolutionary signification. 15

OR

Write short notes on any **three** of the following 3 × 5 = 15

- (i) Botrydium: systematic Position and structure.

- (ii) Economic importance of algae
- (iii) Algae as potential source of food
- (iv) Accessory pigments in algae
- (v) Thallus organization in algae

Unit-II

3. Write short notes on any **three** of the following 3x5=15

- (i) Gloeotrichia
- (ii) Draparnaldiopsis
- (iii) Caulerpa
- (iv) Fritschiella
- (v) Pandorina

OR

"Chara is related to evolution of Land plants".
Discuss.

Unit-III

4. Write short notes any **three** of the following. 3x5=15

- (i) Unilocular and plurilocular sporangia

- (ii) Asexual reproduction in Laminaria
- (iii) Vegetative structure of Gracillaria
- (iv) Dictyota thallus organization

OR

Explain the life cycle pattern of Rhodophyceae with reference to Batrachospermum. 15

Unit-IV

5. Write a descriptive note on reproduction in Lichens. 15

OR

Write short notes on any **three** of the following 3x5=15

- (i) Lichens as Bioindicator
- (ii) Various secondary metabolites pathway in Lichens
- (iii) Economic importance of Lichens
- (iv) Types of lichens on the basis of the habitat
- (v) Cyphallae and Pseudocyphellae