

SET FOR DEPT.

2018

BOTANY

(Major)

Paper : 1.1

(Plant kingdom, Algae and Fungi)

Full Marks : 60

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

1. Fill in the blanks with appropriate word(s) :

1×7=7

- (a) Cryophytes are found on ____.
- (b) Male reproductive structure of *Chara* is known as ____.
- (c) The Plakea stage of *Volvox* consists of ____ cells.
- (d) Reserved food material mannitol is found in the members of the class ____.
- (e) ____ is known as the father of Indian Mycology and Plant Pathology.

(2)

- (f) The phenomenon of heterothallism was first discovered in the order ____.
- (g) Mutual association between phycobiont and mycobiont represents the group ____.

2. Define the following terms : $2 \times 4 = 8$

- (a) Haplo-diplobiontic life cycle
- (b) Coenobium of *Volvox*
- (c) Halophytes
- (d) Hyphae and mycelium

3. Write briefly on any *three* of the following : $5 \times 3 = 15$

- (a) Range of vegetative structure in algae
- (b) Heterothallism in *Mucorales*
- (c) Unilocular and plurilocular Sporangia in *Ectocarpus*
- (d) Mode of nutrition in fungi
- (e) Characteristic feature of blue-green algae

(3)

4. Answer any *three* of the following : $10 \times 3 = 30$

- (a) Give an outline of Fritch's system of classification of algae. Mention the criteria adopted for the classification in this system. $6 + 4 = 10$
- (b) Describe briefly the structure and development of sex organs of *Chara* with the help of labelled diagram. 10
- (c) What is diplobiontic life cycle? Give an account of the life cycle of *Polysiphonia* giving suitable diagrammatic representations. $2 + 8 = 10$
- (d) Write the diagnostic features of basidiomycetes. Differentiate between ascospores and basidiospores. $6 + 4 = 10$
- (e) What are imperfect fungi? Describe the structure and reproduction of *Colletotrichum falcatum*. Write the name and symptoms of the disease caused by it. $1 + 6 + 1 + 2 = 10$
- (f) Describe the classification of plant kingdom on the basis of their nutrition and ecological status. $5 + 5 = 10$

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