

**3 (Sem-1) BOT M 1**

**2 0 1 8**

**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 Plaque 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.

(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 : 2×4=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 : 5×3=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

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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