

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

2 0 1 9

BOTANY

(Major)

Paper : 1.1

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) Cell wall of algal cell consists of _____.
- (b) Pyrenoid is the protein body with an envelope of starch observed within the cell organelle _____.
- (c) _____ is an example of parasitic alga.
- (d) In *Polysiphonia*, type of life cycle is _____.
- (e) The pit connections are found in _____ alga.
- (f) Amylum star is found in _____.
- (g) Penicillin was discovered by _____.

(2)

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

- (a) Heterocyst
- (b) Heterothallism
- (c) Ascospore
- (d) Red rust disease

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

- (a) Life cycle patterns in algae
- (b) Modes of reproduction in *Coleochaete*
- (c) Pigmentation and reserve food products of *Polysiphonia*
- (d) Characteristic features in Chlorophyceae
- (e) Systematic position and economic importance of *Saccharomyces cerevisiae* (Yeast)

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

- (a) What are the common pigments present in algae? Give an account on the classification of algae on the basis of pigments present in them. $2 + 8 = 10$

(3)

(b) Give a brief account of the life history of *Ectocarpus* with suitable diagram. 10

(c) Describe the vegetative structure, reproduction and systematic position of *Vaucheria* with the help of labelled diagrams. $3 + 5 + 2 = 10$

(d) Give an illustrated account of the life history of *Phytophthora* and explain its mode of perennation in the late blight disease of potato. $8 + 2 = 10$

(e) Describe briefly about the life history of *Agaricus* with the help of neat and labelled diagram. 10

(f) Write briefly about the different modes of nutrition found in kingdom Fungi with suitable examples. 10
