

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

2019

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. Define the following terms : 2×4=8

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

3. Write briefly on any *three* of the following : 5×3=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 : 10×3=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

- (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

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