

Total No. of Printed Pages—3

1 SEM TDC BOTH (CBCS) C 1

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(November)

BOTANY

(Core)

Paper : C-1

(Microbiology and Phycology)

Full Marks : 53

Pass Marks : 21

Time : 3 hours

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

1. (a) Choose the correct answer of the following : 1×3=3

(i) Cap cells are found in Volvox /
Chara / Chlamydomonas /
Oedogonium.

(ii) Mannitol is the storage food of
Chlorophyceae / Phaeophyceae /
Rhodophyceae / Xanthophyceae.

(2)

(iii) Red oceanic tides are due to Blue-green algae / Red algae / Brown algae / None of these.

(b) Fill in the blanks of the following : $1 \times 2 = 2$

(i) Bacteria having flagella all over the body is called _____.

(ii) Transformation of bacteria was discovered by _____.

2. Write short notes on any *three* of the following : $4 \times 3 = 12$

(a) Role of algae in the environment

(b) Dwarf male of Oedogonium

(c) Characteristics features of Gram-negative bacteria

(d) Economic importance of viruses

3. With suitable diagram, give a detailed account of the range of thallus structure in algae. $8 + 4 = 12$

Or

Describe with diagram the structure of the thallus and sexual reproduction in Fucus. State the phenomenon of alternation of generation observed in this plant. $4 + 4 + 4 = 12$

(3)

4. What are the different methods of vegetative reproduction in bacteria? Give an account of transduction in bacteria. $6 + 6 = 12$

Or

Write explanatory notes on the following : $6 \times 2 = 12$

(a) Nutritional types of bacteria

(b) Bacterial cell wall

5. What are viruses? Are they living or non-living agents? Write about the methods of transmission and control measures of a typical plant viral disease. $1 + 3 + 4 + 4 = 12$

Or

Write notes on the following : $6 \times 2 = 12$

(a) Physico-chemical nature of virus

(b) Structure of Bacteriophage
