

2022

1st Semester Examination

BOTANY (Honours)

Paper : C 1-T

(Phycology and Microbiology)

[CBCS]

Full Marks : 40

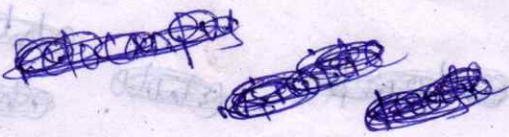
Time : Two Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

1. Answer any *five* of the following : $2 \times 5 = 10$

- (i) What is isomorphic alternation of generation? Give an example.
- (ii) Mention two similarities of blue-green algae and red algae.
- (iii) Write down the importance of algae in soil reclamation.
- (iv) What is prion? Differentiate it from virus.
- (v) What is palmella stage? Give example.
- (vi) Distinguish between plasmid and virus.
- (vii) What is heterocyst? Give example.

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(viii) Name one single stranded DNA and one double stranded RNA virus.

2. Answer any **four** of the following : $5 \times 4 = 20$

(i) Discuss the industrial uses of algae. 5

(ii) What is Gongocira stage? Where does it occur? Describe it with suitable sketches. $1+1+3=5$

(iii) Classify bacteria on the basis of the position of flagella. 5

(iv) Describe the importance of virus in the production of vaccine. 5

(v) Draw and describe the sexual organisation of *Chara*. $2+3=5$

(vi) Briefly discuss about the range of thallus structure found in algae. 5

3. Answer any **one** of the following : $10 \times 1 = 10$

(i) What is transduction? Distinguish it from transformation. Discuss differences between lytic and lysogenic cycle with suitable diagrams.

$1+1+(4+4)=10$

(ii) Draw and describe the vegetative and reproductive structures of *Oedogonium* sp. Write down the function of suffultory cell and holdfast.

$2+4+2+2=10$

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