

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 8589

J

Unique Paper Code : 32161101

**Name of the Paper : MICROBIOLOGY AND
PHYCOLOGY**

**Name of the Course : B.Sc. (Hons.) BOTANY
(Admission 2019 onwards)**

Semester : I

Duration : 3 Hours

Maximum Marks : 75

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. All parts of a question must be attempted together.
3. Illustrate your answers with suitable diagrams wherever necessary.
4. This question paper has six questions.
5. All questions carry equal marks.
6. Attempt any **FIVE** questions, including Question No. 1, which is compulsory.

P.T.O.

1. This Question is **COMPULSORY**.

(a) Fill in the blanks :

(1×5=5)

- (i) _____ coined the term 'Algae'.
- (ii) Rust of Tea is caused by _____.
- (iii) A colony with a definite number and arrangement of cells is called _____.
- (iv) The principle component of bacterial cell wall is _____.
- (v) Smallest known infectious agents that lack protein coat are called _____.

(b) Briefly explain the following terms : (2×5=10)

- (i) Clump formation
- (ii) Cystocarp
- (iii) Synzoospore
- (iv) Air bladders
- (v) Fimbriae

2. Differentiate between any **THREE** of the following :

(5×3=15)

- (a) Unilocular sporangium & plurilocular sporangium
- (b) Gongrosira stage & palmella stage
- (c) Phaeophyta & rhodophyta
- (d) Gram positive bacteria & gram negative bacteria

Give labelled diagrams for **any three** of the following :

(5×3=15)

- (a) Lytic cycle
- (b) *Chara* - L.S. globule
- (c) *Chlamydomonas* - E.M.
- (d) *Polysiphonia* - Thallus bearing Cystocarp

Write short notes on **any three** of the following :

(5×3=15)

- (a) Structure of TMV
- (b) Morphology of *Fucus*
- (c) Sexual reproduction in *vaucheria*
- (d) Cell division in *Oedogonium*

P.T.O.

5. Discuss **any three** of the following :

- (a) Unusual habitats of Algae
- (b) Industrial products from Algae
- (c) Bacterial growth curve
- (d) Symptoms & control measures of any two viral diseases

6. Explain **any three** of the following :

- (a) Thallus organization in coleochaete
- (b) Vegetative reproduction in BGA
- (c) Binary fission in bacteria
- (d) Importance of viruses in the field of medicine