7/12/19 M

[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

3. 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

4. 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 : (5×3=15)

(a) Unusual habitats of Algae

(b) Industrial products from Algae

(c) Bacterial growth curve

(d) Symptoms & control measures of any two plant viral diseases

6. Explain **any three** of the following : (5×3=15)

(a) Thallus organization in coleochaete

(b) Vegetative reproduction in BGA

(c) Binary fission in bacteria

(d) Importance of viruses in the field of medicine