

G-1/111/21

Roll No.....

## I Semester Examination, April-2021

**M.Sc.**

**BOTANY**

**Paper III**

(Microbiology, Phycology and Mycology)

Time : 3 Hours ]

[Maximum Marks : 80

**Note :** All questions are compulsory. Question Paper comprises of 3 sections. **Section A** is objective type/Multiple Choice questions with no internal choice. **Section B** is short answer type with internal choice. **Section C** is long answer type with internal choice.

### **SECTION 'A'**

#### **(Objective Choice Questions)**

Choose the correct answer :

**1 × 8 = 8**

1. The bacterial cell wall is composed of :  
(a) Lignine                      (b) Suberine  
(c) Peptidoglycon              (d) Cellulose
2. A free living bacteria capable of fixing nitrogen is :  
(a) Azatobacter                  (b) Rhizobium  
(c) Preudomonas                (d) Streptococcus
3. A virus that can multiply without killing its host is called :  
(a) Lytic virus                    (b) Lysogenic virus  
(c) Virions                        (d) Prions
4. Phytoplasma cells possess :  
(a) DNA                            (b) RNA  
(c) DNA and RNA                (d) None of the above

P.T.O.

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5. A motile flagellated asexual spores in algae is :

- (a) Zoospore (b) Aplanospore  
(c) Antherozoids (d) Akinetes

6. Reserve food floridean starch is found in :

- (a) Chlorophyceae (b) Xanthophyceae  
(c) Rhodophyceae (d) Phaeophyceae

7. All Fungi are :

- (a) Symbionts (b) Parasite  
(c) Saprophytes (d) Heterotrophs

8. Mycorrhiza is a symbiotic relation between :

- (a) algae and fungi (b) algae and bryophytes  
(c) fungi and root of higher plants  
(d) algae and root of higher plants

**SECTION 'B'**  
**(Short Answer Type Questions)**

6 × 4 = 24

**Note :** Answer the following questions in 250 words.

1. Salient features of cyanobacteria.

Or

Economic importance of Bacteria.

2. Phytoplasma.

Or

Bacteriophage.

3. Cell structure of division Bacillariophyta.

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Or

Thallus organisation in group chlorophyta.

4. Parasexuality.

Or

Fungi as biocontrol agent.

**SECTION 'C'**  
**(Long Answer Type Questions)**

12 × 4 = 48

**Note :** Answer the following questions in 500 words.

1. Describe the ultra cell structure of Bacteria.

Or

Describe the Bio composting process and benefits.

2. Describe the chemical nature and replication of virus.

Or

Describe the isolation and purification of viruses.

3. Give the general account of Xanthophyta.

Or

Describe the types of reproduction found in algae.

4. Give the general account of Deuteromycotina.

Or

Describe life cycle of any member of Basidiomycetes.

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