

B.Sc.- I Sem-I  
**BO-01 - Botany Paper-I (Diversity of Microbes and Algae)**

P. Pages : 2

Time : Three Hours



**GUG/W/19/1200**

Max. Marks : 50

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- Notes : 1. All questions are compulsory and carry equal marks.  
2. Draw well labelled diagrams wherever necessary.

1. Describe the structure of T<sub>4</sub>-Bacteriophage. Explain the Lysogenic cycle of T<sub>4</sub> Bacteriophage. 10

**OR**

Write on:-

- a) Structure of Nostoc filament. 5
- b) Economic importance of Bacteria. 5
2. Write general characters and economic importance of algae. 10

**OR**

Write on-

- a) Structure of Nucule in Chara. 5
- b) Structure of Vaucheria thallus. 5
3. Write short notes on:
- a) Ultra structure of Mycoplasma. 2½
- b) Economic importance of cyanobacteria. 2½
- c) Classification of Algae by G. M. Smith. 2½
- d) Globule in Chara. 2½

**OR**

- e) Economic importance of virus. 2½
- f) Binary fission in Bacteria. 2½
- g) Structure of Chlamydomonas cell. 2½
- h) Thallus structure in Batrachospermum. 2½
4. Write short notes on.
- a) Classification of virus based on host. 2½
- b) Shape of Bacteria. 2½

- c) Thallus structure of Oedogonium. 2½  
d) Unilocular sporangia in Ectocarpus. 2½

**OR**

- e) Nature of virus. 2½  
f) Asexual reproduction in bacteria. 2½  
g) Cryptogams. 2½  
h) Thallus structure of Ectocarpus. 2½

**5.** Write **any ten** in two or three lines. Diagrams are not necessary. **10**

- a) T. M. V.  
b) Lytic cycle.  
c) Capsid.  
d) Flagellum.  
e) Pili  
f) Streptococcus  
g) Aplanospore  
h) Cap cell  
i) Nannandrium  
j) Monospore  
k) Corona cell  
l) Cystocarp

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