

B.Sc. (CBCS Pattern) Semester-I  
**BO-01 - Botany-I - Plant Diversity-I**  
**Microorganisms, Algae, Fungi and Plant Pathology**

P. Pages : 2

Time : Three Hours



**GUG/W/24/11542**

Max. Marks : 50

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

**1.** Write notes on:

- |   |   |
|---|---|
| a) General characteristics & nature of plant viruses. | 5 |
| b) Economic importance of Bacteria.                   | 5 |

**OR**

Write short notes on:

- |  |    |
|--|----|
| c) TMV   | 2½ |
| d) Characteristics of life                         | 2½ |
| e) Mycoplasma                                      | 2½ |
| f) Ultrastructure of Bacterial Cell (Diagram only) | 2½ |

**2.** Write notes on:

- |   |   |
|---|---|
| a) Economic importance of Algae.                  | 5 |
| b) Classification of Algae by G. M. Smith (1955). | 5 |

**OR**

Write short notes on:

- |   |    |
|---|----|
| c) Male sex organ of <u>Chara</u>           | 2½ |
| d) Vegetative reproduction in <u>Nostoc</u> | 2½ |
| e) Unusual habitat of Algae                 | 2½ |
| f) Reproduction in Algae                    | 2½ |

3. Write notes on:
- a) Asexual Reproduction in Mucor 5
  - b) Life cycle of Puccinia on wheat plant. 5

**OR**

Write short notes on:

- c) General characteristics of fungi. 2½
- d) Economic importance of fungi. 2½
- e) Classification of fungi by G. C. Ainsworth (1973)  
(Graphic representation only) 2½
- f) Mode of nutrition in fungi. 2½

4. Write notes on:
- a) Types of Lichen 5
  - b) Red rot sugarcane. 5

**OR**

Write short notes on:

- c) Leaf curl of papaya (causal agent & symptoms) 2½
- d) Types of fungal diseases. 2½
- e) Bacterial blight of cotton 2½
- f) Ecological & Economic importance of Lichen. 2½

5. Write **any ten** questions in one two lines only 10  
(Diagram are not necessary)
- a) T<sub>4</sub> Bacteriophage
  - b) Coccus
  - c) Virologist
  - d) Female sex organ in Chora
  - e) Akinetes
  - f) Autogamy
  - g) Heterotrophic
  - h) Coenocytic
  - i) Black Mould
  - j) Mosaics
  - k) Chlorosis
  - l) Systemic fungicides.

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