

Roll No.

Total Pages : 03

GSE/D-21

797

BOTANY

Paper I

Diversity of Microbes

Time : Three Hours]

[Maximum Marks : 40

Note : Attempt *Five* questions in all, selecting *two* questions from each Unit. Q. No. **1** is compulsory. All questions carry equal marks. Draw well-labelled diagrams wherever necessary.

(Compulsory Question)

- 1.** Define the following terms : **1×8=8**
- (a) Mycology
 - (b) Unilocular sporangium
 - (c) Sporophyte
 - (d) Causal organism of Black Rust of Wheat
 - (e) Siphonaceous thallus
 - (f) Parasitic alga
 - (g) Soredium
 - (h) Sclerotium.

Unit I

2. Write short notes on the following :
 - (a) Conjugation in Bacteria 4
 - (b) Bacterial Cell Structure. 4
3. Briefly discuss the following :
 - (a) Asexual reproduction in *Volvox* 4
 - (b) Synzoospore in *Vaucheria*. 4
4. Explain the following :
 - (a) Successive stages in the development of unilocular sporangium in *Ectocarpus*. 4
 - (b) Pigments in Algae. 4
5. Describe the post-fertilization stages in *Polysiphonia*. 8

Unit II

6. Write short notes on the following :
 - (a) Lytic life-cycle in Bacteriophage. 4
 - (b) Asexual reproduction in *Phytophthora*. 4
7. Briefly discuss the following :
 - (a) Industrial uses of fungi 4
 - (b) Heterothalism in *Mucor*. 4

8. Write short notes on the following :
- (a) Stages of Puccinia on wheat 4
 - (b) Red rot of Sugarcane. 4
9. Explain the following :
- (a) Types of lichens 2
 - (b) Penicillus 3
 - (c) Aecidial cup. 3