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Total No. of Pages : 02

Total No. of Questions : 09

B.Sc. (Agriculture) (Sem.-2)

**ELEMENTARY MICROBIOLOGY**

Subject Code : BSAG-201

M.Code : 72356

Date of Examination : 17-12-2022

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTIONS TO CANDIDATES :**

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt ANY FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt ANY TWO questions.

**SECTION-A**

1. Write a short note on the following :

- a) Write short note on Plasmids.
- b) Which algae results in Red-tides in Oceans?
- c) Write short note on ammonification.
- d) Which chemical was used by Paul Ehrlich to treat syphilis?
- e) Define "Tyndallization"
- f) Write short note on cellulose decomposition.
- g) Give biological names of dhingri and button mushroom.
- h) Write short note on water-transmitted diseases.
- i) Why plants cannot directly utilize the atmospheric nitrogen?
- j) Give any two protozoans diseases.

### **SECTION-B**

2. What is the main difference between a Chemoautotrophic and a Photoautotrophic bacterium?
3. Briefly explain the generation time of bacteria and describe the mathematical expression of growth.
4. Give brief account of microbial pesticides.
5. Differentiate between Isogamous and Anisogamous gametes.
6. Discuss the contribution of Joseph Lister and Alexander Fleming in the field of microbiology.

### **SECTION-C**

7. Explain lytic and lysogenic life cycle of bacteriophages.
8. What are biofertilizers? Describe different types of biofertilizers.
9. What are mushrooms? Give brief account of button mushroom cultivation in India.

**NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.**