

CBCS SCHEME

21BT34



Third Semester B.E. Degree Examination, Jan./Feb. 2023

Microbiology

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Give an account on contribution of Joseph lister and Antonie Van Leuwenhock in Microbiology. (10 Marks)
- b. Explain in detail general characteristics of Actinomycetes and Prions. (10 Marks)

OR

- 2 a. With a neat labeled diagram, explain the Ultra structure of Bacteria. (10 Marks)
- b. Elaborate on the classification and reproduction of bacteria. (10 Marks)

Module-2

- 3 a. Explain the principle, construction and application of Dark Field Microscope. (10 Marks)
- b. Explain Simple and differential staining techniques by taking one example for each. (10 Marks)

OR

- 4 a. Differentiate between SEM and TEM. (10 Marks)
- b. What is Pure Culture? Explain any two techniques of pure culture. (10 Marks)

Module-3

- 5 a. With the graphical representation, explain Growth curve and its stages. (10 Marks)
- b. Explain in detail EMP Pathway. (10 Marks)

OR

- 6 a. What is Sterilization? Give an account on a physical method of sterilization in detail. (10 Marks)
- b. What is Genetic Recombination in Bacteria? Explain Transformation and Transduction in bacteria. (10 Marks)

Module-4

- 7 a. Explain in detail on cause, symptom, disease cycle diagnosis and treatment of Plague. (10 Marks)
- b. Give an explanatory note on : i) Ring worm ii) Yeast infection. (10 Marks)

OR

- 8 a. Explain any two Protozoan diseases. (10 Marks)
- b. Discuss the cause, symptoms, mode of transmission; clinical diagnosis disease cycle and treatment of polio. (10 Marks)

Module-5

- 9 a. Explain any two Air sampling techniques. (10 Marks)
- b. Define SCP. Explain the production process of SCP. (10 Marks)

OR

- 10 a. What are Biofertilizers? Explain the mass production of VAM. (10 Marks)
- b. Define Bioremediation. Add a note on role of microbes in Bioremediation process. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.