

B.Sc. Semester - 1 (NEP-2020) Examination**OCT/NOV-2025****MIC: Principles of Microbiology (Major-2)****Time: 2:00 Hours****Marks:50****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

Que.1 Answer the following questions. (10)

- 1) Give detail note on Flagella.
- 2) Discuss in detail on Cell Membrane.

OR

- 1) Write-down Structure and chemical composition of Gram-negative Bacterial cell wall
- 2) Discuss Bacterial Spores.

Que.2 Answer the following questions. (10)

- 1) Describe Principle, Construction and Working of Bright field Microscopy
- 2) Write a note on: Confocal Microscopy.

OR

- 1) Discuss on Fluorescent Microscopy.
- 2) Define: Mordents and discuss Fixatives.

Que.3 Answer the following questions. (10)

- 1) Discuss Gram staining.
- 2) Give detail note on Filtration.

OR

- 1) Describe the Methods of studying microorganism.
- 2) Discuss the Pure culture Isolation techniques.

Que.4 Answer the following questions. (10)

- 1) Discuss Reproduction of Bacteria.
- 2) Discuss Bacterial Growth Curve.

OR

- 1) Write note on Continuous culture of Bacteria.
- 2) Describe Growth of Bacteria.

Que.5 Write a note on (10)

- 1) Size, Shape and Arrangement of Bacteria.
- 2) Preparations for Light Microscope Examinations.

OR

- 1) Give detail note on conditions for microbial growth.
- 2) Importance of lag phase.
