

B.Sc. Semester - 1 (NEP-2020) Examination**OCT/NOV-2024****BOT: Microbiology (Multidisciplinary Course)****Time: 2:00 Hours****Marks: 50****Instructions:**

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

Que-1 Answer the following question shortly. (Each question carries 5 marks) (10)

- 1) What are viruses? Explain the structure of Bacteriophage (T_4 - phages).
- 2) Define Prions and explain the characteristics of Prions.

OR

Que-1 Answer the following question shortly. (Each question carries 5 marks)

- 1) Name the seven groups of viruses given by Baltimore and discuss only DNA viruses.
- 2) Discuss the characteristics of viruses as living and non-living molecules.

Que-2 Answer the following question shortly. (Each question carries 5 marks) (10)

- 1) Explain: Role of viruses as a research tools.
- 2) What is Adjuvants? Discuss the non Adjuvanted and Adjuvant Vaccine.

OR

Que-2 Answer the following question shortly. (Each question carries 5 marks)

- 1) Explain the diseases leaf curl of Papaya with following points.
(i) Causal organism (ii) Symptoms (iii) Dissemination (iv) Control measures
- 2) Write notes on: Bunchy top of Banana.

Que-3 Answer the following question shortly. (Each question carries 5 marks) (10)

- 1) Write salient features of Bacteria.
- 2) Write notes on: Budding in Bacteria.

OR

Que-3 Answer the following question shortly. (Each question carries 5 marks)

- 1) Write important characteristics of mycoplasma.
- 2) Write notes on: Endospores in Bacteria.

Que-4 Answer the following question shortly. (Each question carries 5 marks) (10)

- 1) Write a brief note on the importance of bacteria in industries.
- 2) Write a note on nitrogen fixation by cyanobacteria.

OR

Que-4 Answer the following question shortly. (Each question carries 5 marks)

- 1) Describe the thallus structure in Nostoc.
- 2) Explain briefly: The evolutionary significance of prochloron?

Que-5 Answer the following question shortly. (Each question carries 5 marks) (10)

- 1) Explain: Replication steps of TMV.
- 2) Write notes on: Mild mosaic of Potato.

OR

Que-5 Answer the following question shortly. (Each question carries 5 marks)

- 1) Write notes on: Binary fission in Bacteria.
- 2) Write a brief notes on: Endospores and Akinetes of Nostoc.
