

B.Sc. Semester - 1 (NEP-2020) Examination

OCT/NOV-2025

BOT: Microbiology (Major-1)

Time: 2:00 Hours

Marks:50

Instructions:

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

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- Que.1 (A) Describe the structure of T-phage with suitable diagrams. (05)
(B) Write a detailed account on Baltimore classification of viruses. (05)
OR
- Que.1 (A) Explain replication of RNA virus (TMV) with the help of a neat labelled diagram. (05)
(B) Give an account of viroids with suitable examples. (05)
- Que.2 (A) Explain the economic importance of viruses with special reference to vaccine production. (05)
(B) Write short notes on Leaf curl of Papaya. (05)
OR
- Que.2 (A) Describe the symptoms, causal agent, and control measures of Bunchy top of Banana. (05)
(B) Discuss the role of viruses in research and diagnostics. (05)
- Que.3 (A) Distinguish between: Archaeobacteria and Eubacteria. (05)
(B) Differentiate between transformation and transduction as methods of genetic recombination in bacteria. (05)
OR
- Que.3 (A) Write short notes on: Budding in Bacteria. (05)
(B) Write important characteristic of Spheroplast. (05)
- Que.4 (A) Write an essay on the economic importance of bacteria. (05)
(B) Discuss the role of Cyanobacteria in nitrogen fixation. (05)
OR
- Que.4 (A) Describe the morphology and life cycle of Nostoc with suitable diagrams. (05)
(B) Write a note on the evolutionary significance of Prochloron. (05)
- Que.5 (A) "Viruses are at the threshold of living and non-living." Justify this statement with suitable arguments. (05)
(B) Describe the symptoms, causal agent, and control measures of Mild mosaic of Potato. (05)
OR
- Que.5 (A) Give an account of prions with suitable examples. (05)
(B) Explain briefly the applications of microbes in biotechnology and medicine. (05)
