



'সমানো মন্ত্র: সমিতি: সমানী'

UNIVERSITY OF NORTH BENGAL

B.Sc. Honours Part-II Examination, 2022

MICROBIOLOGY

PAPER-V

Time Allotted: 4 Hours

Full Marks: 70

The figures in the margin indicate full marks.

1. Answer the following questions: 1×11 = 11
 - (a) What is the B-form of DNA?
 - (b) What is PFU?
 - (c) Define one step growth curve.
 - (d) Name two antibiotics affecting translation process.
 - (e) What do you mean by abortive transcription?
 - (f) What is the frequency of DNA mutation in bacteria?
 - (g) What are mutational hotspots?
 - (h) Define Hfr strain.
 - (i) Name the true inducer of lac operon.
 - (j) What are mutagens?
 - (k) Name two enveloped viruses.

2. Answer any *two* of the following questions: 16×2 = 32
 - (a) Classify viruses on the basis of Baltimore classification scheme. 16
 - (b) Explain in detail, the positive and negative regulation of Lac operon. 16
 - (c) Describe in detail, the process of transcription in bacteria. 16
 - (d) Describe in detail, the mechanism involved in plant tumor formation. 16

3. Answer any *three* of the following: 9×3 = 27
 - (a) Describe the role of non-ionizing radiations in DNA damage. 9
 - (b) Write a note on replica plating technique. 9
 - (c) Explain the Hfr × F⁻ conjugation mating. 9
 - (d) Write a note on the fidelity of DNA replication. 9
 - (e) Give a concise account on the different nature of genetic code. 9

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