

RAN-2503000504016001
S.Y.B.Sc. Microbiology (NCF-NEP) (Sem.-IV) Examination April - 2026
Microbiology - Microbial Taxonomy (MB-MJ-401)
Time: 1 Hour]
[Total Marks: 25

સૂચના : / Instructions (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી. Fill up strictly the above details on your answer book (2) Draw labelled diagram whenever needed. (3) Figures to the right indicate full marks of the questions.	Seat No.: Student's Signature
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- Q.1. Answer any five of the following :** **05**
- Give two examples of biochemical tests used in microbial identification.
 - Who proposed the three-domain system?
 - Explain the term phage typing.
 - Name the causative agent of bacillary dysentery in humans..
 - Mention two examples of facultative anaerobic Gram-negative rods.
 - State the morphological characteristics of *Escherichia coli*
- Q.2. Explain (any TWO of) the following:** **10**
- The process of nucleic acid hybridization and its role in microbial identification.
 - Any one 16S rRNA gene based molecular technique used in bacterial diversity study.
 - Write a short note on the significance of taxonomic hierarchy in the classification of microorganisms.
- Q.3. Explain any two of the following:** **10**
- Describe the general features of Domain Archaea.
 - Discuss the morphological and physiological characteristics of *Pseudomonadaceae* with examples of representative genera.
 - Write a detailed note on endospore forming gram positive cocci.