

**2103000203026001**  
**EXAMINATION NOVEMBER 2024**  
**BACHELOR OF SCIENCE ( NON-NEP ) (THIRD SEMESTER)**  
**MICROBIOLOGY PAPER - V (MB-301-PRINCIPLES OF**  
**BACTERIAL SYSTEMATICS)**

[Time: As Per Schedule]

[Max. Marks:50 ]

**Instructions:**

**1. Fill up strictly the following details on your answer book**

- a. Name of the Examination : **BACHELOR OF SCIENCE ( NON-NEP ) (THIRD SEMESTER)**
  - b. Name of the Subject : **MICROBIOLOGY PAPER - V (MB-301-PRINCIPLES OF BACTERIAL SYSTEMATICS)**
  - c. Subject Code No : **2103000203026001**
2. Sketch neat and labelled diagram wherever necessary.
  3. Figures to the right indicate full marks of the question.
  4. All questions are compulsory.

Seat No:

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Student's Signature

**Q.1 Give Specific answers**

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- a. State the types of classification methods.
- b. Define: Strain
- c. Mention two orders of Methanogens.
- d. Give two examples of halophilic archaea.
- e. Write the role of formate dehydrogenase.
- f. Give the full form of ETEC and EIEC.
- g. Enlist the types of anthrax.
- h. Give two examples of diseases caused by spirochaetes.

**Q.2 Explain/comment on any two of the following**

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- a. Explain: The role and significance of Bergey's Manual of Systematic Bacteriology
- b. The order Rhizobiales include agriculturally important bacteria.
- c. Cyanobacteria have important positive and negative impacts on humans and the environment.

**Q.3 Discuss any two of the following.**

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- a. Discuss taxonomic ranks.
- b. Elaborate on the key important structures in *Halobacterium salinarium*.
- c. Describe the properties and characteristics of members of the Class Mollicutes.

**Q.4 Write short notes on any two of the following**

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- a. The archaeal taxonomy
- b. Write a brief note on gammaproteobacteria along with the hierarchy.
- c. The Staphylococcaceae family

\*\*\*\*\*END\*\*\*\*\*