

**RAN-2203000206026004****B. Sc. Sem.-VI Examination September - 2025****Microbiology MB-604 Diagnostic Microbiology****Time: 2 Hours]****[Total Marks: 50****સૂચના : / Instructions**

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નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the details of signs on your answer book

Name of the Examination:

☛ **B. Sc. Sem.-VI**

Name of the Subject :

☛ **Microbiology MB-604 Diagnostic Microbiology**Subject Code No.: **2203000206026004**

Seat No.:

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Student's Signature

- (2) Figures to the right indicate full marks of the question.
 (3) Draw neat and labelled diagrams whenever necessary.

Q.1. Give Specific answers**(8)**

- Define: Diphasic culture medium.
- State the tests performed for presence of metabolic pathways for identification of organisms.
- Enlist the important steps in the polymerase chain reaction.
- Write full form of LAMP. State its applications.
- Write the principle of precipitation tests in organism detection.
- State the advantages of using enzymes as labels in Enzyme immunoassays.
- What is serum bactericidal test (SBT)?
- Define: Antibiotic resistance.

Q.2. Explain/comment on any two of the following**(14)**

- Explain: Collection and transportation of pus and urine samples.
- Explain any one method for nucleic acid sequencing.
- Elaborate: Serodiagnosis of infectious diseases

Q.3. Discuss any two of the following. (14)

- a. Automated antimicrobial susceptibility test systems.
- b. Commercial Identification Systems
- c. Sequencing and enzymatic digestion of nucleic acids.

Q.4. Write short notes on any two of the following (14)

- a. Western blot immunoassay.
 - b. Detection of specific resistance mechanisms
 - c. Drugs that inhibits cell wall synthesis
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