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**RAN-2203000206026004**

**B. Sc. Microbiology (Sem. VI) Examination March - 2025**

**Microbiology MB 604: Diagnostic Microbiology**

**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. Microbiology (Sem. VI)**

Name of the Subject :

**Microbiology MB 604: Diagnostic Microbiology  
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**

**08**

1. State the significance of selective media with suitable example.
2. Name the bacteria and fungi of significance in the sputum sample.
3. State the significance of the two common methods of signal amplification in hybridization.
4. What is enzymatic digestion of DNA? State its significance.
5. Define Indirect Fluorescent Antibody Tests? State the diseases that can be detected by it.
6. Define: Prozone effect.
7. Which are the Phenotypic Methods that directly detect specific resistance mechanisms?
8. Name the Automated Antimicrobial Susceptibility Test Systems

**RAN-2203000206026004 ]**

**[ 1 ]**

**[ P.T.O. ]**

**P0266**

- Q-2. Explain/comment on any two of the following** **14**
1. Discuss the importance of Real time PCR in clinical laboratory.
  2. Explain the Solid-Phase Immunoassay
  3. Enlist the Phenotypic criteria for the identification of microorganisms.  
Explain any 3 in detail.
- Q-3. Discuss any two of the following.** **14**
- a. Discuss the collection and transportation of urine and stool specimens.
  - b. Enlist the applications of nucleic acid-based methods. Explain any one method.
  - c. Enlist the Conventional methods for Measurement of Antimicrobial activity.  
Discuss any two in detail.
- Q-4. Write short notes on any two of the following:** **14**
- a. Bactericidal Test
  - b. Identification Tests for the presence of Metabolic Pathways in bacteria.
  - c. Latex Agglutination assays
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