


RAN-2503000505056001
B.Sc. (Sem. V) Examination March - 2026
MB-ME-502 : Microbiology
Analytical Instrumentation And Techniques
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) Figures to the right indicate full marks of the question. (3) Draw neat and labelled diagrams whenever necessary.	Seat No.: Student's Signature
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- Q.1. Give specific answers. (Any Five) 05**
- What is photometry?
 - What is the difference between absorption and emission spectroscopy?
 - Name two safety features of biosafety cabinets.
 - Define blotting techniques.
 - What is retention factor in chromatography?
 - List two applications of PCR.
- Q.2. Answer in Brief on any two of the following: 10**
- Explain the principle and applications of infrared spectroscopy.
 - Describe the airflow pattern and working of laminar air flow systems.
 - Discuss the principle of flow cytometry and its medical applications..
- Q.3. Answer the following: (Any 2) 10**
- Explain Southern blotting technique with its steps and applications.
 - Describe column chromatography and its different types.
 - Discuss the components required for PCR and their specific functions.