



RAN-2103000206030061

T. Y. B. Sc. (Sem. - VI) Examination September - 2025

Microbiology (Paper - GE-3)

Analytical Instrumentation and Techniques

Time: 2 Hours]

[Total Marks: 50

સૂચના : / Instructions

(1)

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.

Fill up strictly the details of signs on your answer book

Name of the Examination:

T. Y. B. Sc. (Sem. - VI)

Name of the Subject :

Microbiology (Paper - GE-3) - Analytical Instrumentation and Techniques

Subject Code No.: **2103000206030061**

Seat No.:

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Student's Signature

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

SET - C

Q. 1. Give Specific answers:

(08)

1. Define crystallography.
2. Give the full form of LC-MS.
3. Write the formula of pH.
4. Which type of cuvette used during UV determinations?
5. Which steps involves in the blot techniques?
6. Name any two support media used in electrophoresis..
7. What do you mean by unstable nuclei?
8. Define binding energy.

Q. 2. Explain any two of the following:

(14)

1. Describe the functions of various parts of Flame Photometer.
2. Give details on application of PCR.
3. Explain chromatography and write a note on partition chromatography.

Q. 3. Explain any two of the following: (14)

1. Discuss various instrument calibration techniques.
2. Write about principle and components of a centrifuge.
3. Define autoradiography and explain the importance of time of exposure.

Q. 4. Write a short note on: (any two) (14)

1. Accuracy and precision for analytical instruments.
 2. Ion-exchange chromatography.
 3. Use of Radioisotopes in Biological Specimen.
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