

2103000206030061
EXAMINATION SEPTEMBER 2024 (ATKT EXAM)
BACHELOR OF SCIENCE (SIXTH SEMESTER)
MICROBIOLOGY: GE-3: ANALYTICAL INSTRUMENTATION
AND TECHNIQUES - LEVEL 3

[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 (SIXTH SEMESTER)**
 - b. Name of the Subject: **MICROBIOLOGY: GE-3: ANALYTICAL INSTRUMENTATION AND TECHNIQUES - LEVEL 3**
 - c. Subject Code No: **2103000206030061**
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:

--	--	--	--	--	--

Student's Signature

Q.1 Give Specific answers:

8

1. What do you mean by Potentiometry?
2. Give the full form of LC-MS.
3. Define pH.
4. What is the function of nebulizer?
5. Name any two factors affecting migration of charged particles in electrophoresis.
6. Write any two examples of resins used in ion-exchange chromatography.
7. What is nuclear force?
8. Define Curie.

Q.2 Explain any two of the following:

14

1. Explain Significant Figures and Signal to Noise Ratio in detail.
2. Describe Southern Blot and Northern Blot technique in brief.
3. Describe the Functions of various parts of Flame Photometer.

Q.3 Explain any two of the following:

14

1. Discuss various instrument calibration techniques.
2. Explain principle, care and maintenance of centrifuge.
3. Write a short note on Safety Aspects of Radioisotopes.

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

14

1. Accuracy and precision for analytical instruments.
2. Gel filtration chromatography.
3. Principle behind Autoradiography.
