

1903001103020001
EXAMINATION NOVEMBER 2024
BACHELOR OF SCIENCE (BIOTECHNOLOGY) (THIRD SEMESTER)
BT-05 INSTRUMENTATION AND TECHNIQUES - LEVEL 2

[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 (BIOTECHNOLOGY) (THIRD SEMESTER)**
- b. Name of the Subject : **BT-05 INSTRUMENTATION AND TECHNIQUES - LEVEL 2**
- c. Subject Code No : **1903001103020001**

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:

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Student's Signature

Q.1 Define/Answer in short Any Four:

8

- (a) Which metal is used as an electrode in pH electrode?
- (b) Define Eluent.
- (c) Give full form of HPLC.
- (d) What is centrifugal force?
- (e) Give equation for Beer Lambert's Law.

Q.2 Attempt Any Two:

14

- (a) Explain calibration and maintenance of pH meter.
- (b) Explain how you calibrate pH meter.
- (c) Explain thin layer chromatography.

Q.3 Explain in detail Any Two:

14

- (a) Explain affinity chromatography.
- (b) Explain working of Gieger muller counter.
- (c) Explain different types of rotors used in centrifuge.

Q.4 Attempt Any Two of the following:

14

- (a) Write a short note on differential centrifugation.
- (b) Explain with diagram double beam spectrophotometer.
- (c) Explain how you find concentration of unknown solution using Spectrophotometer.
