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

[**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 (THIRD SEMESTER)**
   b. Name of the Subject : **BIOTECHNOLOGY LEVEL-2 BT-05 INSTRUMENTATION AND TECHNIQUES**
   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:

Student's Signature

Q.1 Define/Answer in short Any Four: **8**

a) Which solution is used in reference electrode of pH meter?
b) What is Rf value.
c) Define RCF.
d) Write difference between ionizing and non-ionizing radiation.
e) Give mathematical expression of Beer Lambert's law.

Q.2 Attempt Any Two: **14**

a) Write short note on Nernst equation.
b) Explain working of pH meter.
c) Explain how you will perform paper chromatography.

Q.3 Explain in detail Any Two: **14**

a) Write a short note on Cloud chamber.
b) Explain Mikhail Tsvet Experiment.
c) Write a short note on density gradient centrifugation.

Q.4 Attempt Any Two of the following: **14**

a) Explain care and maintenance of centrifuge machine.
b) Explain use of standard curve in determining concentration of unknown solution.
c) Explain with diagram double beam spectrophotometer.

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