

QP Code: 212020

Reg. No.....

**Second Year B.Sc Medical Biochemistry Degree Regular/Supplementary
Examinations February 2023**

Paper VII – Analytical Methods and Instrumentation

(2016 Scheme)

Time: 3 hours

Max: Marks: 100

- *Answer all questions to the point neatly and legibly* • *Do not leave any blank pages between answers* • *Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together* • *Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

Long Essays: (2x15=30)

1. Define Chromatography. Write in detail about principle, instrumentation and application of HPLC
2. Define Electrophoresis. Write in detail about principle, technique, and application of gel electrophoresis

Short Essays: (2x10=20)

3. Describe the ELISA. Add a note on its application
4. Describe radioisotopes and methods of measurement of radioactivity

Short Answers (6x5=30)

5. Radiation protection and disposal of radioactive wastes
6. Cell fractionation and its applications
7. Spectrophotometer vs. Colorimeter
8. Density gradient centrifugation
9. SDS PAGE and its applications
10. Atomic Absorption Spectrometry

Comment on (10x2=20)

11. Deviations of Beer-Lambert's law
12. Monochromators
13. Affinity Chromatography
14. ISE and its applications
15. Biological hazards of radioactivity
16. Selection of filters
17. Turbidimetry
18. Capillary electrophoresis
19. Applications of radioactivity
20. Principle of Paper Chromatography
