

QP Code: 212020

Reg. No.....

**Second Year B.Sc Medical Biochemistry Degree Supplementary
Examinations April 2019**

Paper VII – Analytical Methods and Instrumentation

(2016 Scheme)

Time: 3 hours

Max: Marks: 100

- **Answer all the questions**
- **Draw diagrams wherever necessary**

Long Essays:

(2x15=30)

1. Describe the principle, details of instrumentation and application of HPLC.
2. Define electrophoresis. Give the principle, technique and application of polyacrylamide gel electrophoresis (PAGE).

Short Essays:

(2x10=20)

3. What is ELISA. Describe the different types of ELISA, the various substrates and enzymes used. Add a note on its application.
4. What are radio isotopes. Discuss with suitable examples its role in diagnosis and treatment. Add a note on the handling of radioisotopes and the disposal of radioactive wastes.

Short Answer

(6x5=30)

5. Discuss the different types of rotors
6. Flame photometry.
7. Isoelectric focusing
8. Affinity chromatography.
9. Principle and instrumentation of pH meter.
10. Fluorometer

Comment on

(10x2=20)

11. Principle of colorimetry.
12. Partition coefficient.
13. Nephelometry
14. Factors affecting electrophoresis.
15. Density gradient centrifugation.
16. Biological effects of radiation.
17. Application of RIA.
18. Solubilizers.
19. Electromagnetic spectra.
20. Reverse phase chromatography
