

QP Code: 202020

Reg. No.....

Second Year B.Sc. Medical Biochemistry Supplementary Examinations

April 2017

ANALYTICAL METHODS AND INSTRUMENTATION

Time: 3 Hours

Total Marks: 80

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

Essay

(2x15=30)

1. What is ultra-centrifugation. Sub-cellular fractionation by differential centrifugation and how to determine the molecular weight using centrifugation.
2. Isotopes - definition, types, measurement, uses of radioactive isotopes in biochemistry and medicine. Add a note on disposal of radioactive wastes.

Short Essay

(2x10=20)

3. Principle, method and applications of ion exchange chromatography.
4. Describe different methods and applications of ELISA.

Short Notes

(4x5=20)

5. Flame photometer
6. Applications of gel electrophoresis.
7. Nephelometry and turbidimetry.
8. Immunoelectrophoresis.

Answer Briefly

(5x2=10)

9. Solubilizers
10. rpm
11. Labelled probes
12. Biological effects of radiation
13. Types of rotors
