



**BIOCHEMISTRY – I**  
**(Revised Scheme – 2)**

**Q.P. CODE: 9811**

Your answers should be specific to the questions asked.

Draw neat, labeled diagrams wherever necessary.

**Section A and section B are to be written in same Answer Book**

**Section A - Clinical Biochemistry [50 marks]**

**LONG ESSAY**

**2 X 10 = 20 Marks**

1. Discuss the types, metabolic alterations, clinical manifestations and management of Diabetes mellitus.
2. Discuss the structural organization of Proteins. Add a note on the bonds that stabilize the protein structure.

**SHORT ESSAY**

**5 X 6 = 30 Marks**

3. Diagnostically important enzymes
4. Cerebrospinal fluid and its clinical significance
5. Creatinine clearance
6. Classify plasma lipoproteins. Write a note on their transport and functions.
7. Arterial blood gas estimation and its clinical applications.

**Section B – Laboratory Principles & Techniques [50 marks]**

**LONG ESSAY**

**2 X 10 = 20 Marks**

8. Define electrophoresis. Explain the principle, procedure and application of Polyacrylamide gel electrophoresis.
9. Discuss the various aspects of laboratory designing in detail. Add a note on total quality management in a laboratory.

**SHORT ESSAY**

**5 X 6 = 30 Marks**

10. Explain the principles and applications of ultra-centrifugation.
11. Internal quality control
12. Write a note on disposal of chemical and biohazardous waste in a laboratory.
13. HPLC
14. Write a note on pH meter.

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