

**5 NATURE OF QUESTION PAPER - Theory**

MCQ Section A will be given to the candidate at the beginning of the examination. After 30 minutes Section A will be collected. Paper containing Section B and Section C will then be handed over to the candidate. Section B and Section C is to be written in separate answer sheets.

**SECTION -A**

Q.No. 1. Multiple choice questions (MCQs 30)  
(30 minutes duration) 15 marks.

**SECTION -B**

Q.No. 2. Write in brief (Any five out of six) 2marks each 10 marks.  
Q.No. 3. On applied Biochemistry (Any two out of three ) 8 marks.

**SECTION-C**

Q.No.4. Long question (A) 9 marks.  
OR  
Long question (B )  
Q. No.5 . Write short notes(any two out of three) 8 marks.

**6. PRACTICAL :**

Practical examination in Biochemistry will be of  
TWO hours duration 40 marks

**B) Exercise**

Q.1. : One quantitative experiment from group A 20 marks  
(15 marks for expt. & 5 marks for table viva)

Q.2. : One qualitative/ quantitative experiment from 15 marks  
group B.(10 marks for expt. & 5 marks for table viva)

Q.3. Spot identification from group C. 5 marks.

**Group A :**

Blood sugar, Blood urea; Serum total protein, Albumin and A/G ratio, Alanine amino transaminase(SGPT), Aspartate amino transaminase(SGOT) , Alkaline phosphatase, Serum amylase, Serum total bilirubin, Serum uric acid, Serum calcium, CSF sugar.

**Group B :**

Creatinine in urine, Serum cholesterol, Serum phosphorus, CSF protein, Tests for monosaccharides ( Benedict, Barfoed, Selivanoff, Nylander, rapid furfural) , Tests for disaccharides, Colour reactions of proteins, Precipitation reactions of proteins, Normal Organic constituents of urine, Abnormal constituents of urine.

**Group C :**

Identification of slide under microscope, Use of reagent. Significance of test. Use of Instrument /Appliances. Identification of Hb - derivative. Identification of GTT , Electrophoretogram and chromatogram.

Candidate will be allowed to use flow chart for quantitative exercise only.

There will be table viva on Q.1 & Q.2 exercise.

**7. SYLLABUS FOR PRACTICAL**

1. Tests for monosaccharides.
2. Tests for disaccharides.
3. Colour reactions of proteins.
4. Precipitation reactions of proteins.
5. Spectroscopic examination of Hb -derivatives (Oxy Hb; deoxy Hb; meth-Hb ).
6. Estimation of blood sugar.
7. Estimation of blood urea.
8. Estimation of i) Serum creatinine, ii) Creatinine in urine..
9. Determination of serum total protein ,albumin and A/G ratio.
10. Estimation of total serum bilirubin.
11. Estimation of serum cholesterol.
12. Estimation of serum calcium.
13. Estimation of serum phosphorus ( Inorganic)
14. Estimation of S.G.P.T( ALT ).
15. Estimation of S.G.O.T (AST).
16. Estimation of serum alkaline phosphatase.
17. Estimation of serum amylase.
18. Urine ; Physical characteristics and normal constituents ( organic )
19. Urine report; Physical characteristics and Abnormal constituents.
20. C.S.F.- Sugar & Protein.
21. Serum uric acid.

**Lecture –cum- Demonstrations :**

1. PH- measurement,
2. Colorimetry.
3. Electrophoresis.
4. Chromatography.
5. Flame photometry.