

**FOURTH YEAR B.Sc. DEGREE (PARAMEDICAL COURSES) EXAMINATION  
NOVEMBER 2020**

Medical Biochemistry

Paper XV—ORGANISATION OF CLINICAL LABORATORY AND LABORATORY  
MANAGEMENT

(2012 Admissions)

Time : Three Hours

Maximum : 100 Marks

*Answer any two questions.*

Essays :

1. Give an account of Automation in Biochemistry laboratories.
2. Name the various methods for the determination of blood glucose. Describe in detail about any *one* of them.
3. Discuss in detail about Reference Values and Observed Values.

(2 × 15 = 30 marks)

*Answer any two of the following.*

4. External Quality Assessment Schemes (EQAS).
5. Determination of Blood Urea.
6. Levy Jening's (LJ) Chart.

(2 × 10 = 20 marks)

*Answer any ten of the following.*

7. Fractions obtained in paper electrophoresis of serum.
8. Photoelectric Colorimeter.
9. Care of infected specimens.
10. Sodium Fluoride.
11. Circadian Variations.
12. Plasma Lipid Profile.

**Turn over**

13. Quality Control.
14. Specificity of a test.
15. Determination of Potassium Content in blood serum.
16. Usefulness of urine preservatives.
17. Stock reagents.
18. Laboratory First Aid.

(10 × 5 = 50 marks)

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**FOURTH YEAR B.Sc. (PARAMEDICAL COURSES) DEGREE EXAMINATION  
NOVEMBER 2020**

**Medical Biochemistry**

**Paper XIV—DIAGNOSTIC BIOCHEMISTRY—II (Organ Function Tests)**

(2012 Admissions)

Time : Three Hours

Maximum : 100 Marks

Essays (Answer any *two*) :

1. Detoxification functions of the liver.
2. Abnormal constituents of urine.
3. Renal stone analysis.

(2 × 15 = 30 marks)

Write briefly on any *two* of the following :

4. Markers of myocardial infarction.
5. Oral glucose tolerance test.
6. Glycated haemoglobin.

(2 × 10 = 20 marks)

Answer any *ten* of the following :

7. Estimation of thyroid hormones.
8. Specific gravity of urine.
9. Cystatin.
10. Vanden bergh reaction.
11. Pentagastrin test.
12. Reducing sugars in urine.
13. Radioactive iodine uptake.
14. Albumin globulin ration.
15. Galactose tolerance test.
16. Tests for tubular function of the kidney.
17. Urinary urobilinogen in the differential diagnosis of jaundice.
18. Estimation of creatinine in urine.

(10 × 5 = 50 marks)

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**FOURTH YEAR B.Sc. (PARAMEDICAL COURSES) DEGREE EXAMINATION  
APRIL 2021**

Medical Biochemistry

Paper XV—ORGANISATION OF CLINICAL LABORATORY AND  
LABORATORY MANAGEMENT

(2012 Syllabus)

Time : Three Hours

Maximum : 100 Marks

*Essays. Answer any two.*

1. Define preanalytical variables. Discuss its types.
2. Enumerate any two methods for the determination of serum proteins. Describe in detail about any one of them.
3. What do you understand by Quality Control (QC) ?

(2 × 15 = 30 marks)

*Answer any two of the following.*

4. Quality control charts (any one of them).
5. Total Quality Management (TQM).
6. Determination of SGPT and SGOT.

(2 × 10 = 20 marks)

*Answer any ten of the following.*

7. Suedberg unit (s).
8. Colorimetry.
9. Diagrammatic approach of Folin-WU tube.
10. Transport of specimens to a reference laboratory.
11. Ethylene Diamine Tetra Acetic acid (EDTA).
12. Reference values in clinical diagnosis.
13. Percentile of the reference distribution.
14. Control material in quality control process.
15. Determination of Serum amylase.
16. Buffer capacity.
17. Prognostic limit.
18. Storage and preservation of specimens of plasma or serum.

(10 × 5 = 50 marks)

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## FOURTH YEAR B.Sc. PARAMEDICAL COURSES EXAMINATION, APRIL 2021

## Medical Biochemistry

## Paper XIV—DIAGNOSTIC BIOCHEMISTRY—II (ORGAN FUNCTION TESTS)

(2012 Syllabus)

Time : Three Hours

Maximum : 100 Marks

I. Essays. Answer any *two* of the following :—

- 1 Creatinine clearance.
- 2 Abnormal constituent of urine.
- 3 Liver function tests based on abnormalities of bile pigment metabolism.

(2 × 15 = 30 marks)

II. Write briefly on any *two* of the following :—

- 4 Prothrombin index.
- 5 Tests based on thyroid function.
- 6 Glycated haemoglobin.

(2 × 10 = 20 marks)

III. Answer any *ten* of the following :—

- 7 Specific gravity of urine.
- 8 Pentagastrin stimulation test.
- 9 Lundh meal.
- 10 Titratable and total acidity of gastric juice.
- 11 Test for amino acids in urine.
- 12 Plasma proteins.
- 13 Estimation of creatinine in urine.
- 14 Radioactive iodine uptake.
- 15 Thyroid antibodies.
- 16 Lipid profile.
- 17 Reducing sugars in urine.
- 18 Cystatin.
- 19 Tests for detection of urobilinogen in urine.

(10 × 5 = 50 marks)