



PG CBCS  
M.Sc. Semester-I Examination, 2023  
MEDICAL LABORATORY TECHNOLOGY  
PAPER: MLT 103  
(CLINICAL BIOCHEMISTRY)

Full Marks: 40

Time: 2 Hours

The figures in the right-hand margin indicate full marks.  
Candidates are required to give their answers in their own words as far as practicable.

**GROUP-A**

Answer any **FOUR** questions:

2×4=8

1. What are glycosaminoglycans?
2. Define motif with example.
3. What is kcat?
4. Write down any two functions of vitamin B<sub>12</sub>.
5. Mention two differences between nucleoside and nucleotide.
6. What is half-life of radioisotope?

**GROUP-B**

Answer any **FOUR** questions:

4×4 = 16

7. Discuss the Lineweaver-Burk double reciprocal plot.
8. Why LDL is called bad cholesterol? Write down any two functions of lipoprotein.  
2+2
9. Write down the importance of phospholipid.
10. Write a short note on non-classical function of Vitamin-D.
11. Write a short note on Wobble hypothesis.
12. Discuss the role of isotopes in treatment and diagnosis of diseases.

**GROUP-C**

Answer any **TWO** questions:

8×2 = 16

13. Classify glycolipid with example. What is ceramide? Mention any two differences between glycerophospholipid and sphingophospholipid. 5+1+2
14. What is competitive inhibition? Write a short note on allosteric regulation and suicide inhibition. 2+3+3
15. Write down the RDA, sources and functions of vitamin B<sub>3</sub>.
16. Classify amino acids according to structure. Write down the functions of 'Myoglobin'. 5+3

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