

2025

M.Sc. 1st Semester Examination
BIOMEDICAL LABORATORY
SCIENCE AND MANAGEMENT

Paper : BMLC403X0

[Clinical Chemistry and Automation]

Full Marks : 50

Time : Two Hours

*The figures in the 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. Name any two specific liver function tests.
2. Mention normal total cholesterol level in adult male and female.
3. What is hyperuricemia?
4. Write the principle of glucose oxidase method.
5. What is the correct method of storing serum sample for analysing lipid profile 12 hours after collection?
6. What is macroamylasemia?

P.T.O.

(2)

Group - B

Answer any *four* questions : $4 \times 4 = 16$

7. State why sodium fluoride is used as anticoagulant for the determination of blood glucose level. Name any two cancer markers. 3+1
8. Discuss about the pentagastrin stimulation test. What is MAO? 3+1
9. Write the application of any two tumor markers. 2+2
10. Discuss about the care and precaution taken at the time of blood collection. 4
11. Name any two specific markers of pancreatic function test. Write clinical significance of any one marker. 2+2
12. Briefly discuss how carbonmonoxide toxicity assessments are done. 4

Group - C

Answer any *two* questions : $8 \times 2 = 16$

13. Which test is the most specific marker of liver function test and why? Classify different types of liver function tests with examples. (1+2)+5
14. Name any two specific cardiac markers. Discuss the changes of these two specific markers in myocardial infraction. 2+(3+3)

(3)

15. Write the advantages and disadvantages of single beam and double beam spectrophotometers. What are the differences between a semi-autoanalyser and full autoanalyser? 4+4
16. Mention any two tests used to assess renal functions along with their clinical significance. What is GFR? Write any three factors affecting GFR. 4+2+2

Internal Assessment - 10 marks
