H-4570

D. M. L. T. Examination

April - 2023

General Introduction of Biochemistry

Time : **3** Hours / Total Marks : **100**

Instructions : (1) Answer brief and to the point.
(2) Illegible answer will not fetch any marks.
(3) Each section to be answered in separate answer book.

SECTION - I

1 Define Coenzyme and Isoenzyme. Discuss enzyme profile of **15**
Liver function test with its clinical importance and normal value.

OR

Explain Oral Glucose Tolerance Test in detail with its different
types of graph in different clinical conditions.

2 Write short notes : (Any Three) **3×5=15**
(a) Centrifuge
(b) Give clinical significance of Creatine Kinase and Lactate
Dehydrogenase.
(c) Explain primary and secondary Hyper and Hypo - Thyroidism
(d) Explain basic principle of colorimeter.

3 (a) Answer briefly: (Any Six) **6×2=12**
(I) Explain precision in clinical laboratory testing.
(II) Why Benedict's test is called semi quantitative test?
(III) What is POCT? Give one example.
(IV) Sample rejection criteria.
(V) What is Oncofetal antigen?
(VI) Classification of chromatography.
(VII) Causes of increased uric acid level.

(b) Give full-form of following and explain : **8**
(I) NABL
(II) CLIA
(III) WDI
(IV) ISE

SECTION - II

4 Give details of Pre-analytical, Analytical and Post-analytical errors in Laboratory.

15

OR

Explain Internal quality control (IQC) and External Quality Assurance Scheme (EQAS) with its importance in clinical Biochemistry Laboratory.

5 Answer very briefly: (Any Five) **5×2=10**
- (a) Significance of Glycosylated Hemoglobin in Diabetes Mellitus.
- (b) Fluoride vaccutainers is used for the collection of blood samples to perform sugar estimation, why?
- (c) Explain why potassium estimation should not be done in hemolysed sample.
- (d) Enumerate lipid profile parameters with its range.
- (e) Explain renal threshold.
- (f) Advantages of automation in clinical laboratory.

6 Write short note on: (Any Five) **5×5=25**
- (a) Explain end point and kinetic reactions with suitable example.
- (b) Laboratory hazards.
- (c) Bilirubin metabolism.
- (d) Arterial blood gas analysis.
- (e) Electrophoresis.
- (f) Pipette calibration.