Seat No. _____

D. M. L. T. Examination

April - 2022

General Introduction of Biochemistry

Time : **3 Hours**]   [Total Marks : **100**

Instructions : (1) Figures to the right indicate full marks.

(2) Each section to be answered in separate answer book.

(3) Write answers to the point.

SECTION-I

1   Bilirubin Metabolism. Discus enzyme profile of Liver function   **15**
test with its clinical importance and normal value.

OR

1   Explain basic principle of colorimeter. Different methods of   **15**
estimation of plasma glucose in detail.

2   Write short notes on : (any **three**)   **3×5=15**
(a) Importance of urine analysis.
(b) Functions of albumin.
(c) Classification of amino acids.
(d) EQAS and its importance.

3   (a) Answer briefly : (any **six**)   **6×2=12**
(i)   Explain precision in clinical laboratory testing.
(ii) Name reducing substances gives Benedict's test positive.
(iii) Enumerate non protein nitrogenous compounds.
(iv) Why fluoride vacutainer is used for plasma glucose
estimation ?
(v)   Draw normal electrophoretic pattern of serum protein.
(vi) What is Bence Jones Proteins ?
(vii) Causes of Hypercholesterolemia.

(b) Give full-form of following and explain : 8
    (i) CLIA
    (ii) AST
    (iii) WDI
    (vi) SOP

SECTION-II

4 Give details of pre-analytical, analytical and post-analytical errors in laboratory. 15

OR

4 Automation in laboratories. 15

5 Answer very briefly : (any **five**) 5×2=10
    (a) Types of Chromatography.
    (b) Sample rejection criteria.
    (c) Explain why fasting blood sample is required for estimation of lipid profile.
    (d) Name vitamin and minerals absent in Milk.
    (e) Give normal value of serum urea and serum creatinine.
    (f) What is glycated Hemoglobin ?

6 Write short notes on : (any **five**) 5×5=25
    (a) Explain ELISA techniques in detail.
    (b) Different types of Vacutainer.
    (c) Renal Function Test.
    (d) Standard Universal Precaution.
    (e) LJ graph and its importance.
    (f) Tumor Markers.

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