

POST GRADUATE DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY
(P.G.D.M.L.T.)

P.G.D.M.L.T. : WINTER- 2022

SUBJECT : CLINICAL BIO-CHEMISTRY

Day : Monday

Time : 01:30 PM-04:30 PM

Date : 2/1/2023

W-25041-2022

Max. Marks : 100

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw **NEAT** and **LABELLED** diagrams **WHEREVER** necessary.

Q.1 Describe in detail the automation in clinical biochemistry laboratory. [15]

Q.2 What is normal blood pH? Describe the defense mechanisms involved in its regulation? Explain in detail the role of kidneys in regulation of pH? [15]

Q.3 Describe the principle, working and clinical applications of Colorimetry. Add a note on spectrophotometry. [15]

Q.4 Define carbohydrates. Classify them with suitable examples. Explain the reducing property of carbohydrates. [15]

Q.5 Write **short notes** on **Any FOUR** (out of **FIVE**) [20]

- a) Internal Quality Control in clinical biochemistry laboratory
- b) Glycolysis
- c) Abnormal constituents of urine
- d) Iron : functions, disorders and Laboratory investigations
- e) Factors affecting enzyme activity

Q.6 Write **short notes** on **Any FOUR** (out of **FIVE**) [20]

- a) Proteins: Definition, Classification and functions
- b) HbA1c (Glycated Hemoglobin)
- c) Centrifuge, Analytical balances, pH meter
- d) Lipoproteins
- e) Enzyme Inhibition

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