B.Sc., (MEDICAL LABORATORY TECHNOLOGY)

FIRST YEAR

Paper II. Basic Chemistry

Time: Three hours Wax.marks: 100

Answer ALL Questions

- 1. Write an essay on Acid- :se theory. (25)
- Classify Carbohydrates and proteins and write about the chemistry. (25)
- 3. Write short notes on:
 - a. Buffers
 - b. Co-enzymes
 - c. Phosphólipids
 - d. Mitochondria
 - Aromatic compounds of physiological importance.

 $(5 \times 10 = 50)$

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B.Sc., (MEDICAL LABORATORY TECHNOLOGY)

FIRST YEAR

Paper II - BASIC CHEMISTRY

Time: Three hours Max.Marks: 100

Answer ALL Questions.

- Classify lipids and discuss their properties and biological functions. (25)
- Draw the Electron Microscopic Structure of a cell and discuss the functions of Mitochondria, Ribosomes, Golgi Apparatus and the Nucleus. (25)
- 3. Write short notes on $(5 \times 10 = 50)$
 - (a) Buffers
 - (b) Aromatic compounds of Physiological importance
 - (c) Biological importance of Carbohydrates
 - (d) Classification and properties of proteins.
 - (e) Factors affecting enzyme reaction.

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B.Sc. (MEDICAL LABORATORY TECHNOLOGY) DEGREE EXAMINATION.

First Year

Paper II - BASIC CHEMISTRY

Time: Three hours

Maximum: 100 marks

Answer ALL questions.

- Discuss the classification of carbohydrates with suitable examples and their important properties. How will you test a carbohydrate in lab? Discuss the biological importance of carbohydrates.
- 2. (a) Define (i) pH of a solution (ii) Buffer solution.
 - (b) Mention any two buffer solutions present in our body.
 - (c) Discuss buffer mechanism and its role in our body.
 - (d) How is pH of a solution determined. (10)
- 3. Write short notes on: $(5 \times 10 = 50)$
 - (a) Nucleic acids and their structure.
 - (b) Aliphatic compounds of physiological importance.
 - (c) Phospholipids and their biological importance.
 - (d) Mitochondria and its role in our body.
 - (e) Cholesterol.

(MP 872)

B.Sc. (MEDICAL LABORATORY TECHNOLOGY) DEGREE EXAMINATION

First Year

Paper-II BASIC CHEMISTRY

Time: Three Hours Max:100 marks

Answer ALL Questions

- Define co-enzymes. Discuss the classification of enzymes and their nature. What are the factors affecting enzyme reaction. (25)
- 2. a) Define (i) oil (ii) fat (2)
 - b) What are fatty acids? (3)
 - c) Describe the properties and biological importance of lipids. (10)
 - d) Discuss the classification of lipids with suitable examples. (10)
- Write short notes on: (5x10=50)
 - a) Aromatic compounds of physiological importance.
 - b) Biological importance of steroids.
 - c) Nucleotides and nucleosides.
 - d) Hydrogen ion concentration and PH.
 - e) Hydrolytic products of protein.

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B.Sc. (MEDICAL LABORATORY TECHNOLOGY) DEGREE EXAMINATION

First Year

PAPER-II BASIC CHEMISTRY

Time: Three hours Max: 100 Marks

Answer ALL Unestions

- Discuss the classification of Carbohydrates with examples. Give one colour reaction for carbohydrates. How is blood glucose estimated by o-Toluidene method. Discuss the biological importance of carbohydrates. (25)
- a) Define PH of a solution (2)
 - b) What is ionic product of water? Give its importance. (3)
 - c) What is (i) buffer solution (ii) buffer action. Mention any two buffers present in our body. Explain the buffer mechanism with examples. (10)
 - d) How is PH of a solution determined by titration using indicators. Mention the importance of PH of blood. (10)

- Write short notes on: (5x10=50)
 - a) Biological importance of phospholipids.
 - Aliphatic compounds of physiological importance.
 - c) Essential amino acids
 - d) Mitochondria
 - e, Estimation of chalesterol.

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[SG 872]

Sub. Code: 5002

B.Sc. (Medical Laboratory Technology) DEGREE EXAMINATION.

First Year

Paper II — BASIC CHEMISTRY

Time: Three hours

Maximum: 100 marks

Answer ALL questions.

- 1. What are enzymes? Discuss the nature and classification of enzymes. What are the factors affecting enzyme reactions?
 2.5
- Discuss the classification, properties and biological functions of lipids.
- 3. Write short notes on :

 $(5 \times 10 = 50)$

- (a) Aliphatic compounds of physiological importance with examples.
 - (b) Organelles and their biological functions.
 - (c) Biological importance of steroid.
 - (d) Nucleotides and nucleosides.
 - (e) Hydrogen ion concentration and pH.

[KB 872] Sub. Code: 5002

B.Sc. (MEDICAL LABORATORY TECHNOLOGY) DEGREE EXAMINATION.

First Year

Paper II — BASIC CHEMISTRY

Time: Three hours Maximum: 100 marks

Answer ALL questions.

- Discuss classification of carbohydrates with examples. Discuss biological importance of carbohydrates. How is blood glucose estimated by O-toluidine method? (25)
- (a) What is buffer solution and buffer action? (2)
 - (b) Write a brief note on : Haemoglobin buffers. (3)
- (c) Discuss the classification of amino acids with suitable examples. (10)
- (d) How is serum protein estimated? Mention a colour reaction for protein. (10)
- 3. Write short notes on: $(5 \times 10 = 50)$
 - (a) Cell organelle
- (b) Aliphatic compounds of physiological importance
 - (c) Factors affecting enzyme reactions
 - (d) Structure of DNA
 - (e) Phosphoglycerides.