

AS/2110

## C1 - BIOCHEMISTRY &amp; METABOLISM (BHB 1)

5481/NH

Attempt two question from the each Section A and B and the section C is compulsory

Time 3 hrs

MM :74

## Section A

- |   |   |    |
|---|---|----|
| 1 | What is an Amino acid? Write down types of amino acid along with their structures               | 11 |
| 2 | a Define Glycoproteins. Discuss their biological functions                                      | 6  |
|   | b Write down a brief note on Mucopolysaccharides  | 5  |
| 3 | What are essential fatty acid? Write down the note on Phospholipids and Sphingolipids.          | 11 |
| 4 | a What is nucleotide? Describes in details the structure of various components of a nucleotides | 7  |
|   | b Write down the various forms of DNA   | 4  |

## Section B

- |   |   |    |
|---|---|----|
| 5 | Mention important properties of Enzymes. Give a brief account on classification of enzymes                            | 11 |
| 6 | Derive Michaelis-Menten equation. Discuss its significance  | 11 |
| 7 | How are different carbohydrates utilized in Glycolysis? Give a brief account of conversion of glucose to pyruvic acid | 11 |
| 8 | Elaborate the TCA cycle.  | 11 |

## Section C

- |   |                                   |    |
|---|-----------------------------------|----|
| 9 | Explain the following (2 x 15)    | 30 |
|   | i. Immunoglobins                  |    |
|   | ii. Zwitter ion                   |    |
|   | iii. Ramachandra Plot             |    |
|   | iv. Primary proteins              |    |
|   | v. Keratin                        |    |
|   | vi. Examples of tertiary proteins |    |
|   | vii. Chargaff rule                |    |
|   | viii. Lipoproteins                |    |
|   | ix. Glycolipds                    |    |
|   | x. Oligomeric enzymes             |    |
|   | xi. Metalloenzymes                |    |
|   | xii. Glycogenolysis               |    |
|   | xiii. Gluconeogenesis             |    |
|   | xiv. Cori cycle                   |    |
|   | xv. Iso enzyme                    |    |