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Total No. of printed pages = 02

**Monsoon, 2023**  
**BMLT Semester Examinations**  
**BIO CHEMISTRY-I**  
**Course Code: BML23103T**

**Full Marks – 60**

**Time – 2½ hours**

*The figure in the margin indicates full marks for the questions.*

**I. Answer the following questions** (10 x 1 = 10)

(i) Example of Ketohehexose

- |             |              |
|-------------|--------------|
| a. Fructose | b. Glucose   |
| c. Lactose  | d. Galactose |

(ii) Example of Sulfur containing aminoacids

- |               |               |
|---------------|---------------|
| a. Tyrosine   | b. Threonine  |
| c. Tryptophan | d. Methionine |

(iii) Two amino acids are linked together by

- |                   |                     |
|-------------------|---------------------|
| a. Hydrogen bonds | b. Glycosidic bonds |
| c. Peptide bond   | d. Covalent bonds   |

(iv) Example of volatile acid

- |                      |                  |
|----------------------|------------------|
| a. Hydrochloric acid | b. Carbonic acid |
| c. Nitric acid       | d. Leucine       |

(v) Start Codon codes for the amino acid

- |               |               |
|---------------|---------------|
| a. Tyrosine   | b. Threonine  |
| c. Tryptophan | d. Methionine |

(vi) This residue in Hemoglobin is responsible for buffering action

- |              |            |
|--------------|------------|
| a. cysteine  | b. lysine  |
| c. Histidine | d. Alanine |

(vii) Amino acids are attached to the \_\_\_\_\_ arm of tRNA

- |                   |                 |
|-------------------|-----------------|
| a. Anti codon Arm | b. Acceptor Arm |
| c. T arm          | d. Variable arm |

(viii) DNA is wrapped in \_\_\_\_\_ protein

- a. Collagen
- b. Histones
- c. Keratin
- d. None of the above

(ix) \_\_\_\_\_ nitrogenous base in DNA is replaced by uracil in RNA

- a. Cytosine
- b. Thymine
- c. Adenine
- d. Guanine

(x) Good cholesterol is also known as

- a. HDL
- b. LDL
- c. VLDL
- d. Chylomicrons

**2. Answer any five questions:** (5 x 2 = 10)

- a. Denaturation
- b. Zwitter ion
- c. Buffer
- d. Sucrose
- e. Rancidity
- f. Epimers

**3. Answer any four questions:** (4 x 5 = 20)

- a. Classify Monosaccharide and give examples
- b. Write in short about the buffer system in the body
- c. Classify Amino acids based on the nutritional value and give examples
- d. Tabulate the difference between DNA and RNA
- e. Write in brief the role of lungs and kidney in maintaining Acid bases hemostatis
- f. Homopolysaccharides

**4. Answer any two questions:** (2 x 10 = 20)

- a. Explain in detail the Structure of DNA
- b. Classify protein based on the solubility and chemical nature
- c. Classify Lipids and give examples