M.Sc. (M.L.T.) Biochemistry
(BF/2023/12)
Enzymology, Hormones and Nutrition
[Paper-II]

Time: 3 Hours   **Max Marks: 80**

Note: 1.   **Section A and B:- Question No. 1&2 are Compulsory and attempt any four question out of Question No. 3,4,5,6,7**

2. *ATTEMPT BOTH PARTS IN SINGLE ANSWER BOOK ONLY.*
3. *NO SUPPLEMENTARY SHEET SHALL BE ALLOWED/PROVIDED*
4. *The Student must write Q.P. Code in the space provided on the Title Page of the Answer Book.*

Section-A

Q. 1. Describe the metabolism and regulation of Iron in humans and enumerate functions of Phosphorus.   [10]

Q. 2. Write notes on: a.   Inhibitors of Electron transport chain   [5]
                             b.   Factors affecting enzyme activity   [5]

Q. 3. Write short notes on: a.   Biochemical function deficiency manifestation of vitamin B2 (Riboflavin)   [3]
                             b.   Manganese   [2]

Q. 4.   Describe   a.   Luteinizing hormone (LH)   [3]
                             b.   Dietary Fibre   [2]

Q. 5. Write short notes on: a.   Glycemic index   [3]
                             b.   Functions of Biotin vitamin   [2]

Q. 6. Discuss: a.   Male sex hormone   [3]
                             b.   Zinc   [2]

Q. 7. Write short notes on: a.   Iron deficiency anemia   [3]
                             b.   Cyclic AMP   [2]

Section-B

Q.1. Describe chemistry, biological importance, deficiency manifestations and daily requirement of vitamin D   [10]

Q. 2. Write notes on: a.   Enumerate hormones of anterior pituitary gland and give detail of one of the hormone.   [5]
                             b.   Functions of copper and diseases caused by abnormal metabolism of copper.   [5]

Q. 3. Write short notes on: a.   Isoenzymes and their clinical significance   [3]
                             b.   Metabolic changes during starvation   [2]

Q. 4.   Discuss: a.   G protein coupled receptors   [3]
                             b.   Regulatory enzymes   [2]

Q. 5.   Write short notes on: a. Role of protein and amino acid in diet.   [3]
                             b.   Hyperthyroidism   [2]

Q. 6. Discuss: a.   PEM (PROTEIN energy malnutrition)   [3]
                             b.   Molybdenum   [2]

Q.7. Write short notes on: a.   Biochemical function and deficiency manifestation of folic acid.   [3]
                             b.   Biological oxidation