

**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

[AHS 1123]

**NOVEMBER 2023**

**Sub. Code: 5002**

**B.Sc. MEDICAL LABORATORY TECHNOLOGY  
FIRST YEAR (Regulations 2010-2011 & 2018-2019 onwards)**

**PAPER II – BASIC CHEMISTRY**

*Q. P. Code: 725002*

**Time: Three Hours**

**Maximum : 100 Marks**

**Answer All questions**

**I. Elaborate on :**

**(3 X 10 = 30)**

1. What are Trace elements? Write in detail about the chemistry and biological functions of Vitamin A.
2. Classify Lipids. Write in detail structure, functions and biological importance of Lipids.
3. Classify Aminoacids. Add a note on functions of Protein.

**II. Write Notes on :**

**(8 X 5 = 40)**

1. Enzyme inhibitors.
2. Denaturation of proteins.
3. Structure and functions of Insulin.
4. Define pH. What is Henderson equation?
5. tRNA – structure and function.
6. Lewis concept of acid and base.
7. Sources, requirement and functions of Thiamine.
8. Nitrogen balance.

**III. Short Answers on :**

**(10 X 3 = 30)**

1. Structure of DNA.
2. Nucleosides.
3. Isoelectric pH.
4. Give three examples for enzymes.
5. Arachidonic acid.
6. Give three examples for Indicators.
7. Specific dynamic action.
8. Biological importance of Phospholipids.
9. Holoenzymes.
10. Rancidity of fats.

\*\*\*\*\*