



( 2 )

Write short notes on any **two** of the following :

- (a) Principles of Thermodynamics
- (b) Non-covalent Bonds
- (c) Principles of Chromatography

**Unit-II**

3. Explain urea cycle in detail.

**OR**

Write short notes on any **two** of the following :

- (a) Deamination and Decarboxylation of protein
- (b) Classification of amino acid
- (c) End group analysis of protein

**Unit-III**

4. Describe  $\beta$ -oxidation of fatty acids in detail.

**OR**

Write short notes on any **two** of the following :

- (a) Functions of lipids
- (b) Salvage pathway of nucleic acid
- (c) Isoprenoids

( 3 )

**Unit-IV**

5. Write the classification of sugar with suitable examples.

*OR*

Write short notes on any **two** of the following :

- (a) Glycolysis
  - (b) Types of polysaccharide
  - (c) Electron transport chain
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