Exam. Code : 107403
Subject Code : 2262

B.Sc. Biotechnology 3rd Semester

BIOCHEMISTRY—III

Paper—BT-3

Time Allowed—3 Hours] [Maximum Marks—40

Note :—(1) Attempt **ALL** parts from Section A. Each question carries **1** mark.

(2) Attempt any **FIVE** questions from Section B. Each question carries **4** marks.

(3) Attempt any **TWO** questions from Section-C. Each question carries **6** marks.

SECTION—A

1. (i) Catabolism and anabolism.
   (ii) Biological oxidation.
   (iii) Gluconeogenesis.
   (iv) Total ATP synthesis in glycolysis.
   (v) Adenosine triphosphate.
   (vi) Pyruvate dehydrogenase.
   (vii) ATP synthase.
   (viii) Chemiosmotic hypothesis.

SECTION—B

2. Biological oxidation and reduction reaction.
3. Principles of bioenergetics.
4. Glycolysis.
5. Regulation of carbohydrate catabolism.
6. Amphibolic nature of Kreb's cycle.
7. Glyoxylate pathway.
8. Oxidative Phosphorylation.
9. Regulation of ATP synthesis.

SECTION—C

10. Mention the basic principle of metabolism and its relevance in living organism.
11. Write down the biosynthesis and degradation of Carbohydrates.
12. Explain Kreb's cycle and its regulation.
13. Discuss electron transport chain and its significance.