

**(2012 Scheme)**

**APPLIED BIOCHEMISTRY & MOLECULAR BIOLOGY**

**Time: 3 Hours**

**Total Marks: 100**

- Answer all Questions.
- Write equations wherever necessary.

**Essay**

**(3x10=30)**

1. What are ketone bodies. Explain the steps involved in the synthesis of ketone bodies.
2. Discuss the various cell organelles with the help of a neat diagram.
3. Discuss the urea cycle and its metabolic disorders.

**Short notes**

**(14x5=70)**

4. Glycolysis
5. What are iso-enzymes and how it is useful in diagnosis.
6. Define and classify lipids.
7. Biosynthesis of cholesterol.
8. Hyperbilirubinemia
9. Substrate level phosphorylation.
10. Essential amino acids.
11. Biosynthesis of purine nucleotide.
12. Structure of DNA
13. Why sucrose is non reducing.
14. Diabetes mellitus
15. Classification of carbohydrates with examples.
16. Co-enzyme
17. Sphingolipids.

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