

2010 Scheme

QP CODE: 207006

Reg. No:

Second Year B. Pharm Degree Supplementary Examinations July 2023 Applied Biochemistry & Molecular Biology

Time: 3 Hours

Total Marks: 100

- *Answer all questions to the point neatly and legibly* • *Do not leave any blank pages between answers* • *Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together* • *Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary.*

Essay

(3x10=30)

1. Define enzymes. Enumerate and explain the factors affecting the rate of enzyme activity.
2. What is De novo biosynthesis. Explain the reactions involved in the De novo biosynthesis of fatty acids.
3. Explain glycolysis and its significance in detail.

Short Notes

(14x5=70)

4. Production and biological significances of Cyclic AMP.
5. Write short notes on oxidative phosphorylation.
6. Define co-enzymes. Write the coenzyme forms and biochemical functions of Riboflavin and Thiamine.
7. Significances of Hexose Mono Phosphate (HMP) shunt.
8. Causes and preventive measures of Hypercholesterolemia.
9. Explain the three modes of DNA replication.
10. Types and causes and Hyperbilirubinemia.
11. Enumerate examples of nucleotides along with their biological roles.
12. Structure and functions of DNA.
13. What is DNA damage. Explain any one mechanism of DNA repair.
14. Enumerate and explain the various DNA detection methods.
15. Catabolism of tyrosine and its metabolic disorders.
16. Role of insulin in the regulation of carbohydrate metabolism.
17. Determination of free energy changes from the equilibrium constant.
