

2012 Scheme

QP CODE: 217006

Reg. No:

Second Year B. Pharm Degree Supplementary Examinations July 2025

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
- Write equations wherever necessary.

Essay

(3x10=30)

1. Give an account on mechanism of enzyme action and theories of enzyme action.
2. Discuss about HMP shunt and its significance.
3. Explain a) Metabolism of sulfur containing amino acids.
b) Synthesis and significance of Histamine and Adrenaline. (6+4)

Short notes

(14x5=70)

4. Briefly explain facilitated diffusion and active transport across biological membranes.
5. Write the formation and physiological roles of ATP.
6. Write nomenclature and IUB classification of enzymes.
7. Define Gibb's free energy and Redox potential.
8. Enzymes and co-enzymes involved in Biological oxidation.
9. Structures and chemical tests for identification of Fructose and Sucrose.
10. Briefly outline glycolysis and its significance.
11. Classification and biological role of lipids.
12. Illustrate the biosynthesis of Prostaglandins and thromboxanes.
13. Metabolic disorders associated with Urea cycle.
14. Summarize the de novo synthesis of purine nucleotides
15. Enumerate the Structure and function of chromosomes.
16. Brief account on Genetic engineering.
17. Explain about DNA damage and its repair mechanism.
