

**Second Year B.Pharm Degree Supplementary Examinations
December 2017
Applied Biochemistry & Molecular Biology**

(2012 Scheme)

Time: 3 Hours

Total Marks: 100

- Answer all Questions.
- Write equations wherever necessary.

Essay

(3x10=30)

1. Describe the process of glycogenesis and glycogenolysis. Add a note on its regulation.
2. What are enzymes and classify them with example as per IUB recommendation. Discuss its mechanism of action.
3. Describe genetic engineering in detail.

Short notes

(14x5=70)

4. Transport process across the cell membranes
5. Define bio energetic and discuss concept of free energy
6. Clinical applications of enzymes
7. Hormonal regulation of carbohydrate metabolism
8. Ketosis
9. Essential fatty acids
10. Metabolism of tryptophan and its metabolic disorders
11. Polymerase chain reaction
12. Mechanism of oxidative phosphorylation
13. Vitamins as co-enzymes and its biochemical significance
14. Hyperbilirubinemia
15. Synthesis and significance of creatine
16. Chromosomal disorders
17. DNA replication
