

Second Year B.Pharm Degree Examinations - October 2013

APPLIED BIOCHEMISTRY & MOLECULAR BIOLOGY

Time: 3 Hours

Total Marks: 100

- Answer all Questions.
- Draw diagrams wherever necessary.

Essay

(3x10=30)

1. Define nucleic acid. Discuss the chemistry and biological role of nucleosides and nucleotides. (2+4+4=10)
2. Describe the citric acid cycle in detail with its energetic. (6+4=10)
3. Explain the various factors which affect the enzyme activity. (10)

Short notes

(14x5=70)

4. Hormonal regulation of carbohydrate metabolism.
5. DNA replication.
6. Explain briefly the uronic acid pathway.
7. Explain the mechanism of enzyme action.
8. Explain about redox potential.
9. Mention the classification of amino acid.
10. Oxidative phosphorylation.
11. Explain the HMP shunt and its biochemical significance.
12. Explain briefly atherosclerosis.
13. Structure of RNA and its significance in protein synthesis.
14. Catabolism of tyrosine and its metabolic disorders.
15. DNA detection methods for diagnosis of disease.
16. Synthesis and significance of histamine.
17. Synthesis of pyrimidine nucleotides.
