Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Pharm Degree Examination – DEC-2014

Time: Three Hours **Max. Marks: 70 Marks**

APPLIED BIOCHEMISTRY
(Revised Scheme 3)

Q.P. CODE: 2609

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. List out the various factors influencing enzyme activity and derive an equation to show enzyme activity is proportional to substrate concentration.
2. What is deamination of amino acids? Discuss urea cycle along with its significance.
3. Discuss β oxidation of saturated and unsaturated fatty acids and its energetics.

SHORT ESSAYS (Answer any Six) **6 x 5 = 30 Marks**

4. Explain the term free energy. How is it determined from equilibrium constant?
5. Outline the significant reactions of glycogenolysis, mention the enzymes and cofactors involved.
6. Explain the biological role of nucleotides.
7. Outline the reactions of the respiratory chain.
8. Describe the formation and utilization of ketone bodies. Add note on its significance.
9. Describe any two kidney function tests.
10. Explain Competitive inhibition with example.
11. Explain transamination reaction with its significance.

SHORT ANSWERS **10 x 2 = 20 Marks**

12. Write about the role of cytochromes.
13. What are phospholipids? Name the membrane phospholipids.
14. What are lipoproteins?
15. What is allosteric enzyme? Give one example.
16. Name sulfur containing amino acids with structure.
17. Cyclic AMP.
18. Deficiency of vitamin C.
19. Explain the terms, template and primer with respect to DNA replication.
20. What are the actual sites of phosphorylation in the respiratory chain?
21. Define Essential fatty acids with examples.

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