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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Pharm Degree Examination – Aug / Sep 2011

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. What are enzymes? Classify them with examples and describe the mechanism of action of enzymes
2. Describe the de novo biosynthesis of fatty acids
3. Describe the reactions of HMPS pathway and add a note on its importance

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

4. Describe the chemiosmotic theory to explain ATP formation
5. Define Km and Vmax. Explain the significance of each with an example
6. Name a test to assess the metabolic function of liver and describe the same
7. Describe the alpha-ketoglutarate dehydrogenase complex and reaction catalysed
8. Describe the mitochondrial β-oxidation reactions of fatty acids
9. Describe the reactions involved in the conversion of tyrosine to epinephrine
10. Discuss about non-essential aminoacids
11. Describe the role of folic acid as a coenzyme

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

12. What is enzyme induction? Give an example
13. Define transcription and name the enzymes involved
14. What is coenzyme Q? Mention its role
15. Describe the BSP test in brief
16. Name the rate regulating enzyme of cholesterol synthesis and one inhibitor
17. What is transamination? Give an example
18. List out enzymes used in replication process
19. What is termination codon? Give an example
20. Define urea clearance and mention its normal value
21. Write the chemical structure of UDP-glucose and mention its role

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