

**Rajiv Gandhi University of Health Sciences, Karnataka**  
**II Year B.Pharm Degree Examination – Mar 2013**

**Time: Three Hours****Max. Marks: 80 Marks****APPLIED BIOCHEMISTRY (RS - 2)****Q.P. CODE: 1959**

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. Describe the biosynthesis of cholesterol in the body and give its significance.
2. Give the classification of amino acids and describe the reactions involved in the metabolism.
3. Define coenzymes and discuss the important role of various types of coenzymes.

**SHORT ESSAYS (Answer any Eight)****8 x 5 = 40 Marks**

4. Describe the glucose tolerance test [GTT].
5. What is gluconeogenesis? Explain the reactions involved in it.
6. Give the daily requirement, functions and deficiency disorders of vitamin D.
7. Explain electron transport chain with sites of ATP formation.
8. Describe the double helical structure of DNA.
9. Explain uronic acid pathway.
10. Describe the structure and functions of t-RNA.
11. Describe the catabolism of purine nucleotides.
12. What is enzyme? Give the IUB classification of enzymes.
13. Explain substrate level phosphorylation and oxidative phosphorylation.

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

14. Define enzyme inhibition.
15. Name the sulphur containing amino acids and give the structure of any one.
16. Name the ketone bodies and give their structure.
17. Write the significance of HMP Pathway.
18. What is turn over number of an enzyme?
19. What is alcaptanurea?
20. Define apo enzyme and holo enzyme.
21. Define mutation.
22. Define hyperbilirubinemia.
23. Name the uncouplers of ETC.

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