

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – Aug 2013

Time: Three Hours

Max. Marks: 80 Marks

BIO-CHEMISTRY (RS-3 & RS-4)

Q.P. CODE: 2703

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

LONG ESSAYS (Answer any Two)

2 x 10 = 20 Marks

1. Define Glycolysis. Enumerate the steps of glycolysis and add a note on its energetics and regulation.
2. Define β - Oxidation. Describe the steps of β - Oxidation. Give the energetics for the oxidation of palmitic acid.
3. Write on sources, RDA, functions and deficiency manifestations of Vitamin A.

SHORT ESSAYS (Answer any Eight)

8 x 5 = 40 Marks

4. Functions of Lipoproteins
5. Define isoenzymes. Discuss on any two clinically important isoenzymes.
6. Describe the regulation of blood calcium.
7. Define and explain Creatinine test and add a note on its importance.
8. Describe Micelle formation.
9. Describe the structure of collagen.
10. Role of respiration in acid base balance
11. Glycogenesis and its regulation
12. Watson & Crick model of DNA.
13. Allosteric regulation of enzyme

SHORT ANSWERS

10 x 2 = 20 Marks

14. Essential fatty acids
15. Glutathione
16. Functions of iron
17. Give the normal values of a) Serum sodium b) Serum Potassium
18. Albinism
19. Lactose
20. What is nitrogen balance? Give one example each for positive and negative nitrogen balance.
21. Name any four special compounds derived from Glycine.
22. Give the normal values of a) Serum AST b) Serum Phosphorus
23. Mention two biotin dependent carboxylation reactions.
