

**Rajiv Gandhi University & Health Sciences, Karnataka****I Year 13, P.T. Degree Examination - APRIL-2019**

Time Three Hours

Max. Marks: 50 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 = 10 Mar**

1. Explain sources, daily requirement, functions and deficiency manifestations of vitamin A.
2. Mention the steps of Tricarboxylic acid cycle. Add a note on energetics.
3. What is normal blood pH? Explain the role of kidneys in maintaining acid base balance.

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

4. Functions of calcium
5. Explain briefly the process of muscle contraction.
6. Explain the steps of Glycogenolysis,
7. Structural classification Of amino acids
8. What are lipoproteins? Mention the functions of lipoproteins
9. What are the difference between kwashiorkor and Marasmus?
10. Urea cycle
11. Mention the factors affecting enzyme activity.
12. Explain Ketogenesis,
13. Classify diabetes mellitus. Write the complications of diabetes mellitus

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

14. Enumerate any two functions of iron.
15. Functions of collagen.
16. Enumerate any two hormones regulating blood glucose.
17. Write any two causes of metabolic acidosis.
18. What is the role of ADH in regulation of water?
19. Enumerate any two functions of Phospholipids.
20. What is the normal osmolarity of blood?
21. Name any two preservatives used for storage of urine.
22. Enumerate any four rich sources of iron.
23. Enumerate deficiency manifestations of Thiamine, Vitamin C.

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