Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. (M.L.T) Degree Examination – MAY 2016

Time: Three Hours **Max. Marks: 80 Marks**

BIOCHEMISTRY – III (RS-2)

Q.P. CODE: 2901

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. Define isoenzyme. Define any two units of enzyme activity. Explain the diagnostic importance of enzymes in pancreatic and bone disease.
2. Classify plasma proteins. Write the procedure and neatly labelled diagram of electrophoresis separation of serum proteins.
3. Describe the sources, daily requirement and normal levels of calcium. Enumerate any five functions of calcium. Explain briefly how calcium level is regulated.

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

4. Enumerate the functions of liver.
5. Write the procedure and utility of ELISA.
6. Explain the regulation of acid base balance.
7. Enumerate any three cardiac biomarkers. Explain the chronobiogram and clinical utility of cardiac troponin.
8. Classify the liver function test with examples.
9. Explain briefly how to manually analyse renal stones.
10. Write the principle and applications of radio immuno assay.
11. Write the normal level of sodium. Write any two causes of hyponatremia and hypernatremia.

SHORT ANSWERS (Answer any Ten) **10 x 3 = 30 Marks**

12. Enumerate the inhibitors of transcription and translation.
13. Enumerate any one cause each of Hyperkalemia and Hypokalemia.
14. What is coefficient of variation? Explain with suitable example.
15. Enumerate different forms and location of creatinine kinase.
16. Enumerate the diagnostically important enzyme in liver disease.
17. Write LJ chart with a suitable example.
18. Enumerate the enzymes used to diagnose pancreatitis and write their normal values.
19. Define and write the normal levels of anion gap.
20. What is the utility of PCR?
21. What are the causes of congenital jaundice?
22. Enumerate the steps of DNA replication.
23. Enumerate the steps of protein synthesis.

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