Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. (M.L.T) Degree Examination – MARCH 2018

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

BIOCHEMISTRY – II

Q.P. CODE: 3156

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. Discuss the IUBMB system of Enzyme classification with suitable examples. Describe any three factors affecting velocity of enzyme catalysed reaction.
2. Give a detailed account of the operation of TCA cycle. Discuss its regulation and energetics. Add a note on its amphibolic role?
3. Outline the pathway of catabolism of phenyl alanine. Discuss the biochemical abnormality, clinical features and laboratory diagnosis of Phenylketonuria.

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

4. Explain the principle and procedure of Ammonium chloride loading test. Discuss the urinary PH measurement and the interpretation.
5. Paper chromatography-Principle and procedure for separation of amino acids.
6. How is Oral GTT carried out? Explain the different types of curves obtained.
7. Define "primary structure" of proteins. Explain the primary structure of insulin.
8. Coenzyme form of Thiamin and its biochemical functions.
9. Principle and uses of reflectance photometry.
10. List out various preservatives used during urine collection. Mention three tests for abnormal constituents of urine.
11. Give the detailed procedure for carrying out Endogenous Creatinine Clearance test. Discuss the clinical significance.

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

12. How is deproteinisation carried out for blood Uric acid by Phosphotungstic acid method and Glucose by Folin Wu method?
13. Define Osmolality. Give the principle of Freezing point depression Osmometry.
14. Describe the functions of DNA and RNA.
15. What is a Glucometer? Discuss its use, advantages and disadvantages.
16. Discuss different types of water grades used in the laboratory. Add a note on the NCCLS specifications for laboratory water.
17. What is Glycated HbA1c? Give its clinical significance.
18. List out the physical characteristics of Normal urine. How is specific gravity of the urine measured?
19. Explain salting out of proteins with suitable example.
20. Name three CSF components for biochemical examination. Give the principle of quantitative estimation of any two analytes.
21. Urea cycle
22. Give the functions of Vitamin B12 and Folic acid.
23. Define microalbuminuria. Give the biological reference intervals and the clinical significance.

*****