QP Code : 102383 **Reg . No.....**

First Year M.Sc. MLT Degree Examinations - February 2013
(Biochemistry)

PAPER - II ENZYMOLOGY , METABOLISM AND INBORN ERRORS OF METABOLISM

Time: 3 hrs. **Max. marks : 100**

- *Answer all questions*
- *Draw diagrams wherever necessary*

Essays: **(10x10 = 100)**

1. What is IUBMB .Classify enzymes according to the IUBMB classification with examples. Mention two differences between competitive and noncompetitive inhibition of enzymes. (2+ 6+2)
2. Discuss Embden -Meyerhof pathway (aerobic and anaerobic) for Glycolysis. Add a note on its energetics. (8+2)
3. Explain in detail the metabolism of tyrosine . Add a note on any two important substances derived from Tyrosine. (8+2)
4. Short notes • differential diagnosis of jaundice • Synthesis of creatine phosphate and its importance. (5+ 5)
5. Short notes: • Acetyl Co A • Ketogenesis and utilization of Ketone bodies. (5+5)
6. Discuss briefly: • Regulation of cholesterol synthesis • lipoprotein structure (5+5)
7. What is an inborn error of metabolism. Mention the enzyme defect, lab test and clinical signs to detect Von Gierke's disease, Niemann -Picks disease and Cutanea porphyria tarda. (1+3+3+3)
8. Schematically name and represent the components of electron transport chain. Add a note on mechanism of oxidative phosphorylation by chemiosmotic theory. (6+4)
9. What is a genetic mutation. Explain point and frame shift mutations . What is Down's syndrome and name any three tests for the screening of down's syndrome. (2+4+4)
10. Role of lipids in atherosclerosis and coronary heart disease .Add a note on serum lipid profile and their reference ranges. (6+4)

****