QP Code : 102383 **Reg . No……**

First Year M.Sc. MLT Degree Supplementary Examinations – August 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. Explain effect of various factors on enzyme activity
2. Explain the applications of enzymes as diagnostic reagents with four examples
3. Discuss the reactions of hexose monophosphate shunt and explain the significance of this pathway. (5+5)
4. Mention the normal fasting and post prandial blood glucose levels. Explain the hormonal regulation of blood glucose (2+8)
5. Explain the organization of mitochondrial respiratory chain . Add a note on inhibitors of oxidative phosphorylation. (7+3)
6. Explain the formation and detoxification of ammonia in our body (5+5)
7. Name any five inborn errors of amino acid metabolism, mention the enzyme defect, biochemical abnormalities and clinical manifestations .
8. Mention the chemical composition of cerebrospinal fluid. Enumerate the methods for estimation of glucose and proteins in CSF, and the interpretation of these tests. (2+4+4)
9. Name the abnormal chemical constituents of urine, mention the test for these constituents
10. Outline the heme synthesis pathway. Define porphyria. Mention the enzyme defect, biochemical abnormalities and clinical manifestation of acute intermittent porphyria. (5+2+3)

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