

QP Code : 102383

Reg . No.....

**First Year M.Sc. MLT Degree Examinations – October 2014
(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 the importance of HMP pathway. Discuss the clinical significance of enzyme deficiencies associated with this pathway.
2. Classify the enzymes with examples. What are isoenzymes and site an example for isoenzymes.
3. Explain the detoxification of ammonia in our body.
4. Describe the mechanism of oxidative phosphorylation. Add a note on uncouplers
5. Explain how uric acid is formed. Discuss the causes of hyperuricemia and clinical conditions associated.
6. What are inborn errors of metabolism. Mention the enzyme defects, biochemical consequences and clinical abnormalities in any four inborn errors of amino acid metabolism
7. Outline the pathway of haem biosynthesis. Add a note on porphyrias.
8. Explain the causes of fatty liver. Enumerate the lipotropic factors.
9. Name the catecholamines and how they are formed . Mention the importance of urinary vanillyl mandelic acid (VMA) assay .
10. Explain the effect of substrate concentration, temperature and pH on enzyme activity.
