

**First Year M.Sc. MLT Degree Supplementary Examinations May 2018**  
**(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. Describe the synthesis of heme. Enumerate the inborn errors associated with the synthesis of heme and the biochemical tests done for their diagnosis. (5+2+3)
2. Define obesity. What are the biochemical changes in obesity. Add a note on insulin resistance. (1+6+3)
3. Describe the tests to assess fetal lung maturity. (10)
4. Describe the synthesis of melanin. Add a note on associated disorders. (5+5)
5. Enumerate the types of enzyme inhibition with suitable examples
6. Define gluconeogenesis. How glucose is synthesized from alanine. (2+8)
7. Enumerate the high energy compounds. Describe the synthesis of any two of them (4+6)
8. Differentiate the different types of jaundice based on the laboratory findings.
9. What is the active form of methionine and how it is formed. Describe its biochemical role (1+5+4)
10. Outline the synthesis of cholesterol. Add a note on its regulation. (7+3)

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