

First Professional MBBS Degree Examinations - August 2016**BIOCHEMISTRY- PAPER I****Time: 3 Hours****Total Marks: 50**

- Answer all questions
- Draw diagrams wherever necessary

Essay (10)

1. Trace the pathway of gluconeogenesis starting from alanine. Mention the key enzymes and how they are regulated. (5+3+2=10)

Short essays (2x5=10)

2. Define carnitine and explain its role in oxidation of fatty acids.
3. Explain different types of enzyme inhibition giving suitable examples

Short notes (5x3=15)

4. Essential fatty acids.
5. Name different lipases involved in lipid metabolism and mention its functions .
6. Transamination
7. Heat coagulation
8. Michaelis Menten constant

Answer briefly (5x2=10)

9. Pro-enzymes
10. Invert sugar
11. Von Gierke's disease
12. Essential pentosuria
13. Substrate level phosphorylation

Give precise answers (5x1=5)

14. Name the rate-limiting enzyme in fatty acid synthesis
15. What is GABA and mention its function
16. Mention the enzyme deficient in Tay Sach's disease
17. Mention any two compounds derived from cholesterol
18. Name two carbon dioxide releasing steps in the TCA cycle.
