



**Code: 105001**

**Reg. no.: .....**

**First Professional MBBS Degree Examinations, August 2012**

**BIOCHEMISTRY- PAPER I**

**Time: 3 Hours**

**Total Marks: 50**

- Answer all questions
- Draw diagrams wherever necessary

**Essay**

**(10)**

1. Mention the reactions by which glycine is synthesized and catabolized. Add a note on the specialized products formed and mention the disorders associated with glycine metabolism. (2+6+2=10)

**Short essays**

**(2x5=10)**

2. Fatty acid synthase complex.
3. Describe the reactions of urea cycle. Discuss the interrelationship between urea cycle and citric acid cycle.

**Short notes**

**(5x3=15)**

4. Mention three examples of transmethylation reactions.
5. Ketosis
6. Secondary structure of proteins.
7. Importance of glutamine.
8. Covalent modification.

**Answer briefly**

**(5x2=10)**

9. Hartnup's disease.
10. Classification of glycolipids.
11. Uncouplers of oxidative phosphorylation.
12. Functions of cholesterol.
13. Significance of HMP shunt

**Give precise answers**

**(5x1=5)**

14. Enzyme defect in maple syrup urine disease.
15. Epimer of glucose.
16. Normal level of serum albumin.
17. Name the biochemical test for phenylketonuria.
18. Important product of Rapaport- Leubering cycle in RBC

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