

**QP Code: 105001****Reg. no.: .....**

First Professional MBBS Degree Supplementary Examinations, February 2013

**BIOCHEMISTRY- PAPER I****Time: 3 Hours****Total Marks: 50**

- Answer all questions
- Draw diagrams wherever necessary

**Essay****(10)**

1. Describe by a flow diagram the reactions of glycolysis giving names of enzymes involved. Explain its regulation and add a note on the energetic in aerobic & anaerobic conditions. (6+2+2=10)

**Short essays****(2x5=10)**

2. What are essential fatty acids. Enumerate them. List two functions and one deficiency manifestation. (1+2+2=5)
3. Explain the digestion and absorption of carbohydrates. (2+3=5)

**Short notes****(5x3=15)**

4. Alpha helix
5. Explain, why blood is collected in a fluoride tube for glucose estimation.
6. Glucose Alanine cycle
7. Enzymes as markers of myocardial infarction
8. Transamination

**Answer briefly****(5x2=10)**

9. What is substrate level phosphorylation. Mention one example.
10. What are lipotropic factors. Name any two lipotropic agents.
11. Four functions of cholesterol
12. Why TCA cycle is called amphibolic.
13. Two co-enzymes roles of NADPH

**Give precise answers****(5x1=5)**

14. One therapeutic use of enzyme
15. Compound that facilitates the release of O<sub>2</sub> from oxyhaemoglobin
16. Lipoprotein involved in reverse cholesterol synthesis
17. Enzyme deficiency in Mc Ardle syndrome
18. Enzyme defect in Lactose intolerance

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