



**Q.P. Code: 105001**

**First Professional MBBS Degree Supplementary Examinations -  
February 2015**

**BIOCHEMISTRY- PAPER I**

**Time: 3 Hours**

**Total Marks: 50**

- Answer all questions
- Draw diagrams wherever necessary

**Essay**

**(10)**

1. Explain the reactions of glycogenesis and glycogenolysis in flow diagrams. Describe how these processes are regulated. (4+4+2=10)

**Short essays**

**(2x5=10)**

2. Describe the role of lipoproteins in cholesterol transport.
3. Chemiosmotic mechanism of ATP synthesis.

**Short notes**

**(5x3=15)**

4. What is active methionine. Mention two examples of transmethylation reaction.
5. What is glucose alanine cycle and mention its significance.
6. Fatty liver
7. Name different types of specificity shown by enzymes with examples.
8. Denaturation of proteins.

**Answer briefly**

**(5x2=10)**

9. Define  $K_m$  value and state its importance.
10. What is the role of bile salts in fat digestion and absorption.
11. What is phenylketonuria and name the enzymatic defect.
12. Dietary fibre
13. Bence Jones protein

**Give precise answers**

**(5x1=5)**

14. List two examples of mucopolysaccharides.
15. Name four essential amino acids.
16. Name two therapeutic enzymes.
17. List any four high energy compounds.
18. Mention the biochemical defect in fructosuria

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