

**2010 Scheme**

Q.P. Code: 105001

Reg. No.: .....

**First Professional MBBS Degree Supplementary Examinations  
February 2022****Biochemistry – Paper I**

Time: 3 Hours

Total Marks: 50

- Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space
- Answer all parts of a single question together • Leave sufficient space between answers
- Draw table/diagrams/flow charts wherever necessary

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

1. Explain the pathways by which glycogen is synthesized and broken down in the body.  
Describe how these pathways are regulated (4+4+2)

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

2. Describe the reactions of urea cycle. Discuss the diagnostic significance of blood urea.
3. Define oxidative phosphorylation. Explain the chemiosmotic theory.

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

4. Functions of phospholipids
5. What is transamination. Mention clinical importance of any two transaminases
6. Isoenzymes and its diagnostic importance
7. Significance of HMP shunt pathway
8. Isomerism of carbohydrates

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

9. Name the inhibitors of electron transport chain and state at what level they act.
10. Tests for detection of ketone bodies in the urine
11. What is anaplerosis.
12. Formation of 2,3 BPG
13. Enzyme defect in the methyl malonyl aciduria and refsum's disease

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

14. What are the important substances synthesized from tyrosine.
  15. Enzyme defect in maple syrup – urine disease
  16. Limiting aminoacids
  17. Name the marker enzyme for alcoholism
  18. What is the normal blood level of total cholesterol.
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