

**Q.P. Code: 105001**
**Reg. No.: .....**

**First Professional MBBS Degree Supplementary Examinations  
January 2020  
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. What are biologically important compounds derived from tyrosine. Explain the catabolism of tyrosine and name three inborn errors associated with tyrosine metabolism. (2+6+2)

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

2. Mention the major functions of HMP shunt pathway. Explain its importance in erythrocytes.
3. Discuss the detoxification of ammonia in the body. Mention two inborn errors associated with it.

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

4. What is transamination. Explain the diagnostic significance of any one serum transaminase.
5. What is glutathione and mention its importance in the body.
6. Name inhibitors of electron transport chain and state at what level they act.
7. Role of carnitine in fatty acid oxidation with the help of a diagram.
8. Von-Gierke's disease.

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

9. What is isoelectric pH and mention its significance.
10. What are lipotropic factors and name them.
11. Differentiate between starch and glycogen.
12. Classify amino acids based on its metabolic fate.
13. List two examples for competitive inhibition with its clinical applications

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

14. What is gamma amino butyric acid and mention one function.
15. Name the enzyme that is absent in galactosemia.
16. Name the reducing substances excreted in urine
17. What are the iso-enzymes of creatine phosphokinase.
18. What are the components of membrane that alter the fluidity.

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