

QP CODE: 211020

Reg. No:

**Second Year B.Sc Medical Biochemistry Degree Supplementary Examinations
September 2024**

Paper VI - Metabolism 1

(Carbohydrate, Lipid & Amino Acid Metabolism)

(2016 Scheme)

Time: 3 hrs

Max Marks: 100

- *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*

Long Essays

(2x15=30)

1. Describe the events involved in glycogen breakdown. Illustrate how glycogenesis and glycogenolysis are reciprocally controlled by covalent phosphorylation
2. Explain how acetyl CoA is made available in cytoplasm for fatty acid biosynthesis. Explain how fatty acid synthase complex works as a multi enzyme system.

Short Essays

(2x10=20)

3. What are the metabolic functions of Tyrosine. Give an account of inborn errors of Tyrosine metabolism
4. Illustrate the metabolic fates of Galactose. Cause and effects of Galactosemia

Short Answer

(6x5=30)

5. Write about the irreversible steps in glycolysis and the significance of these steps
6. Give an account of the catecholamines. What is their significance in metabolism
7. What is the first line defense in body against circulating ammonia in peripheral tissues
8. How is Propionyl CoA formed and utilized in the body
9. Give an account of inborn errors of amino acid metabolism
10. Enumerate the ketone bodies and explain its synthesis.

Comment on

(10x2=20)

11. Glucose 6 phosphate dehydrogenase deficiency
12. Role of THF in one carbon metabolism
13. Phenylketonurea
14. Absorption of amino acids
15. Lactose intolerance.
16. Inhibitors of electron transport chain
17. Lipotropic Factors
18. Entropy
19. Cyclo-oxygenase
20. Creatinine.
