

QP CODE: 211020

Reg. No:

**Second Year B.Sc Medical Biochemistry Degree Supplementary Examinations
November 2022**

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. Mention the reactions by which glycine is synthesized and catabolised. Add a note on the specialized products formed and mention the disorders associated with Glycine metabolism.
2. Explain in detail glycogenesis and glycogenolysis; How it is regulated. Mention the enzyme defects in any two glycogen storage disorders.

Short Essays

(2x10=20)

3. Give a detailed account of how lipids are digested and absorbed from the gastrointestinal tract.
4. What are ketone bodies. How are they formed in the body – Describe the role of Ketone bodies in starvation and uncontrolled Diabetes Mellitus.

Short Answer

(6x5=30)

5. Role of Insulin in regulation of blood sugar
6. CARNITINE -SHUTTLE.
7. Oxidation of pyruvate
8. LACTOSE INTOLERANCE.
9. Fatty liver and lipotropic factors
10. Inborn errors of amino acid metabolism

Comment on

(10x2=20)

11. Can glucose completely oxidised by glycolysis.
12. The concentration of glucose with in a cell is much lower compared to that of blood plasma – Why
13. What is the difference between liver glycogen and muscle glycogen
14. ATP synthase.
15. POLYAMINES.
16. Can fat be digested and absorbed in the absence of bile salts
17. Name two transport Protein
18. What is lecithin, mention its use
19. Mention two example of biologically important peptide
20. Substrate level phosphorylation
