

QP CODE: 211020

Reg. No:

**Second Year B.Sc Medical Biochemistry Degree Supplementary Examinations
April 2019**

Paper VI - Metabolism 1

(Carbohydrate, Lipid & Amino Acid Metabolism)

(2016 Scheme)

Time: 3 hrs

Max Marks: 100

- Answer All Question
- Draw diagrams wherever necessary

Long Essays

(2x15=30)

1. Define β oxidation of fatty acid. Describe the steps involved in the oxidation of palmitic acid. Add a note on the regulation, energetics and significance of this pathway.
2. Discuss the steps involved in glycolysis. Mention the energetics during aerobic and anaerobic conditions. Discuss the regulation and significance of this pathway.

Short Essays

(2x10=20)

3. Mention the reaction by which tyrosine is synthesized and catabolized. Add a note on the specialized products formed from tyrosine.
4. Explain with suitable diagrams glycogenesis and glycogenolysis. Describe how these process is regulated.

Short Answer

(6x5=30)

5. Chemiosmotic mechanism of ATP synthesis.
6. Digestion and absorption of proteins.
7. Important compounds derived from glycine.
8. Name the ketone bodies. Describe the process of ketogenesis.
9. Metabolic fate of pyruvate.
10. Fatty acid synthase complex.

Comment on

(10x2=20)

11. Nitric oxide metabolism
12. Polyamines and their function
13. Why TCA cycle is amphibolic
14. Substrate level phosphorylation
15. Regulation of cholesterol synthesis
16. Fatty liver
17. Cori's cycle
18. Glutathione
19. Transamination reaction
20. Significance of the uronic acid pathway
