

QP CODE: 211020

Reg. No:

**Second Year B.Sc Medical Biochemistry Degree Regular/Supplementary
Examinations December 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. Write the components of electron transport chain and show the sites of ATP synthesis. What are uncouplers. Give examples.
2. Write the normal plasma ammonia level. How ammonia is transported from brain and skeletal muscle to liver. Outline the steps of urea cycle. Add a note on hyperammonemia.

Short Essays

(2x10=20)

3. Amphibolic role of tricarboxylic acid (TCA) cycle.
4. What are ketone bodies. Describe the metabolism of ketone bodies.

Short Answer

(6x5=30)

5. What is Rapaport Leubering cycle and its significance.
6. Explain triglyceride degradation and action of hormones on lipolysis.
7. Trace reactions of tryptophan catabolism.
8. Niemann-Pick disease.
9. Write the organs and reactions involved in creatine formation.
10. Explain how glycogen is degraded.

Comment on

(10x2=20)

11. Alkaptonuria.
12. Lipotropic factors.
13. Two functions of eicosanoids.
14. Primary hyperoxaluria.
15. Any two irreversible reactions of glycolysis.
16. Transmethylation reactions.
17. McArdle syndrome.
18. Essential pentosuria.
19. Fatty liver.
20. Gibb's free energy.
