

QP CODE: 211020

Reg. No:

Second Year B.Sc Medical Biochemistry Degree Supplementary Examinations

August 2023

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 catabolism of phenylalanine. Discuss the inborn error of phenylalanine metabolism and its diagnosis and treatment.
2. Explain the biosynthesis of cholesterol. Add a note on its regulation. Discuss the important products formed from cholesterol.

Short Essays

(2x10=20)

3. What are high energy compounds. Give examples. Mention their roles.
4. Describe galactose metabolism. Write the symptoms of galactosemia and how is it diagnosed.

Short Answer

(6x5=30)

5. Write the principle of chemiosmotic hypothesis.
6. Explain facilitated transport with example.
7. Energetics of glycolysis.
8. What is fatty liver and its causes.
9. Biological roles of glutamine and glutamate.
10. Fate of pyruvate.

Comment on

(10x2=20)

11. Formiminoglutamate (FIGLU) test.
12. Chyluria.
13. von Gierke's disease.
14. Transamination reaction.
15. Cori's cycle.
16. Any two significance of hexose monophosphate (HMP) shunt pathway.
17. Refsum's disease.
18. Gibbs' free energy.
19. Anaplerotic reactions of tricarboxylic acid (TCA) cycle.
20. Homocystinuria.
