

QP CODE: 211020

Reg. No:

**Second Year B.Sc Medical Biochemistry Degree Supplementary Examinations
April (December), 2020
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 formation, transport and detoxification of ammonia. Add a note on hyperammonemias.
2. Define gluconeogenesis. Trace the pathway of gluconeogenesis starting from pyruvate. Mention the key gluconeogenic enzymes and their regulation.

Short Essays

(2x10=20)

3. β oxidation of fatty acid.
4. TCA cycle – reactions, energetics and significance.

Short Answer

(6x5=30)

5. Digestion and absorption of lipids.
6. Steps of glycogenesis and its regulation.
7. Products of glycine metabolism.
8. Synthesis of ketone bodies and its utilization.
9. Significance of the HMP shunt pathway.
10. Synthesis of triacylglycerol.

Comment on

(10x2=20)

11. Essential Pentosuria
12. Polyunsaturated fatty acid (PUFA) and its importance.
13. Lipotropic factors.
14. Alkaptonuria.
15. Fate of pyruvate.
16. Uncouplers of oxidative phosphorylation.
17. Synthesis of melatonin and its function.
18. Von Gierke's disease.
19. Functions of HDL.
20. Niemann Pick's disease
