

QP CODE: 211020

Reg. No:

**Second Year B.Sc Medical Biochemistry Degree Supplementary Examinations
November 2021
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. Trace the pathway of Gluconeogenesis starting from Alanine. Mention the key enzymes and how they are regulated
2. Write the pathways of catabolism of Phenylalanine and Tyrosine. Name the disorders of the pathway. Add a brief note on clinical features of the disorders and laboratory investigations

Short Essays

(2x10=20)

3. Describe the reactions of ketogenesis and its regulation
4. Describe the reactions of urea cycle. Discuss the interrelationship between urea cycle and citric acid cycle

Short Answer

(6x5=30)

5. Mention three example of Transmethylation reactions
6. Importance of Glutamine
7. Essential fatty acids
8. Carnitine shuttle
9. Name the Polyamine and mention its functions
10. Mechanism of Amino Acid absorption

Comment on

(10x2=20)

11. What happens to the metabolism of aromatic amino acids in case of non availability of Tetrahydrobiopterin
12. B 12 deficiency affect amino acid metabolism explain
13. PDH complex
14. Energetics of glucose on complete oxidation in aerobic condition
15. Na + dependent absorption of glucose
16. Emulsification
17. Gall stones
18. Essential Pentosuria
19. What is GABA Mention its function
20. Name the rate limiting enzymes in fatty acid synthesis
