

QP Code: 201020

Reg. No.....

Second Year B.Sc. Medical Biochemistry Examinations October 2017

Metabolism - I - Carbohydrates, Lipid & Amino Acid Metabolism

Time: 3 Hours

Total Marks: 80

- **Answer all the questions**
- **Draw diagrams wherever necessary**

Essay

(2x15=30)

1. List the different sources of ammonia and explain how ammonia is transported. Describe the reactions of ammonia detoxification in liver and mention the causes of increased blood urea level.
2. Describe the components of electron transport chain. Describe the synthesis of ATP. Indicate the site specific inhibitors. Mention two examples for uncouplers. Add a note on substrate level phosphorylation.

Short Essay

(2x10=20)

3. Describe the reactions of glycolysis. Explain its regulation and add a note on the energetics in aerobic and anaerobic conditions.
4. Digestion and absorption of lipids.

Short Notes

(4x5=20)

5. Gluconeogenesis
6. Pyruvate dehydrogenase complex.
7. Role of carnitine transporter in beta oxidation.
8. One carbon metabolism.

Answer Briefly

(5x2=10)

9. Name two lipid storage diseases and its defect.
10. Fatty liver and lipotropic factors
11. Specialized products from tryptophan
12. Trans methylation reaction with two examples
13. Significance of uronic acid pathway
