

QP Code: 201020

Reg. No.....

Second Year B.Sc. Medical Biochemistry Supplementary Examinations

April 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. Describe the reactions of glycolysis and its significance. How it is regulated. Add a note on its energetics.
2. 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.

Short Essay

(2x10=20)

3. Describe the role of carnitine in fatty acid oxidation. Narrate the steps of beta oxidation of palmitic acid. Add a note on its energetics.
4. Enumerate the components of electron transport chain. Describe the synthesis of ATP. Indicate the site specific inhibitors.

Short Notes

(4x5=20)

5. Significance of HMP shunt pathway.
6. Describe the reactions of ketogenesis and its utilization.
7. Important compounds derived from glycine.
8. Fatty liver

Answer Briefly

(5x2=10)

9. What is phenylketonuria and name the enzyme defect.
10. Functions of cholesterol.
11. Coenzymes of pyruvate dehydrogenase complex.
12. Polyamines.
13. Why TCA cycle is called amphibolic.
