

QP Code: 201020

Reg. No.....

Second Year B.Sc. Medical Biochemistry Supplementary Examinations

April 2018

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. Explain the steps of synthesis and breakdown of glycogen, its significance and regulation.
2. Describe the steps of de novo synthesis of fatty acids, organization of the multi enzyme complex and sources of NADPH and acetyl groups.

Short Essay

(2x10=20)

3. Metabolism of phenylalanine and tyrosine and the associated metabolic disorders
4. Digestion and absorption of carbohydrates

Short Notes

(4x5=20)

5. Functionally important compounds synthesized from glycine
6. Classification and functions of eicosanoids
7. Gibbs free energy with example
8. Galactose metabolism and its major metabolic disorder

Answer Briefly

(5x2=10)

9. Role of bile salts in fat digestion
10. Synthesis of creatinine
11. Define redox potential with an example
12. Reaction that forms nitric oxide and two of its major functions
13. Glutathione structure and one of its functions
