

**QP Code: 201020**

**Reg. No.....**

**Second Year B.Sc. Medical Biochemistry Supplementary Examinations  
October 2018**

**Metabolism I - Carbohydrates, Lipid & Amino Acid Metabolism**

**(2014 Scheme)**

**Time: 3 Hours**

**Total Marks: 80**

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

**Essay**

**(2x15=30)**

1. Explain the steps of electron transport chain, its inhibitors, chemiosmotic theory and energetics.
2. Describe the reactions of transamination, oxidative deamination, urea cycle, hyperammonemias and regulation of urea cycle.

**Short Essay**

**(2x10=20)**

3. HMP shunt pathway
4. Metabolism of adipose tissue with reference to storage and breakdown of triacylglycerol and its regulation

**Short Notes**

**(4x5=20)**

5. Outline the synthesis of cholesterol
6. Glucogenic and ketogenic amino acids and basis for the classification
7. Metabolism of fructose and the metabolic disorders associated with it.
8. Fatty acid chain elongation

**Answer Briefly**

**(5x2=10)**

9. Pentosuria
10. Pasteur effect
11. Inborn error of branched chain amino acids metabolism
12. Utilisation of ketone bodies
13. Oligomycin, its significance and site of action

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