



[KZ 504]

AUGUST 2011

Sub. Code : 4055

**FIRST M.B.B.S. DEGREE EXAMINATION**

**Revised (Non-Semester) Regulations**

**PAPER V – BIOCHEMISTRY - I**

*Q. P. Code : 524055*

**Time : Three hours**

**Maximum: 100 Marks**

Answer **ALL** questions

**I. Essay Questions :**

**(2 x 10 = 20)**

1. Describe in detail TCA cycle and the energetics of the same.  
Justify why TCA cycle is called an amphibolic cycle.
2. Describe in detail the components and chemiosmotic theory of electron transport chain.

**II. Write Short notes on :**

**(10 x 5 = 50)**

1. Role of Niacin as Coenzyme.
2. Classification of hyperlipidemias and their clinical importance.
3. Sphingolipidoses.
4. Biochemical role of Vitamin C.
5. Cori's cycle and Glucose Alanine cycle.
6. High Density Lipoprotein cycle.
7. Glycogenolysis.
8. Isomerism in carbohydrates.
9. Balanced Diet.
10. Fructose intolerance

**III Short Answer Questions :**

**(15 x 2 = 30)**

1. Markers for lysosomes and mitochondria.
2. Fluorosis.
3. Role of Apo CII.
4. Define metalloenzymes with 2 examples.
5. Pulmonary surfactant – Structure and clinical importance.
6. Iodine number and its importance.
7. What is the function of Lipoprotein lipase?
8. Structure of lecithin.
9. Net Protein Utilization.
10. Chondroitin sulphate - Structure.
11. Double Reciprocal plot.
12. Alkaline phosphatase as a diagnostic tool.
13. What are the different forms of calcium in blood?
14. RDA and functions of Iodine.
15. Why Arachidonic acid is not considered 'purely' an essential fatty acid?

