M.B.B.S. [1st Prof.]

BF/2015/11

Biochemistry – A

M.M. : 50 Time : 3 Hours

Note : Attempt all questions.

USE SEPARATE ANSWER SHEET FOR EACH PART.

PART - I

1. **Write short notes:**

   a. Acetyl CoA transport from mitochondria to cytosol for fatty acid synthesis. [3]
   b. Role of glutamate in urea cycle. [3]
   c. Transport of exogenous and endogenous triglycerides in plasma? [3]

2. **Answer briefly:-**

   a. Indicate the normal protective mechanisms in RBC's against formation of Methemoglobin. [3]
   b. Why fructose leads to enhanced fatty acid synthesis than glucose. [2]
   c. Metabolic derangements and consequences of ketosis. [3]

3. **Briefly Explain:-**

   a. Muscle glycogen does not produce free glucose. [3]
   b. Lipotropic factors prevent fatty liver. [3]
   c. Gout. [2]

PART – II

4. **Describe in detial:-**

   a. Outline the cholesterol synthesis pathway. Give its regulation and the biologically important compounds derived from Cholesterol. [3]
   b. Metabolism of glycine & related disorders. [3]
   c. Importance of HMP shunt pathway. [3]

5. **Write in brief:-**

   a. Allosteric regulation using PFK as an example. [3]
   b. Classify phospholipids giving examples. Discuss various Phospholipases. [3]
   c. Donnan membrane equilibrium. [2]

6. **Write notes on**:-

   a. Inhibitors of Electron transport chain. [3]
   b. Biochemical actions of vitamin C. [3]
   c. Coenzyme action of Pyridoxin and Vitamin B12. [2]
