

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

BF/2007/06

BIOCHEMISTRY - A

M.M. : 50

Time : 3 Hours

Note : Attempt all questions.

1. **Write briefly:** [4 x 2.5=10]
 - a. How acetyl CoA is transported from mitochondria to Cytosol for fatty acid synthesis?
 - b. Explain briefly the role of glutamate in urea cycle.
 - c. How is glycerol-3-phosphate synthesized in liver & adipose tissue?
 - d. Explain in brief the principle of amplification of response by an enzyme cascade mechanism.

 2. **Answer briefly:** [4 x 2.5=10]
 - a. Indicate the normal protective mechanism in RBC's against formation of Methemoglobin.
 - b. Fructose leads to enhanced fatty acid synthesis than glucose.
 - c. Explain how diabetic ketosis is harmful.
 - d. Biochemical laboratory test to differentiate between hepatic & non hepatic jaundice.

 3. **Briefly explain the biochemical basis of the following:** [4 x 2.5=10]
 - a. Muscle glycogen does not produce free glucose.
 - b. Barbiturates can precipitate an attack of Porphyrria.
 - c. Administration of Primaquin can cause hemolysis in certain individuals.
 - d. Immediate administration of HNO₂ as an antidote to cyanide poisoning.

 4. **Write short notes on:** [4 x 2.5=10]
 - a. Natural uncouplers.
 - b. Isoenzymes.
 - c. Physiologically active Peptides.
 - d. Lipotropic factors.

 5. **Write briefly:** [2 x 5=10]
 - a. Structure & functions of various Immunoglobulins.
 - b. Biochemical basis of complications of Diabetes Mellitus.
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