Z-4653   Seat No._____

First Year M.B.B.S. Examination
February – 2006
Biochemistry - Paper - II

Time : **3** Hours]   [Total Marks : **50**

Instructions : (1) Each section should be answered in **separate** answer books.

(2) Answers should be brief and to the point.

SECTION - I

1 State *true* or *false* with justification on : (any **six**)   **6**

(a) In anaerobic glycolysis pyruvate is produced.

(b) Rapaport leubering cycle is beneficial to RBC.

(c) Fat can not be metabolised in the absence of carbohydrates.

(d) Bile salts are not required for fat digestion and absorption.

(e) In alkaptonurea, urine turns black on exposure to air.

(f) Salvage pathway is more economical than de - nove synthesis.

(g) Carnitine is essential for oxidation of all types of fatty acids.

(h) In ETS P : O ratio is always 3.

2 Discuss the following :   **10**

(a) Glycogen storage diseases.

(b) Disorders of aromatic amino acid metabolism.

3 Write short notes on : (any **three**)   **9**

(a) Diabetes mellitus

(b) Glycolysis

(c) GTT

(d) Urea cycle

(e) Lipids : digestion, absorption and transport

Z-4653]   **1**   **[Contd...**

SECTION - II

4   Give your comments with justification on : (any **six**)   **6**

    (a)   Citric acid cycle does not operate in RBC.

    (b)   Hyperuricemia is seen in Von Gierke's disease.

    (c)   Uncontrolled diabetes will lead to metabolic acidosis.

    (d)   L CAT defeciency leads to atherosclerosis

    (e)   High HDL - cholesterol level is a welcome sign.

    (f)   Iron defeciency anemia can be produced in vitamin C deficiency.

    (g)   Calcuium deficiency leads to osteomalacia.

    (h)   Aspirin is used as an anti-inflamatory drug.

5   Discuss any **two** :   **10**

    (a)   Heme biosynthesis and regulation.

    (b)   Metabolic reactions of glycine.

    (c)   Electron transport system.

6   Write short notes on : (any **three**)   **9**

    (a)   pH and its regulation

    (b) Ca^{++} metabolism

    (c)   PEM

    (d)   Conjugation

    (e)   Ketogenesis.

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