MGR 5505

First Year MBBS Examination I MBBS Biochemistry Paper 1

Time: 3 hours Max Marks: 50 Instructions: 1. Answer to the points. 2. Figure to the right indicates marks. 3. Use separate answer books for each section. 4. Draw diagrams wherever necessary. 5. Write legibly.

Section 1

- 1. Write short notes on: (any two) (10)
- a. Thalassemia (A. 347) (C. 206): Molecular basis, Types and symptoms
- b. Enzymes Inhibition (A. 63) (C.92): Competitive, Noncompetitive
- c. Acidosis and Alkalosis: Causative factors, Compensatory Mechanism
 - 2. Write Short notes on (any three) (9)
- a. Significance of Conjugated and Unconjugated Bilirubin
- b. Importance of Polyunsaturated Fatty acids
- c. Isoenzymes (A. 79) (C.112)
- d. Diagnostic and Therapeutic uses of



- e. Substrate specificity of enzymes
 - 3. Write Short notes on (any two) (6)
- a. Blood buffers and their role (A. 398) (C. 475)
- b. Spectrophotometer and its significance
- c. Role of Lysosomes (A. 12) (C.7) and Peroxisomes

Section 2

- 4. Write Short notes on (any two) (10)
- a. HMP shunt and G6PD deficiency (A. 144) (C. 270)
- b. Beta oxidation of fatty acids (C16) with its energetics (A. 194) (C.287)
- c. Lipid profile and its significance
 - 5. Write Short notes on (any three) out of five) (9)
- a. Oxidative phosphorylation (A. 318) (C.228)
- b. Air pollution and its effects (A. 534) (C.663)
- c. Oncogenes (A. 664) (C.687)
- d. Primary antibody-structure and functions
- e. Carcino-emryonic antigen (CE (A. 667) (C.691)
 - 6. Write Justification of following statements:



- a. Being product of the same gene Apo B 48 and Apo B-100 are different in composition and functions
- b. Insulin is anabolic hormone
- c. CPK has only 3 isoforms
- d. cAMP is called as second messenger
- e. Glycosylated hemoglobin test has a prognostic importance in diabetic patients
- f. Thermogenin produces heat-state its mechanism
- g. Liver cannot use ketone bodies

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