K 4105

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. Give an account of: (any two) (10)

- a) Atherosclerosis and significance of high density lipoprotein (A. 228, 222)(C. 326, 320)
- b) Glycogen storage diseases (A. 144) (C.269)
- c) Discuss how enzymes is classified? Write an account of various factors affecting enzyme



2. Write Short notes on (any three) (9)

- a) Enzyme inhibition (A. 63) (C.92)
- b) Classification of lipids
- c) Disaccharides
- d) Functions of cholesterol
- e) Porphyrias (A. 328) (C.212)

3. Write Short notes on (any two) (6)

- a) Renal function test (A. 370) (C. 459)
- b) Metabolic acidosis (A. 402) (C.481)
- c) Composition of urine



Section 2

4. Give an account on (any two) (10)

- a) Conjugation reaction in Detoxification and its importance (A. 525) (C. 640)
- b) Glycogenolysis and its regulation (A. 140) (C.265)
- c) Oxidation of odd-chain fatty acids, mentioning the role of Vit-B12

5. A. Write Short notes on (any three) (9)

- a) Carcinogens
- b) Regulation of fatty acid synthesis
- c) Importance of bile salts in digestion and absorption of fats
- d) Clinical importance of HMP shunt
- e) Health hazard of water pollution
- 6. Read the following case and answer the questions in two or threee lines only.: Any



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Dharpur civil hospital in semicomatoses patient was a known case of NIDDM. He did not take antidiabetogenic drug for last 20-25 days. Ophthalmic checkup revealed cataract in both cycs. Lab Report of blood sample taken at the time of admission Random plasma glucose ->45 mgs% 31cod ph->7.30, urine sugar -> ++++ Ketone Bodies detected in urine sample of patient

- a) Mention the likely cause of low blood ph in this patient
- b) Name ketone Bodies excreted in patient's urine
- c) Mention 2-3 differences between NIDDM and **IDDM**
- d) Mention the reason for polyuria in this patient
- e) Why glucose level was elevated in this



- f) What is glycosylated Hb? Why it is often estimated in patients of Diabetes Mellitus
- g) Mention the name of hormone that brings down blood glucose level in human being
- h) lodine deficiency leads to Goitre

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