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RO-1545-R
First Year M.B.B.S. Examination

June - 2010

Biochemistry (Paper - I)

Time : 2 Hours]

[Total Marks : 50

Instructions

(1)

sai q :- Frial-actA [43141 7-1 8141 41441 Fillup strictly the details of 4, signs on your answer book. Name of the Examination : First Year M.B.B.S. Name of the Subject : Biochemistry (Paper - 1) - ect Code No. : 5 4 up-Section No. (1, 2,) : Nil Subj		Seat No. : 11111111111111111111 Student's Signature
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(2) Figures to the right indicate full marks.

(3) Draw diagrams where appropriate.

- 1 Write down different types of protein structures. How different structure of protein are stabilized ? 11

OR

- 1 Describe Heme synthesis and its regulation, enumerate porphyrias. 11

- 2 Read the following case and answer the following questions : 10

A three day old neonate was brought to pediatric nursery with yellow discoloration of sclera and skin. His total bilirubin was 9 mg/dl (Normal range : 0.1-1.0 mg/dl). Pediatrician diagnosed as a case of physiological jaundice. The patient was advised phototherapy and recovered in 24 hrs.

- What is the cause of physiological jaundice ?
- What is the difference between direct and indirect bilirubin ?
- What is the role of phototherapy in this case ?
- What are other causes of unconjugated hyperbilirubinemia ?
- What type of hyperbilirubinemia is seen in obstructive jaundice ?

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[Contd...

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| 3 | Write short notes on : (any three) | 9 |
| | (a) Lysosomes and Peroxisomes | |
| | (b) ELISA | |
| | (c) Eicosanoids | |
| | (d) Applications of radioisotopes in medicine | |
| | (e) Bile salts. | |
| 4 | Write notes on : (any two) | 10 |
| | (a) Functions of plasma proteins | |
| | (b) Mucopolysaccharides | |
| | (c) Electrophoresis | |
| | (d) Structure of collagen. | |
| 5 | Comment on / justify in 2-3 sentences : (any five) | 10 |
| | (a) Sucrose is a non-reducing disaccharide. | |
| | (b) HDL cholesterol is "Good cholesterol". | |
| | (c) Allopurinol is used in the treatment of gout. | |
| | (d) Denaturation of proteins in food is biologically advantageous. | |
| | (e) Glucose is required for the absorption of Na ⁺ . | |
| | (f) Proline does not allow forming alpha helix. | |
| | (g) Selective COX2 inhibitors reduce gastric side effects of NSAIDS. | |