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RO-1545
First Year M.B.B.S. Examination
June - 2010
Biochemistry (Paper - I)

Time : 2 Hours]

[Total Marks : 50

Instructions :

(1)

<p>नीचे दृश्यावलोकन निशानीवाणी विगतो उत्तरवही पर अवश्य कर्तव्य। Fillup strictly the details of signs on your answer book.</p> <p>Name of the Examination : <input style="width: 90%;" type="text" value="First Year M.B.B.S."/></p> <p>Name of the Subject : <input style="width: 90%;" type="text" value="Biochemistry (Paper - 1)"/></p> <p>Subject Code No. : <input style="width: 20px;" type="text" value="1"/> <input style="width: 20px;" type="text" value="5"/> <input style="width: 20px;" type="text" value="4"/> <input style="width: 20px;" type="text" value="5"/> Section No. (1, 2,.....): <input style="width: 40px;" type="text" value="Nil"/></p>	<p>Seat No. : <input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/></p> <div style="border: 1px solid black; border-radius: 15px; height: 80px; display: flex; align-items: center; justify-content: center; margin-top: 10px;"><p>Student's Signature</p></div>
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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 Hem 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.

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

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[Contd...

- 3** Write short notes on : (any **three**) **9**
- (a) Lysosomes and Peroxysomes
 - (b) ELISA
 - (c) Eicosanoids
 - (d) Applications of radioisotops 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.
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