



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

Time : 2 Hours]

[Total Marks : 50

Instructions :

(1)

<p>नीचे दर्शाविए निशानीवाणी विगतो उत्तरवही पर अवश्य लખवी. Fillup strictly the details of signs on your answer book.</p> <p>Name of the Examination : First Year M.B.B.S.</p> <p>Name of the Subject : Biochemistry (Paper - 1)</p> <p>Subject Code No. : 1 5 4 5 Section No. (1, 2,.....): Nil</p>	<p>Seat No. : <input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/></p> <div style="border: 1px solid black; border-radius: 15px; padding: 10px; text-align: center; width: 100%;">Student's Signature</div>
--	---

- (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.

- (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 ?

- 3** Write short notes on : (any **three**) **9**
- (a) Lysosomes and Peroxisomes
 - (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.
-