

BIOCHEMISTRY

Paper - 2

NOV./DEC. 2009

(2 ½ hours)

Total marks : 40

SECTION – B

2. Brief answer questions :(Any 6 of 7) :

(6x4=24)

- a) Explain the mechanism of hydrophilic hormones.
- b) Describe any two buffer systems involved in the maintenance of normal blood pH.
- c) Proto-oncogenes and oncogenes.
- d) State the principle of electrophoresis and its application.
- e) Describe phase I reaction in the metabolism of xenobiotics.
- f) A 26 year old man walked into the OPD with heavy sweating, loss of weight and palpitations. His thyroid gland was enlarged and he was diagnosed for hyperthyroidism.
 - 1) What were the thyroid function tests carried out to reach this conclusion ? 02
 - 2) What are the reasons for the enlarged thyroid gland and loss of weight? 01
 - 3) Why does the patient complain constantly of feeling hot. 01
- g) An infant suffering with distension of abdomen, flatulence and watery diarrhea is brought to the OPD by this concerned mother. She is told that the child is lactose intolerance?
 - 1) What is the enzyme deficient in this case?
 - 2) What is the probable cause of the distention of the abdomen and flatulence?
 - 3) What would be the treatment suggested?

SECTION – C

3. Attempt : (any 2) :

(2x8=16)

- a) Describe the denovo synthesis of palmitic acid and its regulation.
- b) Describe the dietary sources, biochemical roles absorption and disease manifestation of iron and iodine metabolism.
- c) Describe glycogen metabolism and its regulation.

