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RR-0833

Third Year B. Sc. (Med. Tech.) Examination

March / April – 2010

Clinical Biochemistry & Enzymology

Time : Hours] [Total Marks : **70**

Instruction :

નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fillup strictly the details of ☛ signs on your answer book.

Name of the Examination :

☛ **T. Y. B. Sc. (Med. Tech.)**

Name of the Subject :

☛ **Clinical Biochemistry & Enzymology**

☛Subject Code No. : **0 8 3 3** ☛Section No. (1, 2,.....) : **Nil**

Seat No. :

Student's Signature

1 For each of the following pathological states identify the expected pH, PO_2 and PCO_2 values as normal increased or decreased and state the physiological response to the following diseased states. **15**

(a) Drug induced hyperventilation

(b) Acute hyperglycemic ketoacidosis

(c) Persistent vomitting of Hypochloremia

(d) Chronic emphysema.

OR

1 Discuss the diagnostic importance of isoenzymes. How will you separate them? What do you mean by post translational modifictions ? Give examples. **15**

2 Write short notes (any **three**) **15**

(i) T_3 T_4 TSH

(ii) Serum amylase ***Vs*** Serum lipase

(iii) Creatinine determination

(iv) Liver function tests based on Bilirubin and Bile pigment metabolism.

3 Write short notes : (any **three**) **15**

(i) Body Fluid distribution and influencing factors

(ii) Significance of A/G ratio

(iii) Apolipoproteins

(iv) Metabolic changes in Diabetes mellitus.

4 Write short notes : (any **three**) **15**

(i) Quality control and Quality assurance

(ii) Insulin tolerance test

(iii) Dry chemistry analyser

(iv) Specimens in Biochemical laboratory.

5 Answer/Explain/Comment in two or three sentences : **10**

(i) Functions of CRP and normal levels in serum.

(ii) Identify the enzyme involved in this reaction

Alcohol + NAD $\rightleftharpoons$ Aldehyde or Ketone + NADH + H^+

(iii) What is delta bilirubin?

(iv) Enlist the clinical conditions related to secondary dyslipoproteinemias.

(v) GDM is due to increased levels of hpL. Explain.