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SD-3681

M. Sc. (Sem. IV) (Int. Biotech.) Examination

April / May – 2011

IBT-401 : Biochemistry - III

Time : **3** Hours] [Total Marks : **70**

Instruction : (1)

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

Name of the Examination :

☛ **M. Sc. (Sem. IV) (Int. Biotech.)**

Name of the Subject :

☛ **IBT-401 : Biochemistry - III**

☛Subject Code No. : **3 6 8 1** ☛Section No. (1, 2,.....) : **Nil**

Seat No. :

Student's Signature

2. Figures to the right indicate full marks.
3. Draw neat and labelled diagrams wherever necessary.

1 Explain in detail **Any Two**: (18)

(a) Describe the mechanism of enzyme action.
(b) Explain the different types of enzyme inhibition.
(c) Derive M-M equation and give the equation for line-weaver burk plot with graph and significance of Km and Vmax.

2 Attempt **Any Three**: (18)

(a) Give details of integration of metabolic pathways.
(b) Discuss the role of ATP as energy currency of the cell.
(c) Importance of NAD^+ and $NADP^+$.
(d) Give the structure of precursors of metabolic pathways.

3 Explain in **Any Three**: (18)

(a) Describe detail about glycolysis pathway.
(b) Explain the components of electron transport chain.
(c) Give the pathway for β-oxidation of fattyacid.
(d) Glyoxylate cycle with its significance.

4 Explain **Any Two** of the following: (16)

(a) Gluconeogenesis pathway.
(b) De novo synthesis of fatty acids.
(c) Pathway for purine nucleotide synthesis.