



R-3793

M. Sc. (In. Biotechnology) (Sem. III) Examination

May / June - 2010

IBT 301 : Biochemistry - II

Time : 3 Hours]

[Total Marks : 70

Instructions :

(1)

नीचे दृष्टावित्त निशानीवाणी विगतो उत्तरवडी पर अवश्य लखवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
<input type="text" value="M. Sc. (In. Biotechnology) (Sem. 3)"/>	<input type="text" value="Student's Signature"/>
Name of the Subject :	
<input type="text" value="IBT 301 : Biochemistry - 2"/>	
Subject Code No. : <input type="text" value="3"/> <input type="text" value="7"/> <input type="text" value="9"/> <input type="text" value="3"/>	Section No. (1, 2,.....): <input type="text" value="1&2"/>

- (2) Figures to the right indicate full marks of the question.
(3) Draw neat and labelled diagrams whenever necessary.
(4) Both sections must be written in **separate** answer books.

SECTION-I

- 1 Define following terms : 6
- (a) Endosymbiosis
 - (b) Paralogs
 - (c) Metabolome
 - (d) Pseudopeptides
 - (e) Non-essential amino acids
 - (f) Chaperons.
- 2 (a) Describe in detail about the organization of protein structure. 7
- (b) "Chemistry of living organisms is organized around carbon." Justify the statement. 7

OR

- 2 (a) Discus : Water as solvent for life. 7
- (b) Describe in detail about the methods of determination of amino acid sequence in protein. 7

- 3** Write notes (any **three**): **15**
- (a) Stereochemistry of amino acids
 - (b) Biological functions of proteins
 - (c) Redox Potential
 - (d) Protein cross linking.

SECTION-II

- 4** Define following terms : **6**
- (a) Lecithin
 - (b) Vitamins
 - (c) Rancidity
 - (d) APA factor
 - (e) Nucleosome
 - (f) Hemi Ketal.
- 5** (a) Explain nucleic acid-protein supra-molecular complex. **7**
- (b) Explain structures and functions of hetero-polysaccharides. **7**

OR

- 5** (a) Discuss biological functions and classifications of lipids. **7**
- (b) Explain biological functions and occurrence of Vit. B₂. **7**
- 6** Write notes (any **three**) : **15**
- (a) Occurrence and functions of Vit. B₁ and Vit. B₆.
 - (b) Electron transport chain.
 - (c) Storage polysaccharides in cell wall.
 - (d) Structures and functions of nucleotides.