



RB-0733-R

Second Year B. Sc. Examination

April / May – 2010

Microbiology : Paper - V

(Biochemistry & Enzymology)

Time : 3 Hours]

[Total Marks : 70

Instructions :

(1)

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="S. Y. B. Sc."/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="Microbiology - 5"/>	<input type="text"/>
Subject Code No. : <input type="text" value="0"/> <input type="text" value="7"/> <input type="text" value="3"/> <input type="text" value="3"/>	<input type="text"/>
Section No. (1, 2,.....) : <input type="text" value="Nil"/>	<input type="text"/>
	<input type="text" value="Student's Signature"/>

(2) Figures to the right indicate full marks of the question.

(3) Draw neat diagram wherever necessary.

1 Give specific answers :

16

(a) Define :

(i) Isoelectric point

(ii) Anomers

(b) Give two examples of essential fatty acids with their structures.

(c) What is "salting-out" effect? Give its importance.

(d) Give two examples of modified nitrogenous bases.

(e) What is 'turn over number' and 'prosthetic group' of enzymes?

(f) Define "Invert sugar". Why is it called so ?

(g) With suitable example explain hydrogen bond.

(h) Give two processes in which orthophosphate group of ATP is utilized.

- 2** Explain/Comment on any **three** of the following : **15**
- (a) Buffers are important aqueous system in biochemistry.
 - (b) Proteins exhibit different types of secondary structures.
 - (c) Some sugars show mutarotation.
 - (d) Nucleitides play different functions.
 - (e) Allosteric inhibition is also called end product inhibition.
- 3** Attempt any **two** of the following : **12**
- (a) How do amylose differ from amylopectin? Describe the occurrence and properties of starch.
 - (b) What is active site of enzyme? Explain different mechanism of enzyme action.
 - (c) Explain the role of ATP in metabolism as energy currency, with suitable examples.
- 4** Write an essay on : **12**
- "Classification of proteins."
- 5** Write short notes on any **three** of the following : **15**
- (a) Lactose Vs Matose
 - (b) Glycolipids
 - (c) Forms of DNA
 - (d) Reversible enzyme inhibition
 - (e) Water as solvent.
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