

No. of Printed Pages : 03

Roll No.

AA-295

M. Sc. EXAMINATION, May 2018

(First Semester)

(Re-appear Only)

CHEMISTRY

CH509B

Biology for Chemists

Time : 3 Hours]

[Maximum Marks : 70

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

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P.T.O.

Unit I

1. (a) Differentiate between plant cell and animal cell with well labelled diagram. 7
(b) Explain conformation of monosaccharides. 7
2. Describe Kreb's cycle and various steps involved in cycle. 14
3. Write short notes on the following : 4,5,5
 - (a) Starch and glycogen
 - (b) Sialic acid and Ascorbic acid
 - (c) Structure of chloroplast.

Unit II

4. (a) Discuss the structure and function of Glycerolipids. 6,8
(b) What are essential fatty acids ? Give the structure and function of triacylglycerols.
5. (a) Explain both enzymatic and chemical hydrolysis of protein to peptides. 10,4
(b) What are Bile Acids ? Write their biological functions.

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6. (a) What are Liposomes ? Explain their biological functions. 10,4
(b) Describe the structure of sphingolipids.

Unit III

7. What is Transcription ? Explain its mechanism. 14
8. (a) Describe the Watson and Crick Model of DNA structure. 7,7
(b) Differentiate between Nucleotides and Nucleosides and their various types.
9. Write short notes on the following : 6,4,4
 - (a) Types of RNA and their structure
 - (b) Genetic Code
 - (c) Role of Enzymes involved in DNA Replication.

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