

M. SC. (Microbiology) SEM-I (CBCS 2018 Course) : WINTER - 2018
SUBJECT: BIOCHEMISTRY

Day: Tuesday
Date: 09/10/2018

W-2018-1014

Time: 03.00 PM TO 06.00 PM
Max. Marks: 60

N.B:

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
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Q.1 What are complex lipids? Write about various complex lipids with general structure and biological functions. **(15)**

OR

Explain the general structure of DNA and elaborate on its various structural forms

Q.2 a) Write in brief about structure and function of **(08)**

- i. Sugar acids
- ii. Sugar alcohol

b) Write the structure and functions of fibrous proteins. **(07)**

Q.3 Write short notes on **ANY THREE** of the following: **(15)**

- a) Types of chemical bonds found in biomolecules
- b) Ionophore
- c) Functions of r-RNA
- d) β -pleated structure of polypeptide

Q.4 Write **ANY THREE** of the following: **(15)**

- a) Write schematic representation to explain the working of Na-K pump.
- b) Write name and structure of sugars containing aldehyde group.
- c) What are high energy compounds?
- d) Draw the diagram to demonstrate the conduction of nerve impulse. Enlist various neurotransmitters.

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