

MASTER OF SCIENCE (MICROBIOLOGY) (CBCS - 2018 COURSE)
M.Sc. (Microbiology) Sem-I : WINTER :- 2021
SUBJECT: BIOCHEMISTRY

Day : Wednesday
Date 2/2/2022

W-18583-2021

Time : 02:00 PM-05:00 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 Write the structural details of polysaccharide and describe Homo- [15]
polysaccharide and Hetero-polysaccharide found in nature.

OR

Write in detail nomenclature, classification and functions of lipids.

Q.2 a) Explain structure and function of globular protein with example. [08]

b) Explain the working of sodium potassium pump. [07]

Q.3 Answer **ANY THREE** of the following: [15]

a) Describe any two forms of DNA with diagram and its significance.

b) Justify- Amino acids and proteins can act as buffer.

c) Write the structure and functions of any two disaccharides.

d) Explain the structure and biochemical role of Neurotransmitters.

e) Explain the properties of water that makes it universal solvent.

Q.4 Answer **ANY THREE** of the following: [15]

a) Give structure and function of tRNA.

b) Explain the role of Biochemistry as interdisciplinary science.

c) Describe the method to detect N terminal sequence of a polypeptide.

d) Explain with example any two types of sugar derivatives.

e) Explain the concept of isotopes and isomerism with examples.

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