

M.Sc (MICROBIOLOGY) SEM. – I (CBCS – 2018 COURSE) : SUMMER – 2022
SUBJECT : BIOCHEMISTRY

Day : Friday
Date : 01-07-2022 S-18583-2022

Time : 3:00 P.M. TO 6:00 P.M.
Max. Marks : 60

N.B.

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.

Q.1 Explain the structural details of protein. Describe the secondary and tertiary structure of protein with example. (15)

OR

Write an essay on structural features and chemistry of DNA double helix. Comment on implications of tautomeric forms of bases.

Q.2 a) What are phospholipids? Explain the structure and functions of glycerophospholipids. (08)

b) Explain various mechanisms of solute transport across the cell membrane. (07)

Q.3 Attempt **ANY THREE** of the following: (15)

- a)** Write a note on : Common functional groups present in biomolecules.
- b)** Write the structure and types of prostaglandin. Add a note on their biochemical function.
- c)** Explain : Transport of antibiotics increases the ionic permeability of membrane.
- d)** Write the structure and functions of TAG (Triacylglycerol).
- e)** Explain glycosidic linkages with example.

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

- a)** With a suitable example explain working of a gated channel.
- b)** Write the structure and functions of unsaturated fatty acids.
- c)** Write note on L and D forms of sugar.
- d)** Explain ATP as a high energy compound.
- e)** Write a note on Aldoses.

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