

C.U.SHAH UNIVERSITY

Summer Examination-2018

Subject Name: Chemical Structure & Macromolecules

Subject Code: 4SC01CSM2

Branch: B.Sc. (Microbiology)

Semester: 1

Date: 27/03/2018

Time: 02:30 To 04:30

Marks: 50

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

- Q-1 Attempt the following questions: (10)**
- a) Define: Co-ordinate bond (01)
 - b) Define: Epimers (01)
 - c) Define: Mutarotation (01)
 - d) _____% cellular composition in Messenger RNA (tRNA). (01)
 - e) An p orbital has the shape of a _____. (01)
 - f) Nucleotide is composed of _____. (01)
 - g) Draw the chemical structure of Cytosine. (01)
 - h) Write an electron configuration of N element. (01)
 - i) Draw the chemical structure of D-Glucose. (01)
 - j) Which of the following compound is Polar? (01)
(a) H₂O (b) CO₂ (c) CCl₄ (d) None of these

Attempt any four questions from Q-2 to Q-8

- Q-2 Attempt all questions (10)**
- a) Write a note on classification of carbohydrates. (05)
 - b) Write a note on oxidation and tautomerization of monosaccharide. (05)
- Q-3 Attempt all questions (10)**
- a) Write a note on Electron configuration. (04)
 - b) Explain the Hydrogen Bonding with suitable examples. (04)
 - c) What are polar and non-polar bonds? Give examples. (02)
- Q-4 Attempt all questions (10)**
- a) What is Polysaccharide? Write a note on Polysaccharide. (05)
 - b) Write a note on starch (05)



