

## JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

## TEST -1 EXAMINATIONS-2022

## B.Tech-IV Semester (BT)

COURSE CODE: 18B11BI413

MAX. MARKS: 15

COURSE NAME: Structural Biology

COURSE CREDITS: 3

MAX. TIME: 1 Hour

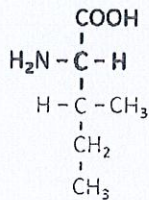
*Note: All questions are compulsory. Marks are indicated against each question in square brackets.*

Q1. What can be the alternative to experimental determinations of the three dimensional structures of biomolecules? (1 Mark)

Q2. Write down the names of phonetically suggestive amino acids RFYW. (1 Mark)

Q3. Are all amino acids charged species? Justify. (1 Mark)

Q4. Amino acids exhibit stereoisomerism. Find out atoms responsible for stereoisomerism in the given amino acid. (2 Marks)



Q5. Can you observe protein structure with help of a light microscope? Give justification. (3 Marks)

Q6. Which amino acids exhibit hydrophobic properties? Give proper justification with examples. (3 Marks)

Q7. Explain

a) What is the implication of high dielectric constant of water? (1 Mark)

b) Dipole-dipole interaction (1 Mark)

c) What is the effect of hydrophobic interaction on entropy? (2 Marks)