

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATIONS-2022

B. Tech III-Semester (BI)

COURSE CODE (CREDITS): 18B11BI311 (3)

MAX. MARKS: 15

COURSE NAME: CELL AND MOLECULAR BIOLOGY

COURSE INSTRUCTOR: DR. JATA SHANKAR

MAX. TIME: 1 Hour

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

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- Q1. Prokaryotic and eukaryotic cells differ in size, structure of their molecular component and at genetic level. give the account of these salient features to distinguish them [2 marks] CO I
- Q2. Carbohydrate belongs to the essential biomolecules of cell system, state different types carbohydrate and draw the ribose and deoxyribose sugars? [2 marks] CO I
- Q3. Disaccharides include sucrose, maltose and lactose; draw the structure with bonding and monomer units of these disaccharides? [2 marks] CO II
- Q4? Protein are large molecules made of amino acids to perform biological function and to provide structural component of the cell, what are the different level of protein structure and factors that affect structure and function of the protein? [2 marks] CO I & II
- Q5. All enzymes are protein; what are the different classification of enzymes and state the mechanism of enzyme functioning? [2 marks] CO I
- Q6. Explain the following (5 marks) CO I & II
- Peptide bond between glycine
  - Draw the two essential amino acids
  - Sanger sequence methodology?
  - ESTs
  - Genetic and physical mapping