

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2024

B.Tech-IV Semester (BT)

COURSE CODE(CREDITS): 18B11BT413 (4)

MAX. MARKS: 15

COURSE NAME: Introduction to Bioinformatics

COURSE INSTRUCTORS: Dr. Raj Kumar

MAX. TIME: 1 Hour

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*Note: (a) All questions are compulsory.*

*(b) Marks are indicated against each question in square brackets.*

*(c) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems*

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Q1. The final HGP outcome was a mosaic. Justify the given statement? (CO-1) [2]

Q2. The 'Central Dogma' is the process by which the instructions in DNA are converted into a functional product. How does it serve as the major source of biomedical information? (CO-1) [3]

Q3. The Human Genome Project (HGP) was a landmark global scientific effort whose aim was to generate the first sequence of the human genome. What are the major outcomes of the HGP? (CO-1) [3]

Q4. Biological databases contain diverse information of biological systems. A 'record', a 'field' and a 'relation' are necessary items in construction of a Biological database. Imagine you are constructing a biological database of your choice, what type of data will you fill in the given portions of the database? (CO-1, 2) [2]

Q5. List some important Bioinformatics resources for: (CO-1, 2) [5]

- a) Comprehensive protein information
- b) Full length article search
- c) Biomolecular structure information
- d) Nucleotide sequence sharing
- e) Largest chemical database