JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2026

B. Tech-VIII Semester [All except Bio]

COURSE CODE (CREDITS): 21B1WBT833 (3) MAX. MARKS: 15

COURSE NAME: Computational Biology for Engineers

COURSE INSTRUCTOR: Dr. Raj Kumar MAX. TIME: 1 Hour

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

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

(c) Use of calculators is not allowed

Q.No	Question	CO	Marks
Q1	Computational biology is considered an interdisciplinary science. Explain this statement by describing how different disciplines contribute to Computational biology, with suitable examples.	1	2
Q2	Differentiate between primary and secondary biological databases with suitable examples.	1	2
Q3	Margaret Dayhoff is regarded as a pioneer of bioinformatics. Discuss her major contributions to the development of the field of bioinformatics.	2	2
Q4	Formulate a PubMed literature search strategy to identify peer-reviewed articles on the topic advancement of AI/ML methods in the field of Computational Biology	3	3
Q5	Nucleotide sequence databases represent a collaborative effort to collect and disseminate repositories containing DNA and RNA sequences. Discuss the different nucleotide sequence resources and their data-sharing strategies.	2	3
Q6	Describe a comprehensive protein information resource and explain its importance for studying protein structure, function, and biological roles.	2	3

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