

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2025

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

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

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

Q.No	Question	CO	Marks
Q1	Bioinformatics is an interdisciplinary science that combines computer science, biology, and other fields to study biological data. Discuss two main components of Bioinformatics?	1	2
Q2	Discuss the contribution of the Atlas of Protein Sequence and Structure to the study of protein structure and function?	1-2	2
Q3	Discuss the importance of 'Features' section of a GenBank file?	1-2	2
Q4	The Human Genome Project provided researchers with basic information about the genetic content of the human organism. Discuss the understandings developed about the number of genes and gene density after completion of human genome project.	1-2	3
Q5	Create a literature search strategy from PubMed to retrieve peer-reviewed articles that discuss the long-term effects of cigarette smoking on cancer incidences in adults?	1-2	3
Q6	Short notes: a) Systems Biology b) Primary vs. secondary databases c) Omics	1-2	(1X3=3)