JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2025

B.Tech-I Semester (CSE/IT/ECE/CE/BT/BI)

COURSE CODE (CREDITS): 22M1WCI136 (3) MAX. MARKS: 15

COURSE NAME: Data Visualization

COURSE INSTRUCTORS: Dr. Ramesh Narwal 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	List the primary tools used in Data Science (e.g., Python, R, Pandas, NumPy). Mention one real-world use case for each.	CO2	3
Q2	Compare the roles of NumPy, Pandas, and Matplotlib in analyzing sales data of an e-commerce company. How do these libraries complement each other?	CO3	3
Q3.	Evaluate the pros and cons of using Python versus R in the following real-life situations: a) Weather prediction b) Stock market analysis c) Healthcare data analysis Which language would you prefer for each case, and why?	CO2	3
Q4.	Explain the need for Data Science in today's world. Why do companies like Amazon or Netflix invest heavily in data science?	CO1	3
Q5	Design a small Data Science project for a retail store chain to increase sales using customer purchase data. Outline the process (problem statement → data collection → tools → analysis → visualization → decision-making). Mention at least 3 Python/R libraries you would use.	CO1, CO2, CO3	3