JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2026

B.Tech-VII Semester (CSE/IT)

COURSE CODE (CREDITS): 25B1WCI740 MAX. MARKS: 15

COURSE NAME: MACHINE LEARNING ENGINEERING FOR PRODUCTION SYSTEMS

COURSE INSTRUCTOR: Saurav 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 calculator is not allowed

Q.No	Question	CO	Marks
Q1	Design an MLOps data pipeline for an **online fraud detection system**. Your design should explain how data moves from transaction generation to prediction and how newly labeled fraud cases are incorporated into future model training.	CO2	4
Q2	An ML-based customer churn model was initially deployed with 92% accuracy. After six months, its accuracy dropped to 74%. Analyze the possible causes related to: • Data drift • Data quality • Feature changes • Label quality • Model degradation	CO1	5
Q3	Explain the following feature transformation techniques: • Normalization • Standardization • Log transformation • One-hot encoding	CO2	3
Q4	Compare **data lakes, data warehouses, and feature stores** in the context of MLOps.	CO1	3

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