

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

Make-up Examination-Nov-2025

COURSE CODE (CREDITS): 22M1WCI131 (3)

MAX. MARKS: 25

COURSE NAME: Data Warehousing and Data Mining

COURSE INSTRUCTORS: Dr. Rakesh Kanji

MAX. TIME: 1 Hour 30 Minutes

Note: 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	Build a Datawarehouse for sales as fact table w.r.t snowflake schema and suitable dimension tables as per your choice. Describe the salient features of data warehouse.	CO1,2	3+2
Q2	Provide the context as per sales fact table where you apply roll up, Drill down, slice and dice. Explain the use of Iceberg, had Skycube with the examples	CO1,2	3+2
Q3	If a disk page has 8 elements then for 1*8 as chunk size for 8*8*8 array how many disk page will be required for a slice operation? What is the motivation of arranging memory in chunking fashion? Explain the use of ETL in Data warehousing construction.	CO2	2+1+2
Q4	Perform SVM on given data as $x_1, y_1 = [1 \ 1], 1$; $x_2, y_2 = [1 \ 0], 1$; $x_3, y_3 = [1 \ -1], -1$; $x_4, y_4 = [0 \ 1], -1$. Provide the conclusion if you don't find any Support vectors.	CO3,4	4+1
Q5	Perform minimize and maximization $f(x,y) = -2x^2 + xy - 3y^2$. Provide the chosen method justification. Explain the objective function of logistic regression.	CO3,4	3+1+1