

END TERM EXAMINATION

SIXTH SEMESTER [BCA] JUNE 2024

Paper Code: BCA-302

Subject: Data Warehousing and Data Mining

(Batch-2021 Onwards)

Time: 3 Hours

Maximum Marks: 75

Note: Attempt five questions in all including Q. no.1 which is compulsory. Select one question from each unit.

- Q1 Attempt **any five** of the following questions: (5x5=25)
- Explain different data mining tasks.
 - Differentiate between designing a data warehouse and an OLAP cube.
 - Explain the Issues regarding Classification and Prediction.
 - Why data mining queries are more helpful? Explain.
 - Differentiate between Principal Component Analysis and Factor Analysis.
 - Explain Association Algorithm in Data Mining.
 - What are the differences between OLAP and OLTP?
 - Why Fuzzy logic is an important area for Data Mining?

UNIT-I

- Q2 (a) Explain three tier architecture of data ware housing. (6.5)
 (b) What are the most common transformations in ETL processes? (6)

OR

- Q3 What are the various components of data warehouse? Explain their functionality in detail. (12.5)

UNIT-II

- Q4 What is the significance of OLAP in data warehouse? Describe OLAP operations. (12.5)

OR

- Q5 (a) Make comparisons between the MOLAP and HOLAP. (6.5)
 (b) Discuss the star and snowflake schema in detail with suitable example. (6)

UNIT-III

- Q6 Explain different data mining tasks for knowledge discovery. (12.5)
OR

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- Q7 A database has six transactions. Let min-sup = 50% and min-conf = 75%. (12.5)

TID	List of items
001	Pencil, sharpener, eraser, color papers
002	Color papers, charts, glue sticks
003	Pencil, glue stick, eraser, pen
004	Oil pastels, poster colours, correction tape
005	Whitener, pen, pencil, charts, glue stick
006	Colour pencils, crayons, eraser, pen

Find all frequent item sets using Apriori algorithm. List all the strong association rules.

UNIT-IV

- Q8 (a) How the data mining will be used in the telecommunication industry? (6.5)
 (b) How can one handle suspicious or missing data in a dataset while performing the analysis? (6)

OR

- Q9 (a) What are the techniques used in data reduction? Explain one of them in detail. (6.5)
 (b) Discuss the application of Data Mining in Retail Industry. (6)

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