PAPER ID-310321

Subject Code: BMC012

Roll No: | | | | | | | | | | | | | |

MCA

(SEM III) THEORY EXAMINATION 2025-26

DATA WAREHOUSING & DATA MINING

TIME: 3 HRS **M.MARKS: 70**

Note: Attempt all Sections. In case of any missing data; choose suitably.

SECTION A

1. Attempt *all* questions in brief. **02 x 7 = 14**

Q no.	Question	CO	Level
a.	State the primary objective of Data Warehousing.	1	K1
b.	List any two components of a Data Warehouse architecture.	1	K1
c.	State the role of ETL in Data Warehouse processes.	2	K2
d.	Explain Data Cleaning.	3	K1
e.	Define Decision Tree.	3	K1
f.	Distinguish between Classification and Clustering.	4	K2
g.	Explain Data Visualization.	5	K2

SECTION B

2. Attempt any *three* of the following: **07 x 3 = 21**

a.	Discuss the process of building a Data Warehouse and explain the role of warehouse databases in decision support systems.	1	K2
b.	Explore the fact constellations and snowflake schema in data warehousing.	1	K2
c.	Explain data cleaning techniques for handling missing and noisy data.	3	K2
d.	Explain in detail density-based clustering methods.	4	K2
e.	Explain warehousing applications and recent trends.	5	K2

SECTION C

3. Attempt any *one* part of the following: **07 x 1 = 07**

a.	Describe the multidimensional data model and illustrate Star and Snowflake schemas with examples.	1	K3
b.	Analyze the benefits and challenges of implementing a multidimensional data model in a data warehouse.	1	K4

4. Attempt any *one* part of the following: **07 x 1 = 07**

a.	Explain the data warehouse planning and implementation process, highlighting major management and support activities.	2	K2
b.	Describe the importance of hardware and operating systems in data warehousing environments.	2	K2

5. Attempt any *one* part of the following: **07 x 1 = 07**

a.	Discuss the stages of data preprocessing and explain the role of data reduction techniques in data mining.	3	K2
b.	Demonstrate the architecture of a data mining system.	3	K3

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6. Attempt any *one* part of the following: 07 x 1 = 07

a.	Explain classification techniques and compare statistical-based and distance-based algorithms.	4	K4
b.	Explain Decision Tree construction and its application in knowledge discovery.	3	K3

7. Attempt any *one* part of the following: 07 x 1 = 07

a.	Explain Web Mining, Spatial Mining and Temporal Mining.	5	K3
b.	Explain OLAP functions, OLAP tools, and OLAP servers.	5	K3