

Q-1 Answer the following question

- A What is Data Warehouse? Explain Data Warehouse process. 7
B What is Data Cube? Explain Snowflake schema in detail with an example. 7

OR

- A Consider a Supermarket. List the elements of data warehouse in Supermarket. Also list the metadata, data mart and need for Data Warehouse in a Super Market. 7
B Explain the terms with examples: 7
DBMS, RDBMS, Data Warehouse, Data Mining.

Q-2 Answer the following question

- A Differentiate between: 7
1. OLTP and OLAP
2. ROLAP and MOLAP
B What is the role and responsibilities of a Data Warehouse Manager? 7

OR

- A Explain the 3-Tier Data Warehouse architecture. 7
B What is Virtual Data Warehouse? Compare Distributed and Virtual Data Warehouse. 7

Q-3 Answer the following question.

- A Write a short note on Data Mining. 7
B Classify Data Mining System based on their applications. 7

OR

- A What are the major challenges/issues in Data Mining? Explain steps to overcome these challenges. 7
B Explain Association Rule Mining with an example. 7

Q-4 Answer the following question

- A What is known as Knowledge Discovery in Databases? Explain steps. 7
B Explain the terms: Outliers, Clustering, Data Mining Primitives. 7

OR

- A Write a short note on DMQL. 7
B Differentiate between Classification and Clustering with suitable examples. 7

Q-5 Answer the following question

- A Explain Time Series Data Mining. 7
B Explain Web Mining in context of Search Engine Optimization. 7

OR

- A Explain how Multimedia Mining can be performed. List and demonstrate any two Multimedia Mining examples. 7
B How will you do Data Mining on Complex Data Objects? Give examples and also list tools which will help in Mining Complex Data objects. 7