

Dr. Babasaheb Ambedkar Open University
Term End Examination January – 2026

Course	: BSCIT	Date	: 01/03/2026
Subject Code	: BSCIT-504	Time	: 03:00pm to 05:15pm
Subject Name	: Data Warehouse and Data Mining	Duration	: 02.15 Hours
		Max. Marks	: 70

Section A

Answer the following (Attempt any three) (30)

1. Define data mining and explain its functionalities and major issues of data mining.
2. Explain multidimensional data and describe data cube concepts and operations in detail.
3. Explain association rule mining and discuss support, confidence, and Apriori algorithm.
4. Explain clustering in data mining and describe different clustering methods.
5. Explain spatial and temporal data mining and discuss their applications.

Section B

Answer the following (Attempt any four) (20)

1. Differentiate between DBMS and Data Warehouse.
2. What is data cleaning? Explain its importance in data mining.
3. Write a short note on metadata in data warehouse.
4. What is attribute-oriented induction?
5. What is decision tree classification?
6. Explain web usage mining.

Section C

Part – A (Multiple Choice Questions)

(10)

- 1 Which of the following is a data mining functionality?
A Classification B Normalization
C Indexing D Backup
- 2 A data warehouse mainly supports:
A Daily transactions B Operational processing
C Analytical decision making D File management
- 3 Which OLAP operation summarizes data by climbing up hierarchy?
A Slice B Pivot
C Dice D Roll-up
- 4 Data transformation mainly involves:
A Data deletion B Data normalization and aggregation
C Data encryption D Data backup
- 5 A data cube is used to represent:
A Flat files B Relational tables only
C Multidimensional data D Text data
- 6 Which component stores data about data in a data warehouse?
A Data mart B OLAP server
C Data source D Metadata

- 7 Which representation uses IF–THEN format?
A Tree B Rule-based
C Graph-based D Table-based
- 8 Attribute-oriented induction uses:
A Concept hierarchies B Encryption keys
C Index files D Hash tables
- 9 Which measure indicates how often items appear together?
A Confidence B Lift
C Support D Accuracy
- 10 Which model uses tree-like structure?
A Neural network B Decision tree
C K-means D Apriori

Part – B (Do as Directed)

(10)

State whether the following statements are true or false

- 1 Data mining deals only with structured numerical data.
2 A data warehouse stores subject-oriented and historical data.
3 OLAP is mainly used for analytical processing and decision support.
4 Data preprocessing is performed after data mining is completed.
5 In three-tier architecture, the OLAP server is placed in the top tier.
6 Knowledge representation is used only for storing raw data.
7 Attribute-oriented analysis is used for summarizing large data sets.
8 Support measures how frequently an itemset appears in a database.
9 Clustering requires predefined class labels.
10 Web mining is limited only to static web pages.
