

MCA/M- 13
DATA WAREHOUSING & DATA MINING
Paper- MCA- 402

Time allowed : 3 hours [*Maximum marks : 80*]

Note : Attempt five questions in all, selecting at least one question from each unit.

. Question No. 1 is compulsory.

Compulsory question

1. Write short notes on the following:

- (a) Illustrate Drill down and Roll-up operation on data cube.
- (b) What do you mean by Data mart? Discuss.
- (c) Write short note on Loose Coupling and Tight Coupling.
- (d) Differentiate summarization from discrimination.
- (e) Write a note on Market Basket Analysis.
- (f) Discuss join and Prune for association rule mining.
- (g) Explain Nominal & Binary Variables.
- (h) Briefly explain DBSCAN algorithm.

UNIT-I

- 2. (a) What do you mean by data warehouse schema? Draw and explain the various type of schemas of data warehouse.
- (b) How partial materialization is important for data warehouse implementation?
- 3. (a) Define data warehouse. What are the characteristics of a good warehouse design ? Discuss the growth structure of data warehouse.
- (b) Differentiate between training data and test data. How fact and dimension tables are identified and generated?

UNIT-II

- 4. (a) Why we perform data pre-processing? Discuss the various methods associated with data integration and transformation.
- (b) List and describe the five primitives for specifying a data mining task.
- 5. (a) Identify, which part of data mining life cycle is most important for an analyst To identify trend/pattern.
- (b) Why attribute relevance analysis is performed? Discuss the methodology for applying attribute relevance analysis attribute relevance analysis with suitable example.

UNIT-III

- 6. (a) Discuss the issues regarding classification and prediction.
- (b) Explain classification by Back propagation.
- 7. For the input database given below generate association rules with minimum

Support =2 using Apriori and FP tree algorithms:

Tid	Items
1	Pen, Pencil, Cutter
2	Pencil, Sharpener, Cutter
3	Pen, Pencil, Eraser, Bread
4	Pen, Pencil, Sharpener
5	Pen, Eraser, Cutter
6	Pencil, Eraser, Bread
7	Pen, Pencil, Eraser
8	Pen, Pencil, Eraser, Cutter
9	Pen, Pencil, Eraser, Bread

UNIT-IV

- 8. (a) What data mining tool does? Draw a comparative chart of data mining tool And discuss them in term of accuracy, efficiency and complexity.**
- (b) How outlier mining differs from clustering?**
- 9. What do you mean by clustering? Discuss the important issues to be addressed By a data clustering system. Explain similarity and distance measures for clustering algorithms.**