

Name :

Roll No. :

Invigilator's Signature :

CS/M.TECH(IT-SE)/SEM-3/MSE-302F/2012-13

2012

DATA MINING AND DATA WAREHOUSING

Time Allotted : 3 Hours

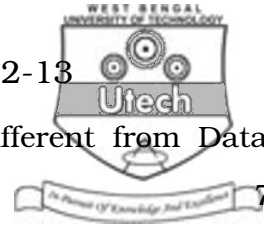
Full Marks : 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Answer five questions.

1. a) What is a Data Warehouse ? 3
b) Define three types of data warehouse schema architecture with diagram. 6
c) What are the different characteristics of Data Warehouse ? 5
2. a) Define Data Mining. 2
b) What is data cube ? Explain Dimension & Fact Tables. 8
c) What are typical OLAP operations in multidimensional data model ? 4
3. a) What are different steps (or tools used) for data warehousing ? 5
b) Write & explain Apriori algorithm for discovering frequent item sets for mining Boolean association rules. 9



4. a) What is Web Mining ? How is it different from Data Mining ? Justify your answers. 7
- b) What are image and video representation techniques ? Why are these techniques used in Data Mining ? Justify your answer. 7
5. a) Explain the pertaining method of clustering in Data Mining. 10
- b) Define CLARA and CLARNS. 4
6. a) What is Temporal and Spatial data mining ? 4
- b) Explain GSP algorithm. 8
- c) Describe challenges to data mining regarding data mining methodology and user interaction issues. 2
7. Write short notes on any *four* of the following : $4 \times 3 \frac{1}{2}$
- a) Data Mart
- b) KDD (Knowledge Discovery Database)
- c) DBSCAN
- d) WUM
- e) Snowflake Schema
- f) OLTP.

=====