

### UNIT-III

6. Define association rule mining and explain how Apriori algorithm works, with suitable example. [16]
7. List and discuss about the primitives involved in specifying a data mining task. [16]

### UNIT-IV

8. (a) Discuss classification method using Decision Tree Induction with the help of an example. [10]
- (b) Write a short note on web mining. [6]
9. (a) Explain the working of naive Bayesian classifier with an example. [10]
- (b) Write a short note on temporal data mining. [6]

Roll No. ....

**67172**

**M.C.A. 4th Sem. (with new notes)**  
**M.M. 80**

**Examination-May, 2017**

**DATA WAREHOUSING & MINING (NEW)**

**Paper-MCA-402**

**Time : 3 hours**

**Max. Marks : 80**

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard will be entertained after the examination.

**Note :** Question No. 1 is **compulsory**. Attempt **four** more questions selecting **one** question from each unit. All questions carry equal marks.

1. Answer the following questions briefly:  
[8×2 = 16]

(a) What are the characteristics of data warehouse ?

- (b) What are the differences between data warehouses and operational database systems ?
- (c) What is the need of multidimensional data model ?
- (d) Why data preprocessing is important for data mining ?
- (e) Define Categorical and Ordinal Variable.
- (f) What is Classification ? How is it different from Prediction ?
- (g) What is Concept Hierarchy in data mining ? Give an example.
- (h) What is Outlier Analysis ? Discuss its significance.

### UNIT-I

2. (a) Explain the three tier architecture of a data warehouse with diagrammatic illustration. [10]

- (b) Differentiate between Enterprise Warehouse, Data Mart and Virtual Warehouse. [6]

3. (a) Explain Star Schema and Snowflake Schema with the help of example. [10]
- (b) What is Data Mart ? What are the types of Data Mart ? [6]

### UNIT-II

4. (a) List and explain various OLAP operations for Multidimensional Data with suitable examples. [10]
- (b) What is OLAP server ? Discuss the various types of OLAP servers. [6]
5. (a) What is Data cube ? Explain with the help of an example. How many cuboids can be formed in an n-dimensional data cube ? [8]
- (b) What are the various methods of indexing of OLAP data ? Explain. [8]