

Roll No. ....

**24465**

**B. Tech. 7th Semester (IT)**  
**Examination – December, 2016**  
**DATA WAREHOUSING AND DATA MINING**

Paper : IT-401-F

Time : Three Hours ]      [ Maximum Marks : 100

*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 examination.*

**Note :** Attempt five questions. Question No. 1 is *compulsory*, select *one* question from each Unit. All questions carry equal marks.

1. (a) What do you mean by metadata ? Explain.
- (b) What is virtual data warehouse ? Explain.
- (c) What is data cube ?
- (d) What is clustering ? Explain.
- (e) What is web mining ?

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### UNIT - I

2. What is multidimensional data model ? Explain various schema for multidimensional data model.
3. What is the difference between OLTP and OLAP ? Describe different type of OPAP server.

### UNIT - II

4. (a) What do you mean by aggregation ? Explain.  
(b) Describe various OPLAP operations for multidimensional data.
5. What is data mining ? Explain various data mining techniques briefly.

### UNIT - III

6. Explain the concept of Query Language employed in data mining and standardization of data mining. How pattern presentation and visualization specification can be carried out in data mining query language ?

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7. (a) What do you understand by the term association rule mining in large database ? Explain.  
(b) What are classification rule ? How neural network can be used the classification techniques of data mining ?

### UNIT - IV

8. Explain the concept of spatial database and multimedia database. How spatial databases can be mined ? Explain.
9. Describe the mining process of text database time-series database.

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