

**Code: 9F00403**

MCA IV Semester Supplementary Examinations November/December 2017

**DATA WAREHOUSING & MINING**

(For students admitted in 2012, 2013, 2014 &amp; 2015 only)

Time: 3 hours

Max. Marks: 60

Answer any FIVE questions  
All questions carry equal marks

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- 1 (a) How are data mining systems classified? Discuss each classification with example?  
(b) Explain with diagrammatic illustration, the primitives for specifying a data mining task.
- 2 (a) What is a multidimensional data model? Explain star schema with an example and diagrammatic illustration.  
(b) With a neat diagram, describe the various stages of building a data warehouse.
- 3 (a) Explain the difference between multidimensional OLAP and multi-relational OLAP.  
(b) What is attribute-oriented induction? Describe how this is implemented.
- 4 Write Pseudocode for Apriori algorithm and using the algorithm, find all frequent item sets for the following database (min. support count = 2). What is support and confidence? List of item IDs.

TID	ITEMS
100	1,3,4
200	2,3,5
300	1,2,3,5
400	2,5

- 5 (a) What is decision tree? Explain how classification is done using decision tree induction.  
(b) How will you evaluate the accuracy of a classifier?
- 6 Why is outlier mining important? Briefly describe the different approaches behind statistical-based outlier, distance-based outlier detection and deviation-based outlier detection.
- 7 (a) Describe the role of data mining in spatial databases.  
(b) Explain in detail about text mining applications.
- 8 Write in detail about the applications of data mining.

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