# SPRING END SEMESTER EXAMINATION-2015

8th Semester B.Tech

## DATA MINING AND DATA WAREHOUSING (IT-811)

(Regular-2011 & Back of Previous Admitted Batches)

**Full Marks: 60** **Time: 3 Hours**

***Answer any SIX questions including Question No.1 which is compulsory.***

*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own words as far as practicable and all parts of a question should be answered at one place only.*

1. Answer the following questions: [2 × 10

a) Define the features of density based clustering method.

b) Distinguish between noise and outliers.

c) What is the need of discritization in data mining?

d) Sate the difference between multi dimensional and multi-relational OLAP.

e) State the use of multi-level association rule mining.

f) State the objective function of K-means algorithm.

g) Why competative learning is used in data mining?

h) List the types of data can be stored in multimedia database.

i) List out any two various commercial datamining tools.

j) Sate the use of confusion matrix.

2. a) Explain the process of knowledge discovery in databases. [4

b) Expalin various tasks of datamining. [4

3. a) Discuss the social impact of datamining. Discuss spatial datamining. [4

b) What is a multimedia database? Explain the methods of mining multimedia database. [4

4. a) Expain K-means clustering method with suitable example. [4

b) Is dataming a threat to privecy and data security? Discuss. [4

Q5 a) Expalin various measures for selecting the best splits, with suitable example. [4

b) Discuss general to specific and specific to general rule growing strategies. [2

c) Write the algorithm for k-nearest neighbour classification algorithm. [2

6. a) Define the following. Give an example to each: [4
(i) Support of a rule
(ii) Confidence of a rule

b) Which are the factors affecting the computational complexity of apriori algorithm? Explain them. [4

7. a) Consider the following transaction: [4

| Tid | Items |
|---|---|
| 1 | a,b |
| 2 | b, c, d |
| 3 | a, c, d, e |
| 4 | a, d, e |
| 5 | a, b, c |
| 6 | a, b, c, d |
| 7 | a |
| 8 | a, b, c |
| 9 | a, b, d |
| 10 | b, c, e |

Construct the FP Tree. So, the tree separately after reading each transaction.

b) How dataming system can be integrated with a datawarehouse? Discuss with an example. [4

8. Write short notes on the following (any two): [4 × 2

a) DBSCAN

b) Outlaier analysis

c) Description based retrival

d) Feature selection

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