

[07-4222]

IV/IV B.Tech. DEGREE EXAMINATION.

Second Semester

Computer Science and Engineering

Elective – IV – DATA WAREHOUSING AND DATA
MINING

(Common with IT)

(Effective from the admitted batch of 2006–2007)

Time : Three hours

Maximum : 70 marks

First questions is compulsory.

Answer any FOUR from the remaining questions.

All questions carry equal marks.

Answer ALL parts of any question at One place.

1. Briefly discuss the following:
 - (a) How is a data warehouse different from a database?
 - (b) Data cube aggregation
 - (c) Bitmap indexing
 - (d) Lattice of cuboids
 - (e) Frequent pattern growth
 - (f) Cross validation
 - (g) Constraint - based clustering

2. (a) Discuss about various types of databases and information repositories on which data mining can be performed.
(b) Explain the basic methods for data cleaning.
3. (a) Describe the numerosity reduction techniques.
(b) Explain the OLAP operations in multidimensional data model.
4. (a) Describe the star - cubing algorithm for computing iceberg cubes.
(b) Discuss about the efficient implementation of attribute oriented induction.
5. (a) How do you classify frequent pattern mining? Write the Apriori algorithm for discovering frequent items sets for mining boolean association rules.
(b) Describe the constraint - based association mining.
6. (a) What is decision tree induction? Discuss about different attribute selection measures considered during decision tree construction.
(b) Describe the back propagation algorithm for neural network based classification of data.