

7E5099

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B.Tech. (Sem.VII) (Main/Back) Examination- Dec. 2012
Information Technology
7IT3 Data Mining & Ware Housing

Time : 3 Hours

Total Marks : 80
 Min. Passing Marks : 24

Instructions to Candidates :

Attempt any five questions, selecting one question from each unit. All questions carry equal marks. Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.

UNIT - I

1. (a) What are the various design considerations for data warehouse? (4)
- (b) Define the data warehousing and its basic characteristics? (4)
- (c) Explain Data Discrimination and concept hierarchy generation with detailed analysis. (8)

OR

1. Explain the following terms :

- (i) Missing values
- (ii) Noisy data
- (iii) Data cleaning
- (iv) Data Transformation.

(4×4=16)

UNIT - II

2. (a) What is Apriori algorithm? Explain with a suitable example. (8)
- (b) How can you determine descriptive statistical measure in large database? (8)

OR

2. (a) Explain different Graph display of basic statistical class description? (8)
- (b) What is Market Basket Analysis? How is it used? Explain. (8)

UNIT - III

3. (a) What is Bayesian classification? How it classifies the input data? (8)
- (b) Describe the ID3 algorithm of the decision tree construction. Is it suitable for data mining applications? (8)

OR

3. Explain the following: (In brief)

- (i) CURE algorithm
- (ii) Multilayer feed – forward Neural network.
- (iii) Genetic algorithm
- (iv) Hierarchical clustering.

(4×4=16)

UNIT - IV

4. (a) State the difference between Database system and data warehouse. (6)
- (b) Explain all the steps for planning a data warehouse. (6)
- (c) Describe Data Marting in brief. (4)

OR

4. (a) Explain 3-tier architecture of data warehouse. (7)
- (b) Write short notes on the followings:
- (i) Dimensional Modeling
 - (ii) Distributed Data Warehouse
 - (iii) Star Schema. (3×3=9)

UNIT - V

5. (a) What is OLAP? Explain using a suitable diagram. (10)
- (b) Write short notes on DMQL. (6)

OR

5. (a) What are the different security issues in data warehousing? (8)
- (b) Discuss the need of back-up and recovery with respect to data warehouse using a relevant example. (8)

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