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IT – VIII

8E4020

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**B. Tech. (Sem. VIII) (Main) Examination, April/May - 2011**
**Information Tech.**
**8IT1 Data Mining & Warehousing**

Time : **3** Hours] [Total Marks : **80**
[Min. Passing Marks : **24**

*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.*

Use of following supporting material is permitted during examination.
*(Mentioned in form No. 205)*

1. Nil 2. Nil

1 (a) Explain the issues and usefulness of Data Mining ? 8

(b) What do you mean by Data Processing ? Explain various types of normalization techniques. 8

OR

1 (a) What do you mean by Data Reduction and what are the different process of Data Reduction ? 8

(b) Explain Data discretization and concept hierarchy of generation. 8

2 (a) Discuss why relevance analysis is beneficial and how it can be performed and integrated into the characterization process. Compare the result of two induction method (a) with relevance analysis and (b) without relevance analysis.

16

OR

2 Write short notes on :

(a) Generalized association rules

(b) Multilevel association rules.

8+8

3 (a) What is boosting ? State why it may improve the accuracy of decision tree induction.

8

(b) Compare the advantages and disadvantages of eager classification (Eg. decision tree, Bayesian, neural network) versus lazy classification (Eg. k-nearest neighbour, case-based reasoning).

8

OR

3 Describe the following approaches to clustering :

(a) Partitioning methods

(b) Hierarchical methods

(c) Density based methods

(d) Grid-based methods.

16

4 (a) What is data warehouse ? How data is acquired or calculated in a data warehouse ?

8

(b) Differentiate data base system and data warehouse.

8

OR

4 (a) Explain the conceptual view of a data warehouse.

8

(b) What is the need of client, server architecture ? What are the limitation of 2 Tier architecture ?

8

5 What do you mean by aggregation ? Explain how the OLAP handles aggregation.

**16**

**OR**

5 Write short note on :

(a) OLAP servers

(b) ROLAP

(c) HOLAP

(d) Tuning data warehouse.

**16**