

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 2712

Roll No.

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B.Tech.

(SEM. VII) ODD SEMESTER THEORY

EXAMINATION 2013-14

DATA MINING AND DATA WAREHOUSING

Time : 3 Hours

Total Marks : 100

Note :- Attempt all questions.

1. Attempt any **four** parts of the following : **(5×4=20)**
 - (a) What do you mean by Data Mining ? Differentiate between Data Mining Technique and Data Mining Strategy.
 - (b) What is Data Warehouse ? How does it differ from a database ?
 - (c) What do you mean by Granularity ? What is Partitioning ?
 - (d) Explain Data Warehouse Life Cycle.
 - (e) What is the data architecture of data warehouse operations ?
 - (f) Data consolidation is data modeling activity. This statement is true or not ? Justify.
2. Attempt any **two** parts of the following : **(10×2=20)**
 - (a) (i) Define the terms data generalization and analytical characterization with example.
 - (ii) Given the following set of values {1, 3, 9, 15, 20}, determine the Jackknife estimate for both the mean and standard deviation of the mean.

- (b) Describe the structure of a data warehouse with the help of a diagram.
- (c) What is meta data and why is it important ? Discuss the multidimensional data.
3. Attempt any **two** parts of the following : **(10×2=20)**
- (a) Differentiate between OLTP and OLAP with examples.
- (b) What is the role of Artificial Intelligence in Data Mining ?
- (c) Write short notes on the following :
- (i) Bayesian classification
- (ii) Back propagation algorithm.
4. Attempt any **two** parts of the following : **(10×2=20)**
- (a) Give E.F. Codd's 12 guidelines for OLAP.
- (b) How are decision trees useful in Data Mining ? Explain.
- (c) Describe the following with example :
- (i) Concept Hierarchy
- (ii) 3-Tier Architecture.
5. Attempt any **four** parts of the following : **(5×4=20)**
- (a) MOLAP vs HOLAP
- (b) Data Mining Interface
- (c) Backup and Recovery
- (d) Testing Data Warehouse
- (e) Genetic algorithm
- (f) Hierarchical and Non-hierarchical clustering.