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

PAPER ID : 2712 **Roll No.** | | | | | | | | | | |

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.