

(b) Write the differences between the Nearest Neighbour Data mining techniques and clustering.

(c) Write short notes on any *three* the following

- i) Web Data Mining
 - ii) Multi Media database
 - iii) Data Visualization
 - iv) Application of Data Mining
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Printed Pages : 4



NMCA013/MCAE-13

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

PAPER ID : 214431

Roll No.

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MCA
(SEM. IV) THEORY EXAM. 2014-15
DATA WAREHOUSING AND MINING

Time : 3 Hours]

[Total Marks : 100

Note : Attempt the questions as indicated.

Q1. Attempt any *four* questions from the following : 5x4=20

- (a) How is a data warehouse different from a database? How they are similar?
- (b) Explain the different schemas for Multidimensional Databases.
- (c) What is Data Mart? List the advantages of Data Mart.

- (d) What are the areas in which data warehouses are used in present and in future?
- (e) Explain the client server computing model. Also list the advantages of client server computing model.
- (f) Explain Distributed DBMS and its advantages.

Q2. Attempt any *four* questions from the following : 5x4=20

- (a) Explain 3-Tier Data warehouse architecture with clean figure.
- (b) List OLAP operations in Multidimensional Data model and explain with an example.
- (c) Define Association Rule Mining. How market analysis forms the Association rules? Discuss the basic concepts.
- (d) How does clustering differ from classification?
- (e) What are the fields in which clustering techniques are used?
- (f) Define Artificial Intelligence and its areas of application.

Q3. Attempt any *two* questions from the following : 10x2=20

- (a) Explain Bayesian classification and rule based classification. Give an example for any one classification and explain in detail.
- (b) Differentiate between OLAP and OLTP.
- (c) Describe neural network techniques for data mining. What are the major difficulties in using these techniques?

Q4. Attempt any *two* questions from the following : 10x2=20

- (a) What are the various issues in data mining? Explain.
- (b) What is decision tree? Explain how classification is done using decision tree induction.
- (c) What is KDD process? Explain each of its steps in detail.

Q5. Attempt any two of the following : 10x2=20

- (a) Discuss the genetic algorithms as data mining techniques. What are the main difficulties in using these techniques?