(Following Paper ID and Roll No. to be filled in your Answer Books)	
Paper ID : 214407	**Roll No.**

M.C.A.

Theory Examination (Semester-IV) 2015-16

DATA WAREHOUSING & MINING

Time : 3 Hours   *Max. Marks : 100*

Note: Attempt questions from all Sections as per directions.

Section-A

Attempt all parts of this section. Answer in brief. $(10 \times 2 = 20)$

1.   (a)   What do you mean by Data cleaning?

(b)   Explain the use of Neural network in Data Mining.

(c)   What is clustering? How clustering is different from classification?

(d)   Describe the basic operations performed on data cube.

(e)   What is data-mart? Explain its role in Data Warehousing.

(f)   What are the one, two and three dimensional data? Explain.

(g)   Discuss various types of web mining techniques.

(h)   What are outliers? How outliers analysis can be done?

(i)   Write the differences between Data Warehouse and Database System.

(j)   How is Data Mining different from KDD?

Section-B

2.   Attempt any five questions from this section.

$(10\times5 = 50)$

(a)   What is OLAP? Differentiate among OLAP, ROLAP and MOLAP servers.

(b)   How is nearest neighbour prediction algorithm used in Data Mining?

(c) Determine a Clustering method suitable for finding clusters in large database. Explain its working.

(d) Draw and explain the three-tier architecture of Data Warehouse model.

(e) What is a Decision tree? Explain the classification by decision tree induction. Describe the tree pruning.

(f) Explain the mining multidimensional association rules from relational databases and Data Warehouses.

(g) What do you mean by neural network? Explain multilayer Feed-Forward neural network. Differentiate between Feed-Forward and Feedback system.

(h) How frequent item set are generated using Apriori algorithm? Explain the method.

Section-C

Note : Attempt any two questions from this section.

$(15 \times 2 = 30)$

3. (i) How ID3 algorithm create a decision on given database? Assume a database to explain your answer.

(ii) How association rules can be formed on hierarchal data? Discuss various approaches.

4. (i) What is hierarchal clustering method? Explain its advantages over non-hierarchal clustering method.

(ii) Explain K-means clustering algorithm.

5. Write short notes on any three of the following:

(i) Data Mining Interfaces

(ii) Data Visualization

(iii) Testing of Data Warehouses

(iv) Data Transformation Tools