Roll No. | | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 09

MCA (2015 & Onward) (Sem.–6)

DATA WAREHOUSING & MINING

Subject Code : MCA-601

Paper ID : [74755]

Time : 3 Hrs. Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. **SECTIONS-A, B, C & D contains TWO questions each carrying TEN marks each and students has to attempt any ONE question from each SECTION.**
2. **SECTION-E is COMPULSORY consisting of TEN questions carrying TWENTY marks in all.**

SECTION-A

1. What is a Data Warehouse? Discuss the basic characteristics and architecture of a data warehouse.

2. Discuss in detail the conceptual and implementation models for the spatial data.

SECTION-B

3. What is a Temporal Data Warehouse? Describe in detail the conceptual models for temporal data warehouses.

4. Write short note on :

   a) Temporal Hierarchies.

   b) Multidimensional model.

SECTION-C

5. Explain the concept of Data Mining. Explain the functionalities associated with it.

6. Write a note on :

   a) Bayesian belief networks.

   b) Genetic Algorithms.

SECTION-D

7. Discuss in detail various types of data that are considered in the cluster analysis.

8. Briefly discuss the following :

   a) DBSCAN.

   b) K-Means clustering.

SECTION-E

9. Answer the following in brief :

   a) What is Big Data?

   b) Define Data Mart.

   c) List the difficulties in implementing data warehouse.

   d) What is Temporal Granularity?

   e) Explain temporal extension of multidimensional model.

   f) How KDD differs from data mining?

   g) State Bayes theorem.

   h) Differentiate between classification and prediction.

   i) What is multiple regression? What is its use?

   j) Briefly discuss back propagation algorithm.