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Total No. of Questions : 09

# MCA (2015 & Onward) (Sem.–6) DATA WAREHOUSING & MINING Subject Code : MCA-601

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 have 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? What is the need for a data warehouse? Also discuss the goals of a data warehouse.
- 2. What is a Spatial data warehouse? Elaborate in detail the architecture of spatial systems.

### SECTION-B

- 3. What is a Temporal data warehouse? Explain in terms of temporal extension of the multidimensional data model. Explain temporal hierarchies, facts and measures with examples.
- A Discuss the conceptual models for temporal data warehouses.

### SECTION-C

- 5. What is Data Mining? Explain different kinds of data that can be mined.
- 6. Explain classification using Back Propagation algorithm.

### SECTION-D

- 7. What is Regression? Differentiate between simple regression and multiple regression with an example. Explain linear regression technique in detail.
- 8. What is Clustering? What are the different clustering methods? Describe the partitioning methods of clustering in detail.

### SECTION-E

- 9. Answer briefly :
  - a. What is 'Big Data'?
  - b. What is multidimensional data model? Give examples.
  - c. Explain slice, dice and drill-down operations.
  - d. What is metadata and why is it important?
  - e. What is the difference between Star schema and Snowflake schema?
  - f. Why do we need to pre-process data?
  - g. What is data cube?
  - h. What is case-based reasoning?
  - i. What do you mean by data transformation?
  - j. What is prediction?

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.