



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

PAPER ID : 214407

Roll No.

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M. C. A.

(SEM. IV) THEORY EXAMINATION, 2014-15
DATA WAREHOUSING AND DATAMINING

Time : 3 Hours]

[Total Marks : 100

- Note :**
- (1) Attempt all questions.
 - (2) All questions carry equal marks.

1 Attempt any FOUR questions. **5x4=20**

- (a) How can you link data mining with DBMS?
- (b) Discuss the role of data mining in data warehousing.
- (c) What do you mean by cleaning of the data?
- (d) Write and describe important types of difficulties in data mining process.
- (e) Write short note on Dimensionality reduction.
- (f) Explain Histogram. The following data are a list of prices of commonly sold items at a company. The number have been sorted 1, 1, 5, 5, 5, 8, 8, 10, 10, 15, 15, 20, 20, 20, 20. Make a histogram for price using singleton buckets.

2 Attempt any FOUR question : **5x4=20**

- (a) How frequent item set are generated using Apriori algorithm? Explain the method.
- (b) What do you mean by association rules, for what purposes it is being used ? Explain with example.
- (c) What are the main purposes of statistics, used in data mining?
- (d) Discuss why analytical characterization and attribute, relevance analysis are needed and how these can be performed?
- (e) Define the term data generalization and analytical characterization with example.
- (f) Describe Mining single association rules from Transactional Databases.

3 Attempt any TWO questions. **10x2=20**

- (a) What do you mean by neural network? Explain multilayer Feed-Forward neural network. Differentiate between Feed-Forward and Feedback system.
- (b) What do you mean by decision tree? Describe ID3 algorithm of the decision tree. Why it is unsuitable for data mining applications ?
- (c) Write short notes on the following
 - (i) Bayesian classification
 - (ii) Back propagation Algorithm

4 Attempt any TWO questions. **10x2=20**

- (a) (i) Explain Snow - Flake schema with an example.
- (ii) Explain Fact Constellations with an example.
- (b) Give E.F. Codd's 12 guidelines for OLAP.
- (c) Explain briefly the following
 - (i) Concept hierarchy
 - (ii) 3 Tier Architecture.

5 Attempt any TWO questions. **10x2=20**

- (a) Define and describe the basic similarities and differences among ROLAP, MOLAP, and HOLAP.
- (b) Explain OLAP functions and tools in brief. What are the main features of OLAP servers?
- (c) Write short notes on :
 - (i) Backup and Recovery
 - (ii) Tuning Data Warehouse.
