

END TERM EXAMINATION

FOURTH SEMESTER [MCA] MAY-JUNE-2014

Paper Code: MCA-204

Subject: Dataware Housing and Data Mining (2010 Onwards)

Time: 3 Hours

Maximum Marks: 60

Note: Attempt any five questions, including Q.no.1 is compulsory. Select one question from each Unit.

- Q1 Answer **any ten** of the following:- (10x2=20)
- (a) What is data granularity of data in warehouse? What are the benefits of granularity of data in warehouse design?
 - (b) Explain Data Visualization in detail.
 - (c) Differentiate between Data Warehouse and Data Mart.
 - (d) Explain top-down approach for building and data warehouse.
 - (e) Explain primary & secondary data in the context of snapshots in data warehouse.
 - (f) Explain the term Index only Processing & Fast Restore.
 - (g) Differentiate between slowly changing and rapidly changing dimension with example.
 - (h) What are extract programs, give there advantages.
 - (i) Explain data warehousing architecture. Give an example in support.
 - (j) What is cluster Analysis.
 - (k) A dimension table is wide and the fact table is deep. Justify.
 - (l) Define & Explain concept of Data Mining.
 - (m) What do you mean by Strategic information?
 - (n) What do you mean by Fact less fact table?
 - (o) Define & explain metadata in the data warehouse.

Unit-I

- Q2 (a) Explain in detail three data models used in Data Warehouse.
(b) Why is entity relationship model technique not suitable for the data warehouse? Explain with example. (2x5=10)
- Q3 (a) Differentiate between OLAP and OLTP.
(b) Explain OLAP operations drill-down, roll-up, slice-and-dice. (2x5=10)

Unit-II

- Q4 (a) Explain Steps for the Design & Construction of Data warehouse.
(b) What are aggregated fact tables? Explain One, Two and Three way aggregated fact table with the help of an example. Explain how aggregation can speed up analysis. (2x5=10)
- Q5 (a) What is STAR Schema? What are the advantages of STAR Schema?
(b) What is Schema? Explain and compare Star and Snow Flake Schema for sales department of ONIDA, with the dimensions: Time, Branch, Item location, City and Supplier. (2x5=10)

Unit-III

- Q6 (a) Define data mining & explain how it is different from OLAP. Give the conceptual differences between Data mart and Data warehousing?
(b) What is Knowledge discovery process (KDD), explain with suitable example how it works. (2x5=10)

Unit-IV

- Q8 (a) Describe the following approaches to clustering methods, decision tree, memory based reasoning, and link analysis methods. Give an example for each.
(b) Differentiate between ROLAP and MOLAP. Also draw a labeled diagram for each model. (2x5=10)