ROLL NO. _____

Code: CS482 **Subject: DATA WAREHOUSE DESIGN & IMPLEMENTATION**

ALCCS – OLD SCHEME

Time: 3 Hours **AUGUST 2013** **Max. Marks: 100**

PLEASE WRITE YOUR ROLL NO. AT THE SPACE PROVIDED ON EACH PAGE IMMEDIATELY AFTER RECEIVING THE QUESTION PAPER.

NOTE:

- **Question 1 is compulsory and carries 28 marks. Answer any FOUR questions from the rest. Marks are indicated against each question.**
- **Parts of a question should be answered at the same place.**

Q.1 **(7 × 4)**

a. Differentiate between Data Warehouse and Data Mart.

b. Explain Data granularity in Data Warehouse.

c. Discuss the Disadvantages of snowflake schema.

d. Explain the following with reference to Date Warehouse: "Data inconsistencies are removed; data from diverse operational applications is integrated".

e. Explain the refreshing of data warehouse.

f. What do you understand by referential integrity?

g. Explain the benefits of granularity.

Q.2 a. Explain the four levels of architecture in the data warehouse environment. **(9)**

b. What are the problems with the naturally evolving architecture? **(9)**

Q.3 a. What kind of functionality is required as data passes from the operational, legacy environment to the data warehouse environment? **(8)**

b. What do you mean by snapshot? Describe briefly the basic components of a data warehouse snapshot. **(10)**

Q.4 a. What are the advantages of Star Schema? Explain. **(9)**

b. What are the various Star Schema Keys? Explain With the help of an example. **(9)**

Q.5 a. Why monitoring of data in Data Warehouse is required? **(6)**

b. Explain the following: **(12)**

(i) Efficient Index Utilization of data
(ii) Compaction of Data
(iii) Compound Keys
(iv) Lock Management

Q.6 a. Justify "The mapping of local data into global data is the most difficult aspect of building the global data warehouse". **(6)**

b. Explain Redundancy or overlap of data with respect to global data warehouse and its supporting local data warehouses. **(6)**

c. Explain with the help of an example the building and operation of completely unrelated warehouses. **(6)**

Q.7 a. Who should be in the Data Warehouse design review? **(4)**

b. What are the technological challenges in bringing the system-of-record data into the data warehouse? **(5)**

c. Write short notes on any **TWO** of the following: **(4.5×2)**

(i) Factless Fact Table
(ii) "Fact Table is Deep not Wide"
(iii) Drill Down Analysis
(iv) Event mapping in EIS processing