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

ALCCS – OLD SCHEME

Time: 3 Hours   **FEBRUARY 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 a migration plan and a methodology.

   b. What is the difference between Data warehouse and Data marts?

   c. Every data in Data warehouse is time stamped. Why?

   d. Discuss the advantages of snowflake schema with respect to star schema.

   e. Describe event mapping.

   f. Why monitoring the data in data warehouse environment is useful?

   g. Explain 'Normalization' in data warehouse.

Q.2 a. Explain the system development life cycle in Data warehouse environment. How it is different from classical SDLC?   **(9)**

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

Q.3 a. Examine the concept that metadata is like a nerve center. Describe how the concept applies to the data warehouse environment.   **(8)**

   b. How the different types of models apply to the architected environment?   **(10)**

Q.4 In data warehouse technology, a multiple dimensional view can be implemented by a relational database technique (ROLAP), or by a multidimensional database technique (MOLAP), or by a hybrid data technique (HOLAP).

   (a) Briefly describe each implementation technique.   **(9)**
   (b) For each technique, explain how each of the following functions may be implemented:
      (i) The generation of a data warehouse (including aggregation)
      (ii) Roll-up

          (iii) Drill-down
          (iv) Incremental updating
       Which implementation techniques do you prefer and why?   **(9)**

Q.5 a. Differentiate between operational systems and Data warehouse. Also explain how are these used for information.   **(9)**

     b. Briefly explain redundancy in global and local Data warehouse.   **(9)**

Q.6 a. Explain how data warehouse acts as a basis for EIS.   **(12)**

     b. What you understand by term feedback loop techniques? Explain.   **(6)**

Q.7   Write short notes on any **THREE** of the following: **(6+6+6)**

     (i)   Snapshots
     (ii) Data granularity in warehouse
     (iii) Language Interface in data warehouse
     (iv) PC/4GL Technology