ALCCS – (OLD SCHEME)

Code: CS482   **Subject: DATA WAREHOUSE DESIGN & IMPLEMENTATION**
Time: 3 Hours   **Max. Marks: 100**

MARCH 2011

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. Discuss the significance of subject orientation of data in a data warehouse.

   b. Explain how the system development life cycle for the data warehouse is exactly opposite to the classical SDLC.

   c. How is data quality different from data accuracy in a warehouse?

   d. Why is the entity relationship modeling technique not suitable for the data warehouse?

   e. Discuss the steps on which data cleaning should be based.

   f. What are the various data sources for the data warehouse?

   g. What are the major types of metadata in a data warehouse? Briefly mention the purpose of each type.

Q.2 a. A data warehouse is a blend of technologies. Do you agree with this statement? Give arguments.   **(5)**

   b. Discuss in detail the advantages and disadvantages of Top-Down Vs Bottom up approach of data warehouse design.   **(6)**

   c. What is "Partitioning of data"? Explain the ways to carry it out giving suitable examples.   **(7)**

Q.3 a. Discuss the warehouse architecture in detail.   **(12)**

   b. List the major functions and services for information delivery. Describe each briefly.
                                                                                                            (6)

Q.4 a. A dimension table is wide; the fact table is deep. Explain.   **(6)**

b. Discuss the advantages of STAR schema. **(6)**

c. Explain 'Normalization' in data warehouse. List its advantages. **(6)**

Q.5 a. Define OLAP. What are the four different types of OLAP Servers from implementation point of view? Explain briefly. **(10)**

b. Explain the distinction between dimensional data modelling and relational data modelling. **(8)**

Q.6 a. Discuss the major steps in Extraction Transformation and Loading (ETL) process. **(10)**

b. Discuss the various classes of users of warehouse systems. Why data-quality is important in a warehouse? **(8)**

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

    (i) Data Accuracy Vs Data Quality
    (ii) Cyclicity of data
    (iii) Drill down analysis
    (iv) Snowflake schema