

**ALCCS – OLD SCHEME**

Time: 3 Hours

**FEBRUARY 2012**

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.

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- Q.1**
- Briefly compare 'Enterprise warehouse', 'data mart' and 'virtual warehouse'.
  - Explain how the system development life cycle for the data warehouse is exactly opposite to the classical SDLC.
  - What are the different ways in which technology can support efficient index access?
  - Write an algorithmic path to calculate the row/ space occupied by a data warehouse.
  - Is the data in data warehouse homogenous or heterogeneous? Illustrate with an example.
  - When is design review performed? Who should be in a design review?
  - Explain the terms Business Metadata & Technical Metadata. (7 × 4)
- Q.2**
- "A data warehouse is a subject-oriented, integrated, time-variant and non-volatile collection of data to support of management's decision-making process." Discuss critically. (8)
  - How is data structured in a Data Warehouse? Explain? (6)
  - What is Granularity? What are its benefits related to a Data Warehouse? (4)
- Q.3**
- Explain how process model and data model can apply to the architecture environment? Why Process model is not suitable for data warehouse. (8)
  - Explain in detail all the three data warehouse data models. (10)
- Q.4**
- Discuss star join with an example. Creating a star join for the data warehouse is a mistake. Comment. (8)

- b. Explain Multidimensional DBMS. Discuss the ways of implementing it by providing its strength and weaknesses. How is Multidimensional DBMS different from warehouse? (10)
- Q.5** a. Building the warehouse on multiple levels is easiest scenario to manage with fewest risks. Explain. (8)
- b. Discuss “Design review” and “Event Mapping”. (10)
- Q.6** a. Discuss three different types of distributed data warehouse. Explain local and global data warehouses. (10)
- b. What is EIS? Explain it with the help of an example. (8)
- Q.7** Write short notes on any **THREE** of the following:
- (i) ERP-oriented Corporate Data Warehouse
  - (ii) Data Warehouse Physical Data Model
  - (iii) Cyclicity of Data
  - (iv) Drill Down Analysis (6+6+6)