[5154]-210
B.E. (I.T)
BUSINESS INTELLIGENCE - II
(2008 Course) (Semster - II)(Elective - IV)
(Open Elective) (414451DA)

Time : 3 Hours]   *[Max. Marks : 100*

Instructions to the candidates:

    1)   *Answers to the two sections should be written in two separate answer books.*

    2)   *Answer any three questions from each section.*

    3)   *Assume suitable data, if necessary.*

    4)   *Figures to the right indicate full marks.*

SECTION -I

Q1) a)   Discuss design and implementation aspects of Data warehouse.   **[8]**

    b)   What is Data Mart? Explain its significance in Business Intelligence. **[8]**

OR

Q2) a)   Compare and contrast OLTP and DW with examples.   **[8]**

    b)   Explain following operations of OLAP with suitable example.   **[8]**

        i) Drill-down

        ii) pivot

        iii) Dice

        iv) Slice

Q3) a)   What are fact table and dimensional table? Explain design aspects of fact table in dimensional modeling.   **[8]**

    b)   Explain usage of data warehouse in retail sales system.   **[8]**

OR

Q4) a)   What is slowly changing dimensions (SCDs)? Explain three types of SCDs with example.   **[8]**

    b)   What are the different types of facts used in data warehouse design? Explain with example.   **[8]**

Q5) a) What are the common data anomalies encountered during ETL process? How are they handled? **[9]**

b) Explain architecture of ETL in detail. **[9]**

OR

Q6) a) What is loading of data in data warehouse? Explain initial and incremental loading. **[9]**

b) Explain Following terms W.r.t. ETL. **[9]**

    i) Data Profiling

    ii) Late arriving facts

    iii) Data Quality

SECTION -II

Q7) a) Explain ROLAP, MOLAP, HOLAP server architecture in detail and state their significance. **[8]**

b) Explain reporting architecture with neat diagram. **[8]**

OR

Q8) a) Write short note on (Any 2): **[8]**

    i) Query Rewrite

    ii) Dashboards as reporting tool

    iii) Ad-hoc Reporting.

b) Explain ETL. scheduling. How is data-level security implemented? **[8]**

Q9) a) Explain the process of text-mining. What is the role of inverted index in text mining? **[8]**

b) What is Materialized view? Explain with example. What are the advantages of it? **[8]**

OR

Q10) a) What is cluster analysis? How it is used for business intelligence, explain with example? **[8]**

b) Explain the application of decision tree in business analytics with the help of example. List its features in brief. **[8]**

Q11) a) What is PIG? How it is used to deal with BIG data? **[9]**

b) Discuss design challenges to implement real time BI system. Explain the necessity of real time BI. **[9]**

OR

Q12) Write Short notes (any Three): **[18]**

a) HIVE

b) Agile BI

c) Log based change data capture

d) Netezza

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