SEAT No. :

P3182

[5354]-699

B.E.

BUSINESS INTELLIGENCE

(2012 Pattern) (Elective - II) (Semester - I)

Time : 2½ Hours]   *[Max. Marks :70*

Instructions to the candidates:

1) *Answer Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8, Q9 or Q10.*
2) *Neat diagrams must be drawn wherever necessary.*
3) *Figures to the right indicate full marks. Assume Suitable data if necessary.*

Q1) a) Define BI. List at least four BI tools.   **[4]**

b) Draw the architecture of Data Warehouse and explain its major features.
                                                                                                              [6]

OR

Q2) a) Write a short note on OLAP. Define data cube in context of OLAP system. What are the different operations that can be performed on a data cube.   **[6]**

b) Draw and explain the dimension model for the following scenario. A **bookshop** selling books of different categories such as textbooks, language books and novels. It maintains an **Online Book database** for customers to buy books online. The bookshop may have several **branches** in different locations.
Model should consist of atleast 1 fact table and 2-3 dimension tables.
                                                                                                              [4]

Q3) a) Explain transaction, recurring/periodic and accumulating snapshot types of dimensional modeling.   **[6]**

b) Explain the need and process of Change Data Capture.   **[4]**

OR

Q4) a) What are aggregate fact tables? What is its importance? Justify it with suitable example.   **[4]**

b) What is meant by loading in ETL? Explain in short initial loading, incremental loading and full loading.   **[6]**

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Q5) a) What is materialized view? Give an example of materialized view and snapshot materialized view. **[8]**

b) Explain with an example of different security levels in BI reports. **[8]**

OR

Q6) a) Draw the different Query Rewrite steps. How Query rewrite is different from cost based query rewrite? **[8]**

b) Define Dashboard. Which softwares are used in Dashboard creation? Create and explain one scenario for Dashboard presentation. **[8]**

Q7) a) What is clustering? How it is different from classification? Discuss the k-means algorithm for clustering with the help of an example. **[8]**

b) Explain Components and applications of time-series analysis. **[8]**

OR

Q8) a) What is classification in context of data mining? Explain decision tree classification with the help of an example. **[8]**

b) Compare and contrast In-DB and In-memory analytics. Write a note on Google analytics case study. **[8]**

Q9) a) What kind of data warehouse application is suitable for Hive? What are the types of tables in Hive? **[8]**

b) What are the different types of BI? Explain Agile BI and Embedded BI in detail. **[10]**

OR

Q10) Write on following: (any 3) : **[18]**
a) BI on Cloud
b) BI tool : QlikView
c) Compare and Contrast Pig and Hive
d) Tableau

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