

Total No. of Questions : 10]

SEAT No. :

**P3133**

**[5154]-699**

[Total No. of Pages : 2

**B.E. (Information Technology)**

**BUSINESS INTELLIGENCE**

**(2012 Course) (Semester - I) (Elective - II) (414457 A) (End Sem.)**

*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.*
- 4) Assume suitable data if necessary.*

**Q1) a) Explain BI with different types of Business Models. [4]**

**b) What are the different types of facts used in data warehouse design? Explain in detail. [6]**

**OR**

**Q2) a) Explain following operations of OLAP with suitable example. [6]**

**i) Drill-down**

**ii) Pivot**

**iii) Dice**

**b) Explain in short Data profiling and Data Lineage report. [4]**

**Q3) a) Write a short note on multi-valued dimension and dimension attributes. [4]**

**b) Explain dimensional model for retail sales industry. Model should have at least one fact table and two dimensional tables. [6]**

**OR**

**Q4) a) What are the common data anomalies encountered during ETL process? How are they handled? [4]**

**b) Write short note on: [6]**

**i) Star schema.**

**ii) Fact constellation schema.**

**iii) Snow flake schema.**

**P.T.O.**

- Q5) a)** How does the metadata layer, presentation layer, and Data layer support the Reporting architecture of Data warehouse? [8]
- b)** What is Materialized view? Explain with example. What are the advantages of it? [8]

OR

- Q6) a)** Write short note on: [8]
- i) Dashboards as Reporting tool
  - ii) Adhoc Reporting
- b)** Explain ETL scheduling. How data level security is handled in ETL process. [8]

- Q7) a)** What is clustering? Explain K-means clustering algorithm. Suppose the data for clustering {2, 4, 10, 12, 3, 20, 11, 25}. Given K = 2. Cluster the given data with K-means algorithm. [8]
- b)** Compare and contrast In-DB and In-memory analytics. How Google analytics works? [8]

OR

- Q8) a)** Define Data visualization and list its major advantages. List in brief different directions in data visualization. [8]
- b)** Explain the process of text-mining. What is the role of inverted index in text mining? [8]

- Q9)** Write short notes on any 3 of following: [18]

- a) Spotfire
- b) Log based change data capture
- c) Real time BI
- d) My Report

OR

- Q10)a)** What is agile Business Intelligence? How does it support and enhance business operations? [8]
- b)** Explain Cloud Business Intelligence Architecture with the help of neat diagram. [10]

