

Total No. of Questions :8]

SEAT No. :

**P1422**

[Total No. of Pages : 2

[6004]-501

**B.E. (Computer Engineering)**

**BUSINESS INTELLIGENCE**

**(2019 Pattern) (Semester-VIII) (Elective-VI) (410253 C)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.
- 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 in detail drill up & drill down. [6]  
b) Explain multidimensional data model with example. [6]  
c) What is data grouping and sorting? Write example of each. [5]

OR

- Q2)** a) Explain different types of reports in detail? [6]  
b) Explain relational data Model with example. [6]  
c) Write short note on filtering reports. [5]

- Q3)** a) Explain data exploration in detail with example. [7]  
b) Explain data transformation in detail with example. [5]  
c) Explain data validation, incompleteness, noise, inconsistency of quality of input data. [5]

OR

- Q4)** a) Explain data reduction in detail with example. [7]  
b) Difference between univariate, Bivariate, Multivariate analysis. [5]  
c) Write a short note on data discretization. [5]

- Q5)** a) What is the association rule mining? Explain the terms support, confidence, lift. [5]  
b) What is the difference between hierarchical clustering and partitioning method? [5]

**P.T.O.**

- c) Consider the following dataset and we will find frequent item sets and generate association rules for them using apriori algorithm, consider minimum support count is 2 & minimum confidence is 60% [8]

TID	Items
T1	11,12,15
T2	12,14
T3	12,13
T4	11, 12, 14
T5	11, 13,
T6	12, 13
T7	11, 13
T8	11, 12, 13, 15
T9	11, 12, 13

OR

- Q6) a) Explain Bayes theorem in detail. [5]  
b) Different between classification and clustering. [5]  
c) Explain logistic regression with example. [8]

- Q7) a) Explain BI application in CRM. [6]  
b) Explain roles of Analytical tools in BI. [6]  
c) Define business intelligence. List and explain any 03 tools for Business intelligence. [6]

OR

- Q8) a) Explain applications of BI in telecommunication and banking. [6]  
b) Explain BI application in Logistics and production. [6]  
c) Explain Role of BI in finance and marketing. [6]

