Total No. of Questions : 8]

SEAT No. :

P6572

[Total No. of Pages : 3

[6181]-122
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 and Q.3 or Q.4 and Q.5 or Q.6 and Q.7 or Q.8.***
2) ***Neat diagram must be drawn wherever necessary.***
3) ***Figures to the right indicate full marks.***
4) ***Assume suitable data, if necessary.***

Q1) a) State different types of reports with their application. **[6]**

b) What are the best practices in dashboard design? **[6]**

c) State the difference between relational and multidimensional data model. **[6]**

OR

Q2) a) Suggest the use of Data Grouping & Sorting, Filtering Reports. **[6]**

b) What is a File Extension? Explain the structure of CSV file. **[6]**

c) Explain in detail Drill up and Drill Down. **[6]**

Q3) a) Compute Mean, Median and Mode for following data **[7]**

Class	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50
Frequency	2	28	125	270	303	197	65	10

b) What is data Transformation? Explain Data Transformation Process in Detail. **[5]**

c) Explain univariate, bi variate and multivariate analysis with example and applications. **[5]**

OR

P.T.O.

Q4) a) What is a Contingency Table? What is Marginal Distribution? Justify with suitable example. **[7]**

b) Explain data validation, Incompleteness, noise, inconsistency of quality of input data. **[5]**

c) Explain following Data reduction technique: Sampling, Feature selection, Principal component analysis. **[5]**

Q5) a) Write a difference between classification and clustering with applications. **[6]**

b) Write a short note on Logistic Regression. **[6]**

c) The database has shown transactions. Let min_support = 02 and min_confidence = 70%. Find all frequent item set using Apriori algorithm and generate strong association rules **[6]**

TID	List of Items
T100	I1, I2, I5
T100	I2, I4
T100	I2, I3
T100	I1, I2, I4
T100	I1, I3
T100	I2, I3
T100	I1, I3
T100	I1, I2 ,I3, I5
T100	I1, I2, I3

OR

Q6) a) What are association rules? How to evaluate them using Support and Confidence? Explain with Example. **[6]**

b) State different formulae for Evaluation of classification models. **[6]**

c) Suppose we have group of visitors to the website using their age as following 16, 16, 17, 20, 20, 21, 21, 22, 23, 29, 36, 41, 42, 43, 44, 45, 61, 62, 66 Find out the clusters considering K = 2. **[6]**

Q7) a) State and explain different Tools for Business Intelligence. **[6]**

b) State and Elaborate similarities & differences in ERP and Business Intelligence. **[6]**

c) Write a note on: BI Applications in CRM. **[5]**

OR

Q8) a) State the role of Data Analytics in any business with example. **[6]**

b) Comment "How might you implement business intelligence findings within an organization?" **[6]**

c) Write a note on: BI Applications in Logistics. **[5]**