PAPER ID-410482

Roll No: | | | | | | | | | | | | | |

B. TECH/ M. TECH (INTEGRATED)
(SEM: V) THEORY EXAMINATION 2021-22
DATA ANALYTICS

Time: 3 Hours   *Total Marks: 100*

Note: **1.** Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. **Attempt *all* questions in brief.**   **2 x 10 = 20**

Qno.	Question	Marks	CO
a.	Differentiate between Predictive and Prescriptive Data Analytics.	2	CO1
b.	Differentiate between Analysis and Reporting.	2	CO1
c.	What is Lasso Regression?	2	CO2
d.	Differentiate between Univariate & Multivariate Analysis.	2	CO2
e.	How is steam Processing Different from Traditional Data Processing?	2	CO3
f.	What is the role of Sliding Window in Analysis of Streaming Data?	2	CO3
g.	Explain the Principle behind Hierarchal clustering Technique.	2	CO4
h.	Define Lift in Association Data Mining.	2	CO4
i.	What is the basic description of a Box Plot In R	2	CO5
j.	List two Data Visualization Tool	2	CO5

SECTION B

2. **Attempt any *three* of the following:**

Qno.	Question	Marks	CO
a.	Explain the Process Model and Computation Model of Big Data Platform	10	CO1
b.	Explain the Working of an Artificial Neural Network for Image Classification Task.	10	CO2
c.	Discuss the Publish/ Subscribe Model of Streaming Architecture.	10	CO3
d.	What are the advantages of PCY algorithm over Apriori Algorithm?	10	CO4
e.	What makes NoSQL Databases different from RDBMS	10	CO5

SECTION C

3. **Attempt any *one* part of the following:**

Qno.	Question	Marks	CO
a.	Discusses the steps involved in Data Analysis Process.	10	CO1
b.	Compare and Contrast Traditional Analytics Structure to Modern Analytics Architecture.	10	CO1

4. **Attempt any *one* part of the following:**

Qno.	Question	Marks	CO
a.	Discuss different types of Time Series Data Analysis along with its Major Application area.	10	CO2
b.	Differentiate different types of support vector and kernel methods of Data Analysis	10	CO2

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5. **Attempt any *one* part of the following:**

Qno.	Question	Marks	CO
a.	Discuss the Components of a General Stream Processing Model. List few sources of Streaming Data	10	CO3
b.	Explain and apply Flajolet-Martin algorithm on the following stream of data to identify unique elements in the stream. S=1,3,2,1,2,3,4,3,1,2,3,1S=1,3,2,1,2,3,4,3,1,2,3,1 Given: h(x)=(6x+1) mod 5	10	CO3

6. **Attempt any *one* part of the following:**

Qno.	Question	Marks	CO
a.	Differentiate between CLIQUE and ProCLUS clustering	10	CO4
b.		10	CO4

Tid	Items bought
10	Beer, Nuts, Diaper
20	Beer, Coffee, Diaper
30	Beer, Diaper, Eggs
40	Nuts, Eggs, Milk
50	Nuts, Coffee, Diaper, Eggs, Milk

Find all the Association rule from the above given Transaction with Given minsup = 50%, minconf = 50 %.

7. **Attempt any *one* part of the following:**

Qno.	Question	Marks	CO
a.	Explain the working of Hadoop Distributed File Systems.	10	CO5
b.	List and explain five R function used in Descriptive Statistics	10	CO5