

Code No.: DS403PC

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CMR ENGINEERING COLLEGE: : HYDERABAD

UGC AUTONOMOUS

II-B.TECH-II-Semester End Examinations (Regular) - August- 2023

INTRODUCTION TO DATA ANALYTICS

(CSD)

[Time: 3 Hours]

[Max. Marks: 70]

**Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 20 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

**PART-A**

**(20 Marks)**

1. a) Define Data Analytics. [2M]
- b) What is meant by data quality? [2M]
- c) What is nominal variable? Give an example. [2M]
- d) Differentiate between SQL and NoSQL database. [2M]
- e) Define Precision and Recall. [2M]
- f) What is the purpose of sigmoid function? [2M]
- g) Define supervised learning. [2M]
- h) Define information gain. [2M]
- i) What is a scatter plot? [2M]
- j) List Icon-Based Visualization Techniques. [2M]

**PART-B**

**(50 Marks)**

2. Discuss the process of handling duplicate values in organizational data. [10M]
- OR**
3. How data can be collected from various sources? Explain. [10M]
  4. Demonstrate Missing Imputation methods in detail with examples. [10M]
- OR**
- 5.a) Write a note on various types of variables in data analytics. [5M]
  - b) Describe the importance of business modeling. [5M]
  6. Explain in detail about Logistic regression. [10M]

**OR**

7. Apply linear regression using the method of least squares to the following data and predict the crop yield for rain fall of 5 cm. [10M]

Rainfall ( in cms)	20.5	8.8	33.4	12.5	18.8	10.3	9.0	26.6
Paddy yield(quintal per acre)	40.3	46.2	48.8	62.0	72.4	49.6	21.6	98.8

- 8.a) How can you measure the Forecast Accuracy? Explain. [5M]
  - b) Compare segmentation Vs regression. [5M]
- OR**
9. Explain about tree pruning in decision trees. [10M]
  10. Explain the Pixel-Oriented Visualization Techniques. [10M]
- OR**
11. What is a Word Cloud? Explain the Visualizing the Complex Data and Relations. [10M]

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