

Code No.: IT701PC

R20

H.T.No.

8 R

CMR ENGINEERING COLLEGE: : HYDERABAD  
UGC AUTONOMOUS

IV-B.TECH-I-Semester End Examinations (Regular) - November- 2024

DATA ANALYTICS

(IT)

[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 Management. [2M]
- b) What is noisy data and how does it affect data quality in analysis? [2M]
- c) What is Data Analytics and why is it important in business? [2M]
- d) Explain the concept of missing imputations in data analysis. [2M]
- e) What is regression analysis? [2M]
- f) Explain the significance of the BLUE property in regression analysis. [2M]
- g) What is the difference between supervised and unsupervised learning? [2M]
- h) What is ARIMA model? [2M]
- i) What is the purpose of using complex data visualization techniques? [2M]
- j) What is the purpose of a hierarchical visualization technique? [2M]

**PART-B**

**(50 Marks)**

2. Discuss the process of designing data architecture AND managing data for analysis. [10M]
- OR**
3. What are the common data quality issues (noise, missing values, and duplicate data)? How can these issues affect the accuracy of data analysis? [10M]
  4. Explain how different analytics tools and environments help in deriving insights from data. [10M]
- OR**
5. What are the data modeling techniques in data analytics? [10M]
  6. Explain the importance of model fit statistics in logistic regression analysis. [10M]
- OR**
7. Discuss analytics applications to various business domains etc. [10M]
  8. Explain the difference between regression and segmentation in Data analytics. [10M]
- OR**
9. What are the challenges of over fitting in decision trees, and how can pruning help overcome this issue. [10M]
  10. Explain about the pixel oriented visualization techniques. [10M]
- OR**
11. Explain about icon - based visualization techniques. [10M]

\*\*\*\*\*