

CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS

II–B.TECH–II–Semester End Examinations (Supply) - December- 2025

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) List various types of data. [2M]
- b) What is the need for business modeling? [2M]
- c) What is Ordinal variable? Give an example. [2M]
- d) Write the steps in data analytics. [2M]
- e) Define Confusion matrix. [2M]
- f) What is ROC curve? [2M]
- g) Define unsupervised learning. [2M]
- h) What is ARIMA? [2M]
- i) What is a Box Plot? [2M]
- j) What is a Chernoff Face and Sticky Figure? [2M]

PART-B

(50 Marks)

- 2.a) Discuss the factors that influence the data architecture. [5M]
 - b) Explain the stages of data processing. [5M]
- OR**
3. Explain in detail about data preprocessing. [10M]
 4. What are the tools used in data analytics? Explain. [10M]
- OR**
5. Illustrate Data modeling techniques. [10M]
 6. What is least square estimate? Illustrate its importance in regression modeling. [10M]
- OR**
7. Discuss about precision, recall and F1-score. [10M]
 8. Explain decision tree learning algorithm with an example. [10M]
- OR**
9. Discuss various steps involved in ETL approach. [10M]
 10. Explore in detail about the different Geometric Projection Visualization Techniques. [10M]
- OR**
11. Discuss the challenges in visualizing complex data and relations and suggest suitable mechanisms to address them. [10M]
