

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]
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4.	What are the tools used in data analytics? Explain.	[10M]
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OR

5.	Illustrate Data modeling techniques.	[10M]
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6.	What is least square estimate? Illustrate its importance in regression modeling.	[10M]
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OR

7.	Discuss about precision, recall and F1-score.	[10M]
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8.	Explain decision tree learning algorithm with an example.	[10M]
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OR

9.	Discuss various steps involved in ETL approach.	[10M]
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10.	Explore in detail about the different Geometric Projection Visualization Techniques.	[10M]
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OR

11.	Discuss the challenges in visualizing complex data and relations and suggest suitable mechanisms to address them.	[10M]
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