

24U271

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Name :

Reg. No :

SECOND SEMESTER UG DEGREE EXAMINATION, APRIL 2025

(FYUGP)

CC24UCSC2MN102 - INTRODUCTION TO DATA SCIENCE

(Computer Science - Minor Course)

(2024 Admission - Regular)

Time: 2.0 Hours

Maximum: 70 Marks

Credit: 4

Part A (Short answer questions)

Answer *all* questions. Each question carries 3 marks.

1. Explain normal distribution. [Level:2] [CO1]
2. Describe applications of Data Science. [Level:2] [CO1]
3. Explain applications of Diagnostic Data Analysis. [Level:2] [CO1]
4. Explain disadvantages of data science. [Level:2] [CO1]
5. Discuss Multivariate graphical EDA. [Level:2] [CO2]
6. Discuss Dispersion. [Level:2] [CO2]
7. Demonstrate the concept of Heat map with examples. [Level:3] [CO2]
8. Explain Bayes' Theorem for naive bayes. [Level:2] [CO4]
9. Explain Types of Clustering. [Level:2] [CO4]
10. Explain how to choose the value of K for K-NN Algorithm? [Level:2] [CO4]

(Ceiling: 24 Marks)

Part B (Paragraph questions/Problem)

Answer *all* questions. Each question carries 6 marks.

11. Describe types of data. [Level:2] [CO1]
12. Restate in your own words the concept of PCA. [Level:2] [CO3]
13. Illustrate the concept of Data Integration. [Level:2] [CO3]
14. Restate in your own words the concept of Data Cleaning. [Level:2] [CO3]
15. Interpret Evaluation metrics in machine learning. [Level:2] [CO4]
16. Describe Clustering. [Level:2] [CO4]

17. Interpret applications of supervised learning.

[Level:2] [CO4]

18. Describe Bias and Variance.

[Level:2] [CO4]

(Ceiling: 36 Marks)

Part C (Essay questions)

Answer any *one* question. The question carries 10 marks.

19. Explain the concept of data transformation.

[Level:2] [CO3]

20. Describe the concept of linear regression and its real-world applications.

[Level:2] [CO4]

(1 × 10 = 10 Marks)
