

Code No.: AD404PC

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H.T.No.

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CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS

II-B.TECH-II-Semester End Examinations (Supply) -February- 2024

FUNDAMENTALS OF DATA SCIENCE

(AI&DS)

[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) What is machine generated data in facets of data? [2M]
- b) What is exploratory data analysis in data science? [2M]
- c) What is an outlier in data? [2M]
- d) Can frequency distributions be used with nominal and continuous data? [2M]
- e) How many types of arrays are there in NumPy? [2M]
- f) Difference between NumPy array and structured array. [2M]
- g) What is z-score with an example? [2M]
- h) Define regression. [2M]
- i) How to plot datasets using matplotlib? [2M]
- j) Define scatter plots. [2M]

PART-B

(50 Marks)

2. Explain the basic tools of exploratory data analysis. [10M]
OR
3. Discuss the build models in data science. [10M]
4. Explain the cumulative frequency distributions. [10M]
OR
5. Describe the average for qualitative and ranked data. [10M]
6. What is aggregation and grouping? Explain. [10M]
OR
7. How do you group and aggregate data in Pandas? Explain [10M]
8. Explain the normal curve problems with an example. [10M]
OR
9. Describe the multiple regression equations. [10M]
10. Explain the interactive data visualization using bokeh. [10M]
OR
11. Illustrate the data analysis using stat models and sea born. [10M]
