

Code No.: AD404PC

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CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
II-B.TECH-II-Semester End Examinations (Supply) -July- 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 are facets of data? [2M]
- b) Specify need for data science. [2M]
- c) Define mode and mean. [2M]
- d) Define degrees of freedom. [2M]
- e) What is structured array? [2M]
- f) What is pivot table? [2M]
- g) Define correlation [2M]
- h) What is normal distribution? [2M]
- i) Define histogram. [2M]
- j) What is multiple regression? [2M]

PART-B

(50 Marks)

2. Illustrate data science process briefly. [10M]
- OR**
3. Explain the techniques involved in data cleansing. [10M]
4. Differences between qualitative and quantitative data with examples. [10M]
- OR**
5. Explain different types of frequency distribution with suitable examples and diagrams. [10M]
6. Discuss about NumPy arrays with examples. [10M]
- OR**
7. Elaborate on combining datasets with examples. [10M]
8. Discuss different types of regression. [10M]
- OR**
9. How do you interpret the R² value? Discuss with example. [10M]
10. Discuss library functions for visualizations in python. [10M]
- OR**
11. Discuss graph plotting using Plotly with example. [10M]
