

**STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086**  
(For candidates admitted during the academic year 2019– 2020 and thereafter)

**M.Sc. DEGREE EXAMINATION, NOVEMBER 2023**  
**INFORMATION TECHNOLOGY**  
**THIRD SEMESTER**

**COURSE : MAJOR CORE**  
**PAPER : DATA ANALYTICS**  
**SUBJECT CODE : 19CS/PC/DA34**  
**TIME : 1 ½ HOURS**

**MAX. MARKS: 50**

**SECTION – A**

**Answer all the questions**

**5 \* 2 = 10**

1. Write the purpose of the types of Analytics.
2. Give the various ways to handle missing data.
3. Define Time series data. How is it referred?
4. Differentiate Supervised and Unsupervised Learning.
5. State the characteristics of Big Data.

**SECTION – B**

**Answer any four questions:**

**4 \* 5 = 20**

6. Explain the types of Data.
7. Describe the uses of Data Summarization tools.
8. Given the Data Columns: RegNo, CIA1, CIA2, Seminar, Assignment, Total, Result. Add Title and color for the plots. Write the code to display the following:
  - i. Plot showing the Comparison of CIA1 and CIA2 marks
  - ii. Plot showing the Number Passed and Failed.
9. Explain Principal Component Analysis.
10. State the recurring activities the Data Scientists perform along with the skill sets needed.
11. Examine how DBSCAN algorithm works.

**SECTION – C**

**Answer any two questions:**

**2\* 10 = 20**

12. Describe how Data is transformed with examples.
13. Demonstrate KNN Algorithm with an example code.
14. From where Stream data arises and how it is managed? Illustrate Filtering in Stream data using Bloom Filters.

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