

**M.Sc. DEGREE EXAMINATION, APRIL 2020**  
**I Year II Semester**  
**Data Science using Python**

**Time : 3 Hours**

**Max.marks :75**

**Section A** ( $10 \times 2 = 20$ ) Marks

Answer any **TEN** questions

1. How to access values in a list?
2. How are tuples affected immutability?
3. What is use of numpy array in python?
4. Define the term Broadcasting.
5. State the uses of pyplot method in python.
6. Differentiate xticks() and yticks() method in graph.
7. What is Machine Learning?
8. Differentiate between supervised and unsupervised learning models.
9. What is decision tree?
10. Write about decision boundary method in python.
11. State the use of Numpy slicing.
12. Write about Ufunc features in python.

**Section B** ( $5 \times 5 = 25$ ) Marks

Answer any **FIVE** questions

13. Discuss about set type operators with examples in python.
14. How to handle missing data in a given dataset for categorical and numerical values?
15. Discuss about the matplotlib lib axes class with suitable diagram.
16. Analyse the uses of Bayesian classification algorithm.
17. State and explain the principal component analysis working with suitable example.
18. Differentiate between try-except and try finally.
19. Discuss about support vector Machines.

**Section C** ( $3 \times 10 = 30$ ) Marks

Answer any **THREE** questions

20. Briefly explain standard conditional loops in python with clear data.
21. Explain math operations for data analysis in pandas.
22. Write about histogram and scatter plot with example.
23. What are the hypothesis of linear regression model and how to train a model?
24. Write briefly about k means clustering algorithm.

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