### 18PCSCT2A06

# M.Sc DEGREE EXAMINATION, APRIL 2019 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. What are the libraries present in scipy package?
- 2. Write the various operations performed on sets datatype.
- 3. What is a dataset?
- 4. How do impute missing data?
- 5. What are histograms?
- 6. Define hypothesis in data analysis.
- 7. What is SVD?
- 8. What are outliers in a data?
- 9. When is Gaussian distribution used?
- 10. Write the formula for recall in data accuracy.
- 11. How to find the skewness in a given data?
- 12. Define slicing term.

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

#### Answer any **FIVE** questions

- 13. State the functionalities involved in machine learning concepts.
- 14. Discuss the interaction of data in NoSQL database.
- 15. Write about data patterns involved in scatterplots.
- 16. Discuss about Numpy package with example.
- 17. Discuss about the principal component analysis method?
- 18. Differentiate supervised and unsupervised learning methods.
- 19. What is the use of logistic regression? When it is applied?

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

### Answer any **THREE** questions

- 20. Discuss about iterator and dictionaries of python language in detail.
- 21. How to identify the redundant variables and missing values in a given data with example?
- 22. Discuss in detail about matplot lib function with proper examples.
- 23. Discuss about heuristic methods in clustering concept in detail?
- 24. Explain the K nearest Neighbour algorithm in fitting to a model?

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