21002273

M Sc DEGREE (CSS) EXAMINATION, NOVEMBER 2021

First Semester

M.Sc.Computer Science (Data Analytics)

CORE - CA030105 - PYTHON PROGRAMMING FOR ANALYTICS

2019 ADMISSION ONWARDS

7D762FEA

Time: 3 Hours   Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

*Weight **1** each.*

1. What are functions in Python? Give an example

2. Differentiate between an error and exception.

3. What is the difference between Pandas series and NumPy arrays?

4. What is sorting in pandas?

5. Explain with example how to drop missing values in Pandas.

6. What is Pivot Table? How to create pivot table in Python using Pandas? Give example

7. What are the basic functions of matplotlib?

8. What is contour plot in Python?

9. What is UnSupervised learning? List some UnSupervised Learning algorithms.

10. Differentiate between training set and testing set data.

(8×1=8 weightage)

Part B (Short Essay/Problems)

Answer any six questions.

Weight 2 each.

11. Write a Python program to find all prime numbers upto a given range.

12. Expalin different Python Sequences with relevant examples.

13. How to perform slicing of a Numpy array? Give suitable example.

14. Explain the use of following functions in a NumPy array. a). append() b). insert() c). delete()

15. Explain with example any 5 built-in aggregate methods of Pandas objects

16. Briefly explain query() in high performance Pandas.

17. Briefly explain how to customize plot legends with example?

18. What are the two types of supervised machine learning techniques?

(6×2=12 weightage)

Part C (Essay Type Questions)

Answer any two questions.

Weight 5 each.

19. List the features and explain about different Object Oriented features supported by Python.

20. Define the different ways a dataFrame can be created in Pandas.

21. List out the objectives of Pandas time series analysis.

22. What are the various Matplotlib plotting techniques? Explain each with an example.

(2×5=10 weightage)