

K24N 0004

Reg. No. :

Name :

II Semester M.Sc. Degree (C.B.S.S. – Regular) Examination, April 2023 (2022 Admission) STATISTICS WITH DATA ANALYTICS MST2C08 : Statistics Using Python Programming

Time : 3 Hours

Max. Marks : 80

PART - A

Answer all questions. Each carries 2 marks.

- 1. How can we represent comments in Python ?
- 2. Give a simple example which illustrates the use of int () function.
- 3. Describe list in python with an example.
- 4. What is recursive function ?
- 5. What is the use of zip () function inside the dict () function ?
- 6. How can we extract a specified row from a data frame ?
- 7. Name the libraries used for data visualisation in python,
- 8. What are the uses of plot () function ?

(8×2=16)

Answer any four questions. Each carries 4 marks.

- 9. Write a program to show the utility of if-else-if ladder.
- 10. What are the different types of errors in Python ? Explain.
- 11. What are Python modules ? What are the some commonly used built-in modules in Python ?

PARTHB

12. Discuss different ways to create a dictionary.

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- Explain various methods to import data from files of different types of softwares using Pandas Library.
- 14. Explain the method to add title and to set limits for x axis and y axis in a plot. (4×4=16)

PART – C

Answer any four questions. Each carries 12 marks.

- 15. Explain various arithmetic and assignment operators in python with examples.
- 16. a) Design a user defined function in Python to print 50 Fibonacci numbers.
 - b) Create a function to determine whether each letter in a string is a vowel.
- 17. Explain inheritance. What are its advantages ? Give an example to illustrate how inheritance works in Python.
- 18. Explain the following data structures and their manipulations :
 - a) Lists
 - b) Tuples.
- Explain the method in python to handle missing observations in a data. Illustrate with an example.

20. Write syntax to create the following considering a data of your choice :

- a) multiple bar chart
- b) cumulative frequency curve.

 $(4 \times 12 = 48)$