

COSEM-354

M.Sc. (IIIrd Semester) Examination, Dec., 2023

COMPUTER SCIENCE

Paper - FS-COMP-MS-C-CE-303 (C)

(Python)

Time : 3 Hours] श्री जैन (पी.जी.) कॉलेज, बीकानेर [Maximum Marks : 40

The question paper contains three Sections.

Section-A

(Marks : $1 \times 10 = 10$)

Note :- Answer all *ten* questions (Answer limit 50 words). Each question carries 1 mark.

Section-B

(Marks : $3 \times 5 = 15$)

Note :- Answer any *five* questions by selecting at least *one* question from each Unit (Answer limit 200 words). Each question carries 3 marks.

Section-C

(Marks : $5 \times 3 = 15$)

Note :- Answer any *three* questions by selecting *one* question from each Unit (Answer limit 500 words). Each question carries 5 marks.

Section-A

1. (i) What is Jupiter Notebook ?
- (ii) Define range in Python.

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(1)

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- (iii) List the various data types in Python.
- (iv) How we can read and print a value of a variable in Python ?
- (v) Write syntax to define a function.
- (vi) Define Anonymous function.
- (vii) What is Exception ?
- (viii) What is the use of Pandas library ?
- (ix) Explain loc in Pandas.
- (x) What is the importance of Python library networks ?

Section-B

Unit-I

- 2. Explain type casting in python using example.
- 3. Explain slicing in python with suitable example.
- 4. Differentiate between sets and lists in pythons.

Unit-II

- 5. Explain scope of a function with example.
- 6. Write a note on pseudorandom number generation.
- 7. Define a python function which can return multiple values.

Unit-III

- 8. Differentiate between series and dataframe.
- 9. Explain the following commands of pandas :
 - (i) reshape
 - (ii) iloc

10. Write code to :

- (i) Print few top rows in a table
- (ii) Check whether there is null value in table

Section-C

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Unit-I

- 11. Explain Tuple in detail.
- 12. Explain the various loops in python.

Unit-II

- 13. Explain exception handling in python.
- 14. (i) Write a program in python to declare and print two-dimensional array.
- (ii) Explain partial argument passing in python functions.

Unit-III

- 15. Write code to plot four subplots in 2×2 matrix form.
- 16. Write detailed notes on the following :
 - (i) Scikit learn
 - (ii) SciPy