

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2023
(First Semester)

Branch – COMPUTER SCIENCE

PYTHON AND R PROGRAMMING FOR DATA SCIENCE

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (5 x 1 = 5)

1. ____ is a generic function used to produce result summaries of the results of various model fitting functions.
(i) xyplo() (ii) summary() (iii) barchart() (iv) bwplot()
2. What is the maximum possible length of an identifier?
(i) 16 (ii) 32 (iii) 64 (iv) 79
3. In which year was the Python language developed?
(i) 1998 (ii) 1978 (iii) 1987 (iv) 1989
4. Which of the following statements is correct for variable names in Python language?
(i) All variable names must begin with an underscore.
(ii) Unlimited length
(iii) The variable name length is a maximum of 2.
(iv) All of the above
5. Which of the following precedence order is correct in Python?
(i) Parentheses, Exponential, Multiplication, Division, Addition, Subtraction
(ii) Multiplication, Division, Addition, Subtraction, Parentheses, Exponential
(iii) Division, Multiplication, Addition, Subtraction, Parentheses, Exponential
(iv) Exponential, Parentheses, Multiplication, Division, Addition, Subtraction

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 3 = 15)

6. a) Write short notes on History of Data Science.
OR
b) List out the Data Types used in Python with example.
7. a) What is meant by understanding Data?
OR
b) Write about the Treatment of Outliers.
8. a) List out the types of Plots used in Ggplots in R.
OR
b) Write short notes on Stacked Bar Charts.

Cont...

9. a) Write about Relation between Variables.
OR
b) What is Web and social Media Analysis?
10. a) Illustrate about Applications and its classifications in AI.
OR
b) List out the applications of Analytics in spots.

SECTION -C (30 Marks)

Answer ALL questions
ALL questions carry EQUAL Marks (5 x 6 = 30)

11. a) Explain about Data Visualization techniques.
OR
b) Is there a seaborn for R? What library does seaborn use? Elaborate.
12. a) What are the methods of treating outliers?
OR
b) Write about visualization the data in detail.
13. a) Elucidate about Grouped Bar chart with example.
OR
b) Write about Data visualization and Plot classification in detail.
14. a) Elucidate about Independent and dependent variables with examples.
OR
b) What is multicollinearity explain it by example?
15. a) What is deep learning in AI? Explain in detail.
OR
b) Detail on Applications of Analysis in Government.

Z-Z-Z

END