PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2022
(First Semester)

Branch – INFORMATION TECHNOLOY

DATA ANALYSIS AND VISUALIZATION USING PYTHON

Time: Three Hours   Maximum: 50 Marks

SECTION-A (5 Marks)
Answer ALL questions
ALL questions carry EQUAL marks   (5 x 1 = 5)

1   Which type of Programming does Python support?
      (i) object-oriented programming   (ii) functional programming
      (iii) structured programming   (iv) all of the mentioned

2   Which of the following is the correct extension of the Python file?
      (i) .python   (ii) .pl
      (iii) .py   (iv) .p

3   Is Python case sensitive when dealing with identifiers?
      (i) no   (ii) yes
      (iii) machine dependent   (iv) none of the mentioned

4   _____ is used to define a block of code in Python language.
      (i) Indentation   (ii) Brackets
      (iii) Key   (iv) All of the mentioned

5   What will be the output of the following Python expression? **round(4.576)**
      (i) 4   (ii) 5
      (iii) 4.6   (iv) 4.5

SECTION - B (15 Marks)
Answer ALL Questions
ALL Questions Carry EQUAL Marks   (5 x 3 = 15)

6   a   Explain about functions in python.
                        OR
   b   Write a python program to convert temperature from farenheit to Celsius.

7   a   Explain about name scope in python function.
                        OR
   b   Explain about strings in python.

8   a   Explain about persistent variables.
                        OR
   b   How to open a file in python? Explain.

9   a   Explain the process of transposing a data frame.
                        OR
   b   Describe about Filtration.

10 a   How to merge data? Explain.

                         OR

    b   Summarize about Pie chart.

SECTION -C (30 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** Marks   (5 x 6 = 30)

11 a   Discuss about conditional statements.

                         OR

    b   Describe in detail about software development process.

12 a   Explain about List in python.

                         OR

    b   Discuss about testing functions.

13 a   Describe about dictionaries with example.

                         OR

    b   Elucidate in detail about file operations.

14 a   Illustrate the use of data frames in python.

                         OR

    b   Discuss in detail about Data grouping.

15 a   Summarize the process of reading and cleansing CSV data.

                         OR

    b   Compare Line plot and Bar plot.

Z-Z-Z   END