22DAU206

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2023
(Second Semester)

Branch - COMPUTER SCIENCE WITH DATA ANALYTICS

PYTHON FOR DATA ANALYSIS

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) Structured Programming
   (iii) Functional Programming   (iv) All the above.

2   What will be the output of the following Python code?
   ```
   i=1
   while True"
    if i%3 ==0
    break
    print(i)
    i+=1
   ```
   (i)   1   (ii) 1 2
   (iii) 1 2 3   (iv) Error

3   What is the syntax for slicing the list?
   (i)   List (start index, stop index, step)   (ii) List (start index: stop index: step)
   (iii) List [start index, stop index, step]   (iv) List [Start index: stop index: step]

4   How to store the values in keys and pairs.
   (i)   Dictionary   (ii) Tuple
   (iii) Set   (iv) Map

5   The full form of CSV is
   (i)   Comma Separated Values   (ii) Comma Separated Value
   (iii) Comma Separated Variables   (iv) Comma Separate Value

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

6   a   Explain Loop Control Statements.
                         OR
    b   Describe Built in Functions.

7   a   Explain Function with example.
                         OR
    b   Explain enumerate () function used for traversing a string with example.

8   a   Explain Tuple function with example.
                         OR
    b   What is list? Explain creation of list with example.

9   a   Explain role of Dictionaries in Python.
OR
    b   Describe Python set function.

10 a   Summarize the steps in Data Cleaning.
OR
    b   Explain the steps in loading CSV file.

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

11 a   Elucidate Python Data types.
OR
   b   Explain the Identifiers, Keywords, Statements, Expressions, and Variables in Python programming language with examples.

12 a   Write a python program for finding Factorial of a number using Recursion.
OR
   b   Explain any five String functions used in Python with example.

13 a   Describe Slicing with suitable example.
OR
   b   Explain various operations on Tuple.

14 a   Elucidate on the steps to Compare Dictionaries with suitable example.
OR
   b   Distinguish seek() and tell() function with example.

15 a   Explain steps involved in loading data and combining data from multiple Excel Files.
OR
   b   Describe how Python helps in data analysis.

Z-Z-Z   END