PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2024
(First Semester)

Branch – INFORMATION TECHNOLOGY

DATA ANALYSIS & VISUALIZATION USING PYTHON

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)
Answer ALL questions
ALL questions carry EQUAL marks $(10 \times 1 = 10)$

Module No.	Question No.	Question	K Level	CO
1	1	Which type of Programming does Python support? a) object-oriented programming b) structured programming c) functional programming d) all of the mentioned	K1	CO1
	2	Which one of the following is not a keyword in Python language? a) pass b) eval c) assert d) nonlocal	K2	CO1
2	3	What is a variable defined outside a function referred to as? a) A static variable b) A global variable c) A local variable d) An automatic variable	K1	CO2
	4	Which of the following is not the correct syntax for creating a set? a) set([[1,2],[3,4]]) b) set([1,2,2,3,4]) c) set((1,2,3,4)) d) {1,2,3,4}	K2	CO3
3	5	d1 = {"john":40, "peter":45} d2 = {"john":466, "peter":45} d1 == d2 a) True b) False c) None d) Error	K1	CO1
	6	To read two characters from a file object infile, we use _____ a) infile.read(2) b) infile.read() c) infile.readline() d) infile.readlines()	K2	CO4
4	7	Which of the following input can be accepted by DataFrame? a) Structured ndarray b) Series c) DataFrame d) All of the mentioned	K1	CO4
	8	Aggregate functions are functions that take a _____ as input and return a single value. a) Collection of values b) Single value c) Aggregate value d) Both Collection of values & Single value	K2	CO1
5	9	To open a file c:\scores.csv for reading, we use _____ command. a) infile = open("c:\scores.csv", "r") b) infile = open("c:\\scores.csv", "r") c) infile = open(file = "c:\scores.csv", "r") d) infile = open(file = "c:\\scores.csv", "r")	K1	CO4
	10	The value of chart is calculated in terms of percentage. a) Histogram b) Boxplot c) Bar d) Pie	K2	CO4

SECTION - B (35 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks   (5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Demonstrate Python Function with example.	K2	CO3
		(OR)		
	11.b.	Outline Pass Statement in Python with example.		
2	12.a.	Develop Sets in Python with example.	K3	CO4
		(OR)		
	12.b.	Organize Global names inside Function in Python.		
3	13.a.	Analyze Internal Dictionaries in Python.	K4	CO3
		(OR)		
	13.b.	Examine the use of Pandas in Python.		
4	14.a.	Develop Data Frames in Python	K3	CO3
		(OR)		
	14.b.	Discuss Aggregations in Python		
5	15.a.	Analyze Line Plot chart	K4	CO4
		(OR)		
	15.b.	Compare Checking Missing Data Values		

SECTION -C (30 Marks)

Answer **ANY THREE** questions

ALL questions carry **EQUAL** Marks   (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Explain i). Break ii). Continue with example in python.	K4	CO4
2	17	Evaluate Tuples in Python with example.	K5	CO5
3	18	Examine Dictionaries in Python.	K4	CO5
4	19	Justify Statistical Data Analysis.	K5	CO4
5	20	Compare Reading Data From HTML	K5	CO4

Z-Z-Z   END