

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2023  
(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 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	Which of the following is the correct extension of the Python file? a) .python b) .pl c) .py d) .p	K1	CO1
	2	Which of the following is a valid statement in python? a) if a>=2: b) if(a>=2) c) if (a=>22) d) if a>=22	K2	CO1
2	3	Which keyword is used for function in Python language? a) Function b) def c) Fun d) define	K1	CO2
	4	Which of the following commands will create a list? a) list1 = list() b) list1 = [] c) list1 = list([1, 2, 3]) d) all of the mentioned	K2	CO3
3	5	Which of the following statements create a dictionary? a) d = {} b) d = {"john":40, "peter":45} c) d = {40:"john", 45:"peter"} d) All of the mentioned	K1	CO1
	6	Which are the two built-in functions to read a line of text from standard input, which by default comes from the keyboard? a) Raw_input & Input b) Input & Scan c) Scan & Scanner d) Scanner	K2	CO4
4	7	To access value of dataframe using column label we can use _____. a) loc b) <dataframe object>.<column label> c) both d) None	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	CO5
5	9	Data can be visualized using _____. a) graphs b) charts c) maps d) All of the above	K1	CO1
	10	Common use cases for data visualization include _____. a) Politics b) Sales and marketing c) Healthcare d) All of the above	K2	CO3

Cont...



**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.	Summarize Input and Output statements in Python.	K2	CO3
	(OR)			
	11.b.	Classify the Operators used in Python with example.		
2	12.a.	Outline Tuple in python with an example.	K3	CO4
	(OR)			
	12.b.	Organize the String functions in Python.		
3	13.a.	Analyze the Persistent Variable in python.	K4	CO3
	(OR)			
	13.b.	Examine NumPy in Python with example.		
4	14.a.	Construct the Data Frame Creation in Python.	K3	CO3
	(OR)			
	14.b.	Select the Time Series in Python.		
5	15.a.	Build the Line Plot in Data Visualization.	K4	CO4
	(OR)			
	15.b.	Discover the Pie Chart in Python.		

**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 decision statements in Python with example.	K4	CO4
2	17	Illustrate the process of creating a list in Python. Discuss List creation in Python.	K5	CO5
3	18	Examine the Pandas in Python.	K4	CO5
4	19	Evaluate the Statistical Analysis in python.	K5	CO4
5	20	Distinguish subplots in Matplotlib in Python.	K4	CO4

Z-Z-Z

END