

**PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)**

**BCom DEGREE EXAMINATION MAY 2026
(Sixth Semester)**

Branch – **COMMERCE (BUSINESS ANALYTICS)**

DATA ANALYSIS 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	_____ language is most widely used in Data Science. (i) Java (ii) Python (iii) HTML (iv) C	K1	CO1
	2	_____ editor is cloud-based for Python programming. (i) PyCharm (ii) Jupyter Notebook (iii) Azure Notebooks (iv) IDLE	K2	CO1
2	3	_____ method is used to add an element at the end of a list. (i) append() (ii) insert() (iii) extend() (iv) add()	K1	CO2
	4	_____ allows duplicate values. (i) Set (ii) Key (iii) Tuple (iv) Dictionary	K2	CO2
3	5	_____ module is used for Regular Expressions in Python. (i) re (ii) pyre (iii) reg (iv) regex	K1	CO3
	6	_____ function is used to read CSV files in Pandas. (i) csv (ii) pandas (iii) numpy (iv) json	K2	CO3
4	7	_____ function is used to create a Series in Pandas. (i) pd.DataFrame() (ii) pd.list() (iii) pd.array() (iv) pd.Series()	K1	CO4
	8	_____ attribute returns column names. (i) df.columns (ii) df.rows (iii) df.shape (iv) df.size	K2	CO4
5	9	_____ is used to remove unwanted rows from data. (i) Aggregation (ii) Transformation (iii) Grouping (iv) Filtration	K1	CO5
	10	_____ visualization is best for showing relationships between variables. (i) Bar plot (ii) Line plot (iii) Scatter plot (iv) Pie chart	K2	CO5

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.	Describe the features of Python.	K2	CO1
		(OR)		
	11.b.	Explain the different Python editors.		
2	12.a.	Illustrate indexing and slicing operations in Python lists with examples.	K2	CO2
		(OR)		
	12.b.	Elaborate matrices using lists and explain matrix operations with examples.		
3	13.a.	Write a note on data cleaning techniques used in Python.	K3	CO3
		(OR)		
	13.b.	Elucidate reading data from JSON format with example.		
4	14.a.	Explain the DataFrame creation methods.	K3	CO4
		(OR)		
	14.b.	Analyze the importance of describe() and info() functions.		
5	15.a.	Discuss the Filtration techniques in Pandas with examples.	K3	CO5
		(OR)		
	15.b.	Write a note on Histogram and Scatter Plot using Matplotlib.		

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	Write a detailed note on the stages of Data Science.	K2	CO1
2	17	Discuss the built-in list functions and methods.	K2	CO2
3	18	Examine the File I/O processing in Python in detail with suitable examples.	K3	CO3
4	19	Explain the different methods used for exploring a DataFrame.	K3	CO4
5	20	Describe the various Data Visualization techniques using Matplotlib with neat examples.	K4	CO5

Z-Z-Z

END