

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2026
(Sixth Semester)

Branch - **COMPUTER SCIENCE**

DATA SCIENCE

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	Data Science is (i) Study of data storage (ii) Extracting knowledge from data (iii) Creating databases (iv) Network security	K1	CO1
	2	The qualitative data type from the following is (i) Height (ii) Weight (iii) Age (iv) Gender	K2	CO1
2	3	The key uniquely identifies a record is (i) Foreign key (ii) Primary key (iii) Candidate key (iv) Composite key	K1	CO2
	4	Column databases read (i) Entire rows (ii) Entire tables (iii) Only required columns (iv) Only indexes	K2	CO2
3	5	Predictive analytics is mainly used to (i) Summarize past data (ii) Find root causes (iii) Forecast future outcomes (iv) Recommend actions	K1	CO3
	6	Data preparation is the process of (i) Collecting hardware (ii) Cleaning and transforming data (iii) Building models (iv) Deploying systems	K2	CO3
4	7	The function reads data from a database in R is (i) dbReadTable() (ii) read.db() (iii) sql.read() (iv) readSQL()	K1	CO4
	8	The function lists all objects is (i) show() (ii) list() (iii) ls() (iv) objects()	K2	CO4
5	9	Data visualization is used to (i) Store data (ii) Clean data (iii) Present data visually (iv) Encrypt data	K1	CO5
	10	From the following, which is the best chart used for comparison (i) Pie chart (ii) Bar chart (iii) Line chart (iv) Scatter plot	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.	Summarize the Data Science Process in detail.	K2	CO1
		(OR)		
	11.b.	Explain the Inferential Statistics in detail.		
2	12.a.	Demonstrate the basic statistics with SQL with example.	K3	CO2
		(OR)		
	12.b.	Express the Document databases for Data Science.		
3	13.a.	Explain the Data Analytics with suitable example.	K3	CO3
		(OR)		
	13.b.	Illustrate the Model Planning in detail.		
4	14.a.	Using R, Read and Get the data. Explain it with example.	K3	CO4
		(OR)		
	14.b.	In R, Examine the Statistical models in detail.		
5	15.a.	Describe the Tableau Features, Analytics cycle, Advantages and Disadvantages in detail.	K2	CO5
		(OR)		
	15.b.	Discuss the Special Chart types in Tableau.		

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	Discuss the Probability Theory and types of Probability Distribution with suitable example.	K2	CO1
2	17	Determine the Data Mungling with SQL in detail.	K3	CO2
3	18	Illustrate the Life Cycle of Analytics for Data Science.	K3	CO3
4	19	Demonstrate the Arrays, Matrices, Lists and DataFrames in R with suitable example.	K2	CO4
5	20	Explain the Dimensions, Measures and Descriptive Statistics in Tableau in detail.	K2	CO5

Z-Z-Z END