25COU206/ 25COC206/ 25COE206/ 25AFU206/ 25CBI206/ 22COU206N/ 22COC206N/ 22COE206N/ 22AFU206N/ 2CBI206N

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BCom DEGREE EXAMINATION MAY 2026
(Second Semester)

Common to Branches – **COMMERCE/COMMERCE (CA)/E-COMMERCE/ COMMERCE (A & F)/COMMERCE (BI)**

STATISTICS

Time: Three Hours Maximum: 75 Marks

SECTION-A (10 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks (10 × 1 = 10)

Question No.	Question	K Level	CO
1	Statistics is defined as: a) Collection of numerical data only b) Science of collecting, organizing, analyzing and interpreting data c) Study of numbers d) Study of algebra	K1	CO1
2	Primary data are: a) Data collected by others b) Published data c) Data collected first-hand by the investigator d) Secondary sources	K1	CO1
3	Mean is: a) Middle value b) Most frequent value c) Arithmetic average of observations d) Difference between highest and lowest	K2	CO2
4	Range is: a) Average value b) Highest value minus lowest value c) Middle value d) Standard deviation	K1	CO2
5	Correlation measures: a) Difference between variables b) Relationship between two variables c) Average of data d) Dispersion only	K2	CO3
6	Regression equation is used to: a) Measure dispersion b) Predict one variable from another c) Find average d) Calculate index number	K2	CO3
7	Index number measures: a) Absolute change b) Relative change in variables over time c) Correlation d) Probability	K1	CO4
8	Components of Time Series are: a) Mean and Median b) Trend, Seasonal, Cyclical and Irregular variations c) Range and Variance d) Correlation and Regression	K1	CO4
9	Conditional probability is the probability of an event: a) Without any condition b) Given that another event has occurred c) Impossible event d) Certain event	K1	CO5
10	Binomial distribution is applicable when: a) Trials are dependent b) Infinite outcomes c) Fixed number of independent trials with two outcomes d) Continuous data	K2	CO5

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SECTION - B (35 Marks)

Answer **ALL** questions

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

Question No.	Question	K Level	CO
11.a.	Discuss the types of data collection.	K1	CO1
	(OR)		
11.b.	Explain classification and tabulation.	K3	
12.a.	Explain measures of central tendency.	K1	CO2
	(OR)		
12.b.	Describe measures of dispersion.		
13.a.	Explain Karl Pearson's coefficient of correlation.	K3	CO3
	(OR)		
13.b.	Explain Spearman's rank correlation.		
14.a.	Describe construction of index numbers.	K1	CO4
	(OR)		
14.b.	Explain moving average method.		
15.a.	State and mention Addition theorem of probability.	K2	CO5
	(OR)		
15.b.	Define Poisson distribution and its properties		

SECTION -C (30 Marks)

Answer **ANY THREE** questions

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

Question No.	Question	K Level	CO
16	Explain diagrammatic and graphical representation of data.	K2	CO1
17	Calculate Mean, Median and Mode for a grouped data. Class Interval: 0–10 | 10–20 | 20–30 | 30–40 | 40–50 Frequency (f): 5 | 8 | 12 | 10 | 5	K5	CO2
18	Find Karl Pearson's coefficient of correlation for given data. X: 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 Y: 5 | 7 | 9 | 8 | 11 | 13 | 14 | 16 | 18 | 19	K5	CO3
19	Construct Cost of Living Index Number. Group: Food | Clothing | Housing | Fuel | Miscellaneous Weight (W): 40 | 25 | 20 | 10 | 5 Price Relative (P): 120 | 110 | 130 | 140 | 150	K5	CO4
20	Explain Normal distribution with properties.	K2	CO5

Z-Z-Z END