

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BCom DEGREE EXAMINATION DECEMBER 2024
(First Semester)

Common to Branches – **COMMERCE (RM)/ COMMERCE (FS)/ COMMERCE(FT)**

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	What is the purpose of a histogram when displaying data? (a) To show the relationship between two variables (b) To display the distribution of a single variable (c) To represent categorical data in a visual format (d) To compare different datasets	K2	CO1
2	In a cumulative frequency table, what does the cumulative frequency of a specific class represent? (a) The frequency of that class (b) The sum of frequencies up to and including that class (c) The midpoint of that class (d) The range of values in that class	K1	CO2
3	The Pearson correlation coefficient ranges between which two values to indicate the strength and direction of a linear relationship between two variables? (a) -1 and 0 (b) 0 and 1 (c) -1 and 1 (d) 0 and 100	K2	CO3
4	What is the formula for calculating the range of a dataset? (a) (Maximum Value - Minimum Value) (b) (Sum of Values) / (Number of Values) (c) (Median Value - Mode Value) (d) (Standard Deviation) / (Variance)	K2	CO2
5	In a correlation coefficient, a value of -1 indicates: (a) No correlation (b) Perfect positive correlation (c) Perfect negative correlation (d) Strong positive correlation	K2	CO3
6	What is the primary purpose of performing regression analysis? (a) To determine the strength of a relationship between two variables (b) To predict the value of one variable based on the value of another (c) To calculate the mean of a dataset (d) To identify outliers in a dataset	K2	CO2
7	What is the purpose of using an index number in economics and statistics? (a) To represent the total sum of a dataset (b) To standardize data for easy comparison over time or across different groups (c) To calculate the mean of a dataset (d) To measure the spread or dispersion of data	K2	CO4
8	When the base year index number is set to 100, what does it signify in terms of price or quantity? (a) No change compared to the base year (b) A decrease compared to the base year (c) An increase compared to the base year (d) It does not provide any information about changes	K2	CO4

Cont...

9	What is the sum of the probabilities of all possible outcomes in a sample space? (a) 1 (b) 0 (c) 100% (d) 0.5	K2	CO5
10	In a standard deck of playing cards, how many cards are red (either hearts or diamonds)? (a) 13 (b) 26 (c) 36 (d) 52	K2	CO5

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 × 7 = 35)

Question No.	Question	K Level	CO
11.a.	Write a short note on types of data.	K2	CO1
	(OR)	K1	CO2
11.b.	Describe the formation of frequency tables.		
12.a.	Define Standard deviation in measures of dispersion.	K2	CO2
	(OR)	K2	CO2
12.b.	State the merits of mode in measures of central tendency.		
13.a.	Describe about scatter diagram method.	K3	CO2
	(OR)	K2	CO3
13.b.	Write a short note on the uses of regression analysis.		
14.a.	What are the characteristics of index numbers? Give some examples.	K2	CO4
	(OR)	K2	CO4
14.b.	Describe the cost-of-living index numbers.		
15.a.	Define the conditional probability with examples.	K2	CO5
	(OR)	K1	CO5
15.b.	Write a short note on the concept of probability		

SECTION -C (30 Marks)

Answer ANY THREE questions

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

Question No.	Question	K Level	CO
16	Explain the types of diagrams with examples.	K2	CO1
17	Explain in detail about the measure of skewness.	K2	CO2
18	Explain in detail about the concept of correlation.	K1	CO3
19	What are the methods of construction of index numbers?	K3	CO4
20	Describe in detail the properties of normal distribution with examples.	K4	CO5

Z-Z-Z

END