

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BCom(CS) DEGREE EXAMINATION MAY 2026
(Second Semester)

Branch – CORPORATE SECRETARYSHIP

STATISTICS FOR CORPORATE SECRETARYSHIP

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	The statement Statistics is both a science and art was given by: (i) R.A. Fisher (ii) Tippet (iii) L.R. Connor (iv) A.L. Bowley	K1	CO1
	2	The data given as 5, 7, 12, 17, 79, 84, 91 will be called as: (i) A continuous series (ii) A discrete series (iii) An individual series (iv) Time series	K2	CO1
2	3	Which of the following is a measure of central value? (i) Median (ii) Standard deviation (iii) Mean deviation (iv) Quartile deviation	K1	CO2
	4	Which measure of dispersion ensures highest degree of reliability? (i) Range (ii) Mean deviation (iii) Quartile deviation (iv) Standard deviation	K2	CO2
3	5	The correlation lies between: (i) -1 to 1 (ii) -1 to 0 (iii) 0 to 1 (iv) 0 to ∞	K1	CO3
	6	The term regression was introduced by: (i) R. A. Fisher (ii) Sir Francis Galton (iii) Karl Pearson (iv) Spearman	K2	CO3
4	7	Power of the test is related to: (i) Type I error (ii) Type II error (iii) Type I and II errors (iv) Sampling error	K1	CO4
	8	Paired t-test is applicable when the observations in the two samples are: (i) Paired (ii) not Correlated (iii) not equal in number (iv) one is higher than other one	K2	CO4
5	9	The value of coefficient of contingency lies between: (i) 0 and ∞ (ii) 0 and 1 (iii) 0 to 100 (iv) -1 and +1	K1	CO5
	10	Analysis of variance utilises: (i) F – test (ii) Chi-square test (iii) Z – test (iv) t - test	K2	CO5

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.	Explain the limitations of Statistics.	K2	CO1
		(OR)		
	11.b.	Explain one dimensional diagrams with suitable examples.		
2	12.a.	Discuss the merits and demerits of arithmetic mean & median.	K2	CO2
		(OR)		
	12.b.	Compute the quartile deviation and its co-efficient of QD for the following data: 28, 32, 18, 16, 42, 12, 39.		
3	13.a.	Explain the concept of a Scatter Diagram and interpret its importance in studying correlation between two variables.	K4	CO3
		(OR)		
	13.b.	Differentiate between Correlation and Regression with suitable points of comparison.		

Cont...

4	14.a.	Explain the general procedure involved in testing of hypothesis in statistical analysis.	K4	CO4
		(OR)		
	14.b.	Analyze whether the given sample data 70, 120, 110, 101, 88, 83, 95, 98, 107, 100. support the assumption that the population mean I.Q. is 100. Also determine a reasonable range in which most of the sample mean I.Q. values (for samples of size 10) are likely to lie.		
5	15.a.	Analyze the various applications of the Chi-square test in statistical inference with suitable examples.	K4	CO5
		(OR)		
	15.b.	Explain the testing procedure of ANOVA.		

SECTION -C (30 Marks)

Answer ANY THREE questions

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

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

Module No.	Question No.	Question	K Level	CO																
1	16	Explain the important methods of collecting primary data.	K2	CO1																
2	17	The frequency distribution of weight in grams of mangoes of a given variety is given below. Compute the arithmetic mean, median and mode. <table><tr><td>Weight (in gms)</td><td>410–419</td><td>420–429</td><td>430–439</td><td>440–449</td><td>450–459</td><td>460–469</td><td>470–479</td></tr><tr><td>No. of Mangoes</td><td>14</td><td>20</td><td>42</td><td>54</td><td>45</td><td>18</td><td>7</td></tr></table>	Weight (in gms)	410–419	420–429	430–439	440–449	450–459	460–469	470–479	No. of Mangoes	14	20	42	54	45	18	7	K2	CO2
Weight (in gms)	410–419	420–429	430–439	440–449	450–459	460–469	470–479													
No. of Mangoes	14	20	42	54	45	18	7													
3	18	You are given the following data: <table><tr><td></td><td>X</td><td>Y</td></tr><tr><td>Arithmetic mean</td><td>36</td><td>85</td></tr><tr><td>Standard deviation</td><td>11</td><td>8</td></tr><tr><td>Correlation coefficient between X and Y</td><td colspan="2">0.66</td></tr></table> (a). Find the two regression equations (b). Estimate the value of X when Y = 75		X	Y	Arithmetic mean	36	85	Standard deviation	11	8	Correlation coefficient between X and Y	0.66		K5	CO3				
	X	Y																		
Arithmetic mean	36	85																		
Standard deviation	11	8																		
Correlation coefficient between X and Y	0.66																			
4	19	Below are given the gain in weights (in kgs) of pigs fed on two diets A and B. Diet A: 25, 32, 30, 34, 24, 14, 32, 24, 30, 31, 35, 25 Diet B: 44, 34, 22, 10, 47, 31, 40, 30, 32, 35, 18, 21, 35, 29, 22 Test, if the two diets differ significantly as regards their effect on increase in weight.	K4	CO4																
5	20	The demand for a particular spare part in a factory was found to vary from day - to - day . In a sample study the following information was obtained. <table><tr><td>Days</td><td>Mon</td><td>Tues</td><td>Wed</td><td>Thurs</td><td>Fri</td><td>Sat</td></tr><tr><td>No. of parts demand</td><td>1124</td><td>1125</td><td>1110</td><td>1120</td><td>1126</td><td>1115</td></tr></table> Test the hypothesis that the number of parts demanded does not depend on the day of week. (Given the values of chi-square significant at 5 df is 11.07 at 5% level of significance).	Days	Mon	Tues	Wed	Thurs	Fri	Sat	No. of parts demand	1124	1125	1110	1120	1126	1115	K4	CO5		
Days	Mon	Tues	Wed	Thurs	Fri	Sat														
No. of parts demand	1124	1125	1110	1120	1126	1115														

Z-Z-Z

END