STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 600 086. (For candidates admitted during the academic year 2023-24 and thereafter)

B.Com. DEGREE EXAMINATION NOVEMBER 2024 ACCOUNTING & FINANCE FIRST SEMESTER

COURSE : ALLIED CORE

PAPER : STATISTICS FOR BUSINESS DECISIONS

SUBJECT CODE : 23AF/AC/SB15

TIME : 3 HOURS MAX. MARKS: 100

Q.	SECTION A $(5 \times 2 = 10 \text{ marks})$	CO	KL
No.	Answer all questions:		
1.	What is test of goodness of fit?	1	1
2.	A sample of 1600 is taken from the universe of fathers and	1	1
	sons. The sample study gives the connection between the two to		
	be 0.80. Within what limits does it hold true for the universe?		
3.	List down any two Significance of Correlation.	1	1
4.	The arithmetic mean of a sample X is 20, the regression value	1	1
	being (r=0.6), standard deviation of X being 18, standard deviation of		
	Y being 170, arithmetic mean of Y is 200. Derive the regression		
5.	equation X on Y. The sales of a commodity in termos veried from Jennes, 2020	1	1
3.	The sales of a commodity in tonnes varied from January 2020 to December 2020 as follows	1	1
	280 280 280 270 240		
	230 230 220 200 210 200		
	Fit a trend line by the method of semi-average		
Q.	SECTION B $(4 \times 5 = 20 \text{ marks})$	СО	KL
No.	Answer any four questions:		
6.	Calculate Karl Pearson's co-efficient of correlation from the	2	2
	following data:		
	Roll No. Of Students 1 2 3 4 5		
	Marks in English 48 35 17 23 47		
	Marks in Mathematics 45 20 40 25 45		
7	A WILL 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2	2
7.	A Wholesaler in apples claims that only 4% of the apples	2	2
	supplied by him are defective. A random sample of 600 apples contained 36 defective apples. Test the claim of the wholesaler.		
8.	Explain Mc Nemar Test with suitable examples highlighting the	2	2
0.	importance of the test in statistics.		<u> </u>
9.	The following data based on 450 students are given for marks in	2	2
	Statistics and Economics at a certain examination		
	Mean marks in Statistics 40		
	Mean marks in Economics 48		
	Standard Deviation of marks in Statistics 12		
	Variance of marks in Economics 256		
	Sum of the product of deviation of marks from their respective		
	mean is 42075. Give the equation of the two lines of regression		
	and estimate the average marks in Economics of candidates		
	who obtained 50 marks in Statistics.		

10.	Fit a trend line Averages	ne to the	follow	ing da	ta by 1	he met	hod	of S	emi		2	2
	riverages											
	Year	2018	2019	2020	2021	2022	20	23	202	4		
	Sales of	102	105	114	110	108	11	_	112			
	Firm A											
	(1000 units)											
11.	A set of 5 coins is tossed 3200 times and the no. of heads										2	2
	appearing each time is noted. The results are given below											
	No. of 0 1 2 3 4 5											
	Heads											
	Freq. 80	57		1100	900	50		50)			
	Test the hyp											
Q.	SECTION ((4 2	x 10 =	= 40	ma	rks)	CO	KL
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	Yes	67	33	S								
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	opinion of p	eople fro	m Yes									
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	b. Calculate	the stand	dard er	,	•	rom th	e foll	ow	ing c	lata		
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	2022	65		58		66			61					
	2023	68		63		63			67					
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