Name:

Reg.No.:

FIRST SEMESTER FYUGP EXAMINATION NOVEMBER 2024 MINOR

COM1MN109 ESSENTIAL STATISTICS FOR BUSINESS ANALYTICS

Time : 2 Hrs

Maximum Marks: 70

BL : Bloom's Taxonomy Level (1 to 6)

CO : Course Outcome

	Section A Ceiling										
	Answer all questions. Each carries 3 marks.										
No.		Μ	BL	CO							
1.	Define Sampling	g distribution		3	2	CO1					
2.	Distinguish betw	3	3	CO2							
3.	Define Simple ra	3	2	CO1							
4.	What is the purp	3	3	CO2							
5.	Define Karl Pear	3	2	CO1							
6.	How do you inte	3	3	CO2							
7.	Define Regression	3	2	CO1							
8.	State some of the	3	3	CO2							
9.	What is meant b	3	2	CO1							
10.	List any 3 demen	rits of the least squar	e method	3	2	CO1					
			Section B 0	Ceiling N	Aark	s : 36					
		Answer all que	estions. Each question carries 6 marks.								
No.			Question	Μ	BL	CO					
11.	What do you un	derstand by probabili	ity sampling? Describe stratified and cluster	6	2	CO1					
10	sampling design	6		002							
12.	Explain the concept of Type I and Type II errors and their utility in testing hypothesis										
13.	Compare One-Way ANOVA and Two-Way ANOVA.										
14.	A teacher w	vants to investigate th	ne relationship between the number of	6	3	CO2					
	hours students st	tudied and their score	es on a recent math test. The data collected			CO3					
	from 6 students	is as follows	m								
	Student	Hours Studied	Test Score								
	1	2	65								
	2	3	70								
	3	1	50								
	4	4	85								
	5	5	90								
	6	3	75								
	Rank the values for "Hours Studied" and "Test Score".										
	Calculate the Spearman's rank correlation coefficient (ρ) for the data. Interpret the result.										
15.	Distinguish between Correlation and Regression 6 4 CO2										

			A retail	store ha	as recor	ded its	monthly	y sales ((in thou	isands o	f dollars	5)		6	3	CO2
	for the year's first six months. The sales data is as follows: Plot the sales data on a graph. Use the free-hand curve method to draw. Interpret the trend you observe.														CO3	
			Month	Jan	n I	Feb	Mar	Ap	or	May	June					
			Sales '000s	30	2	25	40	50		60	55					
17.	Il	lustrate	with ex-	amples	1) Secu	ılar tren	ud 2) Se	asonal	variatio	on 3) Irre	egular			6	4	CO2
	v	ariation	4) cycli	cal vari	iation		-			· ·						
18.	Using the three-year moving average, determine the trend, Plot the original and trend values on the Graph.											6	3	CO2 CO3		
		Year	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977				
		sales	1230	1060	1240	1300	1450	1160	1430	1320	1260	1120				
							Se	ction (2							
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