QP Code: **D 112799**	Total Pages: 2	Name:
		Register No.

FIRST SEMESTER UG DEGREE EXAMINATION, NOVEMBER 2024
(CUFYUGP)
COP1MN109/COM1MN109: ESSENTIAL STATISTICS FOR BUSINESS ANALYTICS
2024 Admission onwards

Maximum Time :2 Hours	Maximum Marks :70

Section A
All Question can be answered. Each Question carries 3 marks(Ceiling : 24 Marks)

1	What is sampling ?
2	What are the methods of choosing a simple random sample ?
3	What meaning and use of the concept of Degrees of Freedom ?
4	What are the uses of t test ?
5	What are regression lines ?
6	Distinguish between linear correlation and non-linear correlation
7	What is a scatter Diagram ?
8	What are the assumptions of Z test ?
9	What are 'Cyclical variations' in a Time series analysis ?
10	What do you understand by the term Secular trend, in a Time series analysis ?

Section B
All Question can be answered. Each Question carries 6 marks(Ceiling : 36 Marks)

11	Explain and evaluate Stratified random sampling method
12	Explain the nature and causes of sampling errors. How to manage them in a study?
13	A sales manager wants to know if display at point of purchase helps in increasing the sales of his product. He note the following observations

Shop No.	1	2	3	4	5	6	7	8	9	10	11
Sales before display	4500	5275	7235	6844	5991	6672	4943	7615	6148	5623	5154
Sales after display	4834	5010	7562	6957	6401	6423	5334	8004	6729	6277	5769
Difference(d)	-334	265	-327	-113	-410	249	-391	-389	-581	-654	-615

$\bar{d} = -300$ $\qquad$ $S_d = 314.53$

Is there sufficient evidence to conclude that display at point of purchase helps in increasing the sales of his product?

14	Explain the nature and uses of Chi square test.
15	What are the uses of correlation analysis ?
16	Explain the uses and implications of different Types of Regression
17	Explain and evaluate Free Hand Curve method
18	What are the advantages and limitations of Time series analysis ?

Section C
Answer any ONE .Each Question carries 10 marks(1x10=10 Marks)

19	Apply the technique of analysis of variance to the following date relating to yields of 4 varieties of wheat in 3 blocks:

	Blocks		
Varieties	**X**	**Y**	**Z**
A	10	9	8
B	7	7	6
C	8	5	4
D	5	4	4

Carry two-way analysis of variance

| 20 | The height and body weight of ten males are given below. Calculate the coefficient of correlation: |

Height (inches)	65	68	62	70	65	72	67	66	68	70
Weight (pounds)	128	140	120	152	138	160	135	130	125	165