

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN
(AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)
Chromepet, Chennai - 600 044.

B.A. Economics - END SEMESTER EXAMINATIONS - NOV'2024

SEMESTER - II

20UECCT2004 - Statistics for Economists - II

Total Duration : 2 Hrs.30 Mins.

Total Marks : 60

Section B

Answer any **SIX** questions ($6 \times 5 = 30$ Marks)

1. What is sampling? Discuss sampling and sampling error.
2. What are the limitations of correlation coefficients?
3. Explain the linear regression line with an illustration.
4. Find linear regression equation for the following set of data:

x	2	4	6	8
y	3	7	5	10

5. Construct Fisher's Ideal Index number using the data given below

Commodity	Base year		Current year	
	Price in Rs.	Quantity in Kg.	Price in Rs.	Quantity in Kg.
A	8	45	10	36
B	5	29	13	10
C	10	16	4	25
D	2	65	7	40

6. Define index number and explain its characteristics.
7. Explain the uses of time series analysis.
8. Elaborate the properties of a correlation co-efficient.

Section C

Answer any **THREE** questions ($3 \times 10 = 30$ Marks)

9. Explain the types of sampling in with advantages and disadvantages.

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10. The following table provides data about the percentage of students who have free university meals and their CGPA scores. Calculate the Spearman's Rank Correlation between the two and interpret the result.

State University	% of students having free meals	% of students scoring above 8.5 CGPA
Pune	14.4	54
Chennai	7.2	64
Delhi	27.5	44
Kanpur	33.8	32
Ahmedabad	38.0	37
Indore	15.9	68
Guwahati	4.9	62

11. Calculate the linear Regression equation for the data. $X=4,8,12,16$ and $Y=5,10,15,20$.
12. Calculate Price Index Numbers for 2021 with 2014 as the base with the help of Fisher's Method.

Commodity	Base year		Current year	
	Price in Rs (po)	Quantity in Kg (qo)	Price in Rs (po)	Quantity in Kg (qo)
A	40	16	80	12
B	100	20	120	10
C	80	30	100	30
D	40	40	40	50

13. Analyse the Various Components in the Time series analysis.
