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 - APRIL 2025
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. Define sampling and Explain the Probability sampling methods.
2. Discuss the common types of linear regression.
3. Explain the steps to Find Pearson's Correlation Coefficient.
4. In an art competition, two judges accorded following ranks to the 10 participants

Judge X	1	2	3	4	5	6	7	8	9	10
Judge Y	6	2	9	7	1	4	8	3	10	5

   Calculate coefficient of rank correlation.
5. Calculate Price Index Numbers for 2021 with 2014 as base with the help of Paasche's Method.

Commodity	**Base year (2014)**		**Current year (2022)**	
	Price (P0)	**Qty (Q0)**	**Price (P1)**	**Qty (Q1)**
A	40	16	80	12
B	100	20	120	10
C	80	30	100	30
D	40	40	40	50

6. Explain briefly Components of Time Series Data
7. Measurement of trend by the method of moving average.
8. Explain briefly the uses of Index Numbers.

Section C

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

9. Define sampling errors and Explain the types of Sampling Errors.

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10. Calculate the correlation coefficient from the following table:

SUBJECT	AGE (X)	GLUCOSE LEVEL (Y)
1	42	98
2	23	68
3	22	73
4	47	79
5	50	88
6	60	82

11. Find the linear regression equation for the given data:

X	Y
3	8
9	6
5	4
3	2

12. 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

13. Three years Simple Moving Average forecast is as given:

year	1	2	3	4	5	6	7	8	9	10	11	12
Sales	5.2	4.9	5.5	4.9	5.2	5.7	5.4	5.8	5.9	6	5.2	4.8

Calculate Three year Simple Moving Average forecast.

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