

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.

M.A. END SEMESTER EXAMINATIONS NOVEMBER - 2022

SEMESTER - I

**22PECCT1002 - Statistical Methods for Economics**

Total Duration : 2 Hrs 30 Mins.

Total Marks : 60

### Section A

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

1. What is Sampling?
2. Define Standard Error.
3. State the criteria for a 'good estimator'.
4. Explain Least Squares.
5. Mention the theorems on Probability.
6. Sixty per cent of the employees of the XYZ Corporation are college graduates. Of these, ten per cent are in sales. Of the employees, who did not graduate from college, eight per cent are in sales. What is the probability that?
  - (i) an employee selected at random is in sales?
  - (ii) an employee selected at random is neither in sales nor a college graduate?
7. What is Chi-Square Test?
8. Write down the Assumptions of F-test.

### Section B

#### Part A

Answer any **TWO** questions ( $2 \times 10 = 20$  Marks)

9. Briefly explain the importance of sampling method.
10. Write a note on - (a) F-Test (b) Analysis of Variance.
11. During a period, persons arrive at a railway book counter at the rate of 30 per hour. What is the probability that two or fewer will arrive in period of 5 minutes? Use approximate probability distribution.
12. Explain the procedure of Testing of Hypothesis.

**Contd...**

## Part B

Compulsory question ( $1 \times 10 = 10$  Marks)

13. The following table gives age (X) in years of cars and annual maintenance of cost (Y) (in thousand rupees)

X	1	3	5	7	9
Y	15	18	21	23	22

Estimate the maintenance cost for a 4 year - old car after finding the regression equation.

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