



# ST. FRANCIS DE SALES COLLEGE

A FRANSALIAN INSTITUTE OF HIGHER EDUCATION **AUTONOMOUS**

NAAC A GRADE • AFFILIATED TO BANGALORE UNIVERSITY • AICTE APPROVED • 2(F) & 12 (B) RECOGNITION OF UGC • ISO 9001:2015 CERTIFIED  
Electronics City P.O., Bengaluru - 560 100, Karnataka, INDIA ☎ (+91) 8088140679 ✉ pro@sfscollege.in 🌐 www.sfscollege.in

## END SEMESTER EXAMINATION – AUGUST 2025

### ECONOMICS - II SEMESTER MA

### 24PMA25A – STATISTICAL METHODS FOR ECONOMISTS

**Time: 3 Hours**

**Max. Marks: 70**

**Instruction:** *Answer should be written completely in English*

#### SECTION – A

**Answer any TWO questions. Each question carries FIVE marks.**

**(2x5=10)**

1. Give two examples each of primary and secondary data.
2. What is Mean Deviation ? Write its formula.
3. Write a short note on Partial correlation.
4. What is null hypothesis? How is it different from alternative hypothesis?

#### SECTION -B

**Answer any THREE questions. Each question carries TEN marks.**

**(3x10=30)**

5. Differentiate between primary and secondary data. Explain the sources of each.
6. Calculate the Standard Deviation (SD) for the following data:  
 $X = \{4, 6, 8, 12, 15\}$
7. Using Spearman's rank correlation formula, calculate the rank correlation coefficient for the following data:

X	Y
10	5
20	15
30	25
40	35
50	45

8. Calculate 3-Year Moving Averages (MA) from the following data:



Year	Demand
2001	14
2002	18
2003	16
2004	23
2005	24
2006	19
2007	29
2008	33
2009	37
2010	26
2011	12
2012	31

9. Calculate the standard error for the following sample

Sample mean = 50, Population SD = 10,  $n = 25$

### SECTION -C

Answer any TWO questions. Each question carries FIFTEEN marks.

(2x15=30)

10. Explain classification of data. What are the different types of classification with examples?

11. Calculate Coefficient of Variation (C.V.) from the following data:

Class Interval (C.I.)	Frequency (f)
0 – 10	2
10 – 20	4
20 – 30	11
30 – 40	15
40 – 50	25
50 – 60	18
60 – 70	15





70 – 80	4
80 – 90	3

12. Calculate the coefficient of correlation between expenses and savings of a family.

Expenses (X)	Savings (Y)
25	55
35	45
45	35
55	25
65	15

By using Karl Pearson coefficient correlation method.

13. What is meant by 'goodness of fit'? Describe the steps involved in using the Chi-square test for goodness of fit with a clear example.

