ST. FRANCIS DE SALES COLLEGE

A FRANSALIAN INSTITUTE OF HIGHER EDUCATION **AUTONOMOUS**

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END SEMESTER EXAMINATION - NOVEMBER 2025

BUSINESS ADMINISTRATION - I SEMESTER BBA

25BBA16A: QUANTITATIVE BUSINESS ANALYSIS

Time: 3 Hours **Max Marks: 80**

Instructions: *Answer should be written completely in English*

SECTION- A

1. Answer any **SEVEN** questions. Each question carries **TWO** marks. **(7x2=14)**
   a) Define statistics.
   b) Explain the three types of series with suitable examples.
   c) Mention the different types of bar diagrams.
   d) Present the data using tally bars.
   Marks of 15 students: 5,5,6,5,6,7,6,8,10,2,6,8,9,6,6
   e) Determine the median from the following:
   25, 15, 23, 40, 27, 25, 23, 25, 20
   f) If median (M) = 79.5 and mode (Z) = 78.1, find the arithmetic mean.
   g) If standard deviation = 20.4 and mean = 27, calculate the coefficient of variation.
   h) The mean and median of a dataset are 50 and 46, respectively, and the standard deviation is 8. Find Karl Pearson's coefficient of skewness.
   i) State the various methods of weighted aggregate methods.
   j) Define index number.

SECTION B

Answer any **THREE** questions. Each question carries **EIGHT** marks. **(3x8=24)**

2. What are the limitations of statistics?

3. Represent the following population of city 'A' by a percentage bar diagram.

Years	Men	Women	Children
1995	450	350	200
1996	440	340	220
1997	480	360	160

4. Calculate the modal wages.

Daily wages (x)	20-25	25-30	30-35	35-40	40-45	45-50
No of workers (f)	1	3	8	12	7	5

5. Calculate standard deviation from the following data.

Wages	50	60	70	80	90	100	110	120
No of workers	8	5	9	4	6	7	3	2

6. From the following data, calculate the index number using the simple average of price relative method.

Commodity	Price in 2017	Price in 2018
A	100	140
B	80	120
C	160	180
D	220	240
E	40	40

SECTION C

Answer **THREE** questions. Each question carries **FOURTEEN** marks. **(3x14=42)**

7. Explain in detail the objectives, features, importance and limitations of Statistics.
8. Draw a pie diagram for the following data.

Food	12.9 %
Clothing	12.5 %
Oil	27.2 %
Ghee	15.4 %
Transport	15.9 %
Social service	16.1 %

9. Draw a less than Ogive and more than Ogive from the following data and locate the median graphically.

Size	0-10	10-20	20-30	30-40	40-50
Frequency	5	10	30	15	5

10. The following are the runs scored by two batsmen, A and B, in ten innings. Who is the better run scorer? And who is the more consistent batsman?

A	101	0	27	82	36	45	13	7	65	14
B	98	40	12	13	96	8	8	85	56	15

11. Construct Fisher's index for the following data and verify whether it satisfies the Time Reversal Test and Factor Reversal Test.

Commodities	Base year		Current year	
	Price	Qty.	Price	Qty.
A	12	100	20	112
B	4	200	4	240
C	8	120	12	120
D	20	60	24	48
E	16	80	24	52