

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.Com. BIM - END SEMESTER EXAMINATIONS - APRIL 2025

SEMESTER - I

**21UBBAT1001 - Business Statistics**

Total Duration : 2 Hrs.30 Mins.

Total Marks : 60

### Section B

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

1. What is Primary Data? Explain various methods of Collecting the Primary Data.
2. The Average marks secured by 36 Students was 52. But it was found that an item of 64 was misread as 46. Compute the correct value of the mean.
3. Compute Median from the following:

Midvalue	Frequency
115	7
125	25
135	40
145	55
155	14
165	35
175	50

4. Compute the Karl Pearson's Co-efficient of Correlation between the Sales and Expenses of the following 10 Firms (Figures Rs.in '000)

Firms	Sales	Expenses
1	50	11
2	50	13
3	55	14
4	60	16
5	65	16
6	65	15
7	65	15
8	60	14
9	60	13
10	50	13

5. From the following data, Compute the regression equations X on Y and Y on X by normal equations

X	Y
6	9
2	11
10	5
4	8
8	7

Contd...

6. Using Three Yearly Moving Average Compute the Trend and Short-term fluctuations

Year	Production ('000 tons)
2005	21
2006	22
2007	23
2008	25
2009	24
2010	22
2011	25
2012	26
2013	27
2014	28

7. Compute the average Seasonal Movement for the Following Series:

Year	Quarterly Production			
	I	II	III	IV
2011	35	39	34	36
2012	35	41	37	40
2013	35	39	37	42
2014	40	46	38	45
2015	41	44	42	45

8. Ascertain Price Index Number from the data given below and comment on the Value:

Commodities	A	B	C	D	E	F
Price in 2020	20	25	10	12	30	20
Price in 2021	22	30	10	15	33	30

### Section C

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

9. Explain briefly the uses of various diagrams in presenting Statistical Data.

10. Compute Standard Deviation

Income (in Rs.)	No. of Families
Below 100	18
100-200	26
200-300	30
300-400	12
400-500	10
500-600	4

11. Ascertain the rank Correlation Co-efficient for the following distributions:

Marks in Statistics	Marks in Accountancy
48	62
60	78
72	65
62	70
56	38
40	54
39	60
52	32
30	31

Contd...

12. Prepare the Seasonal Variation by the ratio -to -trend method from the data given below:

<b>Year</b>	<b>I Quarter</b>	<b>II Quarter</b>	<b>III Quarter</b>	<b>IV Quarter</b>
2011	60	80	70	70
2012	68	104	100	88
2013	80	116	108	96
2014	108	152	136	124
2015	160	184	172	164

13. Ascertain the Cost of living Index number from the following data:

<b>Items</b>	<b>Base Year Price</b>	<b>Current Year Price</b>	<b>Weights</b>
Food	30	47	4
Fuel	8	12	2
Clothes	14	18	3
Rent	22	15	2
Miscellaneous	25	30	1

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