Roll.No. | | **21UBBAT1001**

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 - NOVEMBER 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. Explain the merits and demerits of Diagram representation.
2. From the following data, compute arithmetic mean

Marks	0-10	10-20	20-30	30-40	40-50	50-60
No. of Students	5	10	25	30	20	10

3. Calculate the coefficient of correlation between age of cars and annual maintenance cost

Age of Cars: (years)	2	4	6	7	8	10	12
Annual maintenance: (Cost'00)	16	15	18	19	17	21	20

4. Differentiate between seasonal and cyclical variation.
5. Prepare index number (2006=100) for the Link Relatives given below using chain base method.

Year	2007	2008	2009	2010	2011	2012	2013
Link relative	105	75	71	105	95	90	90

6. Calculate 3 years moving average and find the trend values

Year	2015	2016	2017	2018	2019	2020	2021	2022
Sales (Rs. in lakhs	13	14	18	20	22	27	30	31

7. Calculate Rank correlation for the following:

Marks in Maths:	85	60	73	40	90
Marks in Statistics:	93	75	65	50	80

8. Compute standard deviation for the following:

Class (X)	0-10	10-20	20-30	30-40	40-50	50-60	60-70
Frequency (f)	8	12	17	14	9	7	4

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Section C

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

9. Describe the Functions and limitations of statistics.

10. Ten students of B.Com. class of a college have obtained the following marks in Statistics out of 100 marks. Calculate the standard deviation.

Marks	5	10	20	25	40	42	48	70	80

11. From the following data obtain the two regression equations.

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

12. Fit a straight line trend by the method of least squares the following data.

Year	2009	2010	2011	2012	2013	2014
Production	24	25	29	26	22	24

Estimate the likely production for the year 2017.

13. From the following data find the index numbers by using chain base method.

Year	2005	2006	2007	2008	2009	2010	2011	2012
Prices	60	62	65	72	75	80	82	85

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