

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.ISM - END SEMESTER EXAMINATIONS - APRIL 2025

SEMESTER - III

23UBIAT3003 - Business Mathematics and Statistics

Total Duration : 2 Hrs.30 Mins.

Total Marks : 60

Section B

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

1. What is set? Give example and explain different operators on set.
2. Find the harmonic mean for the following data

x	11	22	33	44	55
f	3	2	4	6	1

3. Calculate standard deviation for the following data

Mark	10-20	20-30	30-40	40-50	50-60	60-70
Students	12	20	15	30	7	5

4. Calculate the rank correlation for the following data

x	1	2	3	4	5	6	7	8	9	10	11	12
y	12	9	6	10	3	5	4	7	8	2	11	1

5. Find the compound interest on Rs.1,000 for 10 years at 4% per annum, the interest being paid Annually
6. Compute mode for the following data

C.I	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50
f	2	28	125	270	303	197	65	10

7. Calculate mean deviation about mean for the following data

C.I	0-10	10-20	20-30	30-40	40-50	50-60
f	15	36	53	42	17	2

8. Find the regression lines for the following data

	X	Y
Arithmetic mean	6	8
Standard deviation	5	40/3
Correlation co-efficient	0.8	

Contd...

Section C

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

9. Out of a group of 50 teachers in a High school 30 teach mathematics, 20 teach English and 25 teach science, 10 teach both mathematics and science and none teach mathematics and English.
- How many teach science and English
 - How many teach English only

10. Find the true discount and present worth of a bill for Rs.1,660 due in 9 months at 5% per annum

11. Calculate mean, median and mode for the following data

C-I	0-10	10-20	20-30	30-40	40-50	50-60	60-70
f	4	9	13	15	12	8	3

12. Calculate Co-efficient of Quartile deviation for the following data

C-I	0-10	10-20	20-30	30-40	40-50
f	4	18	28	15	7

13. Define scatter diagram and explain its types briefly.
