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. CS - END SEMESTER EXAMINATIONS - NOV'2024
SEMESTER - III
21UBCCT3008 - Statistics-I

Total Duration : 2 Hrs.30 Mins. Total Marks : 60

Section B

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

1. What are the limitations of statistics?

2. Draw a pie diagram to represent the following population in a town:

Male	Female	Girls	Boys	Total
2,000	1,800	4,200	2,000	10,000

3. Calculate the harmonic mean for the following data:

x	10	12	14	16	18	20
f	5	18	20	10	6	1

4. Coefficient of variation of two different distributions are 58% and 69%. Their standard deviations are 21.2 and 15.6 respectively. What are their arithmetic means?

5. In a frequency distribution, the coefficient of skewness based on the quartile is 0.6. If the sum of the upper and the lower quartiles is 100 and the median is 38. Find the value of the upper quartile.

6. Draw a percentage bar diagram for the following data:

Expenditure	**Company A**	**Company B**
Wages	450	700
Materials	200	500
Power	75	350
Maintenance	80	175
Profit	195	275
Total	1,000	2,000

7. Calculate the mean deviation about mean for the following data:

No. of calls	2	3	4	5	6	7
Frequency	1	5	8	4	2	1

8. From the following series, find out the Karl Pearson's coefficient of skewness.

Measurement	11	12	13	14	15
Frequency	3	9	6	4	3

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Section C

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

9. Explain the various methods of collecting primary data.

10. The number of students belonging of two sections A and B according to the marks obtained by them is given in the following table. Draw their Lorenz curves in the same graph and interpret them.

Marks	30-40	40-50	50-60	60-70	70-80	80-90	90-100
Sec A	10	6	4	12	8	6	4
Sec B	5	9	5	11	7	8	5

11. From the following data, find out mode using empirical formula:

Class interval	3-4	4-5	5-6	6-7	7-8	8-9	9-10
Frequency	83	27	25	50	75	38	18

12. The following are the marks obtained by two students A and B in 10 sets of examination.

Sets	1	2	3	4	5	6	7	8	9	10
Marks of A	32	28	47	63	71	39	10	60	96	14
Marks of B	19	31	48	53	67	90	10	62	40	80

If the consistency of performance is the criterion for awarding the prize, who should get the prize?

13. Calculate Bowley's coefficient of skewness from the following data:

Marks	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
No. of Students	10	25	20	15	10	35	25	10

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