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 NOVEMBER-2022
SEMESTER - III
21UBCCT3008 - Statistics - I

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

Section A

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

1. Explain the characteristics of statistics.

2. Prepare a Bar diagram for the following data:
   India's Foreign debt as on 1-4-2020

Source of borrowing	Amounts of loan (In crores of Rupees)
USA	1,800
USSR	1,200
United Kingdom	800
Japan	600
Germany	500

3. Find the AM from the following frequency distribution:

Class limits	Frequency
10-19	5
20-29	9
30-39	14
40-49	20
50-59	25
60-69	15
70-79	8
80-89	4

4. Find the mean deviation about the mean for the following data:
   18,20,12,14,19,22,26,16,19,24

5. Find out Bowley's coefficient of skewness from the following data:

Mid value	Frequency
21	18
27	22
33	40
39	50
45	38
51	12
57	4

Contd...

6. Find the mode of the following distribution:

Class-limits	**Frequency**
46-50	2
51-55	3
56-60	5
61-65	7
66-70	9
71-75	11
76-80	7
81-85	2
86-90	3
91-95	1

7. The weekly salaries of a group of employees are given in the following table. Find the mean and standard deviation of the salaries.

Salaries (in Rs.)	75	80	85	90	95	100
No. of Persons	3	7	18	12	6	4

8. Calculate Pearson's measure of skewness for the following data.

Size	7	8	9	10	11	12	13	14
Frequency	2	11	36	64	39	39	22	2

Section B

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

9. Explain in detail the sources of statistical data.

10. Construct a histogram and frequency curve for the following frequency distribution:

Weights (in kg.)	41-45	46-50	51-55	56-60	61-65	66-70	71-75	76-80
Number of men	4	5	9	6	11	5	7	3

11. The frequency distribution of weight in grams of mangoes of a specific variety is given below. Calculate the arithmetic mean, median and mode.

Weight (in gms)	410-419	420-429	430-439	440-449	450-459	460-469	470-479
No of mangoes	14	20	42	54	45	18	7

12. Calculate the Quartile deviation and its coefficient for the following frequency distribution.

Class Interval	0 - 10	10 - 20	20 – 30	30 – 40	40 – 50	50 – 60	60 – 70	70 – 80
Frequency	8	12	10	48	42	18	8	4

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13. Score at an aptitude test by 100 candidates are given below. You are requested to calculate Karl Pearson's coefficient of Skewness.

Marks	0 - 10	10 - 20	20 – 30	30 – 40	40 – 50	50 – 60	60 – 70
No of candidates	10	15	24	25	10	10	6

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