

Roll.No.

25UAIAT3003

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.Sc. Cs with AI - END SEMESTER EXAMINATIONS - NOVEMBER 2025  
SEMESTER - III

**25UAIAT3003 - Descriptive Statistics**

Total Duration : 2 Hrs.30 Mins.

Total Marks : 60

### Section B

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

1. Write short notes on the limitations of statistics.
2. Draw a pie diagram for the following data of the Sixth Five-Year Plan Public Sector outlays:

Agriculture and Rural Development	12.9 %
Irrigation	12.5 %
Energy	27.2 %
Industry and Minerals	15.4 %
Transport, Communication, etc.	15.9%
Social Services and others	16.1%

3. A train runs 240 miles at a speed of 60 m.p.h., another 480 miles at a speed of 80 m.p.h., then due to repairs of the track travels for 15 minutes at a speed of 10 m.p.h., and finally covers the remaining distance of 275 miles at a speed of 55 m.p.h. What is the average speed in miles per hour?
4. Calculate the mean deviation about the mean for the following frequency distribution:

Class	20-30	30-40	40-50	50-60
No. of students	3	8	9	15
Class	60-70	70-80	80-90	90-100
No. of students	20	13	8	4

5. Calculate Karl Pearson's coefficient of correlation between expenditure and sales:

Expenditure (in lakhs)	39	65	62	90	82
Sales (in crores)	47	53	58	86	62
Expenditure (in lakhs)	75	25	98	36	78
Sales (in crores)	68	60	91	51	84

Contd...

6. Calculate the Standard deviation for the following data:

Profit	0-10	10-20	20-30
No. of Companies	12	17	23
Profit	30-40	40-50	50-60
No. of Companies	39	16	3

7. Discuss correlation interpretation through a Scatter diagram.

8. Classify the following data by taking class intervals such that their mid-values are 17,22,27, 32 and so on.

30	42	30	54	40	48	15	17	51	42
25	41	30	27	42	36	28	26	37	54
44	31	36	40	36	22	30	31	19	48
16	42	32	21	22	46	33	41	21	

### Section C

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

9. Discuss the various methods of collecting Primary Data.

10. From the data given below, find the missing frequency. If the arithmetic mean is 28, find the median:

Profit Per shop ('000)	0-10	10-20	20-30
No. of Shops	12	18	27
Profit Per shop ('000)	30-40	40-50	50-60
No. of Shops	?	17	6

11. Draw less than and more than ogives from the data given below:

Profit Per shop ('000)	0-10	10-20	20-30
No. of Shops	12	18	27
Profit Per shop ('000)	30-40	40-50	50-60
No. of Shops	?	17	6

12. Obtain the two lines of regression from the following data and estimate the blood pressure when age is 50 years. Can also estimate the blood pressure of a person aged 20 years based on this regression equation?

Age (in years)	56	42	72	39	63	47
Blood Pressure	127	112	140	118	129	116
Age (in years)	52	49	40	42	68	60
Blood Pressure	130	125	115	120	135	133

Contd...

13. Find the  $Q_1$  ,  $Q_2$  interquartile range from the following data:

<b>Marks in Statistics</b>	Above 0	Above 10	Above 20	Above 30	Above 40
<b>No. of Students</b>	150	140	100	80	80
<b>Marks in Statistics</b>	Above 50	Above 60	Above 70	Above 80	
<b>No. of Students</b>	70	30	14	0	

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