



Indira Gandhi Delhi Technical University for Women

(Formerly Indira Gandhi Institute of Technology)

Kashmere Gate, Delhi-110006

PROBABILITY AND STATISTICS (BAS-103)

TUTORIAL SHEET -2

(Descriptive Statistics)

Question-1 Calculate the mean and median for the following frequency distribution:

Weight (In kg)	31-35	36-40	41-45	46-50	51-55	56-60	61-65	66-70	71-75
Number of Students	9	6	15	3	1	2	2	1	1

[Ans. 43.875 kg, 43]

Question-2 Find the mode of the given distribution

Run Scored	Number of Batsman
3000-4000	4
4000-5000	18
5000-6000	9
6000-7000	7
7000-8000	6
8000-9000	3
9000-10000	1
10000-11000	1

[Ans. 4608.7 runs]

Question-3 If the median of a distribution given below is 28.5, then find the value of x and y.

CI	0-10	10-20	20-30	30-40	40-50	50-60	Total
Frequency	5	x	20	15	y	5	60

[Ans. x=8 and y=7]

Question-4 For a moderately skewed distribution, the mean and median are respectively 26.8 and 27.9. What is the mode of the distribution?

[Ans. 30.1]

Question-5 For a group of 200 candidates, the mean and standard deviation of scores were found to be 40 and 15 respectively. Later on, it was discovered that the scores 43 and 35 were misread as 34 and 53, respectively. Find the corrected mean and standard deviation corresponding to the corrected figures.

[Ans. 39.955, 14.97]

Question-6 Find the upper quartile, lower quartile and quartile deviation of the following data

Marks	No. of students
Below 10	15
Below 20	35
Below 30	60
Below 40	84
Below 50	94
Below 60	127
Below 70	198
Below 80	249

[Ans. 68.41, 30.94, 18.735]

Question-7 Find the variance, standard deviation and coefficient of variation of the following data

x	3	5	7	8	10
f	10	20	30	25	15

[Ans. 3.9805, 1.9976, 28.98%]

Question-8 Calculate the mean deviation about the median for the following data.

x	3	6	9	12	13	15	21	22
f	3	4	5	2	4	5	4	3

[Ans. 4.97]

Question-9 For the following distribution calculate first four moments about mean and hence find the kurtosis:

Marks	5	10	15	20	25	30	35
Frequency	4	10	20	36	16	12	2

[Ans. 0, 44.41, -12.504, 5423.5057, 2.7499]