

STATISTICS

Extra Questions

1. The following are the marks obtained by 20 students in a class-test :

40, 22, 36, 27, 30, 12, 15, 20, 25, 31, 34, 36, 39, 41, 43, 48, 46, 36, 37, 40

Arrange the above data in frequency distribution with equal classes, one of them being (0,10), 10 not included.

2. The electricity bills of twenty house holds in a locality are as follows : 370, 410, 520, 270, 810, 715, 1080, 712, 802, 775, 310, 375, 412, 420, 370, 218, 240, 250, 610, 570. Construct a frequency distribution table with class size 100.

3. The enrolment in classes VI to X of a school is given below :

Class :	VI	VII	VIII	IX	X
Enrolment :	70	65	60	45	35

Draw a bar chart to depict the data.

4. Draw a histogram and a frequency polygon for the following data :

Marks	10-20	20-30	30-40	40-50	50-60
No. of students	8	12	15	9	6

5. Draw a histogram for the following data :

Classes	10-15	15-20	20-30	30-50	50-60
Frequency	6	10	10	8	18

6. 100 surnames were randomly picked up from a local telephone directory and frequency distributions of the number of letters in the English alphabet in the surnames was found as follows:

Number of letters	Number of surnames
1 – 4	6
4 – 6	30
6 – 8	44
8 – 12	16
12 – 20	4

(i) Draw a histogram to depict the given information.

(ii) Write the class interval in which the maximum number of surnames lie.

7. A family with a monthly income of Rs 20,000 had planned the following expenditures per month under various heads: Draw a bar graph for the given below data.

Heads	Expenditure (in thousand rupees)
Grocery	4
Rent	5
Education of children	5
Medicine	2
Fuel	2
Entertainment	1
Miscellaneous	1

8. Consider the marks, out of 100, obtained by 51 students of a class in a test, given in below table. Draw a frequency polygon corresponding to this frequency distribution table.

Marks	Number of students
0 - 10	5
10 - 20	10
20 - 30	4
30 - 40	6
40 - 50	7
50 - 60	3
60 - 70	2
70 - 80	2
80 - 90	3
90 - 100	9
Total	51

9. In a city, the weekly observations made in a study on the cost of living index are given below in the following table: Draw a frequency polygon for the data above (without constructing a histogram).

Cost of living index	Number of weeks
140 - 150	5
150 - 160	10
160 - 170	20
170 - 180	9
180 - 190	6
190 - 200	2
Total	52

10. The following table gives the life times of 400 neon lamps: (i) Represent the given information with the help of a histogram. (ii) How many lamps have a life time of more than 700 hours?

Life time (in hours)	Number of lamps
300 – 400	14
400 – 500	56
500 – 600	60
600 – 700	86
700 – 800	74
800 – 900	62
900 – 1000	48

11. The runs scored by two teams A and B on the first 60 balls in a cricket match are given below: Represent the data of both the teams on the same graph by frequency polygons.

Number of balls	Team A	Team B
1 - 6	2	5
7 - 12	1	6
13 - 18	8	2
19 - 24	9	10
25 - 30	4	5
31 - 36	5	6
37 - 42	6	3
43 - 48	10	4
49 - 54	6	8
55 - 60	2	10

12. A random survey of the number of children of various age groups playing in a park was found as follows: Draw a histogram to represent the data above.

Age(in years)	Number of children
1 – 2	5
2 – 3	3
3 – 5	6
5 – 7	12
7 – 10	9
10 – 15	10
15 – 17	4

13. Draw histogram and frequency polygon for the following distribution:

C. I.	0 – 50	50 – 100	100 – 150	150 – 200	200 – 250	250 – 300
F	4	8	16	13	6	3

14. Draw histogram and frequency polygon for the following data:

Marks	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60
No. of students	10	12	13	11	9

15. For the following data, draw a histogram and a frequency polygon.

Marks	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
No. of students	5	12	6	20	18	10	16	3

16. Given below are the ages of 25 students of class IX in a school.

Prepare a discrete frequency distribution table.

15 16 16 17 17 16 15 15 16 16 17 15 16
16 14 16 15 14 15 16 16 15 14 14 15

17. Following are the marks of a group of students in a test of reading ability test:

Marks:	50 – 52	47 – 49	44 – 46	41 – 43	38 – 40	35 – 37	32 – 34	Total
No. of students	4	10	15	18	20	12	13	92

Construct a histogram and frequency polygon for the above data.

18. For the following data, draw a histogram and a frequency polygon

x	0 – 10	10 – 20	20 – 30	30 – 50	50 – 60	60 – 80	80 – 90	90 – 100
f	5	12	15	20	18	10	6	4