CHAPTER 16
DATA HANDLING

Question 1.
A die was thrown 35 times and the following numbers were obtained:
5, 1, 4, 2, 3, 2, 6, 6, 1, 4, 2, 5, 4, 5, 3, 6, 1, 5
2, 6, 2, 5, 4, 1, 3, 2, 1, 4, 1, 6, 2, 6, 3, 3, 3
Prepare a frequency table for the data.
Solution:
From the given data, we have the following table.

Number	Tally marks	Frequency
1	𝍸 |	6
2	𝍸 ||	7
3	𝍸 |	6
4	𝍸	5
5	𝍸	5
6	𝍸 |	6

Question 2.
The result of a Mathematics test is as follows:
80, 90, 70, 80, 80, 60, 80, 70, 90, 65, 100, 60, 70, 60, 70, 85, 65, 70, 70, 85, 90, 60, 65, 80, 60
Make a frequency table for the above data and answer the following questions:
(a) What is the maximum marks obtained?
(b) How many students score less than 75 marks?
(c) How many students scored 80 marks or above?
(d) How many students appeared in the test?
Solution:
From the above information, we have the following table.

Marks obtained	Tally marks	Frequency
60	𝍸	5
65	|||	3
70	𝍸 |	6
80	||||	5
85	||	2
90	|||	3
100	|	1

(a) Maximum marks obtained by a student = 100
(b) 5 + 3 + 6 = 14 students obtained marks less than 75.

(c) 5 + 2 + 3 + 1 = 11 students scored marks 80 or above 80.
(d) Total 25 students were appeared in the test.

Question 3.
Mr. Rajan made a pictograph given below to show the number of cars washed at a car washing station during three days of a week.

Days	Number of cars washed	One car = 5 cars
Friday		
Saturday		
Sunday		

From the pictograph, find that:
(a) How many cars were washed on
(i) Friday
(ii) Saturday
(iii) Sunday?
(b) On which day the maximum number of cars were washed at the station?
(c) On which day the minimum number of cars were washed at the station?
(d) How many more cars were washed on Saturday than on Friday?
Solution:
(a) (i) On Friday – 4 x 5 = 20 cars
(ii) On Saturday – 9 x 5 = 45 cars
(iii) On Sunday – 7 x 5 = 35 cars.
(b) On Saturday, the maximum number of cars,
i.e., 9 x 5 = 45 were washed at the stations.
(c) On Friday, the minimum number of cars,
i.e., 4 x 5 = 20 were washed on the station.
(d) 45 – 20 = 25 more cars were washed on Saturday than on Friday.

Question 4.
In March 2012, children for six colonies of Meerut were given pulse polio Drops. The colony wise number of children were as follows:

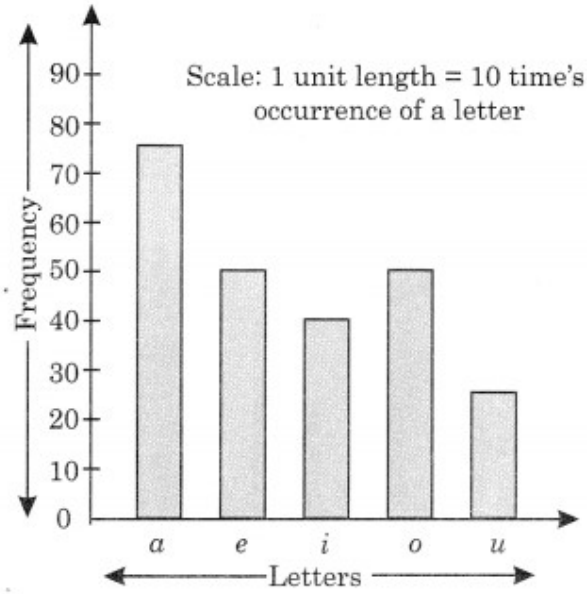
Colony A	2250
Colony B	1500
Colony C	2000
Colony D	1250
Colony E	1000
Colony F	1500

Represent the data by pictograph.

Solution:
Pictograph:

Colony	Number of children	One = 500 children
A		
B		
C		
D		
F		
F		

Question 5.
The given bar graph represents the frequency of a, e, i, o, and u in a piece of English writing.

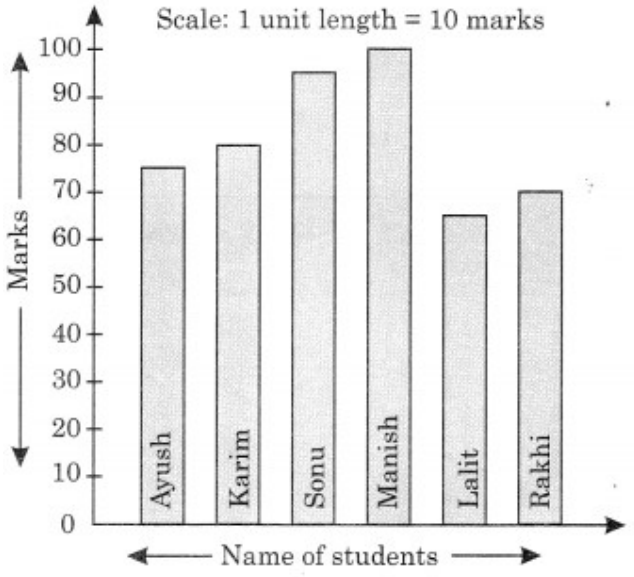


(a) Which letter occurred the maximum number of times?
(b) Which letter occurred 40 times?
(c) Which letter occurred less than 30 times?
(d) Write down the five letters in the decreasing order of frequencies.
Solution:
(a) a letter occurred the maximum number of times.
(b) i letter occurred 40 times.
(c) u letter occurred less than 30 times.
(d) a, e, o, i, u is the decreasing order of their frequencies.

Question 6.
The marks obtained by six students in Mathematics are given below. Represent the. data by a bar graph. Use a scale of 0.5 cm for each name on the horizontal axis and 0.5 cm for 10 marks on the vertical axis.

Students	Marks
Ayush	75
Karim	80
Sonu	95
Manish	100
Lalit	65
Rakhi	70

Solution:
The required bar graph is given as below:



Question 7.
Following pictograph shows the number of tractors in five villages.

Village	Number of tractors  - 1 Tractor
Village A	
Village B	
Village C	
Village D	
Village E	

Observe the pictograph and answer the following questions.

(i) Which village has the minimum number of tractors?

(ii) Which village has the maximum number of tractors?

(iii) How many more tractors village C has as compared to village B?

(iv) What is the total number of tractors in all the five villages?

Solutions:

(i) Village D has the minimum number of tractors.

(ii) Village C has the maximum number of tractors.

(iii) Village B has 5 tractors

Village C has 8 tractors

= 8 – 5

= 3 tractors

Village C has 3 more tractors as compared to village B

(iv) Total number of tractors in all the villages = 6 + 5 + 8 + 3 + 6 = 28 tractors

Question 8.

The number of girl students in each class of a co-educational middle school is depicted by the pictograph:

Classes	Number of girl students  - 4 Girls
I	
II	
III	
IV	
V	
VI	
VII	
VIII	

Observe this pictograph and answer the following questions:

(a) Which class has the minimum number of girl students?

(b) Is the number of girls in Class VI less than the number of girls in Class V?

(c) How many girls are there in Class VII?

Solutions:

By observing the above table, there are 24, 18, 20, 14, 10, 16, 12 and 6 girls, respectively from Class I to VIII

(a) Class VIII has only 6 girls. Therefore, the minimum number of girl students are in Class VIII

(b) No. Class V has 10 girl students

Class VI has 16 girl students

Hence, the number of girls in Class VI is more than the number of girls in Class V

(c) The number of girls in Class VII is 12

Question 9.

The sale of electric bulbs on different days of a week is shown below:

Days	Number of electric bulbs - 2 Bulbs
Monday	
Tuesday	
Wedensday	
Thursday	
Friday	
Saturday	
Sunday	

Observe the pictograph and answer the following questions:

(a) How many bulbs were sold on Friday?

(b) On which day were the maximum number of bulbs sold?

(c) On which of the days same number of bulbs were sold?

(d) On which of the days minimum number of bulbs were sold?

(e) If one big carton can hold 9 bulbs. How many cartons were needed in the given week?

Solutions:

(a) Number of bulbs sold on Friday is 14 bulbs.

(b) On Sunday the highest number of bulbs, i.e., 18, is sold. Thus, the maximum number of bulbs were sold on Sunday.

(c) On Wednesday and Saturday, 8 bulbs are sold. Hence, an equal number of bulbs were sold on Wednesday and Saturday.

(d) Minimum number of bulbs were sold on Wednesday and Saturday, i.e., 8 bulbs.

(e) Total number of bulbs sold in a week = 12 + 16 + 8 + 10 + 14 + 8 + 18 = 86

Question 10.

In a village six fruit merchants sold the following number of fruit baskets in a particular season:

Name of Fruit merchants	Number of fruit baskets  - 100 fruit baskets
Rahim	
Lakhan pal	
Anwar	
Martin	
Ranjit singh	
Joseph	

Observe this pictograph and answer the following questions:

(a) Which merchant sold the maximum number of baskets?

(b) How many fruit baskets were sold by Anwar?

(c) The merchants who have sold 600 or more number of baskets are planning to buy a godown for the next season. Can you name them?

Solutions:

From the pictograph, the number of fruit baskets sold by Rahim, Lakhanpal, Anwar, Martin, Ranjit Singh and Joseph is 400, 550, 700, 950, 800 and 450, respectively

(a) Martin sold the maximum number of fruit baskets, i.e., 950

(b) Anwar sold 700 fruit baskets

(c) Anwar, Martin and Ranjit Singh are the merchants who sold more than 600 fruit baskets. Hence, these are the merchants who are planning to buy a godown for the next season.