MATHS

NCERT - NCERT MATHS (KANNADA ENGLISH)

STATISTICS

Example

1. The relative humidity (in %) of a certain City for a September month of 30 days was as

follows:

98.1	98.6	99.2	90.3	86.5	95.3	92.9	96.3	94.2	95.1
89.2	92.3	97.1	93.5	92.7	95.1	97.2	93.3	95.2	97.3
96.0	92.1	84.9	90.0	95.7	98.3	97.3	96.1	92.1	89

(i) Construct a grouped frequency distribution table with classes 84-86, 86,-88 etc.

(ii) What is the range of the data?

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2. Rain fall of a place in the week is 4 cm, 5 cm, 12cm, 3cm, 6cm, 8cm, 0.5cm. Find the average rainfall per day.

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3. If the mean of 10, 12, 18, 13, P and 17 is 15, find the value of P.

4. find the mean of the following data.

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

5. If the mean of the following data is 7.5, then find the value of 'A'.

Marks	5	6	7	8	9	10
No. of Students	3	10	17	A	8	4

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6. find the arithmetic mean of the following data.

x	10	12	14	16	18	20	22
f	4	5	8	10	7	4	2

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7. The following numbers are the sizes of shoes sold by a shop in a particular day. Find the mode.

6, 7, 8, 9, 10, 6, 7, 10, 7, 6, 7, 9, 7, 6

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8. Test scores out of 100 for a class of 20 students are as follows:

93, 84, 97, 98, 100, 78, 86, 100, 85, 92, 55, 91, 90,

75, 94, 93, 60, 81, 95

(a) Make a frequency table taking class interval as 91-100, 81-90, ...

(b) Find the modal class (The "Modal class" is the class containing the greatest frequency).

(c) find the interval that contains the median.

Exercise 9 1

1. Write the mark wise frequencies in the following frequency distribution table.

Marks	Up to5	Up to6	Up to7	Up to8	Up to9	Up to10
No of students	5	11	19	31	40	45

2. The blood groups of 36 students of IX class are recorded as follows.

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2. The blood group of 36 students of IX class are recorded as follows

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A    O    A    O    A    B    O    A    B    A    B    O
B    O    B    O    O    A    B    O    B    AB   O    A
O    O    O    A    AB   O    A    B    O    A    O    B
```

Represent the data in the form of frequency distribution table. Which is the most common and which is the rarest blood group among these students?

3. Three coins are tossed 30 times simultaneously. Each time the number of heads occurring was noted down as follows:

1	2	3	2	3	1	1	1	0	3	2	1
2	2	1	1	2	3	2	0	3	0	1	2
3	2	2	3	1	1						

Prepare a frequency distribution table for the data given above.

4. A TV channel or organised SMS (Short Message Service) poll on prohibition on smoking giving options like A- complete prohibition, B- prohibited in public places only, C- not necessary, SMS results in one hour were
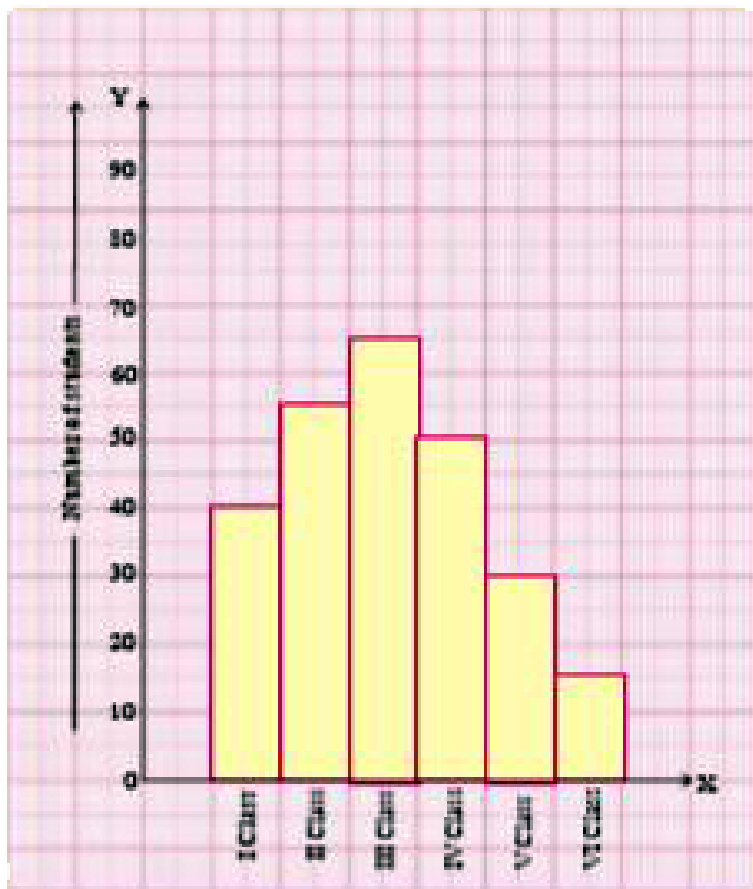
A	B	B	A	C	C	B	B	A	B
B	A	B	C	B	A	B	C	B	A
B	B	A	B	B	C	B	A	B	A
B	C	B	B	A	B	C	B	B	A
B	B	A	B	B	A	B	C	B	A
B	B	A	B	C	A	B	B	A	

Represent the amount of data is grouped frequency distribution table. How many appropriate answers were received? What was the majority of peoples' opinion?
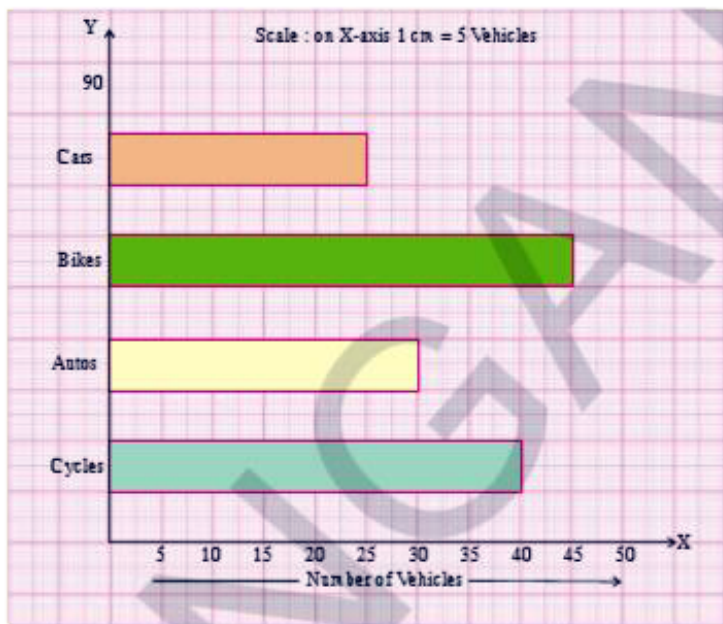
5. Represent the data in the adjacent bar graph as frequency distribution table.

6. Identify the scale used on the axes of the adjacent graph. Write the frequency distribution from it.

Scale : on X-axis 1 cm = 5 Vehicles

7. The marks of 30 students of a class of 10 in a test (out of 75) are given below

40, 21, 50, 37, 42, 37, 38, 42, 49, 52, 38, 53, 57, 47, 29,

59, 61, 33, 17, 17, 39, 44, 42, 39, 14, 7, 27, 19, 54, 51.

Form a frequency table with equal class intervals.

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8. The electricity bills (in rupees) of 25 houses in a locality are given below. Construct a grouped frequency distribution table with a class size of 75.

170, 212, 252, 225, 310, 712, 412, 425, 322, 325,

192, 198, 230, 320, 412,

530, 602, 724, 370, 402, 317, 403, 405, 372, 413

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9. A company manufactures car batteries of particular type. The life (in years) of 40 batteries was recorded as follows:

2.6	3.0	3.7	3.2	2.2	4.1	3.5	4.5
3.5	2.3	3.2	3.4	3.8	3.2	4.6	3.7
2.5	4.4	3.4	3.3	2.9	3.0	4.3	2.8
3.5	3.2	3.9	3.2	3.2	3.1	3.7	3.4
4.6	3.8	3.2	2.6	3.5	4.2	2.9	3.6

Construct a grouped frequency distribution table with exclusive classes for this data, using class intervals of size 0.5 starting from the interval 2-2.5.

1. Weights of parcels in a transport office are given below.

Weight (kg)	50	65	75	90	110	120
No of parcels	25	34	38	40	47	16

Find the mean weight of the parcels.

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2. Number of families in a village in correspondence with the number of children

are given below:

No of children	0	1	2	3	4	5
No of families	11	25	32	10	5	1

Find the mean number of children per family.

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3. If the mean of the following frequency distribution is 7.2 find value of 'K'.

x	2	4	6	8	10	12
f	4	7	10	16	K	3

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4. Number of villages with respect to their population as per India census 2011 are given below.

Population (in thousands)	12	5	30	20	15	8
Villages	20	15	32	35	36	7

Find the average population in each village.

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5. The heights of boys and girls of IX class of a school are given below.

Height (cm)	135	140	147	152	155	160
Boys	2	5	12	10	7	1
Girls	1	2	10	5	6	5

Compare the heights of the boys and girls.

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6. Centuries scored and number of cricketers in the world are given below.

No. of centuries	5	10	15	20	25
No. of cricketers	56	23	39	13	8

Find the mean, median and mode of the given data.

7. On the occasion of New year's day a sweet stall prepared sweet packets. Number of sweet packets and cost of each packet are given as follows.

Cost of packet (in ₹)	₹25	₹50	₹75	₹100	₹125	₹150
No of packets	20	36	32	29	22	11

Find the mean, median and mode of the data.

8. The mean (average) weight of three students is 40 kg. One of the students Ranga weighs 46 kg. The other two students, Rahim and Reshma have the same weight. Find Rahims weight.

9. The donations given to an orphanage home by the students of different classes of a secondary school are given below.

Class	Donation by each student (in ₹)	No. of students donated
VI	5	15
VII	7	15
VIII	10	20
IX	15	16
X	20	14

Find the mean, median and mode of the data.

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10. There are four unknown numbers. The mean of the first two numbers is 4 and the mean of the first three is 9. The mean of all four number is 15, if one of the four number is 2 find the other numbers.

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1. Which of the following are primaryt and secondary data ?

(i) Collection of the data about enrollment of students in your school for a period from 2001 to 2010.

(ii) Height of students in your class recorded by physical education teacher.

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2. Find the median of the scores 75, 21, 56 , 36 ,

81 , 05, 42

3. Median of a data , arranged in ascending

order 7,10,15,x,y,27,30 is 17 and when one more

observation 50 is added to the data, the

median has become 18 . Find x and y.

4. Find the median marks in the data.

Marks	15	20	10	25	5
No of students	10	8	6	4	1

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5. In finding the median, the given data must be written in order. Why ?

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Do This

1. Which of the following are primary and secondary data?

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