PERL EDUCATION

DPP
DAILY PRACTICE PAPER

MEASURES OF CENTRAL TENDENCY (MEAN, MEDIAN, AND MODE)

MATHEMATICS

ICSE-X

1. The weights(in kilogram) of 5 persons are 67, 65, 71, 57 and 45. Find the arithmetic mean of their weights.

2. The mean weight of 15 boys is 43 kg. If two boys with weights 34 kg and 35 kg join them find the new mean weight.

3. Mean of 40 numbers is 37.5. If one of these numbers is taken as 53 instead of 35, find the correct mean.

4. In the half-yearly examination of class IX of a school, the mean marks scored by the boys is 52 and the mean marks scored by the girls is 48. If on the whole, the mean marks of the class is 50.5, find the ratio of the number of boys to the number of girls in the class.

5. Using direct method find the mean of following frequency distribution:

X	5	15	25	35	44.5
f	14	16	20	30	20

6. The weights of 25 students of a class are given in the following table:

Weight (in kg)	65	66	67	68	69
Number of students	8	6	4	4	3

   Using short-cut method, find the mean weight.

7. Using step-deviation method, find the mean of following frequency distribution:

x	10	30	50	70	90	110
f	135	187	240	273	124	151

8. If the mean of the following distribution is 7.5, find the missing frequency 'f':

X	5	6	7	8	9	10	11	12
f	20	17	f	10	8	6	7	6

9. Find the value of p, if the mean of following distribution is 20,

X	15	17	19	20+p	23

f	6	9	12	15p	18

10. Find the mean of

Class interval	0-10	10-20	20-30	30-40	40-50
Frequency	10	6	8	12	5

11. Find mean of the following distribution using short-cut method:

C.I.	35-40	40-45	45-50	50-55	55-60
F	7	6	9	5	3

12. The weight of 50 apples were recorded as given below. Calculate the mean weight . to the nearest gram, by the step Deviation Method.

weight of gram	80-85	85-90	90-95	95-100	100-105	105-110	110-115
No. of apples	5	8	10	12	8	4	3

13. Find the mean of the following distribution:

Class interval	20-30	30-40	40-50	50-60	60-70	70-80
Frequency	10	6	8	12	5	9

14. The total number of observations in the following distribution table is 120 and their mean is 50. Find the values of missing frequencies f_1 and f_2.

Class :	0-20	20-40	40-60	60-80	80-100
Frequency	17	F_1	32	F_2	19

Median:

15. Find the median of 7,8,4,3 and 10

16. Find the median of 7,12,15,6,20,8,4 and 10

17. The following numbers are written in descending order of their values: 68,60,52, x-3, x-8, x-11,30,25,22, and 20. If their median is 39, find the value of x.

18. The weight of 45 children in a class were recorded, to the nearest kg, as follows:

Wt. (in nearest kg)	46	48	50	52	53	54	55
No. of children	7	5	8	12	10	2	1

Calculate the median weight.

19. Find the median for the following distribution.

C.I	0-10	10-20	20-30	30-40	40-50
Frequency	5	7	10	8	5

20. The daily wages of 160 workers in a building project are given below:

Wages in RS.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
No. of workers	12	20	30	38	24	16	12	8

   Using a graph paper, draw a Ogive for the above distribution. Use your Ogive to estimate:

   i.   The median wage of the works

   ii. The percentage of workers who earn more than Rs. 45 a day.

21. The marks obtained by 200 students in an examination are given below:

marks	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
No of students	05	10	11	20	27	38	40	29	14	06

   Using a graph paper, draw an Ogive for the above distribution. Use your Ogive to estimate

   i.   The median;

   ii. The number of students who obtained more than 80% marks in the examination and

   iii. The number of students who did not pass, if the pass percentage was 35.

   Use the scale as 2 cm + 10 marks on one axis and

   　　　　2 cm = 20 students on the other axis.

22. Find the lower quartile, upper quartile and inter quartile range for the data: 9,11,15,19,17, 13, 7.

23. From the following frequency distribution table, find:

   i.   Lower quartile

   ii. Upper quartile

   iii. Inter-quartile range

C.l.	5-10	10-15	15-20	20-25	25-30	30-35
Frequency	3	4	6	9	7	1

24. The table below shows the distribution of the scores obtained by 120 shooters in a shooting competition. Using a graph sheet, draw an ogive for the distribution

Score obtained	Number of shooters
0-10	5

10-20	9
20-30	16
30-40	22
40-50	26
50-60	18
60-70	11
70-80	6
80-90	4
90-100	3

Use your ogive to estimate:

i.   The median

ii.   The interquartile range

iii. The number of shooters who obtained more than 75% scores.

25. Find the mode of the data: 4, 7, 4, 3, 2, 7 , 7, 6, 4, 7 and 8.

26. Find the mode from the following frequency distribution:

Number	8	9	10	11	12	13	14	15	16
Frequency	3	8	12	15	14	17	12	8	6

27. Find the mode from the following frequency distribution:

Class	20-30	30-40	40-5-	50-60	60-70	70-80
Frequency	4	7	9	11	6	2