



# ST. LAWRENCE HIGH SCHOOL



## A Jesuit Christian minority Institution

Subject: Mathematics Class-X

Date:30/11/2020

### Worksheet-8

#### Chapter: Statistics

#### Topic-Mean, Median, Mode, Ogive

1.Choose the correct alternative.

$$1 \times 15 = 15$$

a) While drawing less than type Ogive , less than type cumulative frequency must be plotted on \_\_\_\_\_of the corresponding class i) lower boundary ii) upper boundary iii) mid value iv) none of these

b)While drawing more than type Ogive , more than type cumulative frequency must be plotted on \_\_\_\_\_of the corresponding class i) lower boundary ii) upper boundary iii) mid value iv) none of these

c)While drawing ogive \_\_\_\_\_must be plotted along X-axis .

i) mid values ii) upper boundaries iii) lower boundaries iv) class boundaries

d)While drawing Ogive \_\_\_\_must be plotted along Y-axis.

i) cumulative frequency ii) upper boundaries iii) absolute frequency iv) class boundaries

e) the sum of lower limits of the modal class and median class is i) 20 ii) 60 iii) 50 iv) 40

Class boundary	0-10	10-20	20-30	30-40	40-50
frequency	20	30	24	40	18

f) what is the upper limit of the median class ? i) 18.5 ii) 18 iii) 17.5 iv) none of these

Class boundary	0-5	6-11	12-17	18-23	24-29
frequency	26	20	30	16	22

g) For the following distribution the modal class is i) 20-40 ii) 40-60 iii) 60-80  
iv) 80-100

Marks	Less than 20	Less than 40	Less than 60	Less than 80	Less than 100	Less than 120
No of students	4	12	25	56	74	80

h) For the following distribution find out the number of students who got marks less than 30 i) 13 ii) 25 iii) 10 iv) 12

marks	0-10	10-20	20-30	30-40	40-50
No of students	3	9	13	10	5

i) In the formula of median  $l + \frac{\frac{n}{2} - F}{f} \times c$ , c represents i) class width ii) cumulative frequency iii) absolute frequency iv) none of these

j) In the formula of median  $l + \frac{\frac{n}{2} - F}{f} \times c$ , F represents i) class width ii) cumulative frequency of the pre-median class iii) absolute frequency iv) none of these

k) Mean of 100 items is 49. It was discovered that 3 items which should have been 60, 70, 80 were wrongly read as 40, 20, 50 respectively. The correct mean is i) 45 ii) 55 iii) 50 iv) none of these

l) The mean of n numbers  $x_1, x_2, \dots, x_n$  is m. If  $x_n$  is replaced by x, then new mean is

i)  $m - x_n + x$  ii)  $\frac{nm - x_n + x}{n}$  iii)  $\frac{(n-1)m + x}{n}$  iv) none of these

m) the modal class is i) 10-20 ii) 20-30 iii) 30-40 iv) 40-50

Marks	Below 10	Below 20	Below 30	Below 40	Below 50	Below 60
No of students	3	12	27	57	75	80

n) Find the median . i) 11 ii) 10 iii) 12 iv) none of these

Value	7	8	9	10	11	12	13
Frequency	2	1	4	5	6	1	3

o) Cumulative frequency curve is also known as i) Histogram ii) frequency polygon iii) Ogive iv) none of these

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