



ST. LAWRENCE HIGH SCHOOL



A Jesuit Christian minority Institution

Subject: Mathematics Class-X

Date: 28/11/2020

Answer key of Worksheet-7

Chapter: statistics

Topic- Mean, median and mode, Histogram and Ogive

1. Choose the correct alternative. $1 \times 15 = 15$

a) Find out the mode of following data
15, 16, 17, 17, 19, 17, 15, 15, 10, 17, 16, 15, 16, 18, 11
i) **15 and 17** ii) 16 iii) 15 iv) 17

b) More than type cumulative frequency of the first class of the following distribution is i) 54 **ii) 45** iii) 35 iv) 30

class	0-5	5-10	10-15	15-20	20-25	25-30
Frequency	4	10	15	8	3	5

c) If the mean of numbers 6, 7, x, 8, y is 9 then i) $x+y=19$ **ii) $x+y=24$** iii) $x-y=24$
iv) $x-y=19$

d) If the mean of $x_1, x_2, x_3, \dots, x_n$ is \bar{x} , then arithmetic mean of ax_1, ax_2, \dots, ax_n is
i) x **ii) $a \times x$** iii) $\frac{a}{n} x$ iv) none of these

e) If the mode of data 16, 15, 17, 16, 15, x, 19, 17, 14 is 15 then value of x is
i) 16 ii) 17 iii) 19 **iv) 15**

f) At the time of finding arithmetic mean, the lengths of all classes are ____.

i) equal ii) not equal iii) proportionate iv) none of these

g)

Profit of each shop (in Rs)	0-50	50-100	100-150	150-200	200-250	250-300
Number shops	10	16	28	22	18	6

Find the less than type cumulative frequency for the 3rd class?

i) 56 ii) 26 iii) 54 iv) 76

h) For the above table, Find the less than type cumulative frequency of the last class i) 100 ii) 94 iii) 120 iv) none of these

i) Find the more than type cumulative frequency of the first class of the table given in q. no (g) i) 120 ii) 10 iii) 26 iv) 100

j) For drawing Ogive along Y axis _____ should be plotted.

i) Absolute frequency ii) relative frequency iii) cumulative frequency iv) none of these

k) Mode can be obtained graphically from i) ogive ii) Histogram iii) frequency polygon iv) none of these

l) If $u_i = \frac{x_i - 25}{10}$, $\sum f_i u_i = 20$ and $\sum f_i = 100$. Find value of \bar{x} . i) 22 ii) 25 iii) 27 iv) 29

m) Find the modal class. i) 30-40 ii) 40-50 iii) 20-30 iv) 50-60

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

n) Mean, median, mode are the measures of _____.

i) dispersion ii) central tendency iii) sum iv) product

o) If 35 is removed from the data 30, 34, 35, 36, 37, 38, 39, 40 then the median is increased by i) 1.5 ii) 2 iii) 1 iv) 0.5

Aparajita Mondal