

# Assignment Ch-14 Statistics class-IX

Sub-Maths

- ① The mean of 20 observations is 17. If 25 is added to the sum of the observations, find the new sum of the observations. (365)
- ② If the mode of the data 15, 18, 14, 15, 15, 18, 14, 17, 18 and  $k$  is 15 then find the value of  $k$ . (15)
- ③ The mean of 20 observations is 75. If each observation is divided by 3, find the new mean. (25)
- ④ In a frequency distribution, the mid value of class interval is 5 and the width of the class interval is 6. Find the lower limit of the class interval. (2)
- ⑤ The mean of seven number is 42. If one number is excluded, their mean becomes 39. What is the excluded number? (60)
- ⑥ The class mark of particular class is 6.5 and its class size is 3. Write the next 3 classes, if they are all continuous (5-8, 8-11, 11-14, 14-17)
- ⑦ Find the missing frequencies in the following frequency distribution where the mean of distribution is 1.46.

Number of accidents ( $x_i$ )	0	1	2	3	4	5	Total
Frequency ( $f_i$ )	46	$f_1$	$f_2$	25	10	5	200

$$\begin{pmatrix} f_1 = 76 \\ f_2 = 38 \end{pmatrix}$$

- ⑧ The mean of observations  $x, x+3, x+5, x+7$  and  $x+10$  is 9. What will be the mean of last three observations? (11 $\frac{1}{3}$ )

9) Prepare a continuous grouped frequency distribution from the following data. Also find the size of class intervals.

Mid point	frequency
5	4
15	8
25	13
35	12
45	6

intervals.  
(10 - 0 = 10)

10) Ten observations 6, 14, 17,  $x+1$ ,  $2x-13$ , 30, 32, 34, 43 are written in an ascending order. The median of the data is 24. Find the value of  $x$ . (20)

11) The mean of 1, 7, 5, 3, 4 and 4 is  $m$ . The observations 3, 2, 4, 2, 3, 3 and  $p$  have  $(m-1)$  and median  $q$ . Find  $p$  and  $q$ . (P=4, q=3)

12) The mean of the following distribution is 50

$x$	10	30	50	70	90
$f$	17	$5a+3$	32	$7a-11$	19

$a = 5$   
(28, 24)

Find the value of  $a$  and hence the frequencies of 30 and 70.

13) Mean of 50 observations was found to be 80.4. But later on, it was discovered that 96 was misread as 69 at one place. Find the correct mean. If in each observation a constant value  $k$  is added, how is the mean affected?

14) The mean of seven numbers is 24. If out of these seven numbers the mean of first four numbers is 23 and mean of last four numbers is 25.5 then find the 4<sup>th</sup> number. (26)