InfinityClasses
www.infinityclasses.in

CLASS X Statistics Assignment

Q1. The mean of the following frequency distribution is 25 . Find the value of p. [CBSE 2015, 2017]

Class Interval	$0-10$	$10-20$	$20-30$	$30-40$	$40-50$
Frequency	5	18	15	p	6

Q2. Find the mean of the following data using the Step Deviation Method: [CBSE 2019]

Class Interval	$0-20$	$20-40$	$40-60$	$60-80$	$80-100$	$100-120$
Frequency	20	35	52	44	38	31

Q3. The mean of the following distribution is 53 . Find the missing frequencies f_1 and f_2. [CBSE 2018, 2022]

Class Interval	$0-20$	$20-40$	$40-60$	$60-80$	$80-100$	Total
Frequency	15	f_1	21	f_2	17	100

Q4. The following data gives the distribution of total monthly household expenditure of 200 families of a village. Find the Modal monthly expenditure of the families. [CBSE 2016, 2020]

Expenditure	$1000-1500$	$1500-2000$	$2000-2500$	$2500-3000$	$3000-3500$	$3500-4000$
No. of Families	24	40	33	28	30	22

Q4. The following data gives the distribution of total monthly household expenditure of 200 families of a village. Find the Modal monthly expenditure of the families. [CBSE 2016, 2020]

Expenditure (₹)	10001500	15002000	20002500	25003000	30003500	35004000
No. of Families	24	40	33	28	30	22

Q5. If the mode of the following frequency distribution is 36 , find the missing frequency x. [CBSE 2020]

Class Interval	$0-10$	$10-20$	$20-30$	$30-40$	$40-50$	$50-60$	$60-70$
Frequency	8	10	x	16	12	6	7

Q6. The median of the following data is 525 . Find the values of x and y, if the total frequency is 100. [CBSE 2012, 2017, 2023]

Class Interval	$0-$**100**	$100-200$	$200-300$	$300-400$	$400-500$	$500-$**600**	$600-700$	$700-800$	$800-900$	$900-1000$
Frequency	2	5	x	12	17	20	y	9	7	4

Q7. The following table gives the height of 40 trees in a garden. Find the Median height. [CBSE 2015]

Height (cm)	Less than 7	Less than 14	Less than 21	Less than 28	Less than 35	Less than 42	Less than 49	Less than 56
No. of Trees	26	57	92	134	216	287	341	360

Answer Key Hints

1. p = 16. (Use $\bar{x} = \frac{\Sigma f_i x_i}{\Sigma f_i}$).
2. 62.54 (Approx).
3. $f_1 = 18, f_2 = 29$. (Two equations: $f_1 + f_2 = 47$ and Mean eq).
4. ₹1847.8 (Modal class 1500-2000. $l = 1500, f_1 = 40, f_0 = 24, f_2 = 33$).
5. $x = 10$. (Mode lies in 30-40. Use mode formula to find x).
6. $\mathbf{x} = 9, \mathbf{y} = 15$. (Median class 500-600. $N = 100 \Rightarrow x + y = 24$).