



Exercise 14H

Question 4:

Arranging the given data in ascending order , we have:

9, 19, 27, 28, 30, 32, 35, 50, 50, 50, 50, 60

The frequency table of the data is :

Observations(x)	9	19	27	28	30	32	35	50	60
Frequency	1	1	1	1	1	1	1	4	1

As 50, occurs the maximum number of times i.e. 4, mode = 50

Thus, the modal score of the cricket player is 50.

Question 5:

Arranging the given data in ascending order , we have:

10, 10, 11, 11, 12, 12, 13, 14, 15, 17

We may prepare the table, given below:

Item(x)	Frequency(f)	Cumulative Frequency	f x
10	2	2	20
11	2	4	22
12	2	6	24
13	1	7	13
14	1	8	14
15	1	9	15
17	1	10	17
	N=10		$\Sigma f \times x$ =125

Here, $N = 10$ which is even

$$\begin{aligned}\therefore \text{median} &= \frac{1}{2} \left[\left[\left(\frac{n}{2} \right) \right] \text{th term} + \left(\frac{n}{2} + 1 \right) \text{th term} \right] \\ &= \frac{1}{2} [(5\text{th term} + 6\text{th term})] [\because n = 10] \\ &= \frac{1}{2} (12 + 12) \\ &= 12\end{aligned}$$

Now, $\sum f \times x = 125$ and $f = 10$

$$\therefore \text{mean} = \frac{\sum f \times x}{\sum f} = \frac{125}{10} = 12.5$$

Mode = $3(\text{Median}) - 2(\text{Mean})$

$$= 3(12) - 2(12.5)$$

$$= 36 - 25 = 11$$

Thus, Mode = 11

***** END *****