

Ans

Exercise → 14.84

Date 24-8-21
Page

Q1) i) Mean = $\frac{\text{sum of all observations}}{\text{Total no. of observations}}$

$$= \frac{2+3+4+5+0+1+3+3+4+3}{10}$$

$$= \frac{28}{10} = 2.8$$

ii) Median = $\frac{\frac{n^{\text{th}}}{2} \text{ observation} + \left(\frac{n}{2} + 1\right)^{\text{th}} \text{ observation}}{2}$

$$= \frac{10^{\text{th}}}{2} + \left(\frac{10}{2} + 1\right)$$

$$= \frac{5^{\text{th}} + 6^{\text{th}}}{2}$$

$$\frac{10 + 2}{2} = 6$$

$$= \frac{3 + 3}{2}$$

$$= 3$$

Mode =

0, 1, 2, 3, 3, 3, 3, 4, 4, 5

Mode = 3

$$Q2 \rightarrow \text{Mean} = \frac{41 + 39 + 48 + 52 + 46 + 62 + 54 + 40 + 96 + 53 + 98 + 40 + 42 + 52 + 60}{15}$$

15

$$= \frac{822}{15} = 54.8$$

Median :-

$$\left(\frac{n+1}{2} \right)^{\text{th}} \text{ observation}$$

$$\frac{16}{2} \text{ 8th observation}$$

$$= 52$$

Mode :- 52