Central Tendencies Assignment

Q.3 Mean of first Prime no.

Prime no. 2, 3, 5, 7, 11

$$= \frac{28}{5} = 5.6$$

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

$$= \left(\frac{5+1}{2}\right)^{th} \text{term}$$

$= 3^{rd}$ term i.e, 5 is the median

Q.4

Mean = 66

$$\frac{11+8+6+14+13+x}{6} = 66$$

$$\frac{52+x}{6} = 66$$

$$x = 396 - 52$$

$$= 344$$

Q.5. Mean = 9

$$\frac{6+8+(x+2)+10+(2x-1)+2}{6} = 9$$

$$\frac{27+3x}{6} = 9$$

$27 + 3x = 54$

$3x = 27$

$x = \frac{27}{3} = 9$ //

$x = 9$

Q. 6).

(a)

Age	No. of Boys
12	5
10	3
15	2
14	6
8	4

$\frac{216}{20} = \frac{54}{5} =$ 10.8

(b)

marks	No. of St.
25	8
30	12
15	10
20	6
24	4

$= \frac{231}{10}$

$= 23.1$

Q.7. Mode in following.

(a) 12, 8, 4, 8, 1, 8, 9, 11, 9, 10, 12, 8

1 1 1 2 1 3 1 1 2 1 2 4

8 is the mode

(b) 15, 22, 17, 19, 22, 17, 29, 24, 17, 15

1 1 1 1 2 2 1 1 3 2

17 is the mode

(c) 0, 3, 2, 1, 3, 5, 4, 3, 42, 1, 2, 0

1 1 1 1 2 1 1 3 1 2 2 2

3 is the mode

(d) 1, 7, 2, 4, 5, 9, 8, 3

1 1 1 1 1 1 1 1

NO mode

Q.8 median of data is 25.

$x = ?$

eq. $17, x+24, x+7, 35, 36, 46$

$n = 6$

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

$$25 = \frac{\left(\frac{6}{2}^{3} \text{ obs} + \frac{6}{2}3+1\right)^{th}}{2}$$

$$25 = \frac{3^{th} + 4^{th}}{2}$$

$25 \times 2 = 3^{th} + 4^{th}$ observation

$50 = (x+7) + 35$

$50 - 42 = x$

$8 = x$

$x = 8$

To check

17, 8+24, 8+7, 35, 36, 46

17, 32, 15, 35, 36, 46

$\left(\frac{n}{2}\right)^{th}$ med.

$\frac{15+35}{2} = \frac{50}{2} = 25$

15, 17, 32, 35, 36, 46

Q.9 arrange the order in accending order.

ie, 15, 17, 32, 35, 36, 46

Now median will be

$\left(\frac{n}{2}\right)^{th}$ term

Q.10

(a)

(b) HO

(c)

(d) mode