

Ans/9

C.I	x	f	x^2	fx	fx^2
25-30	27.5	10	756.25	275	756.5 2750
30-35	32.5	12	1056.25	325	12303
35-40	37.5	25	1406.25	375	35156.3
40-45	42.5	40	1806.25	425	72250
45-50	47.5	10	2256.25	475	22562.5
50-55	52.5	3	2756.25	525	8268.75
		$\Sigma f = 100$		2400	158105.5

$$\text{Then } \bar{x} = \frac{\Sigma fx}{\Sigma f} = \frac{2400}{100} = 24$$

$$S.D = \sqrt{\frac{\Sigma fx^2}{\Sigma f} - (\bar{x})^2}$$

$$= \sqrt{\frac{158105.5}{100} - (24)^2}$$

$$= \sqrt{\frac{1582 - 576}{100}}$$

$$= \sqrt{1006}$$

$$S.D = 31.7 \text{ Ans}$$