

Oshibugie Mukherjee
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Computer Engineering

Group A

CI	f	x	fx	(x - \bar{x})	(x - \bar{x}) ²	f(x - \bar{x}) ²
1-5	0	3	0	-17.83	317.91	0
6-10	7	8	56	-9.83	96.63	676.41
11-15	10	13	130	-4.83	23.33	233.3
16-20	2	18	36	0.17	0.03	0.06
21-25	1	23	23	5.17	26.73	26.73
26-30	5	28	140	10.17	103.43	517.15
31-35	4	33	132	15.17	230.13	920.52
	$\Sigma f = 29$		$\Sigma fx = 517$			$\Sigma f(x - \bar{x})^2 = 2374.19$

$$i) \text{ Mean} = \frac{\Sigma fx}{\Sigma f} = \frac{517}{29} = 17.83$$

$$ii) \text{ Standard Deviation} = \sqrt{\frac{\Sigma f(x - \bar{x})^2}{\Sigma f - 1}}$$

$$= \sqrt{\frac{2374.19}{28}}$$

$$= 9.21$$

$$iii) \text{ Coefficient of Variation} = \frac{S.D \times 100}{\text{Mean}}$$

$$= \frac{9.21 \times 100}{17.83}$$

$$= 51.65$$

Group B

CI	F	x	fx	$(x - \bar{x})$	$(x - \bar{x})^2$	$f(x - \bar{x})^2$
6-10 1-5	2	3	6	-17.14	293.78	587.56
11-15 6-10	4	8	32	-12.14	147.38	589.52
16-20 11-15	7	13	91	-7.14	50.98	356.86
21-25 16-20	20	18	360	-2.14	4.58	91.6
26-30 21-25	16	23	368	-4.14	17.14	274.24
31-35 26-30	10	28	280	-10.14	102.82	1028.20
31-35	4	33	132	-16.14	260.50	1042.00
	$\Sigma f = 63$		$\Sigma fx = 1268$			$\Sigma f(x - \bar{x})^2 = 3969.98$

$$i) \text{ Mean} = \frac{\Sigma fx}{\Sigma f}$$

$$= \frac{1268}{63} = 20.14$$

$$ii) \text{ Standard Deviation} = \sqrt{\frac{\Sigma f(x - \bar{x})^2}{\Sigma f - 1}}$$

$$= \sqrt{\frac{3969.98}{62}}$$

$$= 8$$

$$iii) \text{ Coefficient of Variation} = \frac{S.D.}{\text{Mean}} \times 100$$

$$= \frac{8}{20.14} \times 100$$

$$= 39.72$$

$$= 39.72$$

(c) Group B has less variable distribution.