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Comp. Sci

GROUP A

C I	FREQUENCY	x	fx	$\lvert x-\bar{x}\rvert$	$\lvert x-\bar{x}\rvert^2$	$f\lvert x-\bar{x}\rvert^2$
1-5	0	3	0	14.83	219.92	0
6-10	7	8	56	9.83	96.62	676.40
11-15	10	13	130	4.83	23.32	233.28
16-20	2	18	36	0.17	0.02	0.05
21-25	1	23	23	5.17	26.72	26.72
26-30	6	28	140	10.17	103.42	517.14
31-35	4	33	132	15.17	230.12	920.51
	$\Sigma f = 29$		$\Sigma fx = 517$			2374.138

$$\text{mean } (\bar{x}) = \frac{\Sigma fx}{\Sigma f} = \frac{517}{29} = 17.83$$

$$\text{variance} = \frac{\Sigma f(x-\bar{x})^2}{\Sigma f} = \frac{2374.1381}{29} = 81.867$$

$$S.D = \sqrt{V} = \sqrt{81.867} = 9.048$$

(11) Coefficient of variation $= \frac{S.D}{\text{mean}} \times 100\%$

$$= \frac{9.048}{17.83} \times 100$$

$$= 50.75$$

Group B

CI	Frequency	x	fx	$\lvert x-\bar{x}\rvert$	$\lvert x-\bar{x}\rvert^2$	$f\lvert x-\bar{x}\rvert^2$
1-5	2	3	6	17.14	293.7796	887.55
6-10	4	8	32	12.14	147.3796	589.51
11-15	7	13	91	7.14	50.9796	356.85
16-20	20	18	360	2.14	4.5796	91.59
21-25	16	23	368	2.80	8.1796	130.87
26-30	10	28	280	7.86	61.7796	617.79
31-35	4	33	132	12.80	165.3796	661.51
	Σf 63		1269			3035.7148

(i) MEAN $\frac{\Sigma fx}{\Sigma f} = \frac{1269}{63} = 20.14$

Variance $= \frac{\Sigma f\lvert x-\bar{x}\rvert^2}{\Sigma f} = \frac{3035.7148}{63} = 48.186$

$S.D = \sqrt{N} = \sqrt{48.186} = 6.942$

(ii) COEFFICIENT $= \frac{S.D}{MEAN} \times 100\%$

$= \frac{6.942}{20.14} \times 100$

$= 36.47\%$

The group which has less variable distribu
is group B