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① GROUP A

G-I	f_i	x	$f_i \cdot x$	$(x - \bar{x})_A$	$(x - \bar{x})^2_A$	$f_i (x - \bar{x})^2_A$
1-5	0	3	0	-14.82	219.9289	0
6-10	7	8	56	-9.83	96.6289	676.4023
11-15	10	13	130	-4.83	23.3289	233.289
16-20	2	18	36	0.17	0.0289	0.0578
21-25	1	23	23	5.17	26.7289	26.7289
26-30	5	28	140	10.17	103.4289	517.1445
31-35	4	33	132	15.17	230.1289	920.5156
	29		517			2,374.1381

a) mean of group A $(\bar{x})_A = \frac{\sum f_i x}{\sum f_i} = \frac{517}{29} = 17.83 //$

Standard deviation of group A = $\sqrt{\text{variance}} = \sqrt{\frac{\sum f_i (x - \bar{x})^2_A}{\sum f_i - 1}}$
 $= \sqrt{\frac{2374.1381}{28}} = \sqrt{84.791} = 9.21$

i) Coefficient of variations for Group A = $\frac{S.D.A \times 100}{\text{mean}}$
 $= \frac{9.21 \times 100}{17.83} = 51.65\%$

GROUP B

C-I	f_2	x	$f_2 x$	$(x - \bar{x})_B$	$(x - \bar{x})_B^2$	$f_2 (x - \bar{x})_B^2$
1-5	2	3	6	-17.143	293.88	587.760
6-10	4	8	32	-12.143	147.45	589.810
11-15	7	13	91	-7.143	51.02	357.757
16-20	20	18	360	-2.143	4.59	91.850
21-25	16	23	368	2.857	8.16	130.599
26-30	10	28	280	7.857	61.73	617.324
31-35	4	33	132	12.857	165.30	661.210
	<u>63</u>					<u>3035.71</u>

i) Mean of Group B $(\bar{x})_B = \frac{\sum f_2 x}{\sum f_2} = \frac{1269}{63} = 20.143$

ii) Standard Deviation of Group B = $\sqrt{\text{Variance B}} = \sqrt{\frac{\sum f_2 (x - \bar{x})_B^2}{\sum f_2 - 1}}$
 $= \sqrt{\frac{3035.71}{63 - 1}}$
 $= \sqrt{48.963}$
 $= 6.997$

iii) Coefficient of variation for group B = $\frac{S.D_B \times 100}{\text{Mean B}}$
 $= \frac{6.997 \times 100}{20.143}$
 $= 34.74\%$

iv) The group which has less variation is Group B.