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19/Eng06/033

STA 132

Mechanical engineering

Class interval	A	B	F
1-5	0	2	0
6-10	7	4	28
11-15	10	7	70
16-20	2	20	40
21-25	1	16	16
26-30	5	10	50
31-35	4	4	16
	29	63	220

i Mean of group A = $\frac{29}{7} = 4.14$

Mean of group B = $\frac{63}{7} = 9$

$$\begin{aligned} \text{S.D of group A} &= \sqrt{\frac{\sum f(x-\bar{x})^2}{\sum f}} \\ &= \sqrt{\frac{220(29-4.14)^2}{220}} \\ &= \sqrt{\frac{220 \times 618.0196}{220}} \\ &= \sqrt{\frac{135,964.31}{220}} = \sqrt{618.0196} \\ &= 4.99 \end{aligned}$$

$$\text{S.D of group B} = \sqrt{\frac{\sum f(x-\bar{x})^2}{\sum f}}$$