ASSIGNMENT-3

Task: If μ= 55, σ_{4a}= 4, $\sigma_{4\beta}$=10, σ_4 =*c* 15, In this which is better.

Given:

- Mean (μ) = 55
- Standard Deviation of Model A (σ_a) = 4
- Standard Deviation of Model B (σ_β) = 10
- Standard Deviation of Model C (σc) = 15

Standard deviation (σ) measures how spread out the data is around the mean.

- Smaller σ → data is more consistent and stable
- Larger σ → data is more scattered and less reliable

Answer:

Model A (σ = 4) is the best.

Reason:

Comparison

Model	Standard Deviation (σ)	Interpretation
Model A	4	Very low spread, high consistency
Model B	10	Moderate spread
Model C	15	Very high spread, low consistency

- Standard deviation indicates how much the values deviate from the mean. A smaller standard deviation means the data points are closer to the mean, showing less variability and higher consistency.
- Since Model A has the lowest standard deviation, it provides the most stable and reliable results compared to Models B and C.