

**Question # 67****Answer: E**

$$12.50 = \bar{a}_x = \frac{1}{\mu + \delta} \Rightarrow \mu + \delta = 0.08 \Rightarrow \mu = \delta = 0.04$$

$$\bar{A}_x = \frac{\mu}{\mu + \delta} = 0.5$$

$${}^2\bar{A}_x = \frac{\mu}{\mu + 2\delta} = \frac{1}{3}$$

$$\begin{aligned}\text{Var}(\bar{a}_{\overline{T}|}) &= \frac{{}^2\bar{A}_x - \bar{A}_x^2}{\delta^2} \\ &= \frac{\frac{1}{3} - \frac{1}{4}}{0.0016} = 52.083\end{aligned}$$

$$\text{S.D.} = \sqrt{52.083} = 7.217$$