

### Question #210

Answer: C

$$\bar{a} = \int_0^{\infty} e^{-\delta t} \times e^{-\mu t} dt = \frac{1}{\delta + \mu}$$

$$EPV = 50,000 \times \frac{1}{0.5} \int_{0.5}^1 \frac{1}{\delta + \mu} d\mu = 100,000 \times [\ln(\delta + 1) - \ln(\delta + 0.5)]$$

$$= 100,000 \times \ln\left(\frac{0.045 + 1}{0.045 + 0.5}\right)$$

$$= 65,099$$