

Question #100

Answer: D

$$\mu^{(accid)} = 0.001$$

$$\mu^{(total)} = 0.01$$

$$\mu^{(other)} = 0.01 - 0.001 = 0.009$$

$$\text{Expected present value} = \int_0^{\infty} 500,000 e^{-0.05t} e^{-0.01t} (0.009) dt$$

$$+ 10 \int_0^{\infty} 50,000 e^{0.04t} e^{-0.05t} e^{-0.01t} (0.001) dt$$

$$= 500,000 \left[\frac{0.009}{0.06} + \frac{0.001}{0.02} \right] = 100,000$$