Question #66
Answer is E

The sample variance is $s^2 = \frac{(1-3)^2 + (2-3)^2 + (3-3)^2 + (4-3)^2 + (5-3)^2}{4} = 2.5$. The estimator of $E[X]$ is the sample mean and the variance of the sample mean is the variance divided by the sample size, estimated here as $2.5/n$. Setting the standard deviation of the estimator equal to 0.05 gives the equation $\sqrt{2.5/n} = 0.05$ which yields $n = 1000$.