Here, n = 50, k = 5, n - k = 45.

The probability of success = probability of getting a “D”= s = 1/5

Hence, the probability of failure = probability of not getting a “D” = 1 - s = 4/5.

So, P (exactly 5 out of 50answers incorrect) = C (50, 5) \* (1/5) ^45 \* 4/5 ^5

→→ P (5 out of 50) = (50∗49∗48∗47∗46)/ (5∗4∗3∗2∗1) \* (1/5) ^15\*(4/5) ^ 5

Thus the required probability is 0.00000889approximately.