As a graduate statistics student, I would need to consider the concept of sampling variability when answering this question. We know that the true proportion of yellow candies is 35%, but sampling variability means that the percentages of yellow candies in small samples like the ones taken by these students (n = 20) will naturally vary around this true proportion.

Option (A) provides a sequence of percentages that could reasonably occur due to natural sampling variability. The percentages are centered around the true proportion (35%), and the variation is such that all of these percentages are plausible given the sample size.

Option (B) suggests that all samples result in exactly the manufacturer’s production percentage of 35%, which is highly unlikely given the randomness and the small sample size. Some variation from 35% is expected.

Option (C) presents extreme values that are very unlikely when the true percentage is 35%. Obtaining 5% or 95% yellow candies in a simple random sample of size 20 would be extremely improbable.

Option (D) states that any of the above sequences could occur. However, statistically speaking, some sequences are more plausible than others, particularly when considering sampling distribution and expected variability.

The most plausible sequence, taking into account typical sampling variability for sample sizes of 20, is Option (A): 30%, 35%, 15%, 40%, 50%.