To determine which graph represents a single random sample of 500 values from the given population, we can analyze each graph in terms of its shape, mean, and spread compared to the population distribution.

1. \*\*Population Distribution\*\*:

- Mean (\(\mu\)): 6.4

- Standard Deviation (\(\sigma\)): 4.1

- Shape: Skewed to the right

2. \*\*Graph A\*\*:

- Shape: Appears to match the population’s right-skewed distribution.

- Spread and center: Seems consistent with the larger variability (wider spread) expected from the population, suggesting it includes more lower scores and some higher scores.

3. \*\*Graph B\*\*:

- Shape: More symmetrical and less variable compared to the population.

- Spread: Indicates a smaller standard deviation, which might suggest it is less representative of the large population variance.

4. \*\*Graph C\*\*:

- Shape: Symmetrical with moderate variability.

- Center: Aligns with a normal distribution, which contrasts with the right-skewed nature of the population.

Given these observations, \*\*Graph A\*\* is the most likely to represent a single random sample of 500 values from the population. It reflects the right-skewed shape and larger variability consistent with the characteristics of the population distribution.

Therefore, the correct answer is (A) Graph A.