# Response to Multiple Choice Question

The correct answer is (B) a population characteristic.

## Explanation

In statistics, a parameter is a numerical value that describes a characteristic of an entire population. Parameters represent the true values that exist in the population and are typically what we aim to estimate through sampling and statistical inference.

To elaborate on why the other options are incorrect:

(A) A sample characteristic is not a parameter but rather a statistic. Statistics are numerical values calculated from sample data that estimate population parameters.

(C) While parameters are often unknown in practice (which is why we estimate them), being "unknown" is not the definition of a parameter. Parameters can sometimes be known in certain contexts, and even when unknown, they have fixed values in the population.

(D) Parameters are not inherently normally distributed. The distribution of a parameter is not a relevant concept because a parameter is a fixed value, not a random variable. (The sampling distribution of an estimator of a parameter might follow a normal distribution under certain conditions, but that's different from the parameter itself having a distribution.)

Therefore, the correct definition of a parameter is that it is a population characteristic.