**Question 1.**

A potential candidate for a political position in some state is interested to know what are her chances to win the primaries of her party and be selected as parties candidate for the position. In order to examine the opinions of her party voters she hires the services of a polling agency. The polling is conducted among 500 registered voters of the party. One of the questions that the pollsters refer to the willingness of the voters to vote for a female candidate for the job. Forty two percent of the people asked said that they prefer to have a women running for the job. Thirty eight percent said that the candidate’s gender is irrelevant. The rest prefers a male candidate. Which of the following is (i) a population (ii) a sample (iii) a parameter and (iv) a statistic:

1. The 500 registered voters.
2. The percentage, among all registered voters of the given party, of those that prefer a male candidate.
3. The number 42% that corresponds to the percentage of those that prefer a female candidate.
4. The voters in the state that are registered to the given party.

**SOLUTION**

1. The 500 registered voters. – a sample
2. The percentage, among all registered voters of the given party, of those that prefer a male candidate.- a statistic
3. The number 42% that corresponds to the percentage of those that prefer a female candidate. – a statistics
4. The voters in the state that are registered to the given party. – a population