1. B
2. C
3. A
4. A
5. C
6. B
7. B
8. D
9. A
10. **Bayes Theorem:** Bayes’ Theorem finds the probability of an event occurring given the probability of another event that has already occurred. Bayes’ theorem is stated mathematically as the following equation: P(A|B)=(P(B|A).P(A))/ P(B)

Basically, we are trying to find probability of event A, given the event B is true. Event B is also termed as evidence. P(A) is the priori of A (the prior probability, i.e. Probability of event before evidence is seen). The evidence is an attribute value of an unknown instance(here, it is event B). P(A|B) is a posteriori probability of B, i.e. probability of event after evidence is seen.

1. A z-score describes the position of a raw score in terms of its distance from the mean, when measured in standard deviation units. The z-score is positive if the value lies above the mean, and negative if it lies below the mean.
2. A t-test is a statistical test that is used to compare the means of two groups. It is often used in hypothesis testing to determine whether a process or treatment actually has an effect on the population of interest, or whether two groups are different from one another.
3. The percentile is the percentage of scores in its frequency distribution that are equal to or lower than it. For example, a test score that is greater than 75% of the scores of people taking the test is said to be at the 75th percentile, where 75 is the percentile rank.
4. Developed by Ronald Fisher, ANOVA stands for Analysis of Variance. An ANOVA test is a way to find out if survey or experiment results are significant. In other words, they help you to figure out if you need to reject the null hypothesis or accept the alternate hypothesis.
5. Basically, we are testing groups to see if there’s a difference between them. Examples of when you might want to test different groups:

A group of psychiatric patients are trying three different therapies: counseling, medication and biofeedback. You want to see if one therapy is better than the others.

A manufacturer has two different processes to make light bulbs. They want to know if one process is better than the other.

Students from different colleges take the same exam. You want to see if one college outperforms the other.