**STATISTICS WORKSHEET-9**

Q1 to Q12 have only one correct answer. Choose the correct option to answer your question.

1. **C**
2. **B**
3. **B**
4. **B**
5. **C**
6. **A**
7. **C**
8. **B**
9. **C**
10. **C**
11. **A**
12. **B**

Q13 to Q15 are subjective answers type questions

1. **What is T distribution and Z distribution?**

**T Distribution** - The T distribution, also known as the Student’s t-distribution, is a type of probability distribution that is similar to the normal distribution with its bell shape but has heavier tails. T distributions have a greater chance for extreme values than normal distributions, hence the fatter tails.

**Z Distribution –** It isa probability density function and especially a normal distribution that has a mean equal to zero and a standard deviation equal to one and that is used especially in testing hypotheses about means or proportions of samples drawn from populations whose population standard deviations are known

1. **Is the T distribution normal?**

The **T distribution** is a family of distributions that look almost identical to the [normal distribution](https://www.statisticshowto.com/probability-and-statistics/normal-distributions/)curve, only a bit shorter and fatter. The t distribution is used instead of the normal distribution when you have small samples. The larger the [sample size](https://www.statisticshowto.com/probability-and-statistics/find-sample-size/), the more the t distribution looks like the normal distribution. In fact, for sample sizes larger than 20 (e.g. more degrees of freedom), the distribution is almost exactly like the normal distribution.

1. **What does the T distribution tell us?**

The t distribution  is a probability distribution that is used to estimate population parameters when the sample size is small and/or when the population variance is unknown.