## **Statistics Worksheet-1 Answers**

Ans 1. - Option A: True

Ans 2. - Option A: Central Limit Theorem

**Ans 3.** - Option B : Modeling bounded count data

**Ans 4.** - Option D : All of the mentioned

Ans 5. - Option C: Poisson

**Ans 6.** - Option B : False

**Ans 7.** - Option B : Hypothesis

Ans 8. - Option A: 0

**Ans 9.** - Option C : Outliers cannot conform to the regression relationship.

- Ans 10. Normal Distribution is a probability distribution that is symmetric about the mean Showing that data near the mean are more frequent in occurrence than data far From the mean.
- Ans 11. I handle the missing data by filling it with some value with the help of these ways:
  - A) 1. If the data is continuous then I use median or mean of that column to fill missing values.
    - 2. If the data is categorical then I use mode of that column to fill missing values.
  - B) Other then the above technique I can also use the forward fill or back fil technique to fill the missing values of that column with random values with the help of using their adjacent row values.
- Ans 12. A/B testing is a user experience research methodology. It includes application of two sample hypothesis testing. It is a way to compare two versions of single variable by testing a subject's response to variant A against variant B and determining which of the two variants is more effective.

- **Ans 13.** I don't think that mean imputation of missing data is an acceptable practice because :
  - 1. Mean imputation does not preserves the relationships among variables.
  - 2. Mean imputation leads to an underestimate of standard errors.
- **Ans 14.** In statistics linear regression is a linear approach for modeling the relationship between a scalar response and one or more explanatory variables.
- **Ans 15.** There are two main branches of statistics :
  - 1. Descriptive statistics.
  - 2. Inferential statistics.