ASSIGNMENT- 6 STATISTICS

Q1- D

Q2- A

Q3- A

Q4- C

Q5- A

Q6- B

Q7- C

Q8- B

Q9- A

Q10- **Boxplots may also depict values that are far outside of the normal range of responses (referred to as outliers). A histogram is a graphical representation of the spread of data points**.

- Q11- Ensure your metrics are connected to your vision and mission
- Take complexity into account (do not assume linear cause and effect)
- Embed the metrics in the work so they do not become a separate goal
- Measure “outside-in”
- Focus on outcomes (impact) rather than output
- Build up and revise your metrics as you go.

Q12- 1State the Research Hypothesis.

2 State the Null Hypothesis.

3 Select a probability of error level (alpha level)

4 Select and compute the test for statistical significance

5 Interpret the results.

Q13- Exponential distributions do not have a log-normal distribution or a Gaussian distribution. In fact, any type of data that is categorical will not have these distributions as well. Example: **Duration of a phone car, time until the next earthquake**.

Q14- **Income is the classic example of when to use the median instead of the mean because its distribution tends to be skewed**. The median indicates that half of all incomes fall below 27581, and half are above it. For these data, the mean overestimates where most household incomes fall.

Q15- The likelihood function **represents the probability of random variable realizations conditional on particular values of the statistical parameters**.