Assignment – 6

Statistics

Q1 TO Q9

1. D
2. A
3. A
4. C
5. A
6. B
7. C
8. D
9. D

Q10 TO Q15

10. **Boxplot**- summarises its most prominent features. These features include median and spread as well as the extent and nature of departures from symmetry, and the possible presence of observations having extreme values.
    Histogram- Histograms indicate the whole frequency distribution of a variable.

11. **Classification**. This algorithm will predict data type from defined data arrays. For example, it may respond with yes/no/not sure.

    Regression. The algorithm will predict some values. For example, weather forecast for tomorrow.
    Ranking. The model will predict an order of items.

12. 1.State 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.

13. 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, etc.

14. Income is the classic example of when to use the median instead of the mean because its distribution tends to be skewed.

15. The likelihood is the probability that a particular outcome is observed when the true value of the parameter is , equivalent to the probability mass on ; it is not a probability density over the parameter .