PYTHON – WORKSHEET 1

1: C

2: B

3: C

4: A

5: D

6: C

7: A

8: C

9: A, C

10: A, B

STATISTICS WORKSHEET-1

1: A

2: A

3: B

4: B

5: C

6: B

7: B

8: A

9: C

10: The normal distribution is a continuous probability distribution that is symmetrical around its mean, most of the observations cluster around the central peak, and the probabilities for values further away from the mean taper off equally in both directions.

11: In statistics imputation is the process of replacing missing data with substituted values. because missing data can create problems for analysing data, imputation is seen as a way to avoid pitfalls involved with list wise deletion of cases that have missing values.

12: AB test is an example of statistical hypothesis testing, a process whereby a hypothesis is made about the relationship between two data sets and those data sets are then compared against each other to determine if there is a statistically significant relationship or not.

13: Yes, because imputing is the mean preserves the mean of the observed data. So if the data are missing completely at random, the estimate of the mean remains unbiased. ... Since most research studies are interested in the relationship among variables, mean imputation is not a good solution.

14: In statistics linear regression is a linear approach for modelling the relationship between a scalar response and one or more explanatory variables and also known as dependent and independent variables.

15: There are three real branches in statistics

A- Data Collection
B- Descriptive statistics
C- Inferential statistics

MACHINE LEARNING-1

1: A

2: A

3: B

4: D

5: D

6: B

7: D

8: D

9: A

10: A

11: B

12: A, B, C

13: In the context of machine learning, regularization is the process which regularizes or shrinks the coefficients towards zero. In simple words, regularization discourages learning a more complex or flexible model, to prevent overfitting.

14: There are three main regularization techniques used in ML.

A - Ridge Regression (L2 Norm)

B- Lasso (L1 Norm)

C - Dropout.

15: Within a linear regression model tracking a stock's price over time, the error term is the difference between the expected price at a particular time and the price that was actually observed. In instances where the price is exactly what was anticipated at a particular time, the price will fall on the trend line and the error term will be zero.