STATISTICS WORKSHEET -1

ANS1. TRUE

ANS2. A

ANS3.C

ANS4.B

ANS5.A

ANS6.B

Ans 7 . B

Ans 8 . A

Ans9.A

ANS 10 The **Normal Distribution**, also called the **Gaussian Distribution it makes a bell shape curve. The condition for the normal distribution is when the mean=median =mode = 0,it has a standard deviation of 1 and the centre is 0,the data is spread symmetrically**

Ans11 Use deletion methods to eliminate missing data. The deletion methods only work for certain datasets where participants have missing fields.Use regression analysis to systematically eliminate data. We can replace the missing values with mean however if the data has outliers then replacing the missing values with median is a better options .we can use data imputation techniques.

Some imputation techniques are –

1.mean imputation

2.median imputations

3.mode imputations

4linear regression imputation

5.Knn imputation

Ans12. A/B testing is a basic randomized control experiment. It is a way to compare the two versions of a variable to find out which performs better in a controlled environment.

For instance, let's say you own a company and want to increase the sales of your product. Here, either you can use random experiments, or you can apply scientific and statistical methods. A/B testing is one of the most prominent and widely used statistical tools.

In the above scenario, you may divide the products into two parts – A and B. Here A will remain unchanged while you make significant changes in B's packaging. Now, on the basis of the response from customer groups who used A and B respectively, you try to decide which is performing better.

Ans13.Yes mean imputation of missing data is acceptable however if the data has extreme values (outliers) then its not the best practice I would not recommend it .

Ans 14. Linear regression attempts to model the relationship between two variables which are independent and dependent by fitting a linear equation to observed data,by using a straight line . A linear regression line has an equation of the form Y = a + bX, where X is the explanatory variable and Y is the dependent variable.

Ans15. Statistics plays a main role in the field of research. It helps us in the collection, analysis and presentation of data. In this blog post we will try to learn about the two main branches of statistics that is descriptive and inferential statistics.