# STATISTICS WORK ASSIGNMENT

**ANSWER Q-1:- (A) TRUE.**

**ANSWER Q-2:- (A) CENTRAL LIMIT THEOREM.**

**ANSWER Q-3:- (B) MODELLING BOUNDED COUNT DATA.**

**ANSWER Q-4:- (D) ALL OF THE MENTIONED.**

**ANSWER Q-5:- (C) POISSON.**

**ANSWER Q-6:- (B) FALSE.**

**ANSWER Q-7:- (B) HYPOTHESIS.**

**ANSWER Q-8:- (A) 0.**

**ANSWER Q-9:- (OUTLIERS CANNOT CONFORM TO THE REGRESSION RELATIONSHIP).**

**ANSWER Q-10:-** **The term normal distribution is a probability distribution that is symmetric about mean, showing that data near to mean is more frequent in occurence from data far from the mean. In this, the probability function is 0 and standard deviation is 1.**

**ANSWER Q-11:-** **Handling missing data means replacing that data with some substitute data/Information in order to maintain the accuracy and size of a particular dataset so that it will not create any error in execution. Handling data can be done using various imputation techniques in order to nullify the future errors, and to prevent distortion in dataset.**

**IMPUTATION TECHNIQUES ARE :-**

**MEAN, MEDIAN, MODE commonly.**

**ANSWER Q-12** **A/B testing is an experiment on two variants to see which platforms performs better in comparison among both based on metrics. In this, two different groups are exposed to two different versions of the same thing such that to prove which one is giving better results.**

**ANSWER Q-13:-** **Mean imputation is considered a terrible practice because it ignores feature correlation. It also decreases variance with increasing bias. As the variance is reduced, then the model becomes less accurate.**

**ANSWER Q-14:-** **Linear Regression is used to predict the value of a variable based on the value of another variable . The variable you are predicting is called as Dependent variable and the variable you are using to predict other variable is called independent variable.**

**Types of Linear Regression:-**

1. **SIMPLE LR:- Takes only 1 features for execution.**
2. **MULTIPLE LR:- Takes multiple features for execution.**

**ANSWER Q-15:-** **BRANCHES OF STATISTICS ARE:-**

1. **DESCRIPTIVE STATISTICS:- It describes the properties of sample and population data and includes various measures like Mean, Median and Mode and also some dispersion techniques like Variance and STD. deviation.**

2. **INFERENTIAL STATS:- It uses those properties to test Hypothesis and draw conclusions. It uses Central Limit Theorem to find out the deviations.**