Ans[1]- a) True

Ans[2]- a) Central Limit Theorem

Ans[3]- b) Modeling bounded count data

Ans[4]- d) All of the mentioned

Ans[5]- c) Poisson

Ans[6]- b) False

Ans[7]- b) Hypothesis

Ans[8]- a) 0

Ans[9]- c) Outliers cannot conform to the regression relationship

Ans[10]- A normal distribution is an arrangement of a data set in which most values cluster in the middle of the range and the rest taper off symmetrically toward either extreme.It is the most important probability distribution in statistics for independent, random variables.Most people recognize its familiar bell-shaped curve in statistical reports. The Central tendency i.e Mean,Median & Mode are same in Normal Distribution.

Ans[11]- Missing values can be handled in different ways depending on, if the missing values are continuous or categorical. Because method of handling missing values are different between these two data type .By using “dtypes” function in python we can filter our columns from dataset.

THREE WAYS to treat missing values in dataset are as follows:

i) DROPPING
ii) IMPUTION
iii) PREDICTIVE MODEL

Imputation is the process of substituting an estimate for missing values and analysing the entire data set as if the imputed values were the true observed values. Some of the imputations techniques that can be used are -

i) Mean imputation
ii) Substitution
iii) Hot deck imputation
iv) Cold deck imputation
v) Regression imputation
vi) Single or Multiple Imputation

Ans[12]- A/B tests consist of a randomized experiment that usually involves two variants (A and B), although the concept can be also extended to multiple variants of the same variable. It includes application of statistical hypothesis testing or "two-sample hypothesis testing" as used in the field of statistics. A/B testing is a way to compare multiple versions of a single variable, for example by testing a subject's response to variant A against variant B, and determining which of the variants is more effective.

Ans[13]- Mean Imputation of missing data is not an acceptable practice as most of the research studies are interested in the relationship among variables.

Ans[14]- Linear regression analysis is used to predict the value of a variable based on the value of another variable. The variable you want to predict is called the dependent variable. The variable you are using to predict the other variable's value is called the independent variable.

Ans[15]- Statistics have majorly categorised into two types:

i) Descriptive statistics
ii) Inferential statistics

Descriptive Statistics

In this type of statistics, the data is summarised through the given observations. The summarisation is one from a sample of population using parameters such as the mean or standard deviation.

Descriptive statistics is a way to organise, represent and describe a collection of data using tables, graphs, and summary measures. For example, the collection of people in a city using the internet or using Television.

Descriptive statistics are also categorised into four different categories:

Measure of frequency
Measure of dispersion
Measure of central tendency
Measure of position

Inferential Statistics

Inferential Statistics is a method that allows us to use information collected from a sample to make decisions, predictions or inferences from a population. It grants us permission to give statements that goes beyond the available data or information. For example, deriving estimates from hypothetical research.