1. **An essential component of the Central Limit Theorem is that**

**All the options**

1. **A failing student is passed by an examiner, it is an example of**

Type-II error/ Unbiased decision

#### The dividing point between the region where the null hypothesis is rejected and the region where it is not rejected is said to be

#### critical value

#### An advertising agency wants to test the hypothesis that the proportion of adults in a country who read a Sunday Magazine is 25 percent. The null hypothesis is that the proportion reading the Sunday Magazine is:

#### Equal to 25%

#### In which examples could binomial distribution be used?

#### Modelling the number of failures in a trial

#### Any hypothesis which is tested for the purpose of rejection under the assumption that it is true is called?

#### Null hypothesis

#### A statistician calculates a 95% confidence interval for Mean when Standard Deviation is known. The confidence interval is Rs.18000 to Rs.22000, the amount of the sample mean is:

#### 20000

#### The analysis of variance is a statistical test that is used to compare how many group means?

#### Two or more

#### Which of the following is not the purpose of using chi-square distributions?

#### To test how closely data follows a non-normal distribution

#### Identify which of the following steps would not be included in hypothesis testing.

#### Eliminate all outliers

#### Confidence interval become narrow by increasing the:

#### Sample size

#### The shape of the t-distribution depends upon the:

#### Degrees of freedom

#### A good way to get a small standard error is to use a .

#### Large sample

#### Which of the following conditions are satisfied by Poisson random variable?

#### Number of successes in two time intervals is dependent/ Probability that an event occurs in a given length of time changes over time

#### A door alarm works in 72 out of 100 cases and surveillance camera works in 68 out of 100 cases. What is the probability of effective screening techniques keeping in mind that these two methods can be used together?

#### 0.89

#### There may be times when data is supposed to fit a normal distribution, but does not. Which of the following could be reasons for this?

#### Outliers and Small Sample Size

#### Identify the variables that are continuous or discrete

#### Time & Weight are continuous. Color & Country are discrete

#### Which of the following is an arithmetic mid-value?

#### Mean

#### The p-value in statistical significance testing should be used to assess how strong a relationship is. For example, if relationship A has a p=.04 and relationship B has a p=.03 then you can conclude that relationship B is stronger than relationship A.

#### False

#### The use of the laws of probability to make inferences and draw statistical conclusions about populations based on sample data is referred to as \_\_\_

#### Inferential statistics