

Q.1 Rejection of null hypothesis is a conclusive proof that the alternate hypothesis is

- True
- False
- **Neither**

Q.2 The level of significance can be considered as the amount of risk that an analyst is willing to take while making a decision

- **True**
- False
- Neither

Q.3 The significance of 5% is same as saying

- **We are 95% confident that the results have not occurred by chance**
- We are 5% confident that the results have occurred by chance
- We are 95% confident that the results have occurred by chance
- None of the above

Q.4 One or two tail test will determine

- If the hypothesis has one or possible two conclusions
- If the two extreme values (min or max) of the sample need to be rejected
- **If the region of rejection is located in one or two tails of the distribution**
- None of the above

Q.5 Two types of errors associated with hypothesis testing are Type I and Type II. Type II error is committed when

- Alternate hypothesis is falsely accepted
 - Null Hypothesis is falsely rejected
 - Null Hypothesis is falsely accepted
 - None of the above
-

Q.6 Smaller observed p-value is indicate more support of

- Null Hypothesis
 - Alternate Hypothesis
 - More testing
 - None of the above
-

Q.7 The hypothesis that an analyst/researcher is trying to prove is

- Null Hypothesis
 - Alternate Hypothesis
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Q.8 A null hypothesis can be rejected at 5% significance level if

- The hypothesized parameter exists in the 95% confidence interval
 - The hypothesized parameter does not exist in the 95% confidence interval
 - Null hypothesis has a sampling error
 - None of the above
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Q.9 If the sample size considered for the testing a hypothesis is increased, then the

- Confidence in our estimate decreases as it increases uncertainty
 - Confidence in our estimate increases as is decreases uncertainty
 - Cannot be certain
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Q.10 Wider confidence intervals mean

- Smaller Sample size
- Larger sample size

Q.11 We require _____ evidence to reject the null hypothesis at lower significance level (from 5% to 1%)

- stronger evidence
- Weaker evidence

Q.12 As the sample size increases, the t-distribution approaches

- Normal distribution
- Chi-square distribution
- F- distribution
- None of the above

Q.13 Power of hypothesis is given by

- $1+\alpha$
- $1-\alpha$
- $1+\beta$
- $1-\beta$

Q.14 A manufacturing company claims that the atmost 2% of their products were found defective. The Null hypothesis for this case would be

- $H_0: \text{defective} < 0.02$
- $H_0: \text{defective} > 0.02$
- $H_0: \text{defective} \geq 0.02$
- $H_0: \text{defective} \leq 0.02$

Q.15 A manufacturing company claims that the less than 2% of their products were found defective. The Null hypothesis for this case would be written as:

- $H_0: \text{defective} < 0.02$

- $H_0: \text{defective} > 0.02$
- $H_0: \text{defective} \leq 0.02$
- None of the above

Q.16 When is t-test appropriate (select all that apply)

- When variance of the population is known
- When variance of population is unknown
- When sample size is greater than 30
- When sample size is less than 30

Q.17 Two sample t-test is used to test if the two samples chosen are obtained from the same population based on their means

- True
- False

Q.18 Standard error is basically the standard deviation of the sample means

- True
- False

Q.19 Margin of error is

- Equal to width of the confidence interval
- Equal to half-width of the confidence interval
- Depends on the problem considered
- None of the above

Q.20 When considering the proportions, the standard error of the sample is considered where p, q and n hold the usual meanings

- $\sqrt{pq/n}$
- \sqrt{npq}
- Pq/n
- npq