**BUS 322 S22 Quiz 3 as of 4/12/22**

00:45:00

Last Name :


First Name


E-mail Address:


ID (last four digits of your university ID):


Please provide your information as requested below. You have 45 minutes to enter your answers. When ready, click the "next" button to start your quiz. No "in and out" privileges. Click "back" if you want to review your answers. Do not click "next", when you are on the last page of the quiz, unless you are ready to submit your answers. Good Luck !!!

**Question 1 of 30**

1. Which of the following statements is true with regards to the concept of Type II error?

* a) rejecting the Ho when it is true
* b) alpha is the probability error
* c) it is more severe error
* d) a, b, c are true
* e) only a and c are true
* f) none of these are true

***(10 points) | \_\_\_***

**Question 2 of 30**

2. Which of the following statements is true with regards to the concept of Type I error?

* a) failing to reject Ho when it is false
* b) beta is the probability error
* c) it is less severe error
* d) a, b, c are true
* e) none of these are true
* f) only a and c are true

***(10 points) | \_\_\_***

**Question 3 of 30**

3. Which of the following statements is true with regards to the concept of Research Hypothesis (Ha)?

* a) it is the decision-maker's attempt to demonstrate this hypothesis to be true
* b) it will not be declared true unless the sample data strongly indicate that it is true
* c) applies to the Ha
* d) a, b, c are true
* e) none of these are true
* f) only a and c are true

***(10 points) | \_\_\_***

**Question 4 of 30**

4. Which of the following statements is true with regards to the concept of Critical Value ?

* a) this cutoff value determines the boundary between regions of acceptance and rejection
* b) one tail model has two critical value
* c) two tail model has one critical value
* d) none of these are true
* e) only a and c are true
* f) a, b, c are true

***(10 points) | \_\_\_***

**Question 5 of 30**

5. Which of the following statements is true with regards to the concept of Test Statistic ?

* a) this cutoff value determines the boundary between regions of acceptance and rejection
* b) one tail model has one test statistic
* c) two tail model has two test statistics with opposite signs
* d) none of these are true
* e) only a and c are true
* f) a, b, c are true

***(10 points) | \_\_\_***

**Question 6 of 30**

6. Which of the following statements is true with regards to the concept of Two-tail test ?

* a) a hypothesis test in which the entire rejection region is equally split into two tails of the sampling distribution
* b) it consists of the upper tail and the lower tail
* c) can be calculated using TINV or NORMSINV
* d) a, b, c, are true
* e) none of these are true
* f) only a and c are true

***(10 points) | \_\_\_***

**Question 7 of 30**

7. Which of the following statements is true with regards to the concept of Ho?

* a) will be changed only when there is a weak enough sample evidence to support it
* b) it does not contain an equal sign
* c) none of these are true
* d) a and b are true
* e) this is the "claim" part of the test

***(10 points) | \_\_\_***

**Question 8 of 30**

8. Which of the following statements is true with regards to the concept of Degrees of Freedom?

* a) the number of independent data values available to estimate the population standard deviation
* b) the degrees of freedom are equal to n-k when applied in the ANOVA
* c) the degrees of freedom are equal to n-1 when applied in the t-distribution
* d) a, b, c, are true
* e) none of these are true
* f) only a and c are true

***(10 points) | \_\_\_***

**Question 9 of 30**

9. Which of the following statements is true with regards to the concept of a large sample size? To be considered as a large sample it has to consists of:

* a) at least 30 observations
* b) at least 3 observations
* c) at least 100 observations
* d) a, b, c, are true
* e) one of these are true
* f) only a and c are true

***(10 points) | \_\_\_***

**Question 10 of 30**

10. Which of the following is correct?

* a) if you know sigma use z and n is large
* b) whenever you use z to estimate sigma use t
* c) if you know sigma use t
* d) a, b, c, are true
* e) none of these are true
* f) only a and c are true

***(10 points) | \_\_\_***

**Question 11 of 30**

11. Which of the following statements is true with regards to the concept of Student's t distribution?

* a) it is a family of distributions indexed by its degrees of freedom
* b) the t-models are unimodal, symmetrical and bell-shaped
* c) as the degrees of freedom increase, t distribution approaches the normal distribution
* d) a, b, c, are true
* e) none of these are true
* f) only a and c are true

***(10 points) | \_\_\_***

**Question 12 of 30**

12. Which of the following statements is true with regards to the concept of one-tail test?

* a) a hypothesis test in which the entire rejection region is located in one tail of the sampling distribution
* b) the entire alpha is located in the opposite tail
* c) could be an upper or a lower tail
* d) a, b, c, are true
* e) none of these are true
* f) only a and c are true

***(10 points) | \_\_\_***

**Question 13 of 30**

13. Which of the following statements is true with regards to the concept of p - value?

* a) the same as the z value
* b) it is also known as "observed significance value"
* c) based on analysis of proportions
* d) a, b, c, are true
* e) none of these are true
* f) only b and c are true

***(10 points) | \_\_\_***

**Question 14 of 30**

14. Which of the following statemen(s) is(are) correct with regards to F distribution? The shape of this distribution:

* a) is unimodal and symmetrical
* b) is skewed to the left
* c) becomes closer to normal as the number of degrees of freedom increases
* d) a, b, c, are true
* e) none of these are true
* f) only b and c are true

***(10 points) | \_\_\_***

**Question 15 of 30**

15. Which of the following statemen(s) is(are) correct with regards to Ha?

* a) the mean of a population is greater or equal to 55
* b) the mean of a sample is equal to 55
* c) the mean of the sample is always equal to zero
* d) a and b are true
* e) none of these are true
* f) only b and c are true

***(10 points) | \_\_\_***

**Question 16 of 30**

16. Which of the following statemen(s) is(are) correct with regards to Ho?

* a) the mean of a population is greater or equal to 55
* b) the mean of a sample is equal to 55
* c) the mean of the sample is greater or equal than 55
* d) a, b, c, are true
* e) only a and b are true
* f) none of these are true

***(10 points) | \_\_\_***

**Question 17 of 30**

17. One-way analysis of variance is a statistical procedure for testing differences among the means of multiple populations.

* True
* False

***(10 points) | \_\_\_***

**Question 18 of 30**

18. When formulating a hypothesis test, which of the following statement(s) is (are) true?

* a) Ho should never contain the equal sign
* b) Ha is always greater than Ho
* c) Ho is always greater than Ha
* d) a, b, c, are true
* e) none of these are true
* f) only a and c are true

***(10 points) | \_\_\_***

**Question 19 of 30**

19. In a one-way ANOVA, which of the following is true:

* a) the degrees of freedom have to be calculated
* b) the critical value can be found in the ANOVA table
* c) the Ho states that the means of populations of interest are equal
* d) a, b, c, are true
* e) none of these are true
* f) only a and c are true

***(10 points) | \_\_\_***

**Question 20 of 30**

20. Which of the following is an assumption for the "one-way analysis of variance experimental design"?

* a) all populations are normally distributed
* b) the populations have equal variances
* c) the observations are independent
* d) a, b, c, are true
* e) none of these are true
* f) only a and c are true

***(10 points) | \_\_\_***

**Question 21 of 30**

21. The reason for using the t-distribution is:

* a) the population standard deviation is unknown, and the sample size is fairly small
* b) it is easier to use by students
* c) it provides a good representation of the risk under consideration
* d) a, b, c, are true
* e) none of these are true
* f) only a and c are true

***(10 points) | \_\_\_***

**Question 22 of 30**

22. In testing the hypothesis, which steps should precede the collection and examination of data:

* a) define Ho
* b) define Ha
* c) select the level of significance
* d) a, b, c, are true
* e) none of these are true
* f) only a and c are true

***(10 points) | \_\_\_***

**Question 23 of 30**

23. F-tests are used to calculate whether two independent populations have the same variability:

* True
* False

***(10 points) | \_\_\_***

**Question 24 of 30**

24. A significance level is denoted by the symbol of beta:

* True
* False

***(10 points) | \_\_\_***

**Question 25 of 30**

25. One-tail test and two-tail test will always have the same critical values:

* True
* False

***(10 points) | \_\_\_***

**Question 26 of 30**

26. Sampling distribution is a distribution of the possible values of statistics for a given size random sample selected from a population:

* True
* False

***(10 points) | \_\_\_***

**Question 27 of 30**

27. t-distribution is the same distribution as the F distribution except the sample size is smaller (less than 30):

* True
* False

***(10 points) | \_\_\_***

**Question 28 of 30**

28. The chi-square distribution can also be used to conduct the "goodness of fit" tests, tests designed to determine whether sample data that were collected "fit" a particular s statistical model of distribution.

* True
* False

***(10 points) | \_\_\_***

**Question 29 of 30**

29. Chi-square tests of independence can be used to determine whether certain factors represented in the sample data are statistically independent.

* True
* False

***(10 points) | \_\_\_***

**Question 30 of 30**

30. F distribution is a sampling distribution. It is composed of the ratio of the variances of two samples that have been selected randomly from the same normal population or from two normal populations having the same variance.

* True
* False

***(10 points) | \_\_\_***

You have reached the end of the quiz. Click next to see your score.