Second Exam - Requires Respondus LockDown Browser

ⓘ This is a preview of the published version of the quiz

Started: May 2 at 10:54am

Quiz Instructions

The second exam covers materials from chapters 16, 17, 18, 20, with a heavy emphasis on chapters 17, and 18. Please skim the chapters again, and the lecture materials.

You are allowed to use your notes during this exam. However, you can't search online because the Lockdown browser is mandatory.

The format of this exam is similar to weekly quizzes.

You will have 30 questions (150 points)

Question 1 — 5 pts

A questionnaire uses a 1-5 Likert scale to determine job satisfaction. When entering the data into a file, a researcher types a 7 instead of the 4 that the respondent had circled on the questionnaire. Such a mistake can be uncovered by performing what type of analysis?

- ○ Analysis of variance
- ○ Regression and double-entry
- ○ Double-entry
- ○ Frequency analysis
- ○ Double-entry and frequency analysis

Question 2 — 5 pts

You are coding a survey that asks the question "Please tell us your age: _____", where the respondent fills in the blank with a number corresponding to his or her age. The best way to code this information is

- ◯ using narrow categories, such as the following: Under 18, 19-21, 22-25, 26-29, 30-33, etc.
- ◯ recording the actual age.
- ◯ using broad categories, such as the following: Under 20, 20-29, 30-39, 40-49, etc.
- ◯ None of these are correct.
- ◯ All of these are correct.

Question 3

5 pts

Which of the following statements about open-ended questions is FALSE?

- ◯ Precoding is not necessary.
- ◯ Response categories are provided for respondents.
- ◯ There are multiple legitimate responses.
- ◯ When categorizing open-ended responses, it is often necessary to include an "other" category.
- ◯ All of these statements about open-ended questions are true.

Question 4

5 pts

The population mean is hypothesized to be 200. The sample mean (x-bar) is 220. The sample size (n) is 25. The sample standard deviation (s) is 15. The degrees of freedom would equal

- ◯ 14.
- ◯ 24.

- ◯ 219.
- ◯ 199.
- ◯ Cannot tell from the given information

Question 5

5 pts

Which of the following statements is TRUE with respect to outliers?

- ◯ They represent special cases that should be treated differently from the rest of the observations.
- ◯ They can be located using frequency analysis.
- ◯ They can have a very strong influence on the sample mean.
- ◯ All of these are correct.
- ◯ None of these are correct.

Question 6

5 pts

A histogram is a bar chart that is based on information from a frequency count.

- ◯ True
- ◯ False

Question 7

5 pts

When it comes to standard deviations, if everyone were basically the same on some characteristic or felt the same way about some topic or object, the standard deviation would be

- ◯ very small.
- ◯ difficult, if not impossible, to calculate.
- ◯ very large.
- ◯ None of these are correct.
- ◯ very small and difficult to calculate.

Question 8

5 pts

In using percentages for reporting results it is reasonable to report percentages to two decimal places.

- ◯ True
- ◯ False

Question 9

5 pts

A clothing manufacturer traditionally makes sweatshirts from three different fabrics: A, B and C. Over the years, the percentages sold of each fabric were 50, 35, and 15, respectively. Recently, the manufacturer began producing running suits from the same three fabrics. During the first three months of production, the company received orders for 6,500 suits made from fabric A, 3,400 from fabric B, and 2,700 from fabric C. What is the appropriate test to determine whether sales results of the new running suit are similar to what would be expected given the previous sales history of sweatshirts made of the three fabrics?

- ◯ Regression analysis
- ◯ z-test for comparing sample mean against a standard
- ◯ Chi-square test
- ◯ z-test for comparing sample proportion against a standard
- ◯ None of these are correct.

Question 10

5 pts

Kit Kat candy bar executives make the following statement: "Our most likely estimate of Kit Kat's ad recall rate is 65%. In addition, we are 95% confident that Kit Kat's ad recall rate in the population falls between 62% and 68%." This illustrates an example of

- ◯ basic descriptive statistics.
- ◯ using statistical inference to estimate a population parameter based upon sample statistics.
- ◯ using statistical inference to estimate a statistic based upon a population parameter.
- ◯ hypothesis testing.
- ◯ None of these are correct.

Question 11

5 pts

A gum manufacturer wants to determine whether blue packaging or red packaging is preferred. The company performs a sales test by introducing red packages into a random sample of ten stores, and blue packages are introduced in an independent, random sample of ten stores. The technique most appropriate for analyzing the data is

- ◯ a paired sample t-test for means.
- ◯ the Spearman rank-order correlation analysis.
- ◯ regression analysis.
- ◯ an independent samples t-test for means.
- ◯ correlation analysis.

Question 12

5 pts

Which of the assumptions listed below are necessary in order for the coefficients in a partial regression equation to be interpreted as the average change in the criterion variable associated with a unit change in the appropriate predictor variable holding other predictor variables constant?

- ◯ The predictor variables must be correlated.
- ◯ The variance among predictor variables must be equal.
- ◯ The criterion variable must be normally distributed.
- ◯ The predictor variables must be uncorrelated.
- ◯ None of these are necessary assumptions.

Question 13

5 pts

A simple regression is a statistical technique used to derive an equation that relates a single continuous dependent variable to two or more independent variables.

- ◯ True
- ◯ False

Question 14

5 pts

When comparing the independent samples t-test for means and the paired sample t-test for means, one is for

- ◯ univariate analysis while the other is for multivariate analysis.
- ◯ small sample sizes while the other is for large sample sizes.
- ◯ continuous variables while the other is for categorical variables.
- ◯ measures from separate groups while the other is for measures from the same group.
- ◯ All of these are correct.

Question 15

5 pts

If you have a significant and very strong (e.g., > 0.90) correlation coefficient, you may assume there is a causal relationship between the two variables.

- ◯ True
- ◯ False

Question 16

5 pts

To determine the degree to which the variables in a cross-tabulation analysis are independent of one another, a researcher should use

- ◯ a cross tabulation variable independence test.
- ◯ the Pearson chi-square test of independence.
- ◯ regression analysis.
- ◯ Cramer's V.
- ◯ Kendall's coefficient of concordance.

Question 17

5 pts

Which of the following is a technique that measures the association between a criterion variable and one or more independent variables?

- ◯ Correlation analysis
- ◯ Analysis of variance

- ◯ Regression analysis
- ◯ z-test
- ◯ F-test

Question 18

5 pts

Results that are interesting but irrelevant in terms of specific research problems should be omitted.

- ◯ True
- ◯ False

Question 19

5 pts

Definitions of unfamiliar terms used in the report should be defined in the

- ◯ introduction.
- ◯ summary.
- ◯ body.
- ◯ conclusions.
- ◯ appendix.

Question 20

5 pts

Given your dataset from a Likert scale question:

1 2 5 2 3 5 2 2 2 1

Calculate the lower bound of the confidence interval for this variable's mean at the 95% confidence

Hint: This is an interval variable.
SD = 1.43

Confidence Level	t critical value
90%	1.645
95%	1.96
99%	2.576

- ○ 3.4
- ○ 1.6
- ○ 2.5
- ○ 3

Question 21

5 pts

Given your dataset from a question asking respondent's gender where 0 means male and 1 means female:

0 1 1 0 1 0 1 0 1 1

Calculate the upper bound of the confidence interval for the proportion of females at the 99% confidence level

Hint: This is a nominal variable.

Confidence Level	t critical value
90%	1.645
95%	1.96
99%	2.576

- ○ 0.99

- ◯ 0.6
- ◯ 0.45
- ◯ 0.8

Question 22

5 pts

The standard deviation measures how far the sample mean (average) of the data is likely to be from the true population mean

- ◯ True
- ◯ False
- ◯ No answer text provided.
- ◯ No answer text provided.

Question 23

5 pts

What test do we need to do before the independent t-test to make sure the assumption that the two samples' variances are equal is reasonable?

- ◯ F-test
- ◯ Two way Chi-square
- ◯ On way Chi-square
- ◯ One sample t-test

Question 24

5 pts

The null hypothesis of the 2-sample independent t-test is

- ◯ The two-group means are equal
- ◯ The two-group means are not equal

Question 25

5 pts

What percent do researchers typically use and are interested in?

- ◯ Raw Percent (include missing category)
- ◯ Valid Percent(exclude missing category)
- ◯ Valid Cumulative Percent
- ◯ No answer text provided.

Question 26

5 pts

What is the regression line?

- ◯ The best-fitting line through the scatterplot
- ◯ The linear trend between two variables
- ◯ Both A and B
- ◯ No answer text provided.

Question 27

5 pts

What does R-squared tell use?

(i.e., how do we interpret the R-squared?

- ◯ How much variation in the dependent variable is explained by the independent variable
- ◯ It's the correlation between the dependent variable and the independent variable
- ◯ Both A and B
- ◯ No answer text provided.

Question 28

5 pts

Under what condition does the squared root of the R-squared of a regression model equal its variables' correlation?

- ◯ Simple Regression
- ◯ Both the dependent and independent variable are continuous
- ◯ Multiple Regression
- ◯ Both (1) Simple Regression and (2) Both the dependent and independent variable are continuous
- ◯ (1) Simple Regression, (2) Both the dependent and independent variable are continuous, (3) Multiple Regression

Question 29

5 pts

How can we improve R-squared in regression models?

- ◯ Include more relevant variables
- ◯ Include more data
- ◯ Both A and B
- ◯ None of the above

Question 30

5 pts

If a researcher has a variable with 4 categories (e.g., class standing - freshman, sophomore, junior, senior) and she wants to include this variable in the regression model, how many binary variables should she use to transform this variable?

- ◯ 2
- ◯ 3
- ◯ 4
- ◯ No answer text provided.

Saving... Submit Quiz