More Sample Test Questions for Test 2

Scroll down to the bottom for the answers

1. Which average is usually reported whenever the standard deviation is reported?
   A. mean
   B. median
   C. mode
   D. variance

2. The ______________ is relatively insensitive to, or unaffected by, extreme scores.
   A. mean
   B. median
   C. range
   D. standard deviation

3. What is the median in the following set of scores? 2, 4, 7, 14, 16, 21, 30
   A. 11.42
   B. 14
   C. 15
   D. 16

4. In most social science research, results which are more than ______________ standard deviations beyond the mean are considered statistically significant.
   A. 1
   B. 2
   C. 3
   D. 4

5. If a normal distribution has a mean of 90 and a standard deviation of 10, what is the likelihood that a score selected at random will fall between 80-100?
   A. .001
   B. .05
   C. .01
   D. .95%

6. If a normal distribution has a mean of 50 and a standard deviation of 10, what is the likelihood that a score selected at random will be less than 30 or greater than 70?
   A. .001
   B. .05
   C. .01
   D. .95%
7. The measure of central tendency that is most sensitive to changes in any score is:
   A. the mean  
   B. the mode  
   C. the median  
   D. the standard deviation

8. Which of the following represents the **weakest correlation** between two variables?
   A. .82  
   B. -.55  
   C. -.92  
   D. .43

9. A correlation of .92 would be described as:
   A. weak or negligible  
   B. low or small  
   C. moderate or substantial  
   D. high or strong

10. A t-test should be used when:
    A. a researcher has a nominal independent variable, and scale data  
    B. a researcher has an ordinal independent variable and an ordinal dependent variable  
    C. a researcher has two independent variables and scale data  
    D. a researcher has scale data for the independent variable and scale data for the dependent variable

11. What does it mean if two variables are positively correlated?
    A. as one variable increases, the other decreases  
    B. as one variable increases, the other remains constant  
    C. as one variable increases, so does the other  
    D. as one variable increases, the other increases or decreases

12. The reason why it is advisable to perform a single one-way ANOVA, rather than a series of individual t-tests is:
    A. the threshold for statistical significance is lower  
    B. the risk of a Type I error is lower  
    C. the risk of a Type II error is lower  
    D. the results are more generalizable

13. When the relationship between two variables is perfect and inverse (negative), what is the value of r?
    A. 0.0  
    B. 1.00  
    C. -1.00  
    D. .05  
    E. .01

14. If you read in a published study that “$r = .40, p < .05$” you would know that:
    A. the correlation was moderate, positive, and statistically significant  
    B. the correlation was low or weak, positive, and nonsignificant  
    C. the correlation was strong, positive, but nonsignificant  
    D. the correlation was strong, positive, and significant  
    E. the correlation was moderate, negative, and nonsignificant
15. Based on a statistical analysis of the data a researcher concludes that the null hypothesis was supported. Which finding below reflects this conclusion?
   A. p < .05
   B. p < .01
   C. p < .001
   D. p < .10
   E. insufficient information to say

16. If the correlation between cyclists’ body weights and their climbing ability (e.g., ability to pedal up steep mountains quickly) were high and negative, we could conclude that:
   A. Climbing mountains makes cyclists thin.
   B. The lighter the cyclist, the better the climber.
   C. Heavier cyclists are better at riding on flat terrain.
   D. Losing weight will cause cyclists to ride faster.
   E. Fitness and climbing ability are correlated positively.

17. A researcher randomly selects 143 patients subjects and measures their blood pressure twice each day; once at 9:00 am and again at 4:00 pm. If one were to examine the correlation between the earlier and later readings, one might expect:
   A. the correlation to be near zero, as the morning and afternoon readings should be independent of one another.
   B. the correlation to be high and positive, as those with relatively high readings in the morning will tend to have relatively high readings in the afternoon.
   C. the correlation to be high and negative, as those with relatively high readings in the morning will tend to have relatively low readings in the afternoon.
   D. the correlation to be near zero, as correlation measures the strength of the association.
   E. the correlation to be near zero, as blood pressure readings should follow approximately a normal distribution.

18. In SPSS, where would you find the option for Spearman’s Rho?
   A. Analyze, correlate, bivariate
   B. Analyze, descriptive statistics, explore
   C. Analyze, non-parametric tests
   D. Analyze, compare means

19. How many independent variables are there in a 2 X 3 factorial design?
   A. 2
   B. 3
   C. 5
   D. 6

20. How many conditions are there in a 2 X 2 X 2 design?
   A. 3
   B. 6
   C. 8
   D. insufficient information to tell

21. How many dependent variables are there in a 3 X 3 design?
   A. 2
   B. 6
   C. 9
   D. insufficient information to tell
22. Histograms are appropriately used when the data collected are:
A. nominal or ordinal
B. ordinal or interval
C. interval or ratio
D. ordinal and ratio

23. Which method of graphically depicting data requires interval/ratio data?
A. pie chart
B. histogram
C. bar chart
D. line graph

24. A bivariate correlation with scale data requires:
A. Spearman rho
B. Pearson r
C. Cramer’s V
D. Chi square

25. A researcher has two variables, both of which consist of rank ordered data. Which significance test should be used?
A. t-test
B. Spearman rho
C. Chi square
D. Pearson r
E. Draper’s Q

26. A two group comparison with nominal data requires:
A. t-test
B. chi-square
C. one-way ANOVA
D. Cramer’s V

27. The graph on the right most likely illustrates a:
A. positive correlation
B. negative correlation
C. non-significant difference between two groups
D. significant interaction effect between two groups

28. A three group comparison with scale data requires:
A. t-test
B. chi-square
C. one-way ANOVA
D. Cramer’s V

29. What statement about the distribution at right is most accurate?
A. they have the same mean, but different standard deviations
B. they have the same standard deviation, but different means
C. they have the same mean and the same standard deviation
D. the have different means and different standard deviations.
30. Which scatterplot on the right illustrates a negative linear correlation?
A. upper left
B. upper right
C. center left
D. center right
E. lower left
F. lower right

31. The results shown below illustrate that height and shoe-size:
A. are strongly correlated
B. are significantly different
C. represent a statistically significant, positive correlation
D. represent a statistically significant, negative correlation

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32. If a researcher is using p < .01 as the level of significance, the results must be more than _______ standard deviations beyond the mean to reject the null hypothesis.
A. 1
B. 2
C. 3
D. 4