**Practice test for the final exam**

(1) If data are used to reach conclusions only about the group from which the data are

gathered, then the statistics are referred to as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ statistics.

1. Inferential (b) Descriptive (c) Sample (d) Population

(2) In estimating what proportion of values fall within so many standard deviations of

the mean, you should use \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ if the shape of the distribution of number

is unknown.

1. Chebyshev’s Theorem (b) Central Limit Theorem (c) t-statistic (d) z-statistic

(3) The sum of the deviations of the data points from the mean is always \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. 1 (b) 0 (c) cannot be determined (d) positive

(4) If the *P*(A⏐B) = *P*(B), then the events A, B are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ events.

1. Independent (b) Mutually exclusive (c) None of the above

(5) If *P*(X Y) = P(X) \* P(Y) then the events X, Y are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ events.

1. Independent (b) Mutually exclusive (c) None of the above

(6) If you want to revise the probability of an event using current data, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is used.

1. Bayes’ Rule (b) Addition law (c) Multiplication Law

(7) An experiment in which a die is rolled 10 times will likely produce values of a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ random variable.

1. discrete (b) binomial (c) Poisson

(8) The area under the curve of a normal distribution represents \_\_\_\_\_\_\_\_.

1. Z-score (b) probability (c) frequency

(9) The standard deviation of sample means is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the standard deviation of the

population.

1. equal to (b) less than (c) greater than (d) cannot be determined

(10) In order to find values in the chi-square distribution table, you must convert the

sample si*z*e to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. Degrees of freedom (b) mean (c) standard deviation (d) none of the above

(11) When you increase the probability of Type 1 error for a given problem, then the power of

the test \_\_\_\_\_\_\_

1. Increases (b) decreases (c) cannot be determined

(12) When you test the equality of means of two populations, first you want to test the equality

of the variances of the two populations. You will use a \_\_\_\_\_\_\_\_\_\_\_\_\_\_ test, for that.

1. Z (b) t (c) F (d) chi-square

(13) If you want to compare means of multiple populations, with unequal sample sizes, you will use a \_\_\_\_\_\_\_\_\_\_\_

1. t-test (b) Z-test (c) chi-square test (d) Tukey

(14) In simple linear regression analysis, *β*1 represents the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. intercept (b) population slope (c) correlation coefficient (d) sample slope

(15) In multiple regression, an \_\_\_\_\_\_\_ statistic is used to test for the significance of the overall model.

1. R-square (b) Chi-square (c) Sums of squares of error (d) F test

Answer Key: 1 b, 2 a, 3 b, 4 c, 5 c, 6 a, 7 a, 8 b, 9 b, 10 a, 11 a, 12 c, 13 d, 14 b, 15 d