

# Disclaimer

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# **Chapter 11 Test**

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## Chapter 11 Test

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**DIRECTIONS:** For this multiple-choice test, select the most appropriate answer for each statement or question.

1. A contingency table is also known as a(n) \_\_\_\_\_ or two-way table.
  - a) upside down table
  - b) cross-tabulation table
  - c) lined table
  - d) xy table
  
2. To perform a chi-square test of independence, the degrees of freedom are equal to which of the following?
  - a)  $(r + 1)(c - 1)$
  - b)  $(r - 1)(c + 1)$
  - c)  $(r + 1)(c + 1)$
  - d)  $(r - 1)(c - 1)$
  
3. Given the following contingency table, calculate the  $X^2$  test statistic.

	<b>Nurse</b>	<b>Doctor</b>
<b>Male</b>	14	73
<b>Female</b>	86	27

- a) 70.82
- b) 3.91
- c) 11.23
- d) 2.47



4. A chi-square test of independence will always be a one-tailed test with area in the right tail.
  - a) True
  - b) False
  
5. When conducting a chi-square test of independence, the null hypothesis is always rejected if the test statistic is less than the critical value.
  - a) True
  - b) False
  
6. An ANOVA is a statistical procedure used to compare the \_\_\_\_\_ of three or more independent populations.
  - a) means
  - b) variances
  - c) proportions
  - d) modes
  
7. The F-distribution is skewed left.
  - a) True
  - b) False
  
8. When performing an ANOVA, the F test statistic will always be greater than or equal to 0.
  - a) True
  - b) False



9. When performing an ANOVA, F test statistics close to 1 suggest that there is sufficient evidence to reject the null hypothesis.
- a) True
  - b) False
10. A researcher decides to perform an ANOVA using the data below. Assuming the populations are normally distributed, the samples are independent and the population variances are equal, compute the F test statistic.

<b>Group 1</b>	<b>Group 2</b>	<b>Group 3</b>
14	17	17
10	20	20
19	15	25

- a) 2.88
- b) 2.10
- c) 5.64
- d) 10.33



## Answers

1. Cross-tabulation table
2.  $(r - 1)(c - 1)$
3. 70.82
4. True
5. False
6. Means
7. False
8. True
9. False
10. 2.10

