

# BIOS 600 · Quiz 11.2: ANOVA

Fall 2011

1. **Honor Pledge:** I have neither given nor received unauthorized aid on this assignment.  
(Sign and print your name.)

2. Investigator C. Sandiego wishes to find whether banks of certain countries have more money in their vaults. She inspects the vaults of several banks from several countries. Below are the results (in \$ millions):

USA	11, 13, 9, 7
Switzerland	15, 20, 22, 23
Ecuador	4, 1, 2, 5
Mauritius	11, 14, 16.33, 2.66

(a) Fill in the missing values of the ANOVA table.

Source	DF	SS	MS	F value
Country			194.67	
Residuals			14.58	

(b) What is the alternative hypothesis? (You may express in words or symbols.)

(c) What is the reference distribution of the test statistic? (Include specific values for the distributional parameters.)

3. Suppose a researcher performs four pair-wise comparisons. The unadjusted p-values are shown below. After applying the Bonferroni correction, which of the following comparisons are significant at an  $\alpha = 0.05$  test level? Circle all that apply.

0.04

0.01

0.10

0.21