

Name _____

Student No. _____

STA 442/1008 Quiz 8

1. For the Salmon data, you did a three-factor analysis of variance with two between-cases factors and one within-cases factor.

a. (2 Points) There are two statistically significant main effects. **One** should be interpreted, and **one** should not. Explain, referring to your plot of the means. Of course you are expected to interpret the main effect that should be interpreted.

b. (2 Points) Explain the statistically significant interaction in plain, non-statistical language by completing this sentence: “Averaging across ...”

c. (1 Point) Attach your plot of the means. Make sure your name is on it. Don't bother to attach your SAS printouts for this part.

Continued on Reverse

2. For the study of distraction by background noise, consider the test for the main effect of loudness.

a. (1 Point) What is the numerical value of the F statistic from the multivariate approach? Your answer is a number.

b. (1 Point) Is the test statistically significant at the $\alpha = 0.05$ level? Answer Yes or No.

c. (2 Points) What should you conclude from **this** test? Explain. It does not matter whether you use technical language or not.

d. (1 Point) Please attach printouts of your log file, your list file, and your plot of the means for this question. Make sure your name is written clearly on them.

Total Marks = 10 points