Name _____

Student Number _____

University of Toronto Mississauga
STA442/1008 2012
QUIZ 10 (9am)

Please remember that for this assignment, you are asked to use the *multivariate* approach to repeated measures.

1. Consider your printout for the *Distraction data.*

    (a) (3 Points) Averaging across loudness, we wonder which is more distracting, Music or Voice.

        i. On your printout, circle the F statistic. Write the question number (1(a)i) beside it. ($F = 571.25$)

        ii. On your printout, circle the $p-$value. Write the question number (1(a)ii) beside it. ($p < .0001$)

        iii. Are the results statistically significant? Answer Yes or No. Write your answer here. (Yes)

        iv. Describe the results in plain, non-statistical language.

    `Average scores were lower with voice, suggesting that voice was more distracting than music.`

    (b) (3 Points) We wonder if the effect of loudness depends on whether the distracting material is Music or Voice.

        i. On your printout, circle the F statistic. Write the question number (1(b)i) beside it. ($F = 59.57$)

        ii. On your printout, circle the $p$value. Write the question number (1(b)ii) beside it. ($p < .0001$)

        iii. Are the results statistically significant? Answer Yes or No. Write your answer here. (Yes)

iv. Describe the results for Question 1b in plain, non-statistical language. Base your answer on a general impression from your plot of the means. No multiple comparison tests are requested here.

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For voice distraction, louder background noise leads to lower scores.
But when the distraction is music, loudness does not seem to matter
much.
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(c) (1 Point) Turn in your plot with the printouts.

2. (3 Points) Averaging over distance and predator, which one emits more frequent alarm calls on average, males or females?

(a) On your printout, circle the F statistic. Write the question number (2a) beside it. ($F = 14.82$)

(b) On your printout, circle the $p$value. Write the question number (2b) beside it. ($p = 0.0003$)

(c) Are the results statistically significant? Answer Yes or No. Write your answer here. (Yes)

(d) Describe the results in plain, non-statistical language.

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Males emit more frequent alarm calls on average.
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**Please turn in both log files, both list files *and the mean plot* with the quiz.
Make sure your name is on each document**.