Statistics 147: Exam II Checklist Summer 2020

NOTE:

- ♣ The exam will be given at the following date and times in Olmh 1316:
  - ♠ **Part 1, SAS: Wednesday, July 24, 2020**
    - ◇ 1:10 pm - 2:45 pm (Submission Time: 2:45 pm - 3:00 pm)
  - ♠ **Part 2, R: Wednesday, July 24, 2020**
    - ◇ 3:10 pm - 4:45 pm (Submission Time: 4:45 pm - 5:00 pm)
- ♣ Be sure to bring a virus free working flash drive with you to the exam.
- ♣ Any material covered so far in the course may be included on the exam. You may use your course materials, but do not count on having much time to look through them!
- ♣ All data files are located on Blackboard under **Course Materials → Exam I Information, Data Files and Solutions**.

  `dogdiet.dat` `dogjudge.dat`

R Portion	
Description	**Completed**
Write R code for exam day. Be sure to include titles: Statistics 147 Exam II, Part 2: R Summer 2020 Your name Question X (where X = question number) Part T (where T = subpart number)	
Change the working directory to the folder that contain your datafiles, then read in and print out the following data files: **dogdiet.dat** ,**dogjudge.dat**	
Don't forget the *stack*, *attach*, *tables*, *cbind* and *names* functions	
Tests for a single mean, two means (independent samples, including equal variances test and test of means), paired-difference t-test	
One-Way ANOVA (including normality test, equality of variances test, equality of means test, and multiple comparisons (Tukey's test using confidence interval or p-value methods))	

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SAS Portion	
Description	**Completed**
Write SAS program to be opened on exam day. Be sure to include titles and options statements: Statistics 147 Exam II, Part 1: SAS Summer 2020 Your name Question X (where X = question number) Part T (where T = subpart number)	
Change the working directory to the folder that contains your data files.	
Read in and print out data file **dogdiet.dat** (using nested DO Loops) NOTE: Data begins on Line 3. There are 8 rows and 3 columns of actual data.	
Be able to use IF-THEN-ELSE structures	
Be able to use IF structures to subset data	
Read in and print out data file **dogjudge.dat** (DO NOT use DO Loops) Actual data starts on line 3. There are 11 rows of actual data.	
Don't forget the *set*, *firstobs*, *obs* and *formdlim* commands	
Be able to use the *ods select TestsForLocation* and the *ods select TestsForNormality* commands	
Write code to perform ANOVA tests (normality test, equality of variances, equality of means and multiple comparisons (Tukey's or Fisher's LSD test: grouping method and confidence intervals method))	
Write code to perform single test of hypothesis for any dog	
Write code to perform test of hypothesis for any two dogs (including equal variances and means tests)	
Write code to perform paired difference t-tests	

NOTE: Include the following options/goptions:

```
/* Set up format of the output */
options nocenter ps = 55 nocenter ls = 78 nodate nonumber formdlim='*';
 /* ls = linesize,  ps = pagesize
           nocenter      justifies the output so it is not centered on the page
           nodate        suppresses printing of today's date on each page of output
           nonumber      suppresses printing of page number on each page of output
           formdlim      overrides the internal page breaks and replaces them
                            with the designated symbol*/

/* Add line of code to clear all windows except the editor window */
DM log "odsresults; clear; out; clear; log; clear;";
ods graphics off;
/* goptions   formats the plot
                    colors   colors to use
                    ftitle   font of the plot title
                    ftext    font of the text in the plot (except the title)
                    htitle   height of the title
                    htext     height of text on the plot (except the title)
*/
goptions reset = all colors= (blue,red,green,purple)
       ftitle = swissb ftext=swissb htitle=1.5 htext = 1.0;
```