University of Puerto Rico at Aguadilla
Department of Mathematics
Applied Statistics I
Examination I

Name _____

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Section: _____

Instructions: Please solve each one of the exercises of the possible clearest form. Make an interpretation of the numerical results.

Part I. Value 24pts
Mach the answers.

1. Population

   a. characteristics of the individual to be measured or observed

2. Random sample

   b. Organizing, summarizing, and graphing information from populations or samples.

3. Parameter

   c. Using information from a sample to draw conclusions about a population

4. Statistic

   d. Each member of the population has an equal chance of being selected.

5. Census

   e. is a numerical measure that describes a aspect of the sample

6. Data

   f. Divide the entire population into pre-existing segments, select a random sample of segments all member of the segment select form the sampling form the sample.

7. Variable

   g. Number all members of the population sequentially. Then from a starting point selected at random, include every kth member of the population in the sample.

8. Cluster Sampling

   h. is a numerical value that describes a aspect of the population

9. Stratified sampling

   i. Divide the entire population into distinct groups. For each group select a random sample.

10. Systematic sampling.

    j. List of all elements in a population.

11. Descriptive statistic

    k. including all people or items with the characteristic one wishes to understand

12. Inferential statistic

    l. refers to qualitative or quantitative attributes of a variable or set of variables.

Part II. Value 70pts

In Minitab open the following worksheet C:\\programs files\minitab\english\sample data\marriage.MTW

1. Use the variable Marriage to constructs a boxplot by hand. It's allow to use Minitab to order the data. Please to give an analysis.

2. Use Minitab to create a histogram of the percent of divorce (Divorce).

3. Calculate the descriptive statistics for the Marriage and Divorce (Use Minitab).

4. Witch have the most variability, Marriage or Divorce.

5. In your biology class, your final grade is based on several things: a lab score, scores on two major tests, and your score on the final exam. There are 100 points available for each score. However, the lab score is worth 18% of your total grade, each major test is worth 24.5%, and the final exam is worth 33%. Compute the weighted average for the following scores: 74 on the lab, 63 on the first major test, 93 on the second major test, and 63 on the final exam. (Enter your answer to one decimal place.)

6. Look at the following graph is there any difference. This are four kind of carpet compare with durability.

Boxplot of Durability
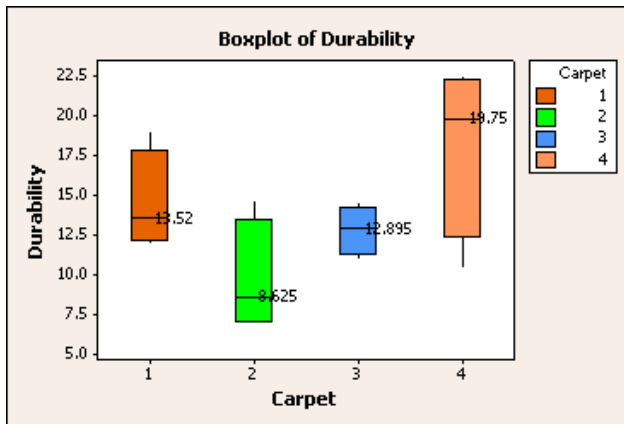
7. How long did *real* cowboys live? One answer may be found in the book *The Last Cowboys* by Connie Brooks (University of New Mexico Press). This delightful book presents a thoughtful sociological study of cowboys in West Texas and Southeastern New Mexico around the year 1890. A sample of 32 cowboys gave the following years of longevity:

58 52 68 86 72 66 97 89 84 91 91

92 66 68 87 86 73 61 70 75 72 73

85 84 90 57 77 76 84 93 58 47

(a) Make a stem-and-leaf display for these data for the longevity of cowboys.

Bonus: (10 pts)
Answer the following questions of the reading **"The Power of the Modal Bacter"**

a) Why we live in the Age of the bacterias?

b) Describe how human appear in the distribution of evolution?

c) How the standard deviation explains the appearance of the human?

d) If we repeat this process again, did you think our species would appear?

e) In the Demon Haunted World, Carl Sagan said that our education system fails Mr. Buckley interest in sciences. Explain your opinion.