Quiz 1
STT 200
January 21, 2014

Directions: The quiz will be worth 16 total points. There is only one correct answer per question. The quiz consists of both sides of this paper (front and back). The quiz will be broken into two parts (part I is on the front and part II is on the back).

Part I: There are five multiple choice questions. Answer all five questions. Each question is worth two points. The total points possible in part I is ten. Enter your answer in the blank on the right.

1) Suppose the Phillies and Tigers are going to play four baseball games against one another. In any given game the probability the Phillies win the game is 54%. Thus, the probability the Tigers win the game is 46%. Let the numbers 00-53 represent a win for the Phillies. Use the random digits generated below to simulate the outcomes of the four game baseball series between the Phillies and Tigers. Let 'P' stand for a Phillies win and let 'T' stand for a Tigers win. Start from the left to begin your simulation.

31 494 73 194 03 015 02 200 60 227 43 367 27 581


Answer(1): ______

2) Suppose 300 students from MSU are selected to complete a survey. We refer to this group of 300 as a

a) Population    b) Statistic    c) Parameter    d) Sample

Answer(2): ______

3) Blood type, (A, B, AB, O), is an example of what type of variable?

a) Quantitative    b) Ordinal    c) Mixed    d) Categorical

Answer(3): ______

4) There are 30 problems across 4 pages in Chapter 12 and 45 problems across 4 pages in chapter 13. The professor wants to construct homework based on chapters 12 and 13. Identify the sampling method used if the professor picks 4 problems from the 30 in chapter 12 and picks 6 problems from the 45 in chapter 13.

a) Simple Random Sample    b) Stratified Sample    c) Systematic Sample    d) Cluster Sample

Answer(4): ______

5) There are 30 problems across 4 pages in Chapter 12 and 45 problems across 4 pages in chapter 13. The professor wants to construct homework based on chapters 12 and 13. Identify the sampling method used if the professor picks a problem at random and then picks every fifth problem going forward.

a) Simple Random Sample    b) Stratified Sample    c) Systematic Sample    d) Cluster Sample

Answer(5): ______
Part II: There are six true/false questions. Answer all six questions. Each question is worth one point. The total points possible in part II is six. Enter your answer in the blank on the right. It is sufficient to write 'T' if the statement/claim is true and 'F' if the statement/claim is false.

(1) A sample is used to make inferences about a population. Answer(1): T

(2) Some variables can be treated as categorical or quantitative depending on their context. Answer(2): T

(3) The four principles of experimental design include: randomization, replication, control, and blocking. Answer(3): T

(4) A simulation represents what will happen. Answer(4): F

(5) A retrospective study is a special case of an observational study. Answer(5): T

(6) Characteristics recorded about each case/individual in a study are called variables. Answer(6): T