**Intro to Experimental Design**

**Type in your score here 🡪 \_\_46\_\_ out of 46 points possible**

1. (5 points) Ponder/Reflect Exercise – Reflect on what you have learned from this portion of the class. Examples of what you can do are: a brief outline of material covered, insights you gained from class or personal study, or items you feel that you need to follow up or work on. (3-5 sentences)

Experiments are set up with 3 different things. The material, the treatment, and the response. There are also 4 units, ordinal, nominal, interval, ratio. I think I need to continue to work out the material, treatment and response.

1a. (3 Points) Problem 1.3, pg. 34 in book

Chance error, bias, Chance Error

1b. (4 Points) Problem 1.4, pg. 35 in book (0.5 Points for each part)

False, False, True, True, True, False, False, True

1c. (4 Points) Problem 1.5, pg. 35 in book

3, -2 -1 0 1 2, 0, 2 and B

1d. (2 Points) Problem 1.6 a and b only, pp. 35 in book

More likely to get bigger fish but less likely to get smaller fish.

You will get those who read the NY Times and not those who don’t.

1e. (2 Points) Problem 1.8, pg. 36 in book

Protects against bias and allows for statistical analysis that requires you to randomize.

2a. (1 Point) Problem A3, pg. 109 in book

Response- number of words recalled

Conditions – Concrete and abstract words.

Material- The subjects who tried to recall the words.

2b. (1 Point) Problem A5, pg. 109 in book

Response- Dry weight of plants.

Conditions – Different Levels of d.s and D.i

Material – Cups of seeds.

2c. (1 Point) Problem A6, pg. 109 in book

Response – Looking at a group of numbers and amount of numbers recalled

Conditions – Students and non- students.

Material – People in the study.

2d. (1 Point) Problem A8, pg. 109 in book

Response – Number of Moths

Conditions- The two types of controlling moths.

Material- Moths

2e. (1 Point) Problem A9, pg. 109 in book

Response – Number of birds at feeding area.

Conditions – Model of small hawk vs no model.

Material - birds

3a. (2 Points) Problem B1, pg. 116 in book

Ratio, Nominal, Ratio, Ordinal

3b. (2 Points) Problem B4, pg. 116 in book

Vertical perimeter, Ratio

3c. (1 Point) Problem B8, pg. 117 in book

2

3d. (1 Point) Problem B10, pg. 117 in book

1

3e. (1 Point) Problem B11, pg. 117 in book

2

3f. (2 Points) Problem B14, pg. 118 in book

Mustard seed, there is less variability in mustard seeds vs lead shots.

4a. (2 Points) Problem C2, pg. 124 in book

Younger, older, age

4b. (2 Points) Problem C3, pg. 124 in book

Population size, more populated.

5a. (2 Points) Problem D2, pg. 128 in book

Chance error smaller for first set , No way to tell.

5b. (2 Points) Problem D3, pg. 128 in book

No way to tell  
Bias small for first set

6a. (4 Points) Problem 1.14, pg. 36 in book

Block- a pair of students

Blocks- one student

**DON’T FORGET TO SCORE YOUR HOMEWORK AT THE TOP**