**Intro to Experimental Design**

**Type in your score here 🡪 \_\_\_\_ out of 47 points possible**

**Based on the following reading material in your book:**

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

**a) Chance error b) bias c) Chance error**

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

**a)F b)F c)T d)T e)T f)F g)F h)T**

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

**a) 3 b) -2, -1, 0, 1, 2 c)0 d)2 and B**

1d. (3 Points) Problem 1.6, pp. 35-36 in book

**a) With one inch holes, you will get bigger fish but less likely to get smaller fish**

**b) You will get people who read the NY times but not those who don’t read the NY times.**

**c) You will get more of a sample of young trees since young trees are more bunched together than old trees.**

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

**1) Protects against bias, and 2) allows you to do a 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 the Plants**

**Conditions – Different Levls of D.s. and D.i.**

**Material – Cups with Seeds**

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

**Response – After looking at a list of 30 random names, the number of names recalled**

**Conditions – People who watch a BYU football game and those who don’t (any activity that could involve stress/anxiety)**

**Material – People in the study**

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

**Response – # of Gypsy moths left**

**Conditions – Two types of methods for controlling gyspy moths**

**Material – Gyspy Moths**

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

**Response – Number of birds present in feeding area**

**Conditions – Presence of a model of a small hawk vs. nothing**

**Material – birds**

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

**a) Ratio b) Nominal c)Ratio d) Ordinal**

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

**The vertical perimeter of the egg, which would be Ratio**

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

**Response 2**

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

**Response 1**

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

**Response 2**

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

**a) Mustard Seeds b) Lead shots were not as pliable as mustard seeds. There is less variability in pliability in mustard seeds vs lead shots**

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

**a) younger, b)older, c)age**

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

**a) population size, b)more populated**

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

1. **Chance error smaller for First set of subjects**
2. **Bias smaller for second set of subjects**

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

1. **No way to tell**
2. **Bias smaller for first set of subjects**

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

1. **Block - a pair of students Unit – One student**
2. **Blocks - one student Unit – One student**

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