**Chapter 2 Poisson Distribution**

1. In what situation would you use Poisson Distribution?

D. Looking at a Number of events in a Specific Area or Time

1. For which of these would NOT be a Poisson Distribution?

C. Temperature outside *(Because you are not specifying a window of time or an area for the data, you cannot use Poisson distribution)*

**Examples of Poisson Distribution are :**

-Number of Cattle on a 30 Acre Land

-Number of cars in a drive-thru in 2 hours

-Number of snowflakes on your windshield

**Chapter 3 Exponential Distribution**

1.What is the difference between Poisson Distribution and Exponential distribution.

B. The Poisson Distribution uses a discrete outcome, and exponential uses a continuous outcome

**Chapter 4 The Bath tub Curve**

1. When a **product** suffers from a **high infant mortality rate**, what does that mean?

C. It means the product has a lot of failures immediately after manufacturing.

1. If you are a manufacturer looking at the bathtub curve,, what amount of time for a warranty makes more sense?

B. Right before the curve starts to increase steeply on the right side.

**Chapter 5 Chi-Square Distribution**

1. When would you use Chi-Square Distribution?

C. When you want to compare the sample to the population but you have categorical data.

**Chapter 6 Conducting Chi-Squares**

1. What does “independent”, mean in the context of Chi-Squares?

C. The variables do not depend on each other

1. How do you calculate the Degrees of Freedom?
2. (Number of rows -1) \* (Number of columns-1)
3. Which of the following is Not a requirement for Chi-Squared?
4. Normality
5. What is the Null hypothesis of the Chi-Square
6. Rows and Columns are independent of each other.

Chapter 7

PART 2 TEST OF LESSON 7 IS SIMILAR TO LESSON 8 PART CHAPTER 7

**Part 2 - Report on All the Steps of Hypothesis Testing**

* State the null and alternative hypothesis.
* Calculate the test statistic, degrees of freedom, and *p*-value of the hypothesis test.
* Assess the statistical significance by comparing the *p*-value to the α-level.
* Draw a correct conclusion for the hypothesis test.

Your answers should be contained within the spreadsheet.

Please follow the steps of hypothesis testing below, using an α-level cut-off of .05 to indicate significance.

Steps of Hypothesis Testing:

* State the null and alternative hypothesis.
* Check the requirements for the hypothesis test
* Calculate the test statistic, degrees of freedom, and p-value of the hypothesis test.
* Assess the statistical significance by comparing the p-value to the α-level.
* Draw a correct conclusion for the hypothesis test.