The following work is expressing my take on the following examples for each specific section regarding the topic covered. This is my understanding of what I have understood from reading the chapter and previous knowledge by writing a paragraph showing how to perform and resolve each example.

5.1 This problem they want us to build a hypothesis test that would represent the problem of comparing two set of data. To do this we have to subtract the mean of both set of data to determine the differential by setting up the data Ho: (averagefirst – averagesecond) = 0; Ha (averagefirst – averagesecond) < 0 the reason less than is because they want one tail or the data less than the other set to be proven.

5.2 For this problem they want us to describe the type of error there are for the problem we just did above. First we have to understand there are 2 types of errors. Type one error in general context we are rejecting the null or Ho when the null is true meaning we rejected the null when we should not. For type II error would be that we did not reject the null and is false in other words we did not reject when we had to reject.

5.3 This problem they gave us Ho and Ha and the level of significance for each part a-d. We have to find z critical value and they want us to solve the rejection region to do this same process for each problem we just need to take into consideration that only part a is two tail so we have to split the significance level by two the other are one tail, and when we are looking for the critical value we have make sure the greater than or less than sign to see if they want the negative or positive probability. After we get the probability from the z table we can see is the types of error can occur trying to solve the problem.

5.4 This is a scenario problem where we are comparing two set of data for par a. we have to construct the test because we were not given a value we will use zero Ho: meanfirst-meansecond = 0; Ha: the alternative will be less than 0. Fort part b they gave us a sample size and a level of significance, we have to describe part a. So we use the level of significance as the Z to find the critical value probability in the table then df=n-1 after we have that we can say that type I error could occur with the probability that we have. For part c. so we can conclude the bigger the sample size the alternative or rejection are will decrease making it harder to reject our null.

5.5 This problem they want us to refer to problem 5.1 and assume the following they gave us a p-value and a level of significance and they want us to state our conclusion. We can see depending on the case we could say that p-value is less than the critical value or greater in this case is less so that would cause evidence to reject the null, otherwise if it was a different scenario we would say the opposite.

5.6 For this problem they gave part a-c with the same question different variable they want us to specify the tstat and the rejection region. They gave us Ho: = a number, Ha <> or≠ a number, xbar, S^2= a number and also the level of significance with that information we to solve all three parts we first have to figure out if it is one tail or two tail and we know if Ha≠ to a number is two tail the other would be one tail after we know that we will use that number and look at the probability table to the probability value. Next we will compute tstat= xbar-mew divided by std dev. divided sqrootn of the sample size and we would find the rejection region and the tstat like this.

5.7 This scenario they gave us the sample size, xbar, std dev., level of significance and they want mean greater than a number. Ho: = X and Ha: > X; df: =n-1 and we also have to find the level of significance in the probability table ant they want the positive side because this problem is one sided. Then we have to find tstat by using = (xbar-mean)/ (std dev. / sqrootn n from that result we can decide if reject or don’t reject the null.

5.8 This problem we use the same outline as problem 3.1. First thing is to set up our Ho: meanfirst-meansecond=0 Ha: meanfirst-meansecond≠0 so this is a two tail problem. Then using the level of confidence we can determine the rejection zone also call Ha. Next step will be using tstat formula = (xbarfirst-xbarsecond)/sqroot(s^2first/nfirst + S^2second/nsecond) the number that come out will use it to see if it fall in the rejection region and it does for this scenario so we have to reject the null. For part b. they change the sample size we will have to 1- the confidence level and get a the z value df=2(n-1) we will get a different probability value then we have to use the formula (X1bar - X2bar)/ √1/n (s1^2+s2^2) the out of this function that number fall in the rejection zone so we also have to reject the null.

5.9 For this problem they gave us D= a number, Sd= a number, for part a and b they gave us n,Ho and Ha and the level of significance. The process will be the same for both parts the only different is the outcome of the hypothesis test and values. First thing we will do is to find the probability value from the table using the level of significance to get z, next df=n-1 last part is the formula of tstat= (dbar - D0)/ (sd/√n) we will get a value from there we can determine to reject or not to reject the null. Remember in this problem we are comparing to set of data.

5.10 For this problem they gave us a print of data and for part a. they want us to locate tstat and interpret the value, tstat = this number having this value we can determine if we should reject or not reject the null by checking the range of rejection. For part b. they want us to locate the p-value of the tstat and interpret its value depending how big or small is the tolerated rejection zone we can see if Ho will have a big chance probability of rejection or not.

5.11 This problem they gave us they gave us Ho: = a number, Ha <> or≠ a number, n, and also the level of significance. To solve part a-d will be the same process. Get df from n-1 and the critical value x^2 remember one are two tail and other are one tail it all depends what sign Ha has, then having the probability value from the table z we can demine the rejection conditions.

5.12 This problem we have to find F significance they gave us the numerator and denominator of df. For problem a-c they gave is the level of significance and we would check or acquire the answer from the F-Table.

5.13 This problem we are comparing two set of values and two n to solve this is a two tail where Ho= a number and Ha ≠ Ho problem we first have to find Tstat for F by using the formula Larger s2/ Smaller s2 having that value and find df (n-1) df of the numerator then we can see if we should reject or not reject the null, for this problem we will reject the null because f falls in the rejection region corresponding to the level of significance that express how much we tolerate we can conclude the comparison of the set of data.