**MTH 1210 Lab 6 Answer Sheet**

## Part A

[**Copy and paste the side-by-side boxplots here**]

**Question 1.** Give the numerical value of the **estimate**  of the true (unknown) difference μ1 - μ2 between the population mean moisture contents.

**Question 2.** Based on the estimate, which type of food appears to have the higher mean moisture content, and by how much?

**Question 3.** State the appropriate **null and alternative hypotheses** *H*0 and *H*a in terms of μ1 and μ2, the true (unknown) mean moisture contents in the populations.

**Question 4.** Give the value of the **two-mean t test** **statistic**.

**Question 5.** Give **the p-value** of the test.

**Question 6.** Using the level of significance **α = 0.05**, is there a statistically significant difference between mean moisture contents for the two food types? If so, which food type has the higher mean moisture content?

## Part B

[**Copy and paste the side-by-side boxplots here**]

**Question 1.** State the appropriate **null and alternative hypotheses** *H*0 and *H*a in terms of μ1 and μ2, the true (unknown) population mean test results using the book and DVD.

**Question 2.** Give the value of the **paired t test statistic**.

**Question 3.** Give the numerical **p-value** of the test.

**Question 4.** Using the level of significance **α=0.05**, based on the resulting p-value, is there a statistically significant difference between the test results for the two methods?