

## ISyE 6739 – Group Activity 1

Names:

**Problem 1:** The PH of a solution is measured 8 times by one operator using the same instrument. The measurement are as follows: 7.15, 6.50, 7.18, 7.19, 7.21, 7.20, 7.16, and 7.18.

- a) Calculate the sample mean, median, mode, variance, standard deviation, range, the 25<sup>th</sup> percentile, interquartile range and coefficient of variation.
- b) Plot a boxplot for this data set by hand.

**Problem 2:** The “mpg\_data” dataset concerns city-cycle fuel consumption in miles per gallon along with 3 multivalued discrete and 5 continuous attributes. Define three questions and use appropriate graphical tools (three separate tools) to analyze this data and answers the questions. Write down your interpretation.