**CHEM525 Experiment 1 Prelab Questions: Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. (2 points) List and describe the chemical basis for the 5 spectrophotometric methods of protein quantitation. Compare and contrast two of the methods.
2. (2 points) Using the following data, generate a standard curve and determine the equation of the best fit line, the r2 value and the CV values for the samples. Would you be able to use these data if you obtained them today? Why or why not?

|  |  |
| --- | --- |
| BSA Conc (mg/ml) | Absorbance at 595 nm |
| 0 | 0.00001 | 0.00001 | 0.00001 |
| 0.2 | 0.24 | 0.25 | 0.25 |
| 0.4 | 0.44 | 0.5 | 0.55 |
| 0.6 | 0.65 | 0.66 | 0.676 |
| 0.8 | 0.91 | 0.92 | 0.911 |
| 1 | 1.25 | 1.3 | 1.35 |

1. (6 points) In your laboratory notebook, write out the procedure you will use in the laboratory this week for the determination of protein concentration. Be certain to include tables for the preparation of samples AND the recording/analysis of data.