**SPSS Practical 6:**

**Part A:**

The following data were randomly selected from a sales record, where denote age, in years, and denote sales price, in hundreds of dollars.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Item Number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|  | 6 | 6 | 6 | 4 | 2 | 5 | 4 | 5 | 1 | 2 |
|  | 125 | 115 | 130 | 160 | 219 | 150 | 190 | 163 | 260 | 260 |

**Answer the following questions:**

1. Use a graph to determine if there is any possible linear relationship between & .
2. Run a Pearson’s test to verify your answer in Part (a).
3. Compute the covariance between and .
4. Determine the regression equation for the data.
5. Compute and interpret the coefficient of determination, .
6. Find the predicted sales price when .
7. Find the predicted age when the sales price is $15,000.

**Part B:**

By using the R Program, compute the following questions: (same dataset as Part A).

1. Graph the data in a scatterplot to determine any possible linear relationship.
2. Compute covariance and Pearson’s correlation coefficient.
3. Determine the regression equation for the data.
4. Compute and interpret the coefficient of determination, .
5. Perform Pearson, Spearman and Kendall test.