**Question 1**

Use the “Regression” function in Excel and (the data) of Visits: 3, 5, 4, 2, 1, 3, 6, 7, 4, 5, 10, 1, 2, 3, 8

Age 28, 45, 50, 19, 16, 27, 54, 63, 32, 42, 68, 19, 23, 30, 61, to estimate the linear relation between

the number of visits and the age of the patient. Examine the results of the analysis by

1. Interpreting the coefficient of determination

2. Interpreting the square root of the coefficient of determination

3. Interpreting findings presented in the ANOVA table

4. Determining whether the intercept and slope of the sample regression line are significant

**Question 2**

A large health maintenance organization is interested in the prescribing patterns of physicians.

Suppose that we selected a random sample of three patients treated for four diagnoses by

three physicians.

Physician

Diagnosis A B C

1 11, 7, 9 8, 6, 7 5, 4, 7

2 14, 10, 11 10, 9, 8 6, 8, 7

3 4, 5, 3 5, 5, 6 3, 4, 2

4 10, 9, 7 6, 7, 4 5, 6, 3

If \_ 0.05, determine whether differences among the treatment, block, and interactive effects are

significant.