Multiple Regression Scoring Rubric

1. a) 10 points: 4 points for clearly labeled boxplots

6 points for comparing the five distributions – shape, center, spread

b) 4 points: 2 points for the correlation matrix

2 points for discussion on these correlations

c) 8 points: 4 points for the scatterplots (4 plots)

4 points for the discussion of form, direction and strength of each scatterplot

1. a – d) 12 points Run each of the four regression models, provide the output and the

two residual plots for each model.

3. a) 10 points Complete the table below using the information from #2 parts a-d

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Model1** | Intercept | Standard errors | t-stat | p-value | r^2 adjusted |
| Intercept |  |  |  |  |  |
| GINI |  |  |  |  |  |
| **Model2** |  |  |  |  |  |
| Intercept |  |  |  |  |  |
| GINI |  |  |  |  |  |
| Life |  |  |  |  |  |
| **Model 3** |  |  |  |  |  |
| Intercept |  |  |  |  |  |
| GINI |  |  |  |  |  |
| Life |  |  |  |  |  |
| Democracy |  |  |  |  |  |
| **Model 4** |  |  |  |  |  |
| Intercept |  |  |  |  |  |
| GINI |  |  |  |  |  |
| Life |  |  |  |  |  |
| Democracy |  |  |  |  |  |
| Corrupt |  |  |  |  |  |

b) 6 points: Write a SHORT summary describing the differences between the four models.

c) 10 points: 3 points: Suggest another model using all the information about this data set

such as p-values, correlation, etc.

2 point: Run that model. Provide output.

5 points: Write a short summary to compare this new model with the other one

and explain which model you would use to explain LSI.