Question One

(10 points) Sixteen patients with advanced stomach carcinoma were randomized to receive one of two chemotherapies (Group A or Group B). The survival times from treatment (in weeks) are (+ denotes a censored observation):

Group A: 63+, 59+, 57+, 40, 37, 33, 21+, 11

Group B: 57+, 51+, 44+, 32, 27, 27+, 10+, 6

Obtain:

1. Obtain Kaplan Meier estimates by hand. Compare your results with stata (or R) output
2. Construct the K-M plot very roughly
3. What are the possible reasons why some observations were censored?
4. Three tests have been proposed to compare survival curves. Discuss them
5. Using logrank test, show whether there was a difference in survival curves for the two groups

Question Two

The data (provided in the attachment) were obtained from TB patients receiving treatment in various facilities.

1. Prepare the data for analysis (hint: use stata and/or excel and/or R)
2. Obtain the Kaplan-Meier estimates of survival, separately for HIV positive and HIV Negative patients
3. Perform the cox PH model with sex being the only explanatory variable. What null hypothesis is being tested in this output? Interpret your results (hint: use stata and/or R)
4. Perform the cox PH model with all explanatory variable. Interpret your results(hint: use stata and/or R)