



ENGG 141  
TEST #1  
11 October 1997  
Room ED 388

TIME- 1:00 P.M. to 2:15 P.M. (1 hr 15 min.)

This is an open book test but only the text book and calculator may be used. No other notes or assignments are permitted.

Do the three questions shown. The questions are all taken from the class text by Riley and Sturges. This is the assigned textbook. Please refer to the textbook because the diagrams in the book may be much clearer than the photocopies would be. I do have a limited number of photocopies available and I will give them to you on request. **Note :** The exam will be marked on methods as well as answers following the rules as outline at the start of the class. Make sure that you show all work and that your logic is clear and that you use clear large diagrams. Marks will be deducted for poor logic and poor problem solving techniques. Good luck.

1. Do problem number 13-24 on page 31.  
25%

2. Do problem number 13-74 on page 43.  
35%

3. Do problem number 14-95 on page 145 but change  $\theta$  from  $75^\circ$  to  $70^\circ$ .  
40%

30.9  
8.3  
 $6.47 \times 10^{-2}$   
 $1.12 \times 10^{-3}$