Exercise ON CH 2: Propositional Logic

1. Translate the following English sentences into propositional logic, clearly identifying your elementary
   clauses. Answer: Let n = "I will go", p = "you will go", q = "It will rain soon", r = "Crop will fail",
   s = "I drink too much", t = "I pass out", u = "I do something outrageous", v = "cats allowed",
   w = "dogs allowed", x = "I will go to tomorrow's lecture", y ="I go with my friend",
   z = "My friend talks to me during the lecture", a = "I concentrate on the subject",
   b = "there is smoke", c = "there is fire".

a. I won't go without you
b. Unless it rains soon the crop will fail.
c. It is not true that there's no smoke without fire.
d. If I drink too much I either pass out or do something outrageous

2.Symbolize the following statements using the symbolization key provided.

A: Ali will make dinner
B: Bedah will make dinner
C: Chin will make lunch
D: Daud will make lunch

E: Ela exercises regularly
F: Faiz is getting fat
G: Faiz jogs regularly

a) Ela will exercise regularly on the condition that Faiz jogs regularly.

b) Either Ali will make dinner while Chin will make lunch or Bedah will make dinner while Daud will make lunch.

c) Assuming that Faiz does not jog regularly, he is getting fat.

d) Bedah will make dinner and either Chin or Daud will make lunch.

e) Ali will make dinner if and only if Bedah will.