ECE 5362 – Homework 4

1. a) It can’t be done in 1 clock cycle since T5 first needs to be negated

b) Can’t be done in 1 cycle since T2 needs to first be put into T1

c) ib, p1, iq

d) oq, ib, comp

e) Can’t be done in 1 cycle since it is 2s complement

f) Can’t be done in 1 cycle since it is 2s complement

g) ot4, it2, ot3, rac = 1, rn = 1

h) Can’t be done in 1 cycle since one of the values needs to be stored before overwriting one of the registers

i) Subtraction can’t be done in 1 cycle

j) ia, oadder, ot2, it4

k) Can’t remove value from IR

l) write, ia, p1, rac = 1, rn = 0, it5

2.