

CSE-111 Great Ideas in Computer Science
Summer 2009, HW2

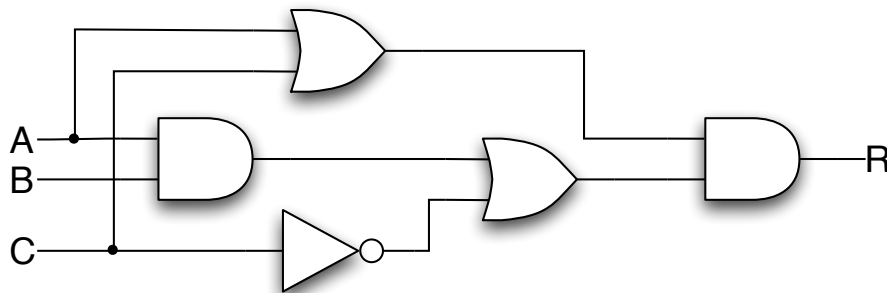
Albert Y. C. Chen

05/27/2009 – 06/01/2009

1. What is the result (R) of the following digital circuit if the inputs (A, B, C) are as follows:
(10%each)

(a) $A = 1, B = 0, C = 1$?

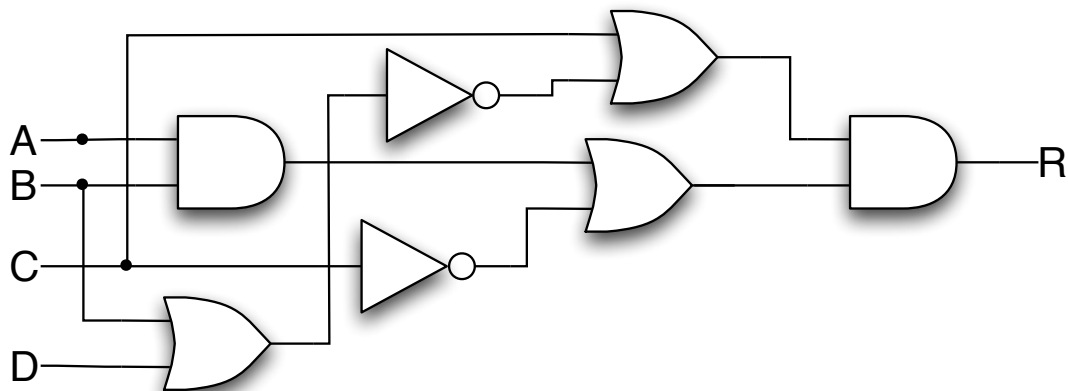
(b) $A = 0, B = 1, C = 1$?



2. What is the result (R) of the following digital circuit if the inputs (A, B, C) are as follows:
(10%each)

(a) $A = 1, B = 1, C = 1, D = 0$?

(b) $A = 0, B = 1, C = 1, D = 0$?



5. Given a boolean expression $R = (\overline{D} + A) \cdot \overline{B} \cdot C$, what is the result when $A = 0, B = 0, C = 1, D = 0$? (10%)