

Name _____ Student ID _____ Colleges & Schools _____ Department _____

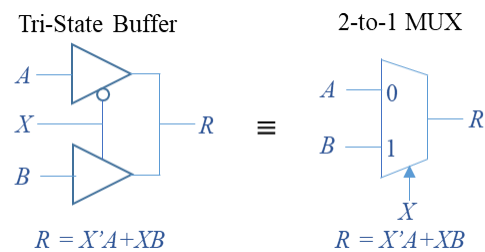
Quiz Unit 9

1. (a) Implement the following function using three 2-to-1 MUXes.

$$R = ab'h' + bch' + eg'h + fgh$$

- (b) Repeat using three tri-state buffers.

(Hint: Use the equivalence relationship between multiplex and tri-state buffer shown below.)



Sol.)

$$R = ab'h' + bch' + eg'h + fgh = h'(ab' + bc) + h(eg' + fg)$$

$$= h'[(a)b' + (c)b] + h[(e)g' + (f)g]$$

