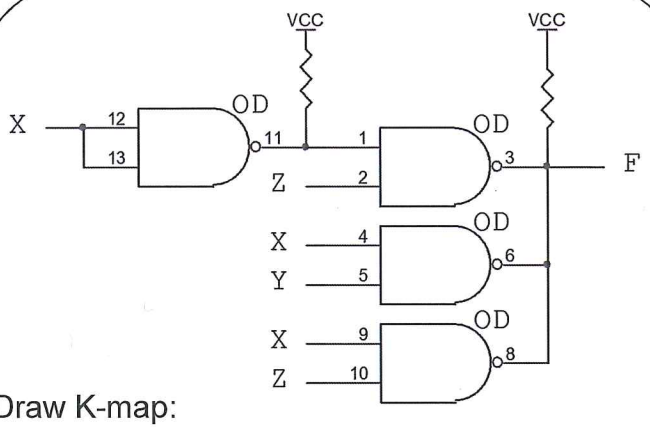
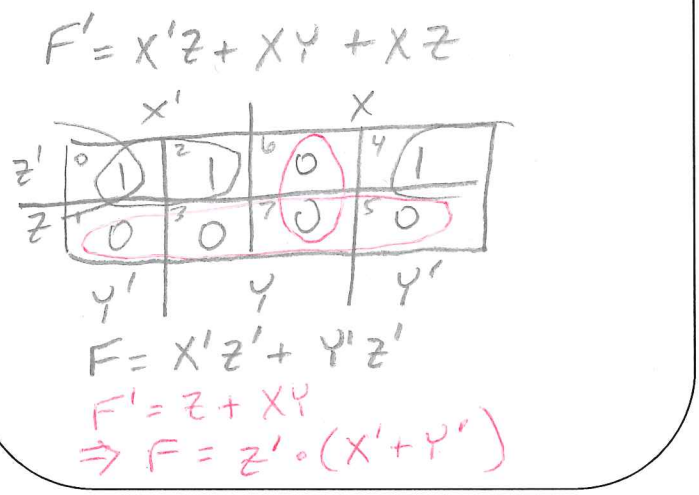
Practice Quiz 6

Closed Book and Notes – No Calculators Allowed

1. The **ON-SET** of the function realized by this circuit is:
   (A) $\sum_{X,Y,Z}(0,2,4)$
   (B) $\sum_{X,Y,Z}(3,5,7)$
   (C) $\sum_{X,Y,Z}(1,3,5,6,7)$
   (D) $\sum_{X,Y,Z}(0,1,2,4,6)$
   (E) none of the above



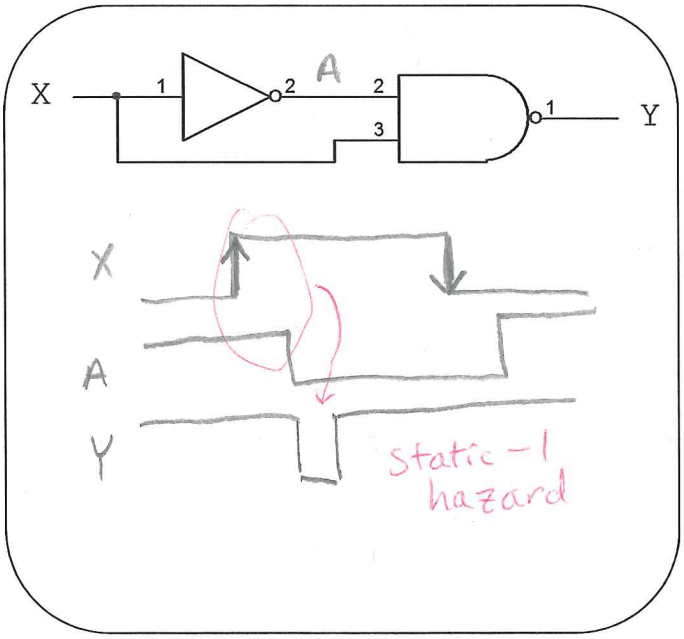
Draw K-map:



2. Expressed in minimum **sum-of-products** form, the function realized by this circuit is:
   (A) $X\cdot Y + X\cdot Z + X'\cdot Z$
   (B) $X'\cdot Z' + Y'\cdot Z'$
   (C) $Y\cdot Z' + Y'\cdot Z' + X'\cdot Y'$
   (D) $Z + X\cdot Y$
   (E) none of the above

3. Expressed in minimum **product-of-sums** form, the function realized by this circuit is:
   (A) $(X+Z)\cdot(Y+Z)$
   (B) $(X'+Y')\cdot(X+Y)\cdot(Y+Z')$
   (C) $Z'\cdot(X'+Y')$
   (D) $(X'+Z')\cdot(Y'+Z')$
   (E) none of the above

4. The circuit shown exhibits the **following type of hazard** when its input, X, transitions from **low-to-high**:
   (A) a static-zero hazard
   (B) a static-one hazard
   (C) a dynamic hazard
   (D) a minterm hazard
   (E) none of the above



5. The circuit shown exhibits the **following type of hazard** when its input, X, transitions from **high-to-low**:
   (A) a static-zero hazard
   (B) a static-one hazard
   (C) a dynamic hazard
   (D) a minterm hazard
   (E) none of the above