

DeMorgan's Theorem

Part A

$$F_{(A,B,C)} = \overline{(\overline{A} + \overline{B})} + \overline{(A + B)} + \overline{(B + \overline{C})}$$

$$F_{(A,B,C)} = \overline{(\overline{AB})} \overline{(\overline{A} \overline{B})} \overline{(\overline{BC})}$$

Part B

$$Out = \overline{A(B + C)} + D$$