

CSE260 ASSIGNMENT 2

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SECTION: 06

Assignment 2

$$u(u(x' + x) + u(x' + x))$$

$$= u(x' + x) + u(x' + x)$$

$$= u(x' + x) + u(x' + x)$$

$$= (x' + x)(u(x' + x) + u(x' + x))$$

$$= \cancel{u(u(x' + x))}$$

$$= \cancel{u(x' + x)}$$

$$= (1)[u(x' + x)]$$

$$= (1)[u(x' + x)]$$

$$= u(x' + x)$$

$$= u(x' + x) \text{ (Ans)}$$

$$[u(x' + x) + u(x' + x) = u(x' + x)]$$

$$[x' + x = 1]$$

$$[(x' + x)^2 = (x' + x)(x' + x)]$$

$$\begin{aligned}
 \text{b) } & (u' + v')(u + v) \\
 &= (u'.u) + (u'.v) + (v'.u) + (v'.v) \\
 &= 0 + (u'.v) + (v'.u) + 0 \\
 &= u'.v + v'.u \quad (\text{Ans})
 \end{aligned}$$

$$[u, u'] = 0, [v, v'] = 0$$

$$\begin{aligned}
 \text{c) } & (a' + b')(a + b') \\
 &= (a''.b') (a'.b'') \\
 &= (a.b')(a'.b) \\
 &= (a.a')(b.b') \\
 &= 0, 0 \\
 &= 0 \quad (\text{Ans})
 \end{aligned}$$

$$[(a' + b)' = a''.b'], [(a + b')' = a''.b'']$$

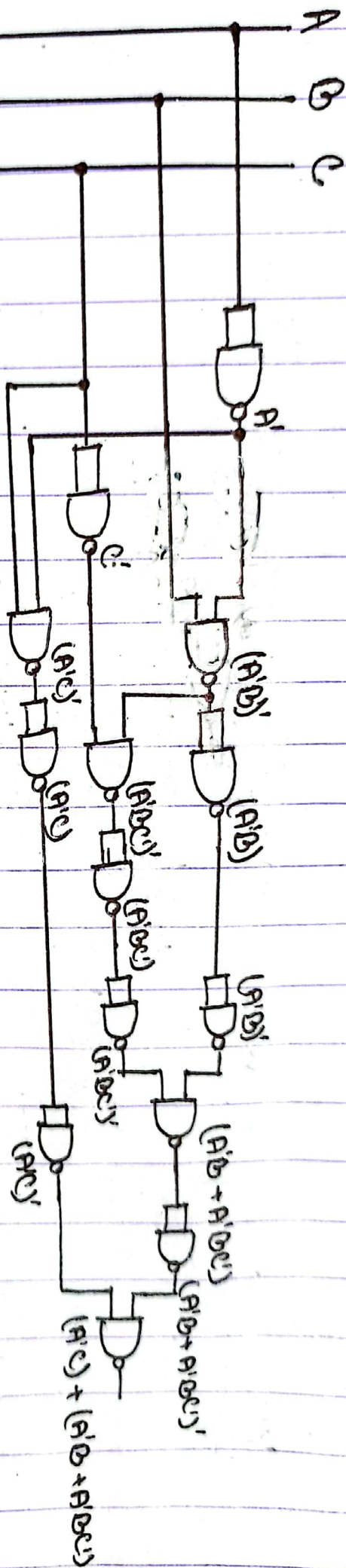
$$[a, a'] = 0, [b, b'] = 0$$

$$\begin{aligned}
 (2) (a) \quad & x'u' + xu' \\
 & = (u' + u')(x + u') \\
 & = (x + u)(x' + u') \quad \underline{\underline{(Ans)}}
 \end{aligned}$$

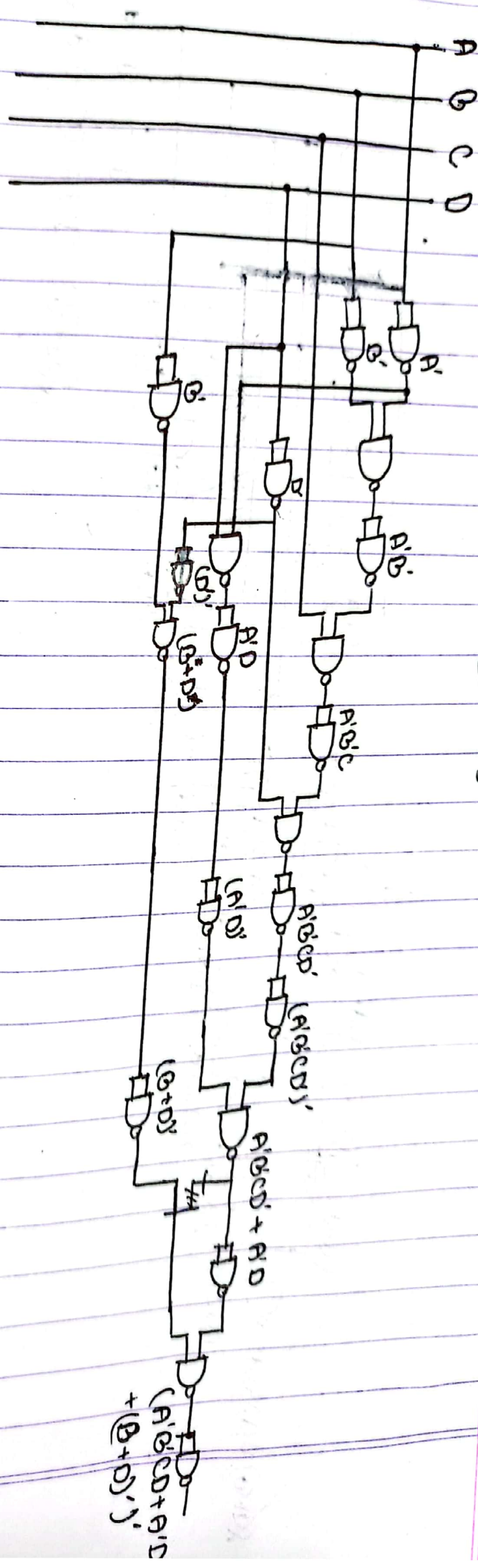
$$\begin{aligned}
 (b) \quad & (x' + u + z')(x' + u')(x + z') \\
 & = (x'u'z') + (x'u') + (xz') \\
 & = (xu'z') + (xu) + (x'z') \quad \underline{\underline{(Ans)}}
 \end{aligned}$$

$$[x + x' = (Ans)]$$

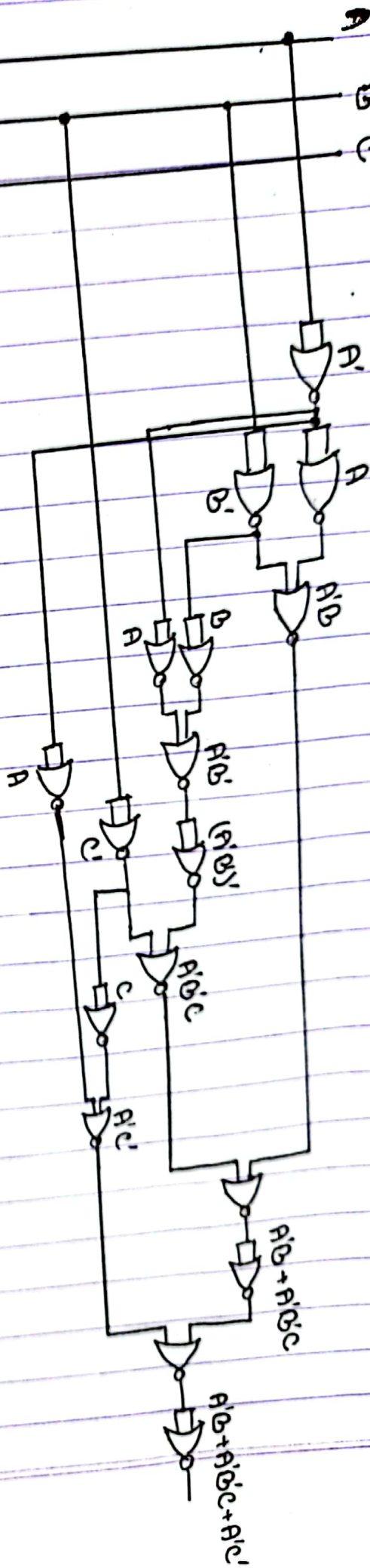
கூடுதலாக, $F = AB + A'BC' + A'BC + A'C$



ക്രമം F(A,B,C,D) = (A'B'C'D + A'D + B'D + C'D)'



ആദ്യം $F(A,B,C) = A'B + A'BC + A'C$



$$F(A, B, C, D) = (A'B'C'D + AD + (B+D'))'$$

