
CSE260 Assignment 2

SECTION 14
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Ans: to: que: no: 1

$$1) a) x'y'z' + x'yz + xyz + x'yz'$$

$$= x'y'z' + x'yz + xyz$$

$$= x'y(z' + z) + xyz$$

$$= x'y + xyz$$

$$= y(x' + xz)$$

$$= y(x' + x)(x' + z)$$

$$= y(x' + z)$$

$$b) (x' + y')(x + y)$$

$$= xx' + x'y + xy' + yy'$$

$$= x'y + xy' + 0$$

$$= x'y + xy'$$

$$c) (a' + b)'(a + b)'$$

$$= ((a')' + (b)') \cdot ((a) + (b)')$$

$$= (a)' \cdot (b)' \cdot (a)' \cdot (b)'$$

$$= a \cdot b' \cdot a' \cdot b$$

$$= 0$$

Ans: to que: no: 2

$$\begin{aligned} 2] a) F &= x'y' + xy' \\ &= y'(x' + x) \\ &= y' \end{aligned}$$

After complementing F we get,

$$F' = y \quad (\text{Ans})$$

$$2] b) F = (x' + y + z')(x' + y')(x + z')$$

After complementing F we get,

$$F' = ((x' + y + z')(x' + y')(x + z'))'$$

$$= (x' + y + z')' + (x' + y')' + (x + z')'$$

$$= xy'z + xy + x'z$$

$$= x(y + y'z) + x'z$$

$$= x(y + z) + x'z$$

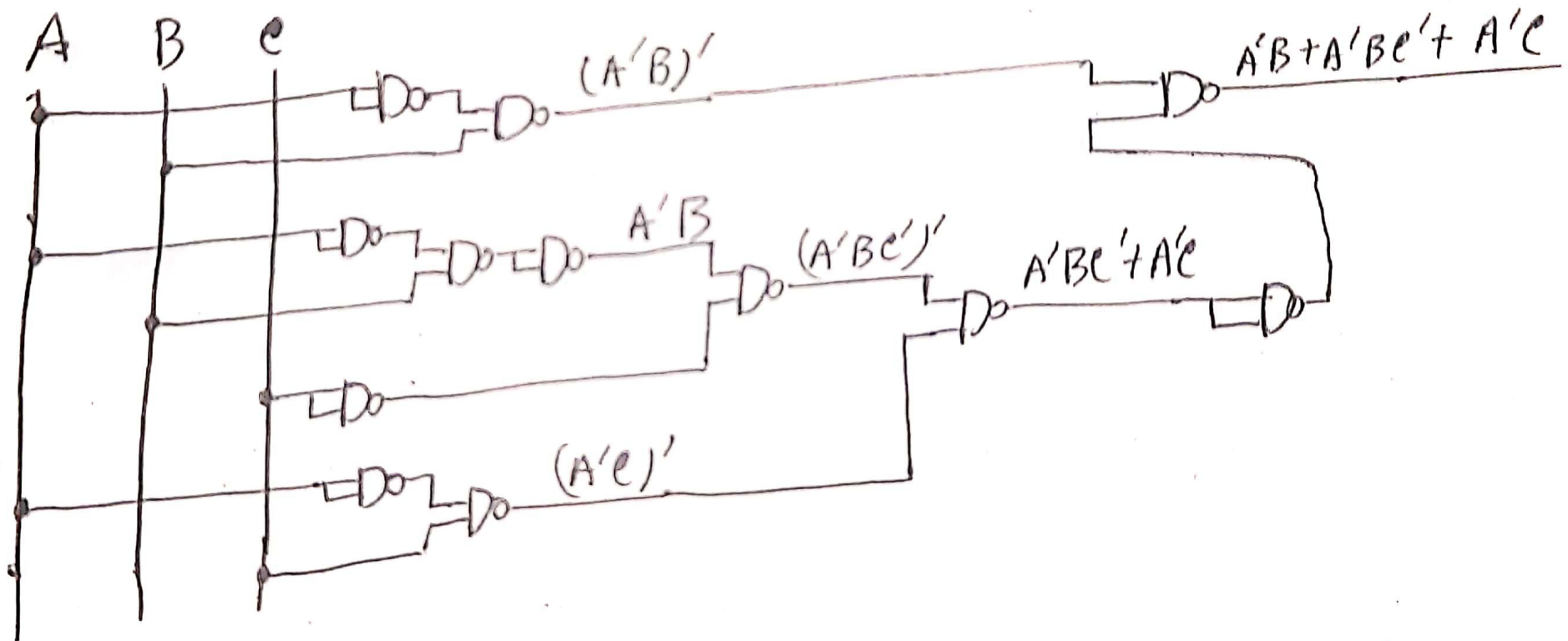
$$= xy + xz + x'z$$

$$= xy + z(x + x')$$

$$= xy + z \quad (\text{Ans})$$

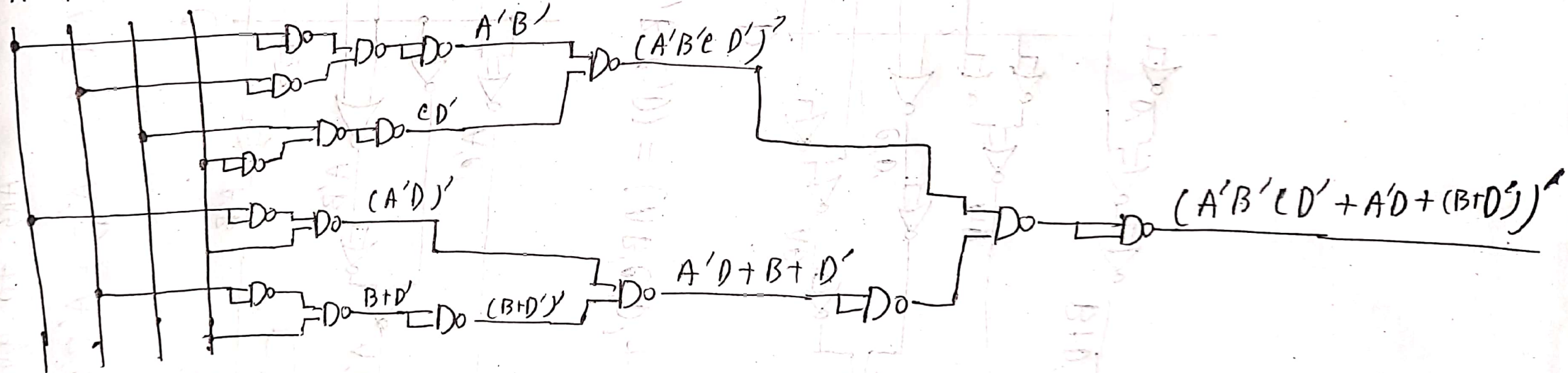
Ans: to: que: no: 3

3] a) $F(A, B, C) = A'B + A'Be' + A'e$



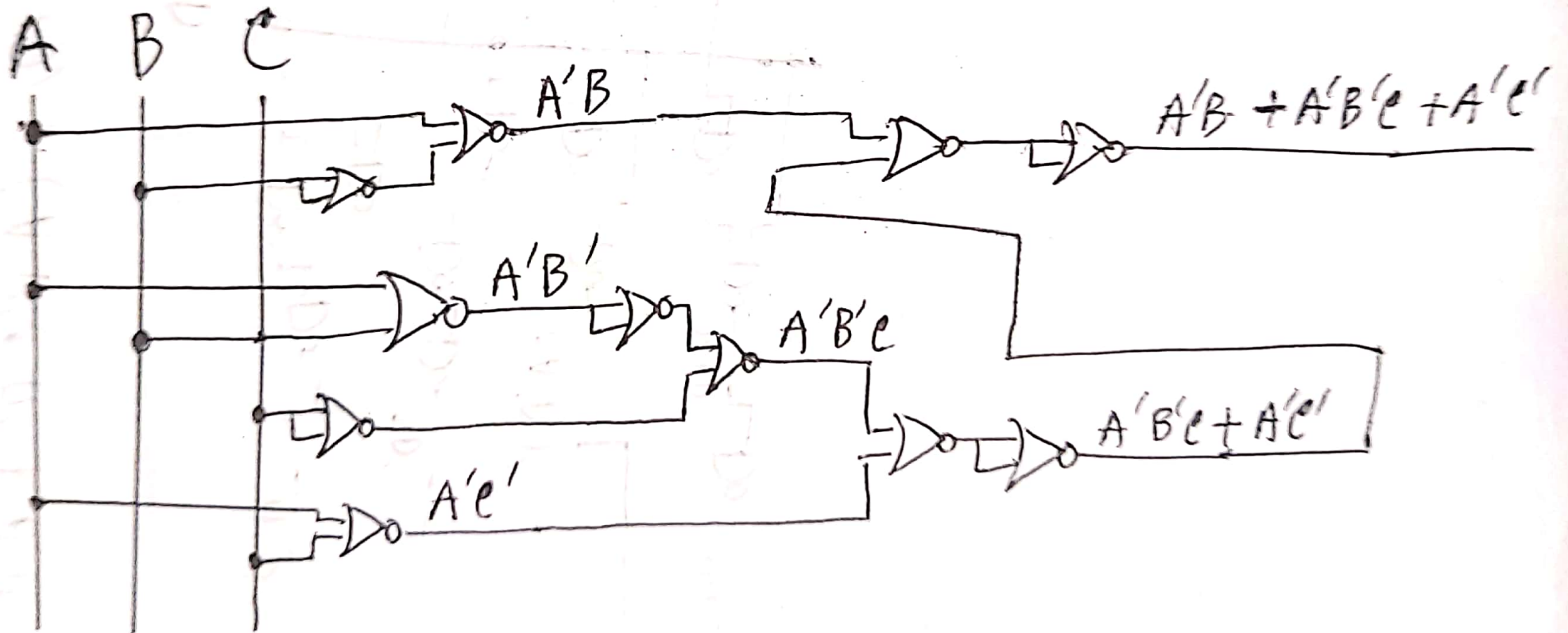
$$b) F(A, B, C, D) = (A'B'CD' + A'D + (B+D'))'$$

A B C D



Ans: fo: que: no: 4

Q1a] $F(A, B, C) = A'B + A'B'C + A'C'$



4b) $F(A, B, C, D) = (AB'C'D' + AD + (B + D'))'$

