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ID:

15434

Name:

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Computer Science

Assignment #:

4

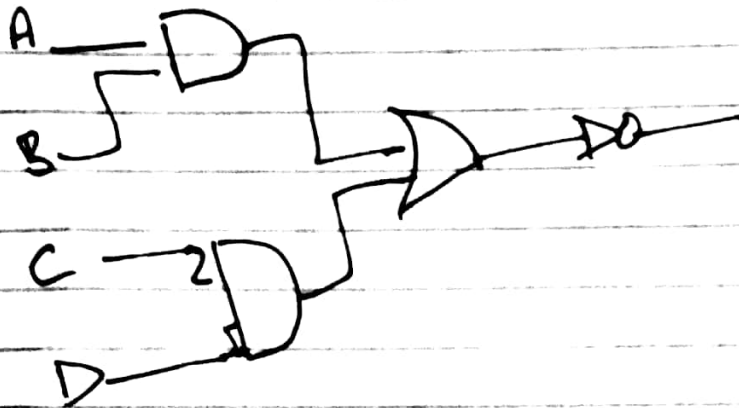
Submitted To:

Sir Muhammad Amin

Q1)
Sol:.

$$X = (\bar{A}B) + (\bar{A}CD) + (BD\bar{B}).$$

Q2)



$$\overline{AB+CD} = (\bar{A} + \bar{B})(\bar{C} + \bar{D})$$

Q3)

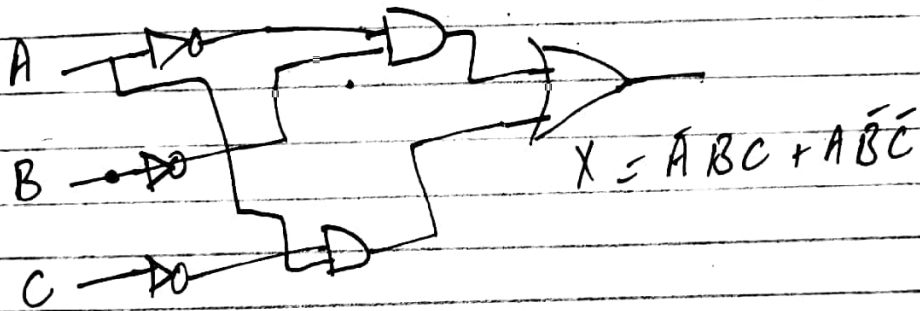
A	B	C	D	X
0	0	0	0	0
0	0	0	1	0
0	0	1	0	0
0	0	1	1	1
0	1	0	0	0
0	1	0	1	1
0	1	1	0	1
0	1	1	1	0

(3)

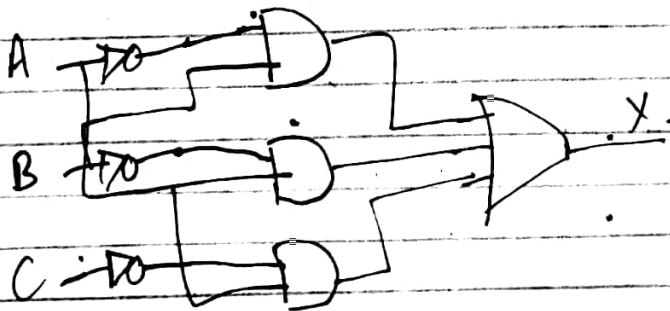
(04)

A	B	C	D	Product Term
0	1	1	0	$\bar{A}BCD$
1	0	1	1	$A\bar{B}CD$
1	1	0	1	$AB\bar{C}D$
1	1	1	0	$AB\bar{C}\bar{D}$

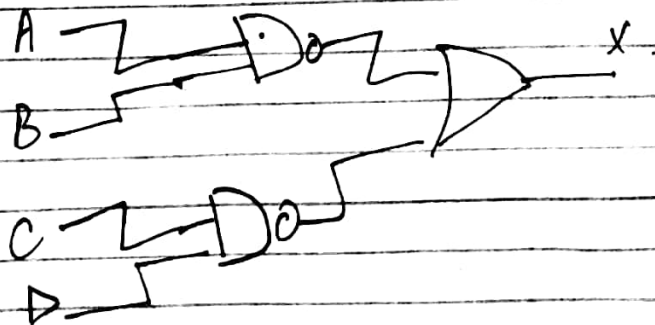
(05)



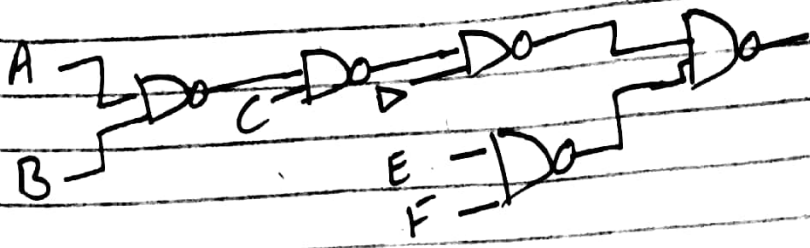
(06)



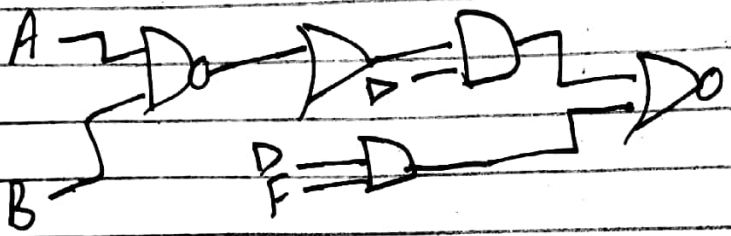
(07)



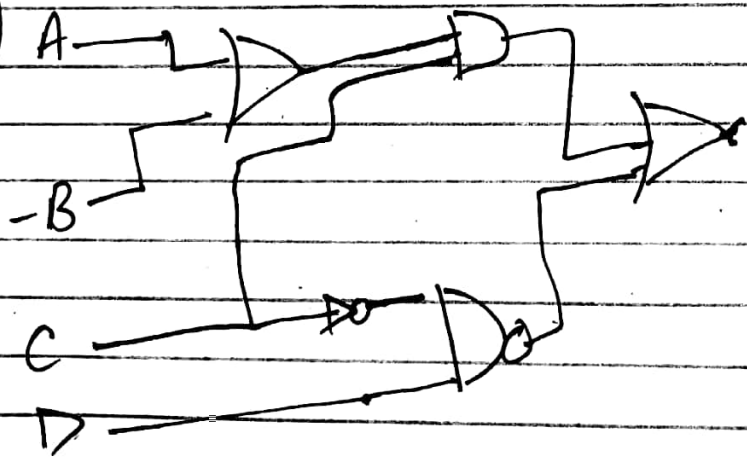
(8)



(9)

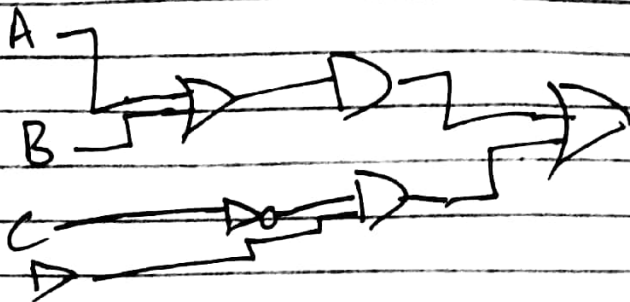


(10)



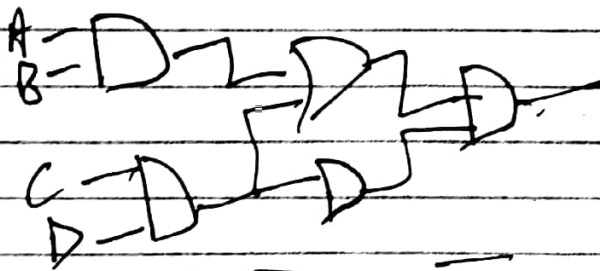
$$X = (\overline{A+B})C + \overline{C}D = (\overline{A+B})C + \overline{C}D = \overline{A}C + \overline{B}C + \overline{C}D.$$

Q11



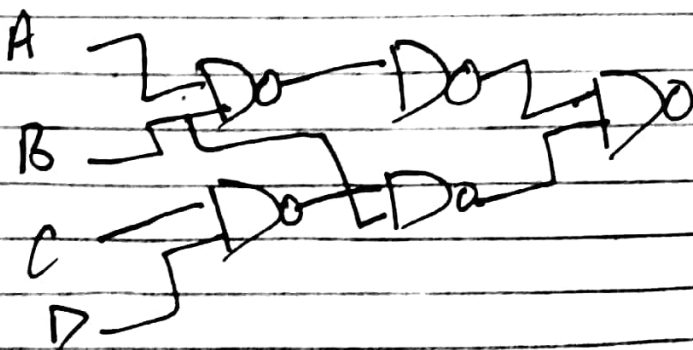
$$X = AB + \bar{A}\bar{B}$$

Q12



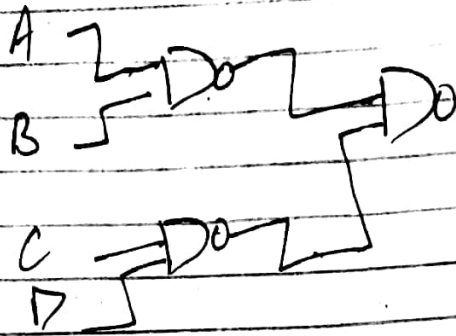
$$X = (\overline{AB + C}) \cdot (\overline{DE + F}) = (\bar{A}\bar{B} + \bar{C}) (\bar{D}\bar{E} + \bar{F})$$

Q13

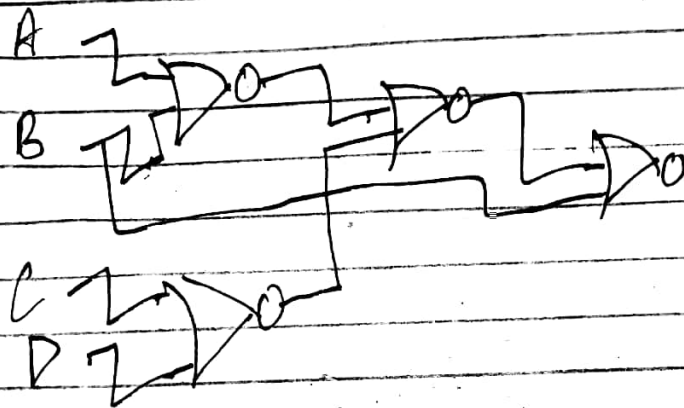


(6)

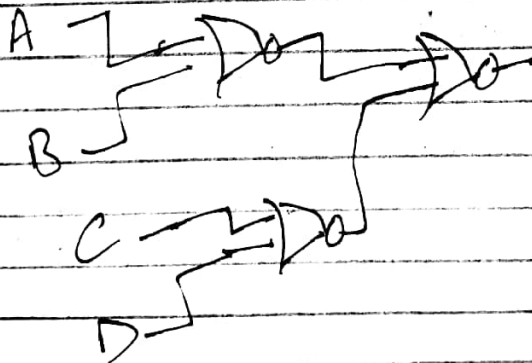
(Q14)



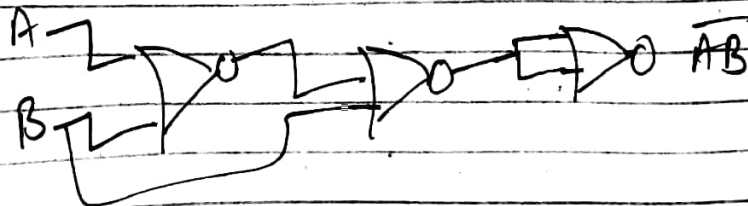
(Q15)



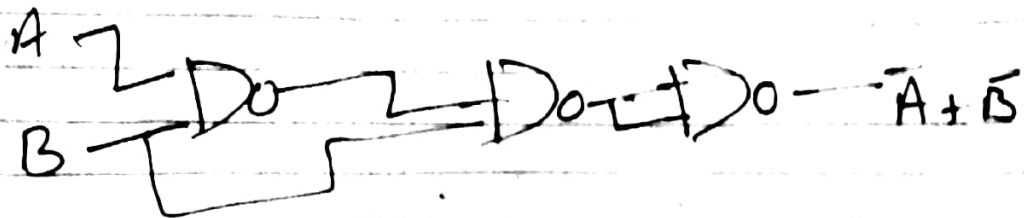
(Q16)



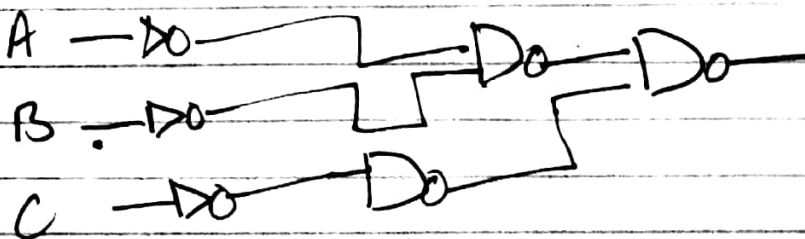
(Q17)



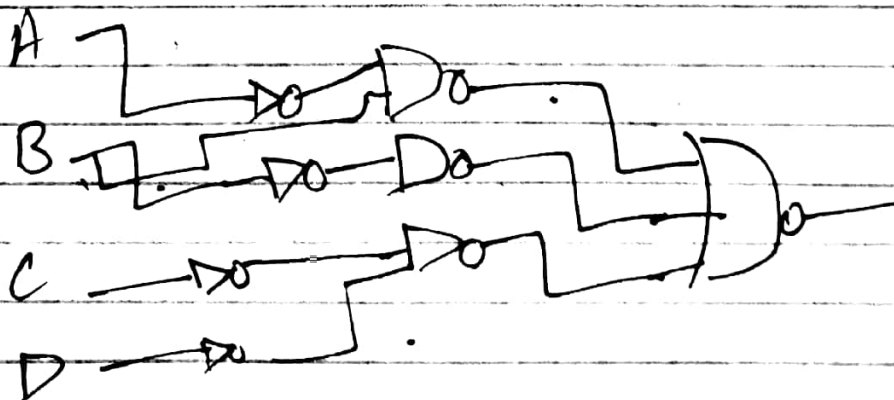
Q18



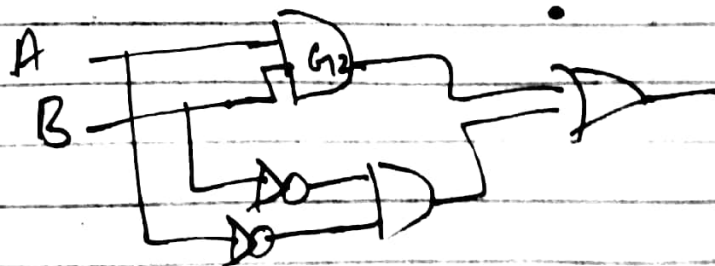
Q19



Q20

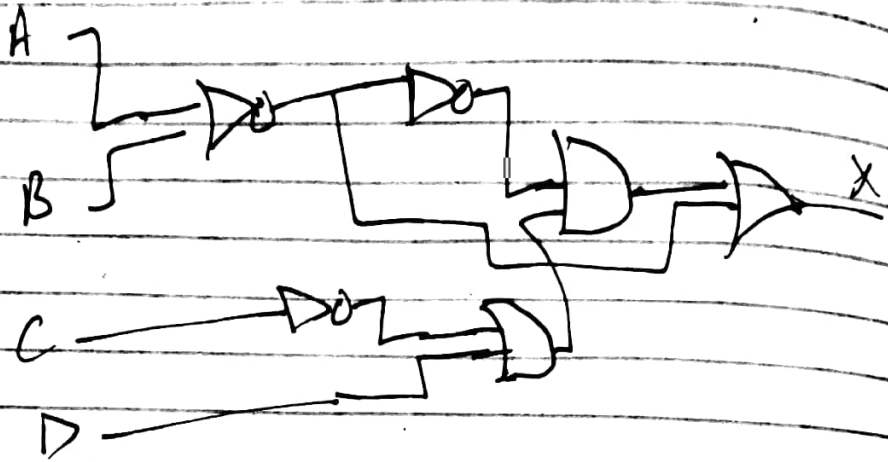


Q21

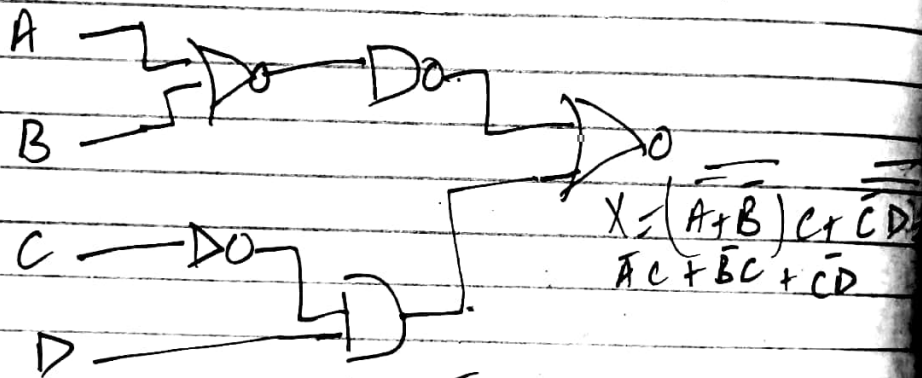


8

22



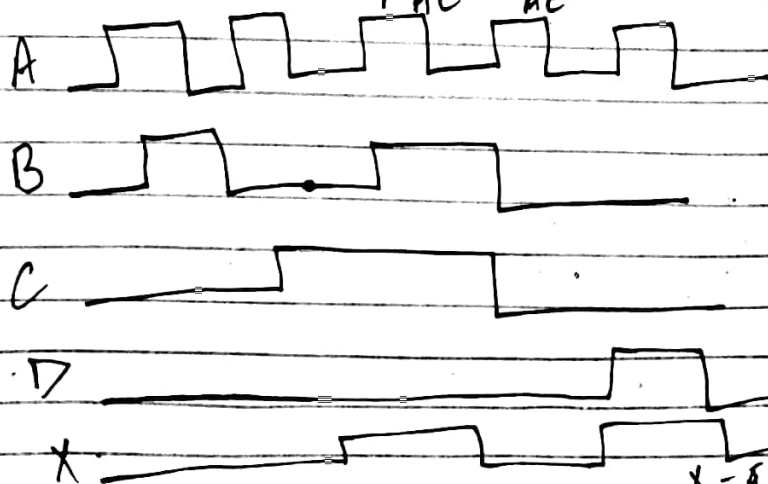
23



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

$$\overline{A}C + \overline{B}C + \overline{C}D$$

24



$$X = AC + BC$$