Discrete Math   Section 11.1   page 1

Homework   part B

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Rev Ex. 7-9 all - See Back of Book

Exercise 10-14 all, 22, 23-31 odd

(11) $X_1 \vee (\overline{X_2} \wedge X_3) = 1 \vee (\overline{1} \wedge 0) = \boxed{1}$

* (13) $(X_1 \wedge (X_2 \vee (X_1 \wedge X_2))) \vee \overline{((X_1 \wedge \overline{X_2}) \vee (X_1 \wedge \overline{Y_3}))} =$
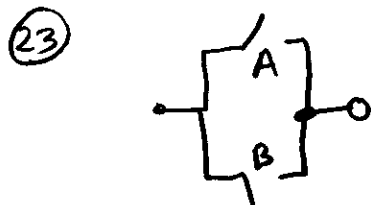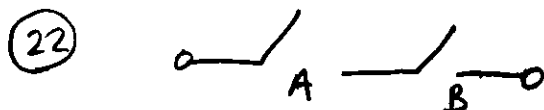
$(1 \cdot (1 + (1 \wedge 0))) + ((\cdots)) \qquad = 1 + ? = \boxed{1}$

(12) $(X_1 \wedge \overline{X_2}) \vee (X_1 \vee \overline{X_3}) = (1 \cdot 0) + (1 + 1) = \boxed{1}$

(14) $(((X_1 \wedge X_2) \vee (X_3 \wedge \overline{X_4})) \vee \overline{((X_1 \vee X_3) \wedge (\overline{X_2} \vee X_3))}) \vee (X_1 \wedge \overline{X_3})$
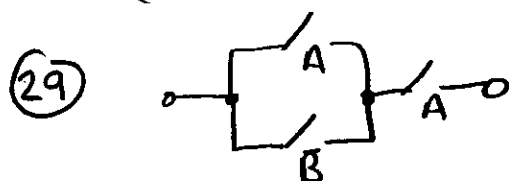
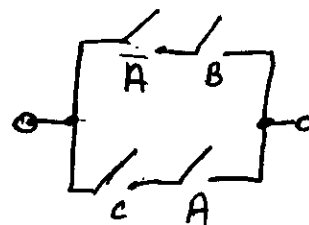$((1 \cdot 1) + (0 \cdot 0)) + ((\overline{(1+0) \cdot (0+0)}) + (1 \cdot 1)$

$1 \quad + \quad 1 + 1 = \boxed{1}$

(22)

(23)

(31)

A	B	C	
0	0	0	0
0	0	1	0
0	1	0	1
0	1	1	1
1	0	0	0
1	0	1	1
1	1	0	0
1	1	1	1

(25) $(A \wedge B) \vee (C \wedge \overline{A})$

(27) $(A \wedge (B \vee C)) \vee \overline{D}$

(29)

$(A \vee \overline{B}) \wedge A = A$

A	B	$(A \vee \overline{B}) \wedge A$
0	0	0
0	1	0
1	0	1
1	1	1