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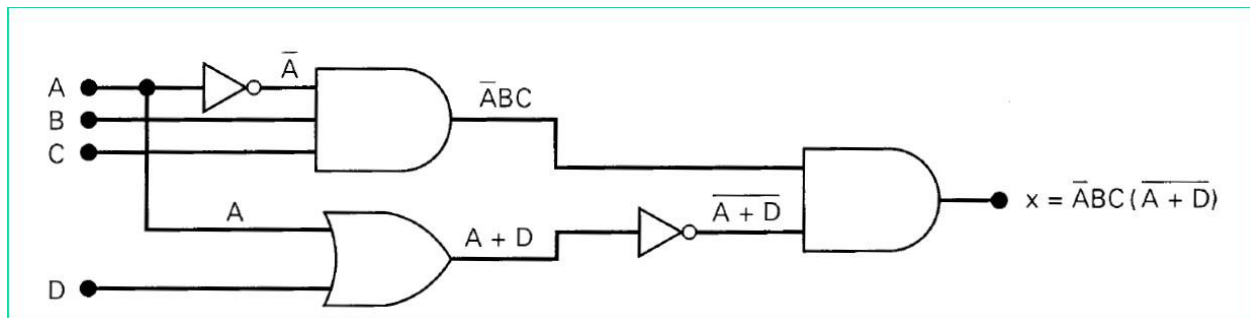
MATRIC NUMBER: 208077

DEPARTMENT: COMPUTER SCIENCE (200 Level)

COURSE: DIGITAL LOGIC DESIGN (CSC213)

Assignment

Generate the truth table for the circuit below



Solution

NOTE: "-" implies negation

A	B	C	D	-A	P= -AB	Q= PC	R= A+D	-R	X= Q(-R)
0	0	0	0	1	0	0	0	1	0
0	0	0	1	1	0	0	1	0	0
0	0	1	0	1	0	0	0	1	0
0	0	1	1	1	0	0	1	0	0
0	1	0	0	1	1	0	0	1	0
0	1	0	1	1	1	0	1	0	0
0	1	1	0	1	1	1	0	1	1
0	1	1	1	1	1	1	1	0	0
1	0	0	0	0	0	0	1	0	0
1	0	0	1	0	0	0	1	0	0
1	0	1	0	0	0	0	1	0	0
1	0	1	1	0	0	0	1	0	0
1	1	0	0	0	0	0	1	0	0
1	1	0	1	0	0	0	1	0	0
1	1	1	0	0	0	0	1	0	0
1	1	1	1	0	0	0	1	0	0