

1-a:

A	B	C	\bar{A}	\bar{C}	$\bar{A} \cdot \bar{B}$	$A \cdot \bar{C}$	$\overline{A \cdot B \cdot C}$	$\bar{A} \cdot \bar{B} + A \cdot \bar{C} + \overline{A \cdot B \cdot C}$
1	1	1	0	0	0	0	0	1
1	1	0	0	1	0	1	1	1
1	0	1	0	0	0	0	1	1
1	0	0	0	1	0	1	1	1
0	1	1	1	0	1	0	1	1
0	1	0	1	1	1	0	1	1
0	0	1	1	0	0	0	1	1
0	0	0	1	1	0	0	1	1

1-b:

A	B	C	\bar{A}	\bar{B}	$(\bar{B} + \bar{A})$	$(A + C)$	$(\bar{B} + \bar{A}) \cdot (A + C)$	$(\bar{B} + \bar{A}) \cdot (A + C)$
1	1	1	0	0	0	1	0	0
1	1	0	0	1	0	1	0	0
1	0	1	0	0	1	1	1	1
1	0	0	0	1	1	1	1	1
0	1	1	1	0	1	1	1	0
0	1	0	1	1	1	0	0	0
0	0	1	1	0	1	1	1	0
0	0	0	1	1	1	0	0	0

1-c:

A	B	C	D	\bar{A}	\bar{B}	\bar{D}	$A \cdot \bar{B} \cdot C$	$\bar{A} \cdot \bar{B}$	$\bar{A} \cdot \bar{C}$	$A \cdot \bar{D}$	$A \cdot \bar{B} \cdot \bar{C} \cdot \bar{D}$
1	1	1	1	0	0	0	0	0	0	0	0
1	1	1	0	0	0	1	0	0	0	1	0
1	1	0	1	0	0	0	0	0	1	0	0
1	1	0	0	0	0	1	0	0	1	1	0
1	0	1	1	0	1	0	1	0	0	0	0
1	0	1	0	0	1	1	1	0	0	1	0
1	0	0	1	0	1	0	0	0	1	0	0
1	0	0	0	0	1	1	0	0	1	1	0
0	1	1	1	1	0	0	0	1	1	0	0
0	1	1	0	1	0	1	0	1	1	0	0
0	1	0	1	1	0	0	0	1	1	0	0
0	1	0	0	1	0	1	0	1	1	0	0
0	0	1	1	1	1	0	0	0	1	0	0
0	0	1	0	1	1	1	0	0	1	0	0
0	0	0	1	1	1	0	0	0	1	0	0
0	0	0	0	1	1	1	0	0	1	0	0

$$A \cdot \bar{B} \cdot C + \bar{A} \cdot B + \bar{A} \cdot C + A \cdot \bar{D} + A \cdot B \cdot C \cdot D$$

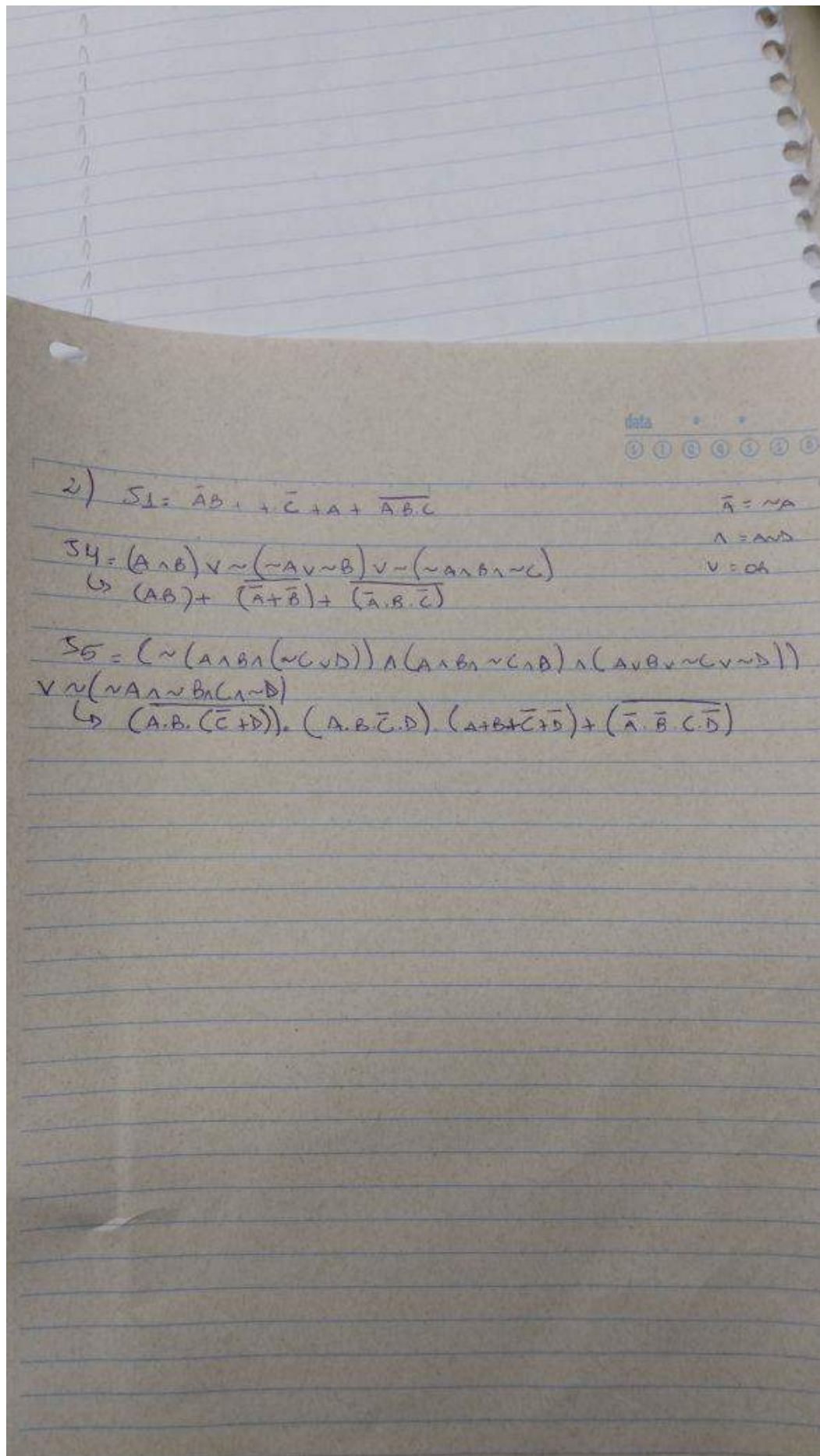
1- d:

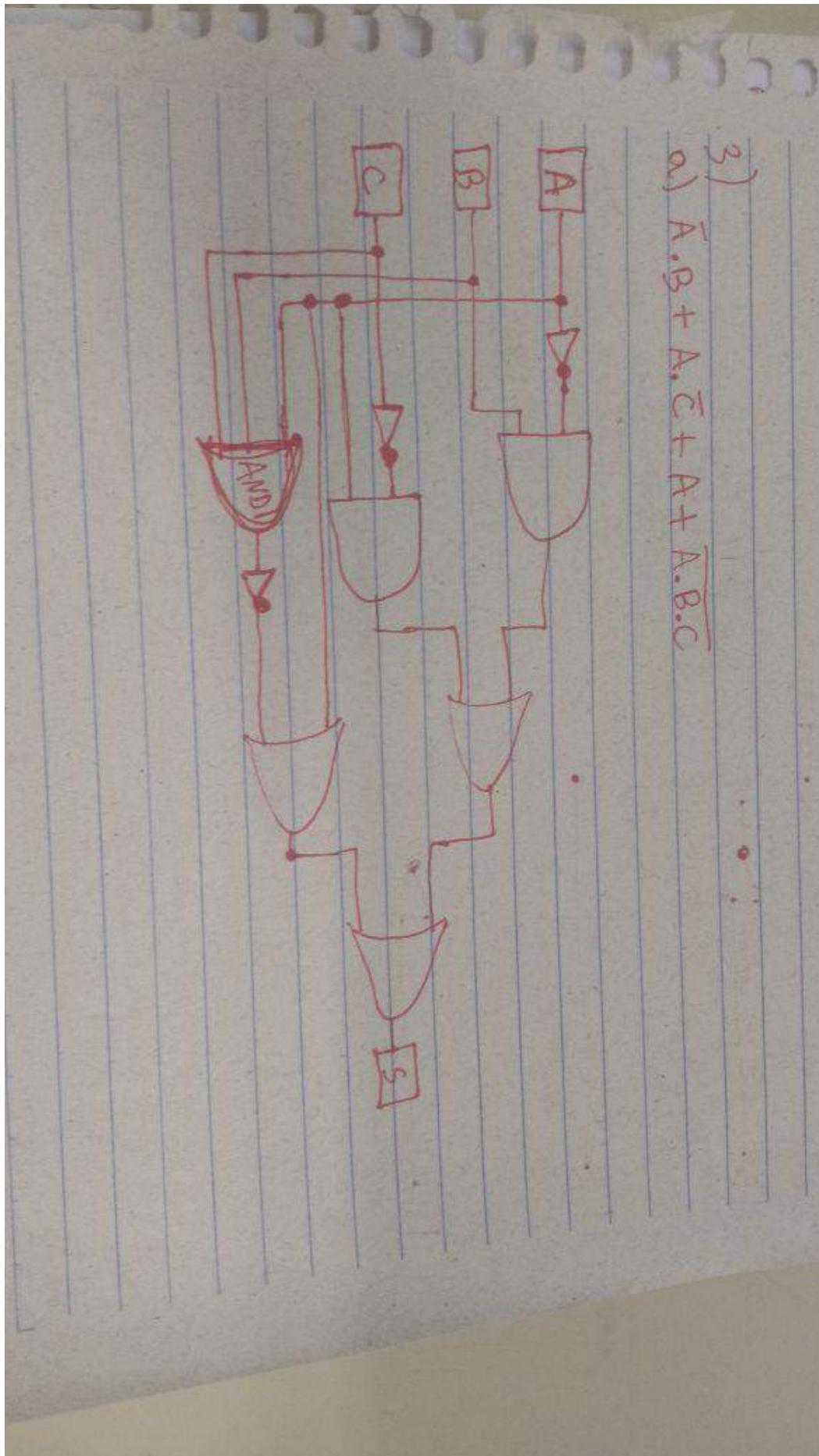
A	B	C	\overline{A}	\overline{B}	\overline{C}	$A \cdot B$	$\overline{(A+B)}$	$\overline{(A \cdot B \cdot \overline{C})}$	$(A \cdot B) + (\overline{A+B}) + (\overline{A \cdot B \cdot \overline{C}})$
1	1	1	0	0	0	1	1	1	1
1	1	0	0	0	1	1	1	1	1
1	0	1	0	1	0	0	1	1	1
1	0	0	0	1	1	0	1	1	1
0	1	1	1	0	0	0	1	1	1
0	1	0	1	0	1	0	1	1	1
0	0	1	1	1	0	0	1	1	1
0	0	0	1	1	1	0	1	1	1

3)

A	B	C	D	\bar{A}	\bar{B}	\bar{C}	\bar{D}	$A \cdot B$	$\bar{A} \cdot \bar{B}$	$\bar{C} + D$	$\bar{C} + B$	$(A \cdot B \cdot (\bar{C} + D))$
0	0	0	0	1	1	1	1	0	1	1	0	0
0	0	0	1	1	1	1	0	0	1	1	0	0
0	0	1	0	1	1	0	1	0	1	0	1	0
0	0	1	1	1	1	0	0	0	1	0	1	0
0	1	0	0	1	0	1	1	0	1	1	0	0
0	1	0	1	1	0	1	0	0	1	1	0	0
0	1	1	0	1	0	0	1	0	1	0	1	0
0	1	1	1	1	0	0	0	0	1	0	1	0
1	0	0	0	0	1	1	1	0	1	1	0	0
1	0	0	1	0	1	1	0	0	1	1	0	0
1	0	1	0	0	1	0	1	0	1	0	1	0
1	0	1	1	0	1	0	0	0	1	0	1	0
1	1	0	0	0	0	1	1	0	1	1	0	0
1	1	0	1	0	0	1	0	0	1	1	0	0
1	1	1	0	0	0	0	1	0	1	0	1	0
1	1	1	1	0	0	0	0	0	1	0	1	0

$\bar{C} \cdot D$	$(A \cdot B \cdot \bar{C})$	$A \cdot B$	$\bar{C} + B$	$(A + \bar{C} \cdot \bar{D})$	$\bar{A} \cdot \bar{B}$	$C \cdot D$	$(\bar{A} \cdot \bar{B} \cdot C \cdot \bar{D})$	Result
0	0	0	1	1	1	0	1	1
1	0	0	1	1	1	0	1	1
0	0	0	1	1	1	1	0	0
0	0	0	0	0	1	0	1	1
0	0	1	1	1	0	0	1	1
1	0	1	1	1	0	0	1	1
0	0	1	1	1	0	1	1	1
0	0	1	0	1	0	0	1	1
1	0	1	1	1	0	0	1	1
0	0	1	1	1	0	1	1	1
0	0	1	0	1	0	0	1	1
0	0	1	1	1	0	0	1	1
1	0	1	1	1	0	0	1	1
0	0	1	1	1	0	1	1	1
0	0	1	0	1	0	0	1	1
0	0	1	1	1	0	0	1	1
1	0	1	1	1	0	0	1	1
0	0	1	1	1	0	0	1	1
0	0	1	1	1	0	0	1	1





3)
$$B) (\bar{B} + \bar{A}) \cdot (A + C) \cdot A$$

