

Digital Electronics.

3.1-3.4.

3.1

a) AND $A \text{ --- } \text{AND} \text{ --- } B \text{ --- } Z$ b)

A	B	Z
0	0	0
0	1	0
1	0	0
1	1	1

a) NOT $A \text{ --- } \text{NOT} \text{ --- } Z$ b)

A	Z
0	1
1	0

a) NAND $A \text{ --- } \text{NAND} \text{ --- } B \text{ --- } Z$ b)

A	B	Z
0	0	1
0	1	1
1	0	1
1	1	0

a) NOR $A \text{ --- } \text{NOR} \text{ --- } B \text{ --- } Z$ b)

A	B	Z
0	0	1
0	1	0
1	0	0
1	1	0

a) OR $A \text{ --- } \text{OR} \text{ --- } B \text{ --- } Z$ b)

A	B	Z
0	0	0
0	1	1
1	0	1
1	1	1

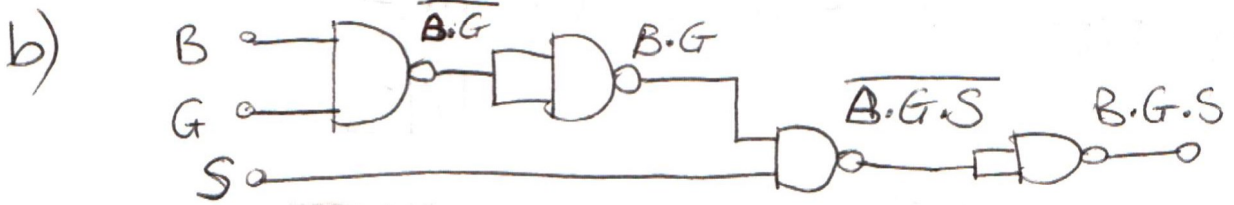
a) XOR $A \text{ --- } \text{XOR} \text{ --- } B \text{ --- } Z$ b)

A	B	Z
0	0	0
0	1	1
1	0	1
1	1	0

3.2

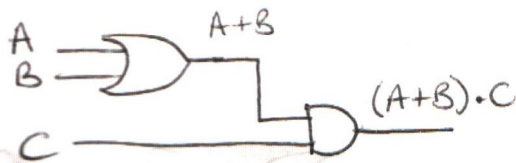


B	G	S	Z
0	0	0	0
0	0	1	0
0	1	0	0
0	1	1	0
1	0	0	0
1	0	1	0
1	1	0	0
1	1	1	0



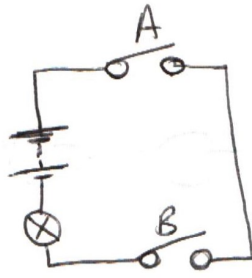
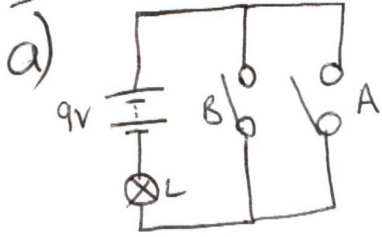
3.3

A = Hot water
 B = Temperature
 C = Pilot Light



A	B	C	A+B	Z
0	0	0	0	0
0	0	1	0	0
0	1	0	1	0
0	1	1	1	0
1	0	0	1	0
1	0	1	1	0
1	1	0	1	0
1	1	1	1	1

3.4



b) (i)

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

