

COMBINATIONAL LOGIC – Logic circuits formed by combining several basic logic gates to form a more complex function.

<p>TRUTH TABLE</p> <table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th>D</th> <th>K</th> <th>H</th> <th>B</th> </tr> </thead> <tbody> <tr><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>0</td><td>1</td><td>0</td></tr> <tr><td>0</td><td>1</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>1</td><td>1</td><td>0</td></tr> <tr><td>1</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>1</td><td>0</td><td>1</td><td>1</td></tr> <tr><td>1</td><td>1</td><td>0</td><td>1</td></tr> <tr><td>1</td><td>1</td><td>1</td><td>1</td></tr> </tbody> </table>	D	K	H	B	0	0	0	0	0	0	1	0	0	1	0	0	0	1	1	0	1	0	0	0	1	0	1	1	1	1	0	1	1	1	1	1	<p>Given the truth table, determine the equivalent Boolean equation and logic circuit.</p> <p>BOOLEAN EQUATION</p> <p>LOGIC CIRCUIT</p>
D	K	H	B																																		
0	0	0	0																																		
0	0	1	0																																		
0	1	0	0																																		
0	1	1	0																																		
1	0	0	0																																		
1	0	1	1																																		
1	1	0	1																																		
1	1	1	1																																		

<p>TRUTH TABLE</p> <table border="1" style="margin: auto; border-collapse: collapse; height: 150px;"> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table>																																																	<p>Given the logic circuit, determine the equivalent Boolean equation and truth table.</p> <p>BOOLEAN EQUATION</p> <p>LOGIC CIRCUIT</p> <pre> graph LR K --- AND1[AND] D --- AND1 D --- AND2[AND] H --- AND2 AND1 --- OR[OR] AND2 --- OR OR --- B </pre>

