1.

A	B	Alarm
0	0	0
0	1	1
1	0	1
1	1	1

Z= A+B

2.

Number	A	B	C	Red	Green Blue
0	0	0	0	0	0 0
1	0	0	1	0	1 0
2	0	1	0	1	0 0
3	0	1	1	0	1 1
4	1	0	0	1	0 0
5	1	0	1	0	1 0
6	1	1	0	1	0 1

7 1 1 1 1 1 1

$$Z = \overline{A}B\overline{C} + \overline{A}B\overline{C} + A\overline{B}C + AB\overline{C}$$

Red=   Green =

$$Z = \overline{A}\,\overline{B}\,\overline{C} + \overline{A}\,\overline{B}C + \overline{A}B\overline{C} + A\overline{B}\,\overline{C}$$

$$Z = \overline{A}\,\overline{B}C + \overline{A}BC + A\overline{B}C$$

Blue =

3.

M	S	E	H	G
0	0	0	0	0

0	0	0	1	1
0	0	1	0	1
0	0	1	1	1
0	1	0	0	0
0	1	0	1	1
0	1	1	0	1
0	1	1	1	1
1	0	0	0	0
1	0	0	1	1
1	0	1	0	1
1	0	1	1	1
1	1	0	0	1
1	1	0	1	1
1	1	1	0	1
1	1	1	1	1

Z= MS+H+E

4.