q_4	q_3	q_2	q_1	q_0	f_{maj}	f_{min}
0	0	0	0	0	0	1
0	0	0	0	1	0	1
0	0	0	1	0	0	1
0	0	0	1	1	0	1
0	0	1	0	0	0	1
0	0	1	0	1	0	1
0	0	1	1	0	0	1
0	0	1	1	1	1	0
0	1	0	0	0	0	1
0	1	0	0	1	0	1
0	1	0	1	0	0	1
0	1	0	1	1	1	0
0	1	1	0	0	0	1
0	1	1	0	1	1	0
0	1	1	1	0	1	0
0	1	1	1	1	1	0
1	0	0	0	0	0	1
1	0	0	0	1	0	1
1	0	0	1	0	0	1
1	0	0	1	1	1	0
1	0	1	0	0	0	1
1	0	1	0	1	1	0
1	0	1	1	0	1	0
1	0	1	1	1	1	0
1	1	0	0	0	0	1
1	1	0	0	1	1	0
1	1	0	1	0	1	0
1	1	0	1	1	1	0
1	1	1	0	0	1	0
1	1	1	0	1	1	0
1	1	1	1	0	1	0
1	1	1	1	1	1	0

Problems 4.4.1 (Majority circuit) and 4.4.2 (minority circuit).

← by inspection, $f_{min} = \overline{(f_{maj})}$

$f_{maj} =$

$\bar{a}$	$\bar{a}$	a	a	a	+	$\bar{a}$	a	$\bar{a}$	$\bar{a}$	a	+
$\bar{a}$	a	a	$\bar{a}$	a	+	$\bar{a}$	a	$\bar{a}$	a	$\bar{a}$	+
$\bar{a}$	a	a	a	a	+	a	$\bar{a}$	$\bar{a}$	a	a	+
a	$\bar{a}$	a	$\bar{a}$	a	+	a	$\bar{a}$	a	a	a	+
a	a	$\bar{a}$	$\bar{a}$	a	+	a	a	$\bar{a}$	a	$\bar{a}$	+
a	a	$\bar{a}$	a	a	+	a	a	a	$\bar{a}$	$\bar{a}$	+
a	a	a	$\bar{a}$	a	+	a	a	a	a	$\bar{a}$	+
a	$\bar{a}$	$\bar{a}$	a	$\bar{a}$	+	a	a	a	a	a	

Missed one

$f_{min} = \overline{f_{maj}}$