

Simulation Result:**Part a)**

Circuit: s27.txt Input Vector: 1 1 1 0 1 0 1

-----FAULTS DETECTED -----

```

1 stuck at 0
3 stuck at 0
5 stuck at 0
7 stuck at 0
9 stuck at 1
11 stuck at 1
12 stuck at 0
13 stuck at 0

```

Circuit: s298f_2.txt Input Vector: 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1

-----FAULTS DETECTED -----

```

3 stuck at 0
5 stuck at 0
6 stuck at 1
7 stuck at 0
8 stuck at 1
9 stuck at 0
10 stuck at 1
11 stuck at 0
12 stuck at 1
15 stuck at 0
18 stuck at 1
19 stuck at 1
20 stuck at 1
21 stuck at 1
22 stuck at 1
23 stuck at 1
24 stuck at 0
25 stuck at 1
26 stuck at 0
27 stuck at 1
28 stuck at 0
29 stuck at 1
30 stuck at 1
31 stuck at 1
32 stuck at 0
33 stuck at 0
34 stuck at 0
35 stuck at 1
36 stuck at 1
37 stuck at 1
39 stuck at 1
41 stuck at 1
45 stuck at 1
48 stuck at 0
49 stuck at 0
51 stuck at 1
52 stuck at 1
53 stuck at 1

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54 stuck at 0
56 stuck at 1
57 stuck at 1
58 stuck at 0
64 stuck at 1
66 stuck at 0
67 stuck at 1
68 stuck at 1
95 stuck at 0
102 stuck at 0
103 stuck at 1
105 stuck at 1
106 stuck at 1
107 stuck at 1
108 stuck at 1
109 stuck at 1
110 stuck at 1
115 stuck at 1
116 stuck at 0
117 stuck at 0
118 stuck at 1
119 stuck at 1
120 stuck at 1
122 stuck at 0
132 stuck at 0
133 stuck at 0
135 stuck at 0
138 stuck at 0
141 stuck at 0
142 stuck at 0
143 stuck at 0
145 stuck at 0
146 stuck at 0
163 stuck at 1
164 stuck at 1
166 stuck at 0
168 stuck at 0
169 stuck at 1
170 stuck at 1
173 stuck at 0
182 stuck at 1
183 stuck at 1
186 stuck at 1
188 stuck at 0

Circuit: s344f_2.txt Input Vector: 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 1 1 1
1 1 1 1

-----FAULTS DETECTED -----

1 stuck at 0
2 stuck at 1
3 stuck at 0
4 stuck at 1
5 stuck at 0
6 stuck at 1
7 stuck at 0
8 stuck at 1
9 stuck at 0
10 stuck at 1
11 stuck at 0
12 stuck at 1
13 stuck at 0
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16 stuck at 1
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61 stuck at 1
62 stuck at 1

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99 stuck at 1
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101 stuck at 0
105 stuck at 1
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108 stuck at 0
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112 stuck at 0
114 stuck at 0
115 stuck at 1
116 stuck at 1
129 stuck at 1
130 stuck at 1
137 stuck at 0
139 stuck at 0
141 stuck at 1
142 stuck at 1
144 stuck at 0
146 stuck at 0
176 stuck at 0
177 stuck at 0
179 stuck at 1
180 stuck at 1
181 stuck at 0
183 stuck at 0
188 stuck at 1
189 stuck at 1
190 stuck at 1

Circuit: s349f_2.txt Input Vector: 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 1 1 1
1 1 1 1

-----FAULTS DETECTED-----

1 stuck at 0
2 stuck at 1
3 stuck at 0
4 stuck at 1
5 stuck at 0
6 stuck at 1
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187 stuck at 1
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189 stuck at 1