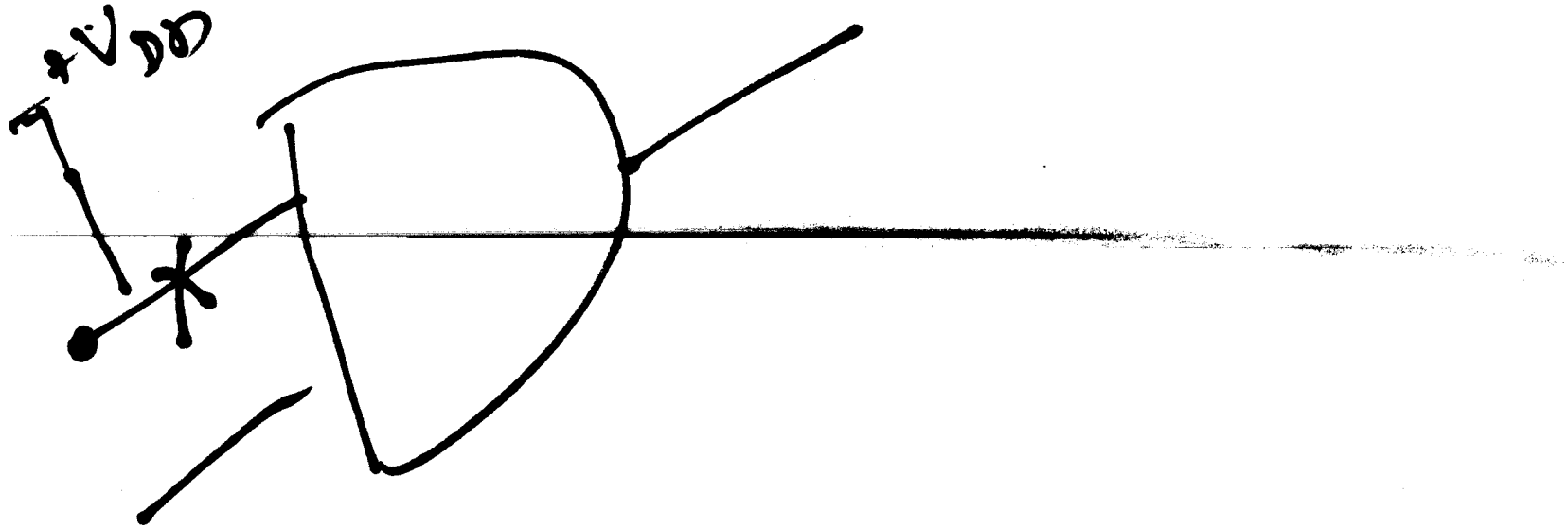
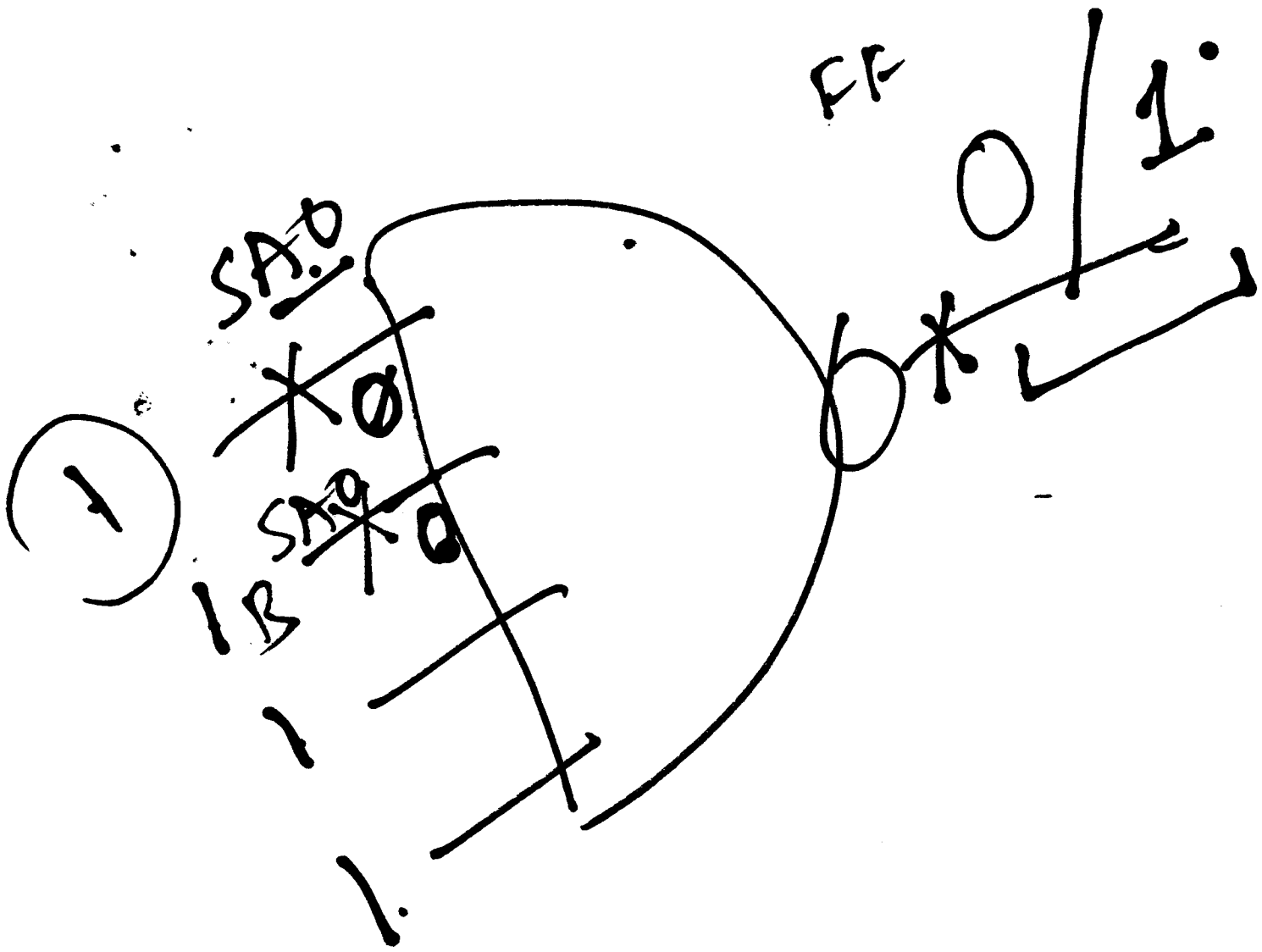
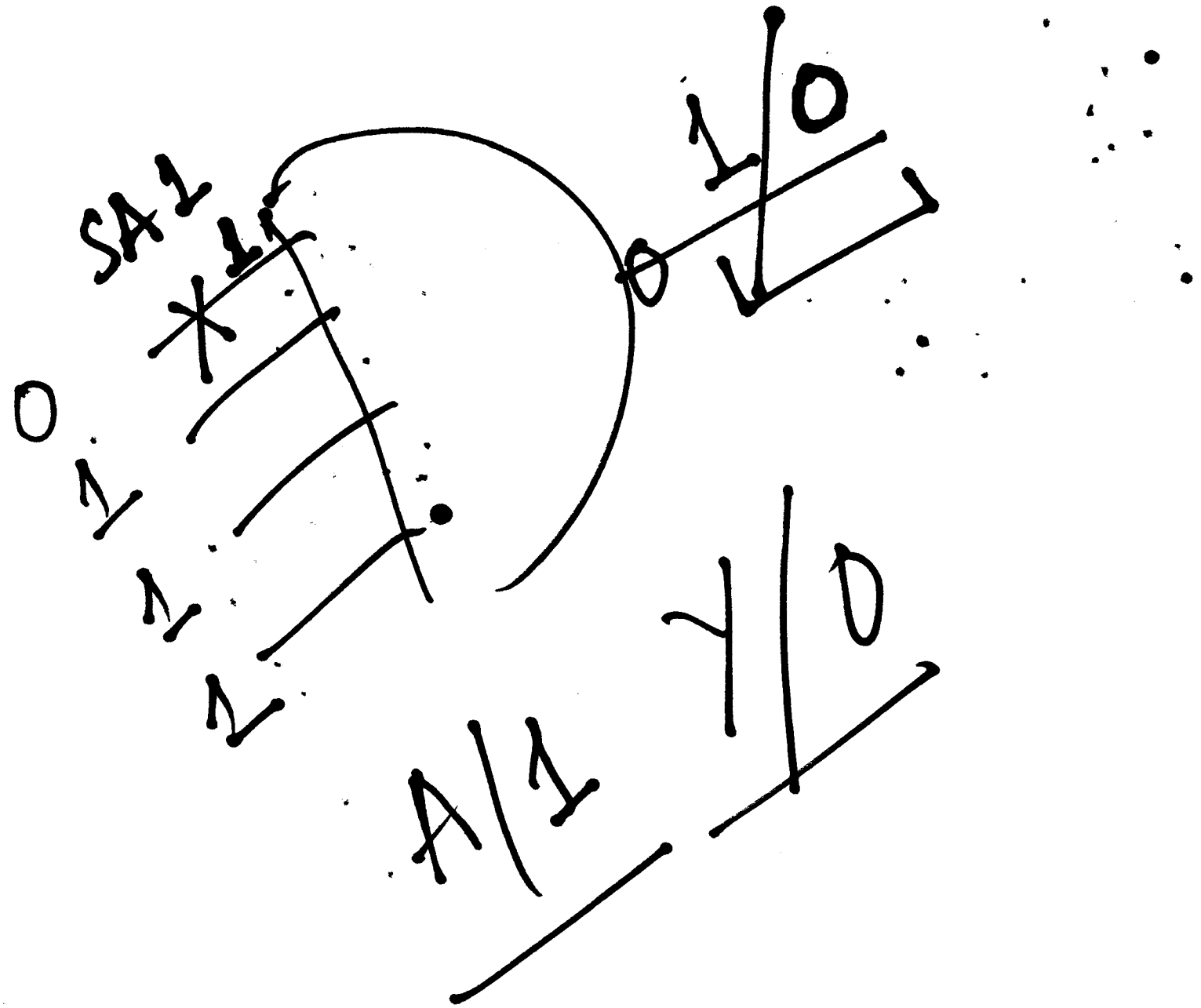
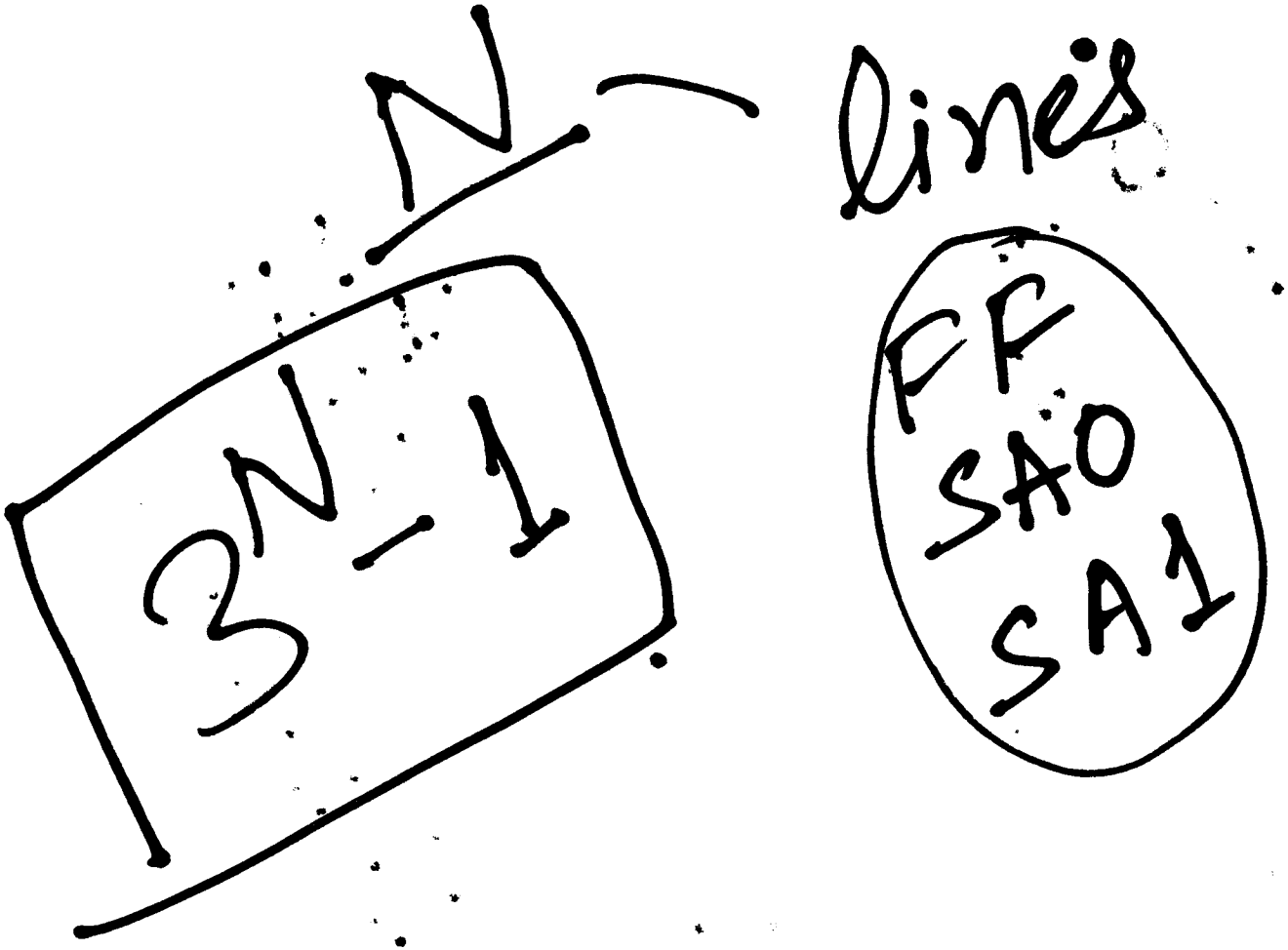
Prof. U k. singh
Lec- 03
Dt · 15 · 1 · 12




FF
0
1
SA.0
SA.0
1B
1
1
1


SA1
1
0
1
1
1
1/0
A/1
Y/0


N
lines
$3^N - 1$
FF
SA0
SA1

SAO
A
B
C
D
Y

x_i SA1

x_i $\frac{df}{dx_i} = 1$ $x_i = 0$

$\frac{df}{dx_i} = 1$

x_i SAD

$x_i = 1$

$\frac{\partial f}{\partial x_i} = 1$

$\therefore x_i \cdot \frac{\partial f}{\partial x_i} = 1$

$$FC = \frac{\#\text{ Detectable Faults}}{\#\text{ Faults}}$$

$$= \frac{990 \times 100}{1000}$$

$$= 99\%$$

$$FE = \frac{\#\text{Detectable Faults}}{\#\text{Faults} - \#\text{Redundant}} \times 100$$

$$= \frac{990}{1000 - 10} \times 100$$

$$= 100\%$$