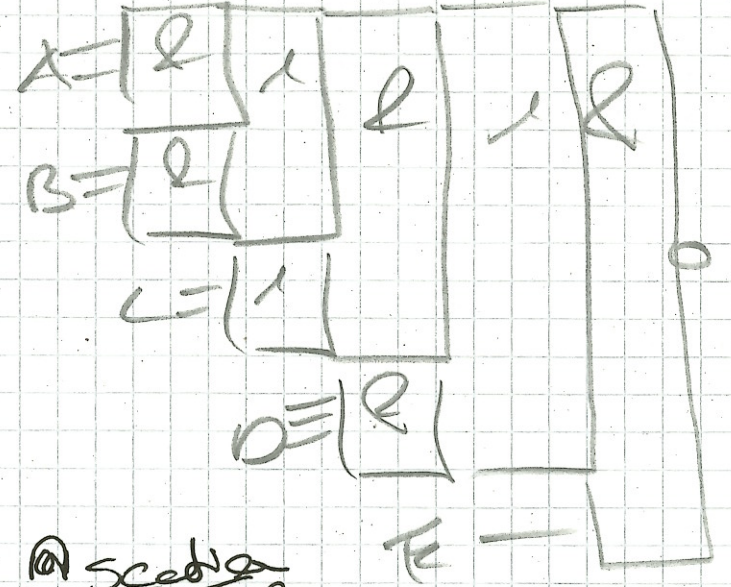
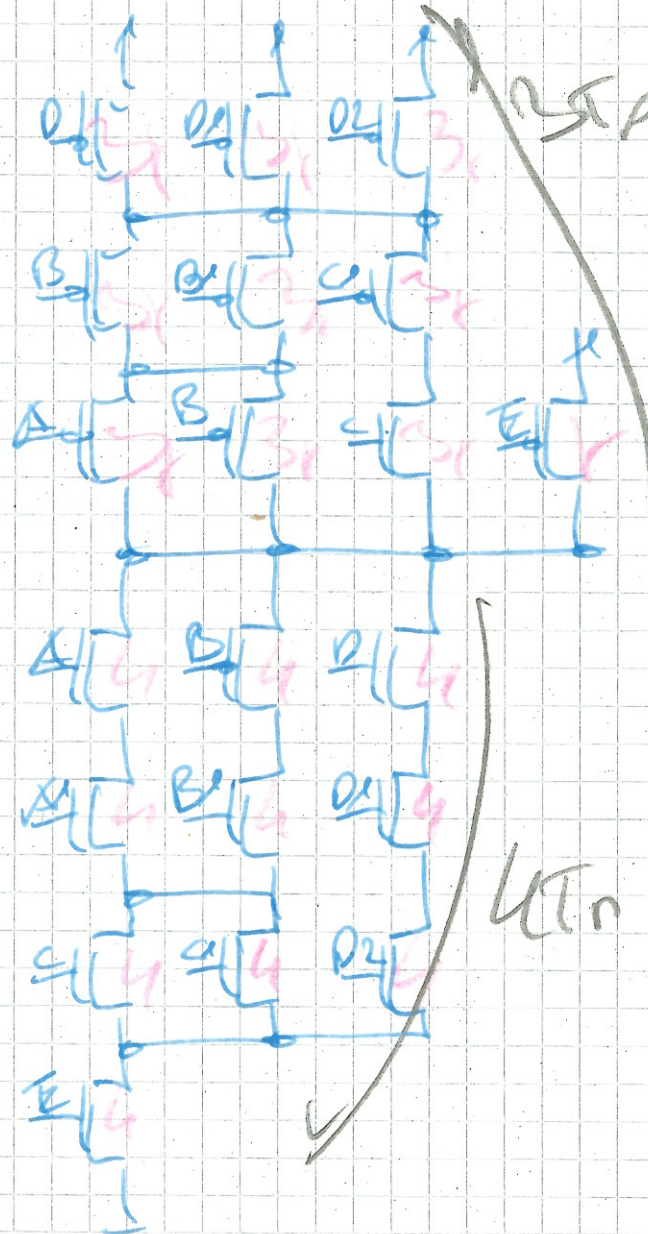
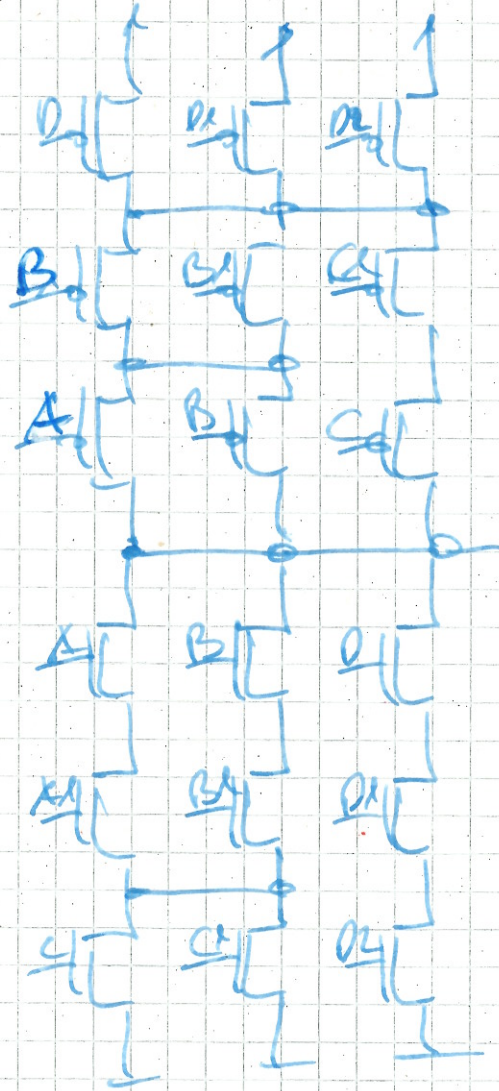


$A A O O A A O O 1 2 2 2 3$
 $\xrightarrow{\text{char}}$
 $A A O O A A O O 1 2 2 2 3 1$

Input

Output



- ① seed 123
- ② circuit 123
- ③ seed 123
- ④ circuit 123

LSV