$\boxed{0^{n+2}\,1^{2n}} \geq 0$

$\boxed{00 \mid 0^n 1^{2n}}$

00 00 1111

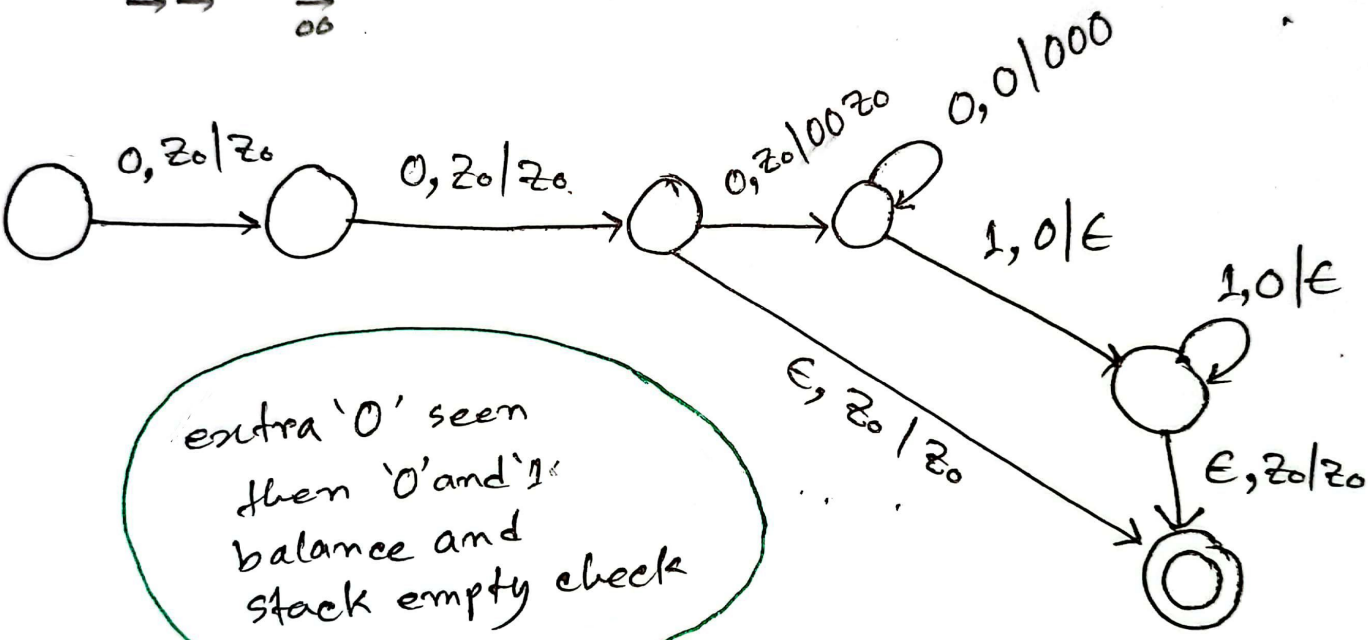
extra

n 2n

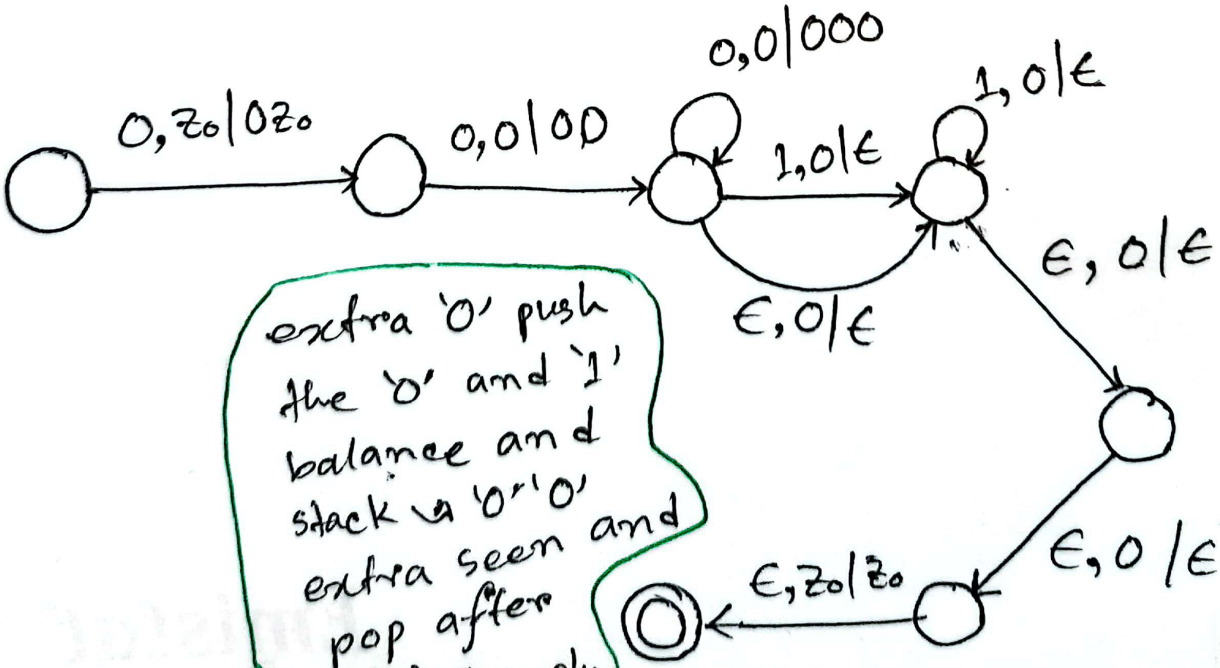
push 0000

1111 pop 0000

⇒ 0000 1111



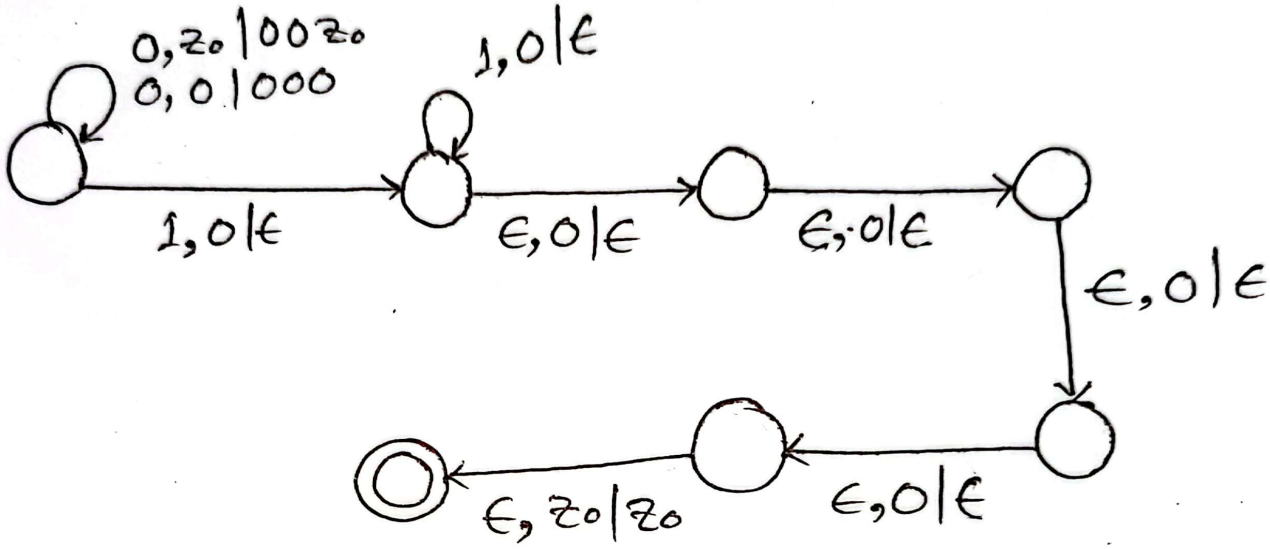
extra '0' seen then '0' and '1' balance and stack empty check



extra '0' push the '0' and '1' balance and stack 'o' 'o' extra seen and pop after string empty

(8) 0000 → 0000 1111 → pop 0000

00 00 → 0000 extra



push two '0' for every '0'
then pop '0' for every '1'
Now, check extra 4 '0'
in the stack when string
is empty. We push 2 '0'
for extra two '0'
that means we
have extra 4 '0'