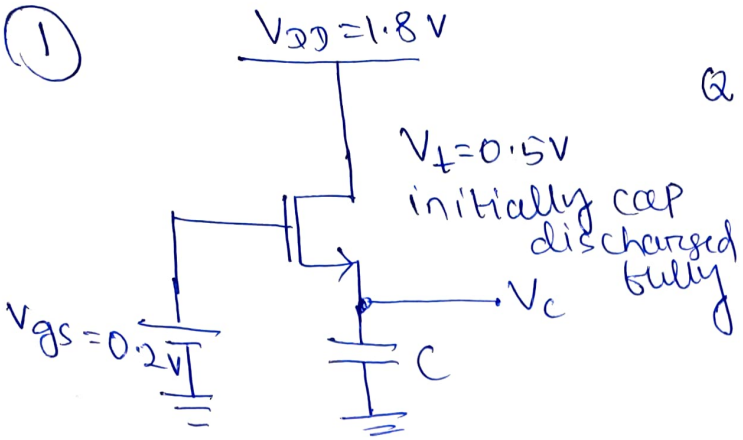
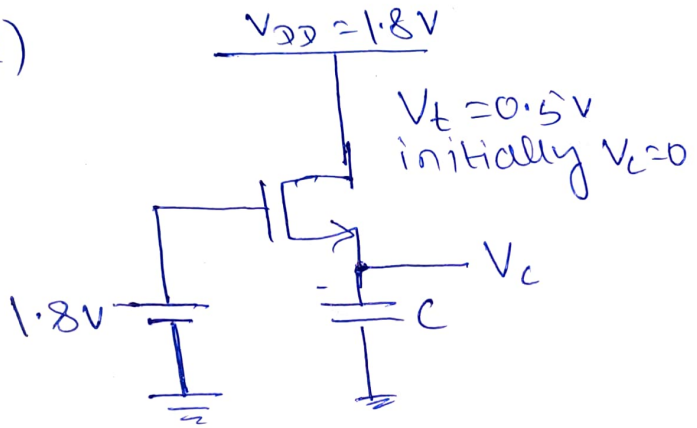
Asignment-2:

(1)



Q: what is the value of V_c at steady state.

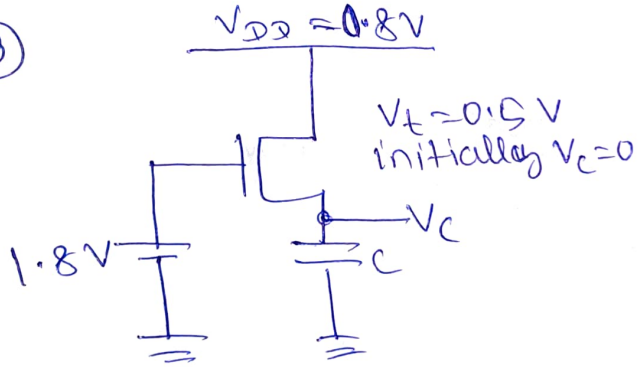
(2)



Q1: what is the value of V_c at steady state

Q2: region of operation of transistor as V_c changes.

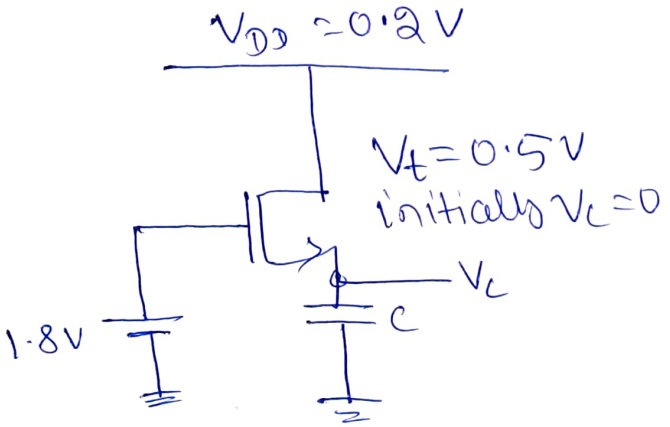
(3)



Q: what is the value of V_c at steady state.

Q: regions of operation of transistor as V_c changes.

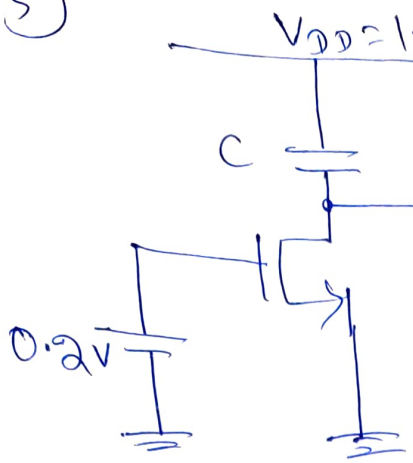
(4)



Q: what is the value of V_c at steady state.

Q: region of operation of transistor as V_c changes.

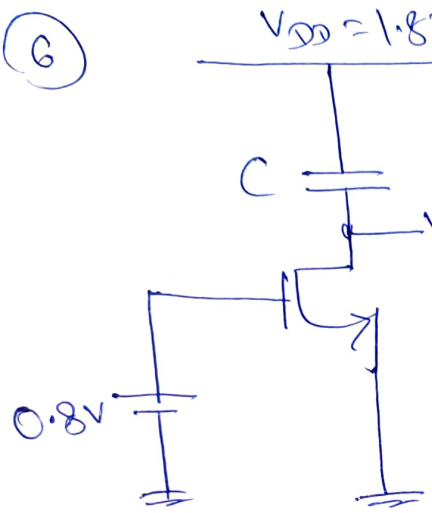
(5)



$V_t = 0.5V$
initially capacitor fully discharge.

Q what is the value of V_c at steady state

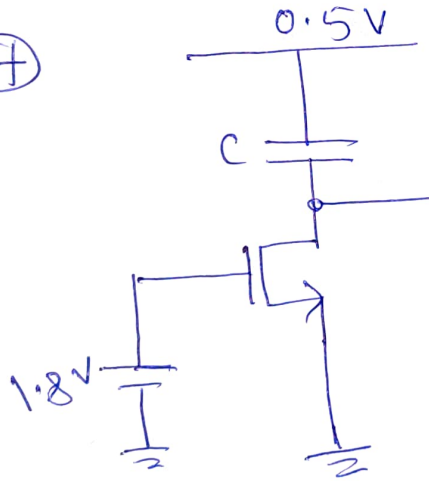
(6)



$V_t = 0.5V$
initially capacitor fully discharged.

Q: what is the value of V_c at steady state.

(7)

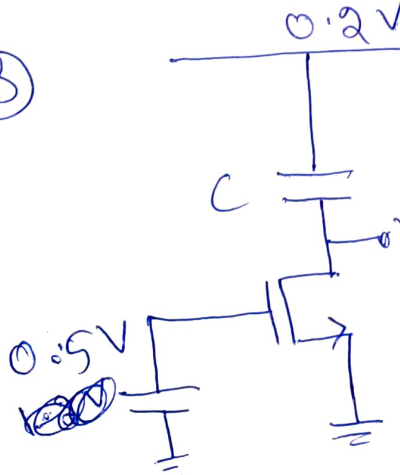


$V_t = 0.5V$
initially cap. fully discharged

Q: what is the value of V_c at steady state.

Q: Find the region of operation.

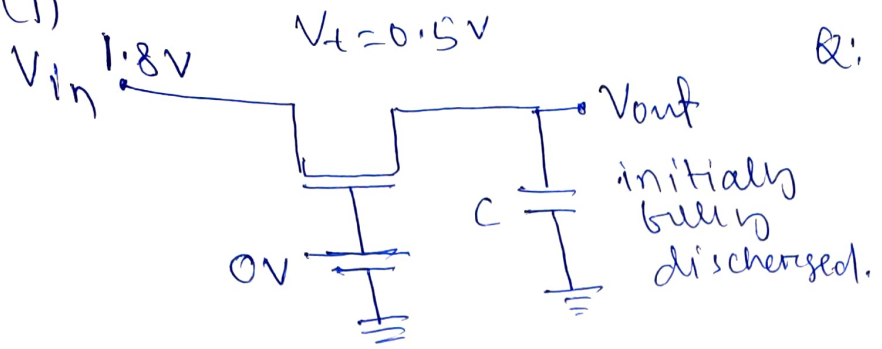
(8)



$V_t = 0.5V$
initially cap fully discharged

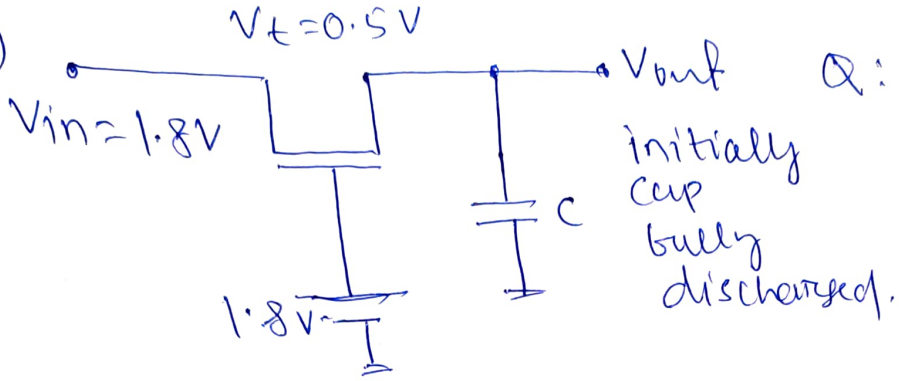
Q: what is the value of V_c at steady state.

(9)



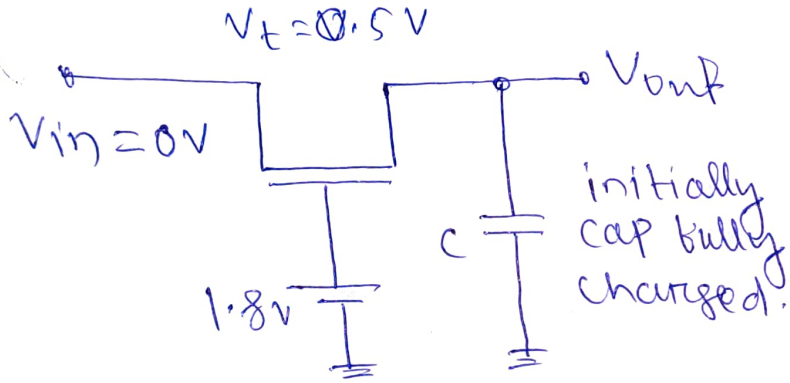
Q: V_{out} ?

(10)



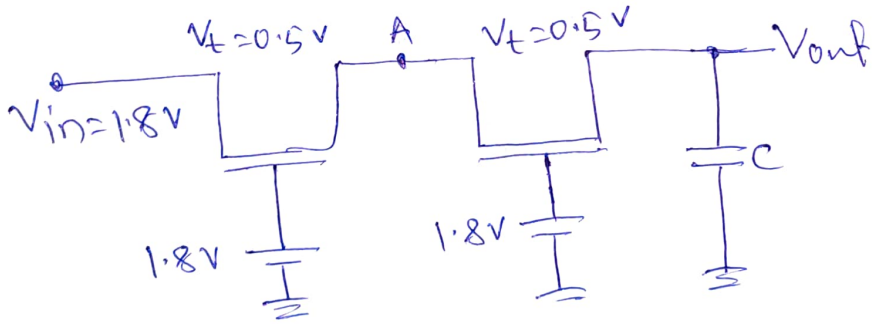
Q: V_{out} ?

(11)



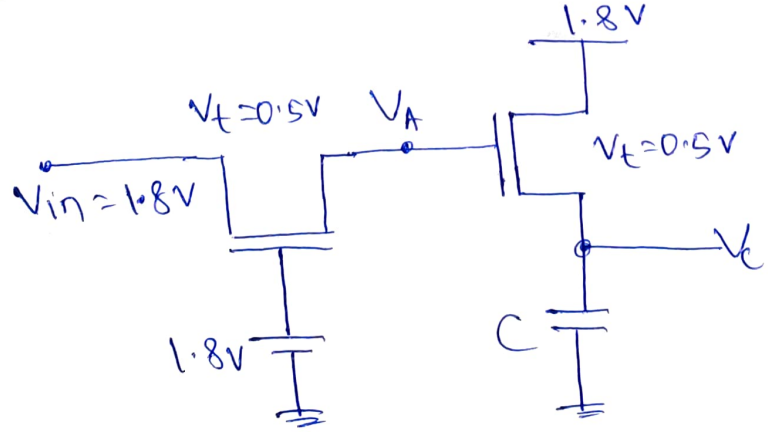
Q: V_{out} ?

(12)

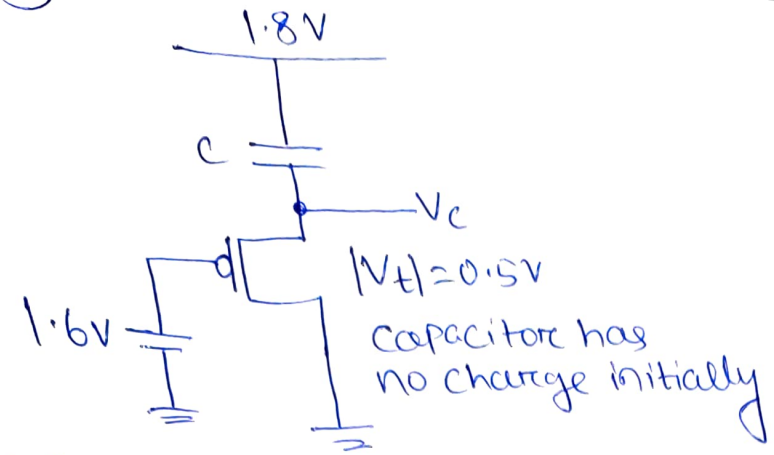


Q: V_A ?
V_{out} ?

(13)

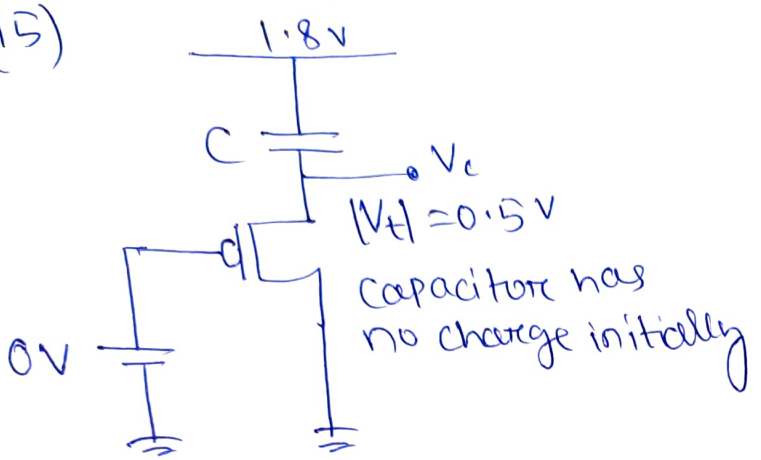


Q: calculat V_A and V_C



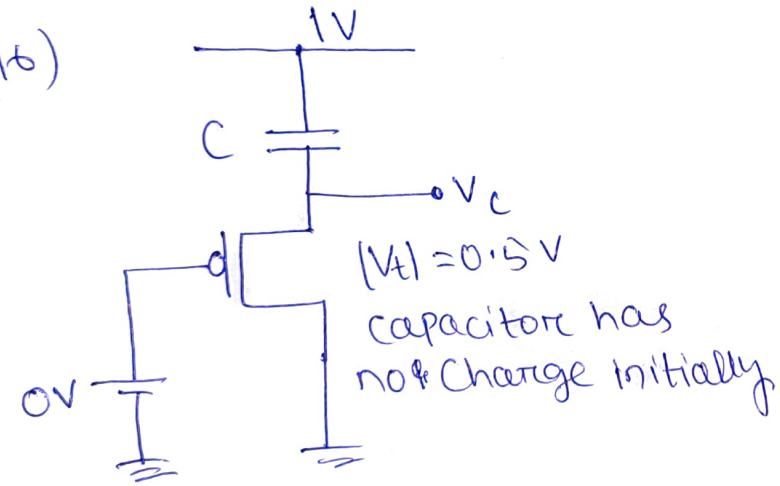
Q: calculate V_c at steady state and the region of operation of initially and finally respectively

(15)



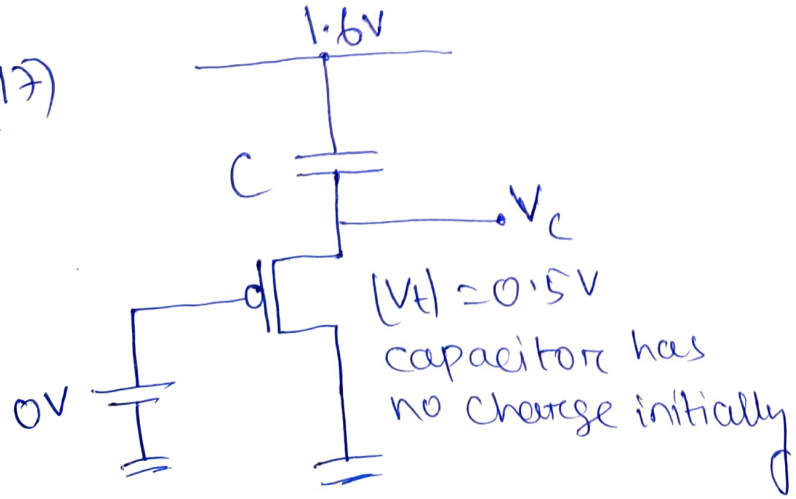
Q: calculate V_c at steady state and the region of operations of the MOSFET

(16)

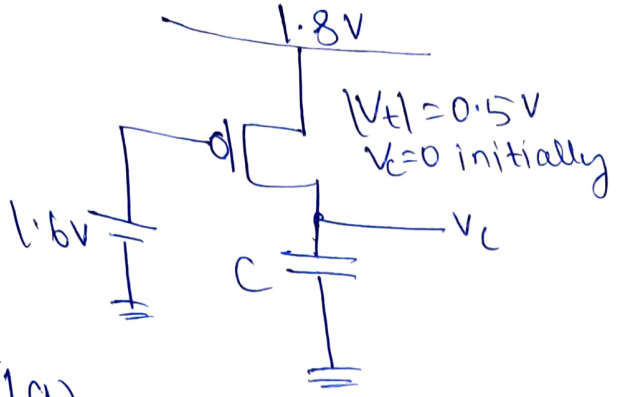


Q: calculate V_c at steady state and the region of operations of MOSFET.

(17)

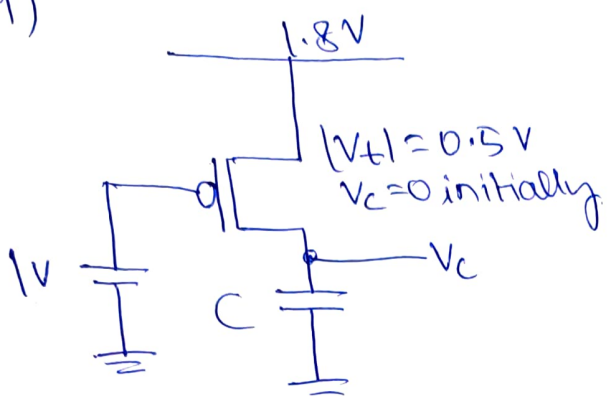


Q: calculate V_c at steady state and the region of operation of MOSFET.



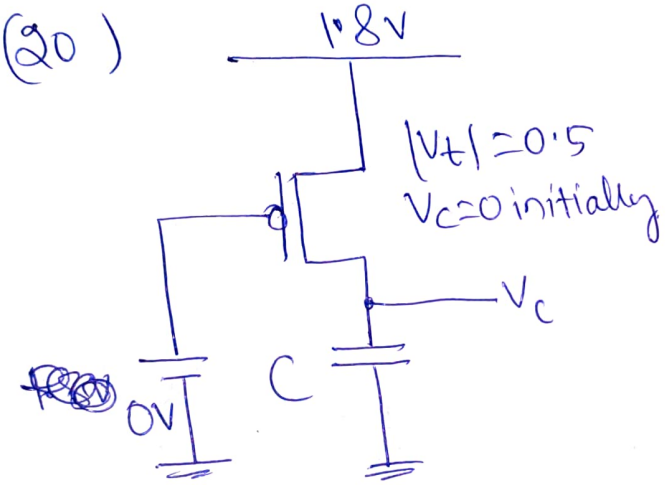
Q: calculate V_c at steady state and the region of operation of MOSFET

(19)



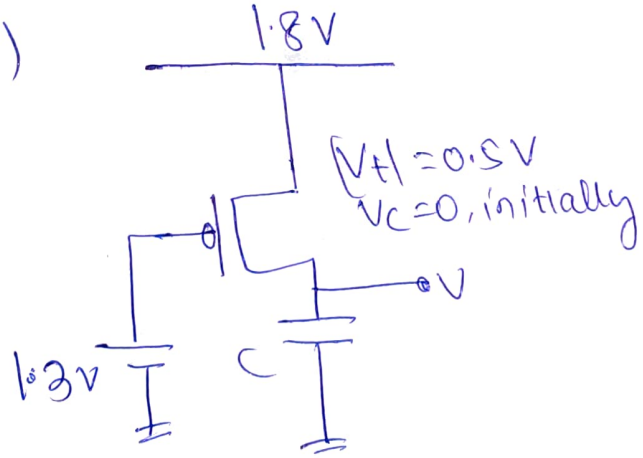
Q: calculate V_c at steady state and the region of operation of MOSFET

(20)



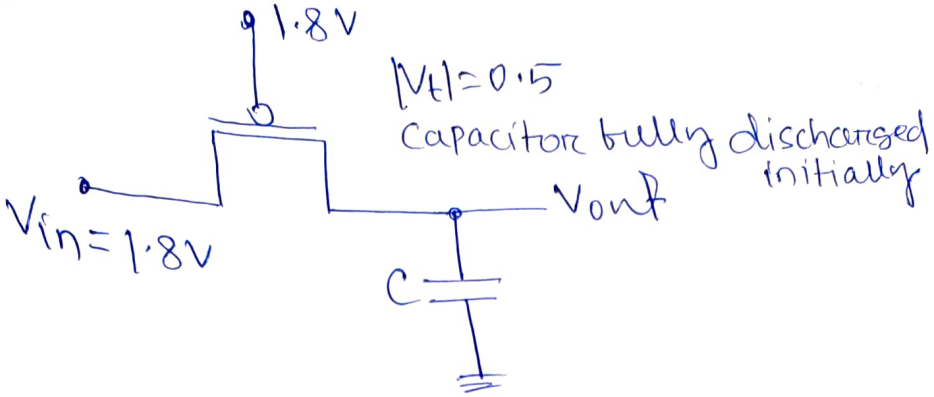
Q: calculate V_c at steady state and the region of operation of MOSFET

(21)



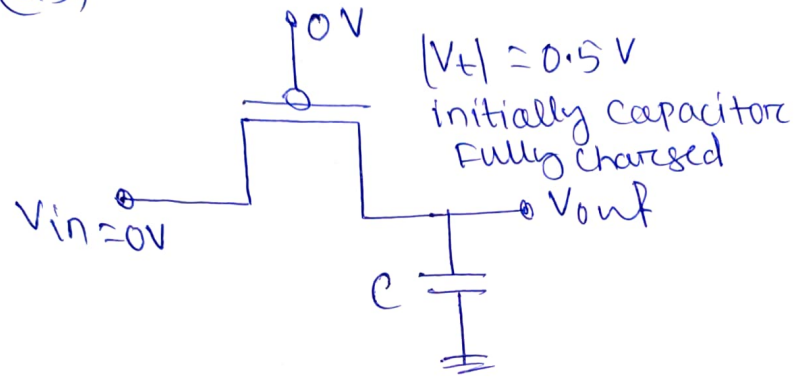
Q: calculate V_c at steady state and the region of operation of MOSFET.

(22)



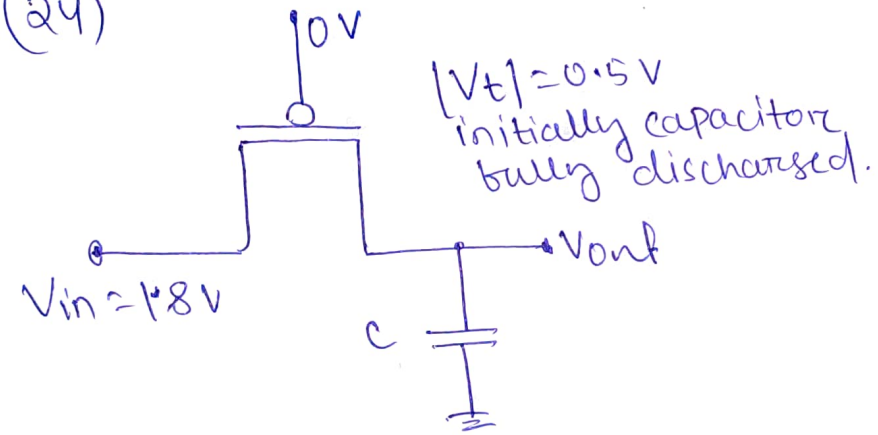
Q: calculate Vout

(23)



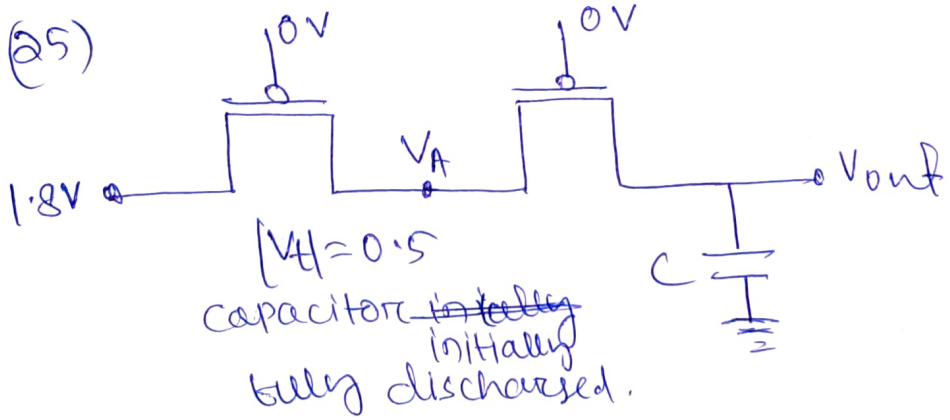
Q: calculate Vout

(24)



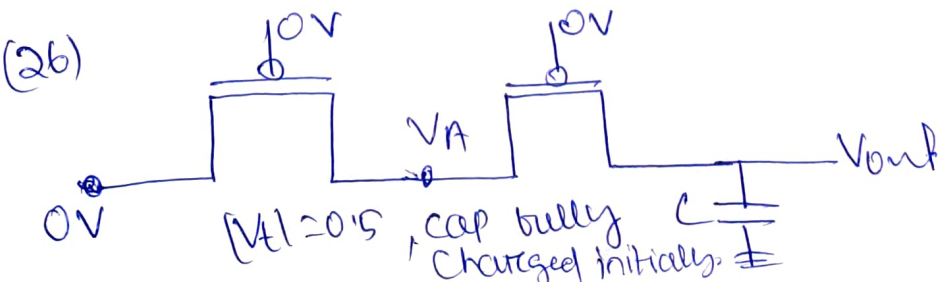
Q: calculate Vout

(25)



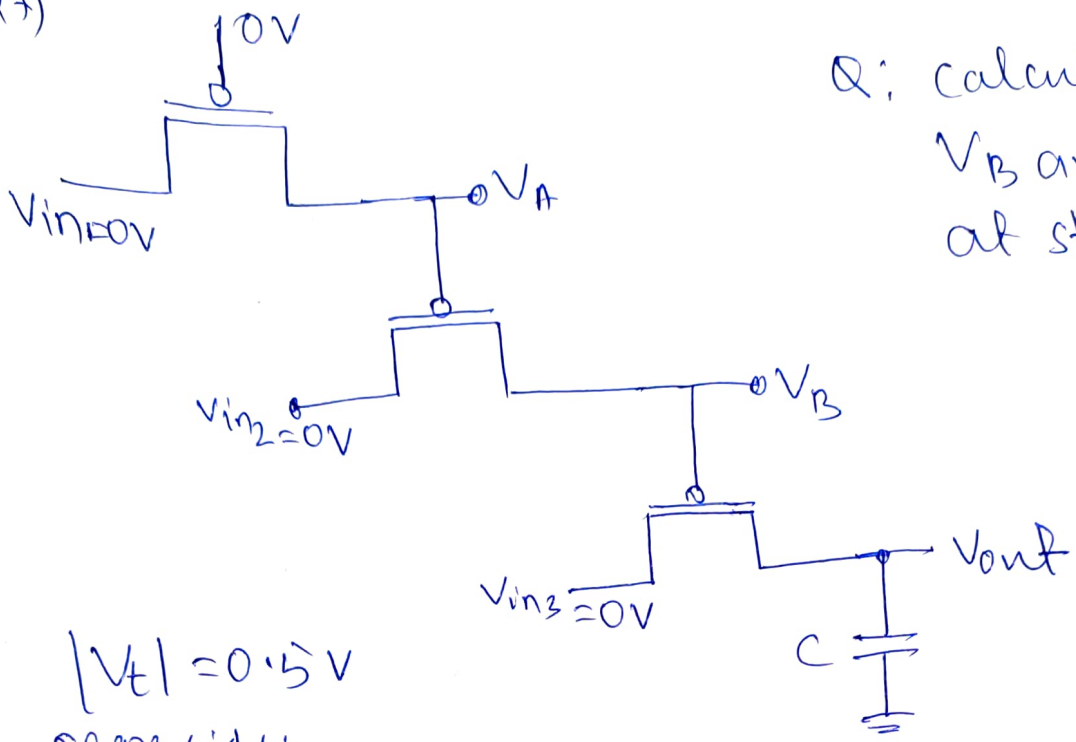
Q: Calculate V_A and Vout

(26)



Q: calculate V_A and Vout

(Q7)



Q: calculate V_A, V_B and V_{out} at steady state.

$|V_t| = 0.5\,V$

~~Capacitors~~ all node capacitors are fully charged initially.

$V_{out} = 1.8\,V$ initially