1) a) Calculate the charge stored on a 3-pF capacitor with 20 V across it.

b) Find the energy stored in the capacitor.

2) The voltage across a 5μF capacitor is

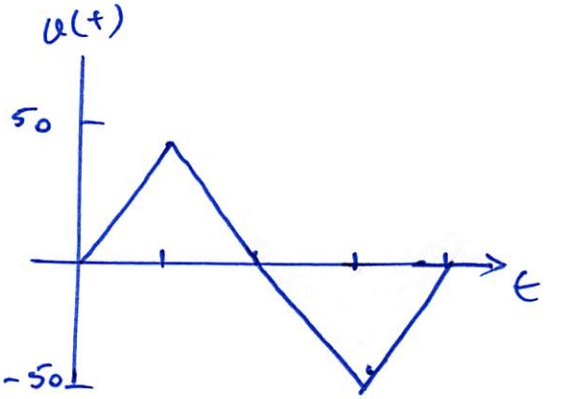
$$u(t) = 10 \cos 6000t \text{ V}$$

calculate the current through it.

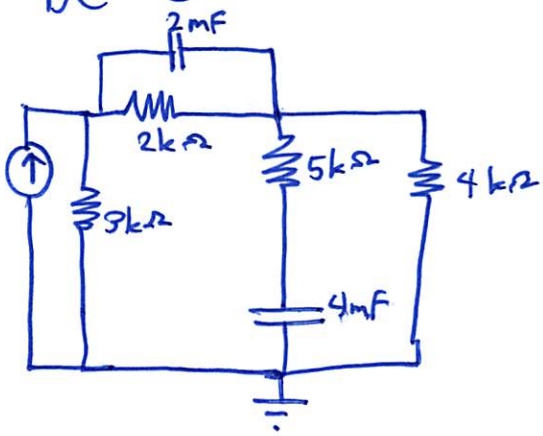
3) Deter. the voltage across a 2-μF capacitor if the current through it is $i(t) = 6e^{-3000t}$ mA.

Assume $v(0) = 0$.

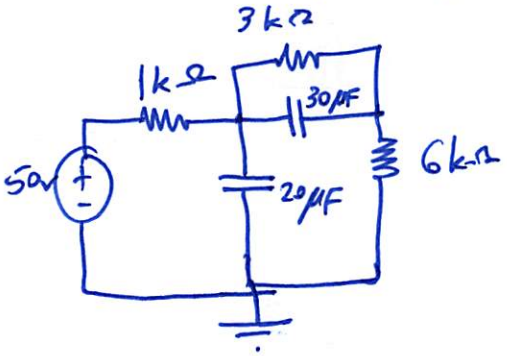
4) Det. the current through a 200 μF capacitor whose voltage is shown



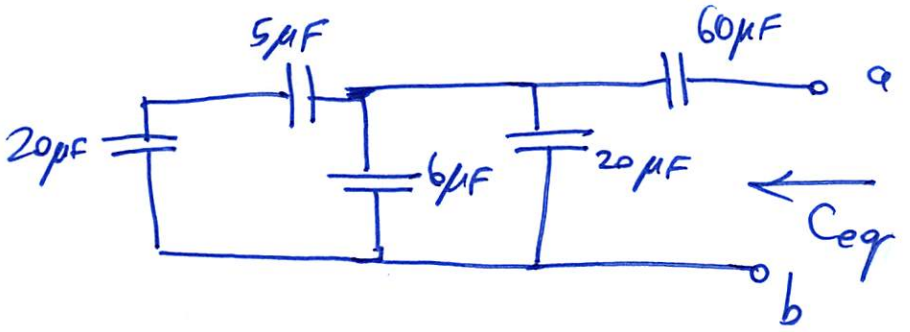
5) obtain the energy stored in each capacitor under DC conditions



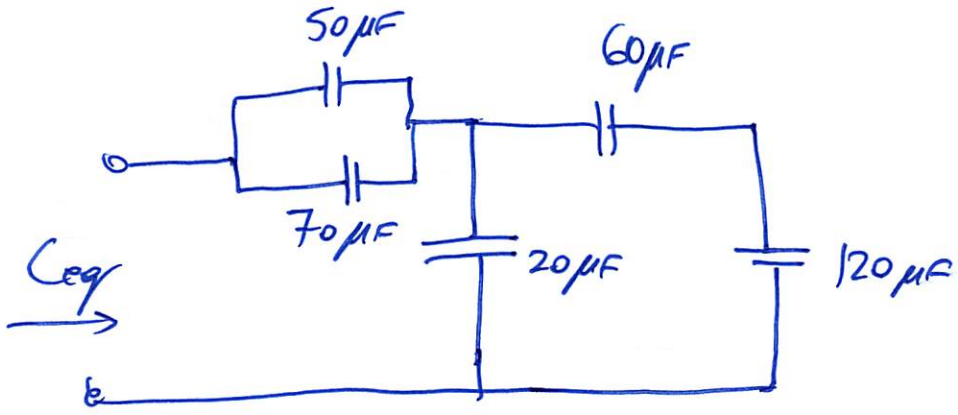
6) Under DC conditions, Find the energy stored in the capacitors in Fig.



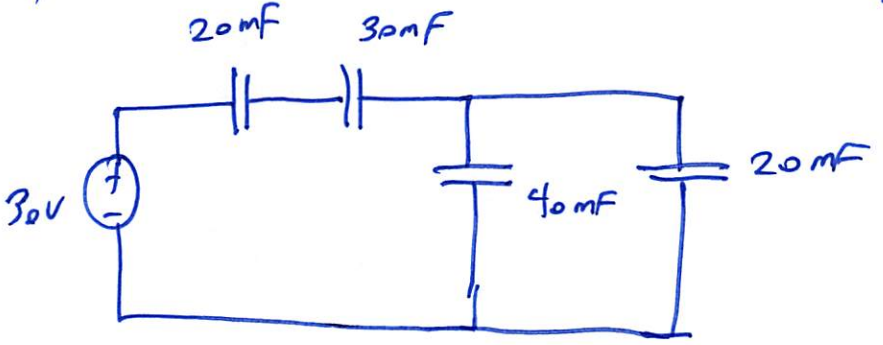
7) Find the equivalent Cap.



8) Find the equiv. Cap.



9) Find the voltage across each Cap.



(10) Find the voltage across each cap.