Section - B (each 2 Mark)

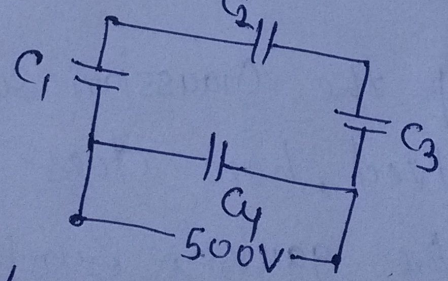
7. Given a Uniform electric field $E = 5 \times 10^{-3} i\, N/C$. Find the flux of this field through a square of 10cm on a side whose plane is parallel to the flux through the same square if the plane make an angle of 30° with X axis?

8. (i) Write two characteristic of equipotential surfaces
   (ii) Draw the equipotential surfaces due to an electric dipole

9. Net capacitance of three identical capacitors in series is 1 μF. What will be their net capacitance if connected in parallel?

Section C (3 Mark each)

10 A network of four capacitors each of 12 μF capacitance. If connected to a 500V supply. as shown in the figure. Determine



(i) the equivalent capacitance of the network
(ii) The charge on each capacitor