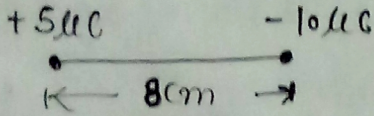
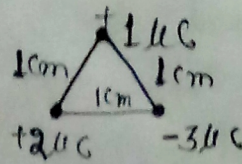
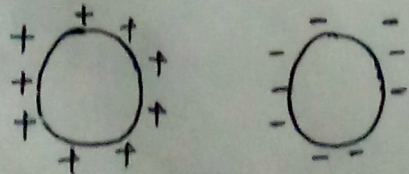


ELECTRIC POTENTIAL & CAPACITANCE

1. Original capacity is C_0 & the capacity with dielectric is C then C/C_0 :
 (a) K (b) $1/K$ (c) K^2 (d) None (K : dielectric constant)
2. if a Capacitor is partially filled with dielectric, then capacity:
 (a) increases (b) decreases (c) constant (d) None
3. At the surface of +ve charged conductor, E-field is at 90° , then for
 (a) -ve charged conductor. It is
 (a) at 90° (b) at 0° (c) at 45° (d) at 180°
4. Assertion (A): An e^- inside a metallic sphere not affected by E-field.
 Reason (R): Due to electrostatic shielding.
5. Assertion (A): On placing dielectric between plates; net E-field decreases
 Reason (R): due to opposite polarisation E-field.
6. (a) find the expression of E-potential due to a charge
 (b) Draw equipotential surface for electric-dipole.
7. (a) find the expression of Capacity; if capacitor is partially filled with dielectric
 (b) if $A = 5 \text{ cm}^2$; $d = 2 \text{ mm}$; find Capacity. ($\epsilon_0 = 8.85 \times 10^{-12} \text{ N-m}^2/\text{C}^2$)
8. (a)  find Potential energy of this system.
- (b)  find Potential Energy of this system
9. (a) Draw equipotential surface for uniform electric field
 (b)  Draw E-field lines.