

Physics

- 1- What orientation of an electric dipole in a uniform electric field corresponds to its stable equilibrium?
2. What is the area of the plates of a parallel plate capacitor of capacitance 2F and with separation between plates 0.5 cm?
3. What is the work done in carrying a point charge 10 nC between two points separated by a distance 5 cm on an equipotential surface?
- 4- A parallel plate capacitor is made by stacking 'n' equally spaced plates connected alternatively. If the capacitance between any two plates is 'C', determine the resultant capacitance of the combination
5. Calculate the coulomb force between two particles separated by a distance of  $3.2 \times 10^{-15}$  m

Chemistry

Topic : General Methods of preparation of Haloarenes.

1. Describe a method for the preparation of haloarenes from aromatic hydrocarbons.
2. How will you distinguish  $C_2H_5Br$  from  $C_6H_5Br$  ?
3. Why iodoarenes can not be prepared by direct iodination of arenes?