Assignment- Electrostatics
Topic-Capacitor

1. State the principle of capacitor.
2. Drive an equation for the capacitance of an isolated sphere.
3. Drive equation for capacitance of parallel plate capacitor. What is the area of the plates of a 2F parallel plate capacitor, given that separation between the plates is 0.5 cm?
4. State the principle and working of vande graaff generator.
5. A capacitor is charged to a potential difference of 200 V, when 0.1 C charge. store in it. How much energy will it released when it is discharged ?
6. What is a capacitor? In what form is energy stored in a charged capacitor.
7. The inner and outer radii of a coaxial cable are 0.1 mm and 0.6mm respectively. If the core material has dielectric constant 12, calculate the capacitance per metre of the cable.