1. A current sheet $K = 5\widehat{a_x}$ A/m flowing at $z = 0$ m, $K = 3\widehat{a_x}$ A/m flows at z=2m, K=-$2\widehat{a_x}$ A/m flows at $z = -1$m. Find magnetic field intensity everywhere. (20%)

2. A disk of radius of b lies in the xy plane with z axis though its center. The disk centered at the origin and the surface charge density is $\rho_s(1+\frac{r}{b})$. Find the electric field and voltage at $(0,0,z_0)$. (20%)

3. Write down the unit of the following terms. (20%)
   (a) absolute permittivity (b) conductivity (c) absolute permeability
   (d) magnetic flux density

4. True or False (40%)
   (a) In electrostatics, the electric field inside a conductor is zero.
   (b) The magnetic susceptibility is dimensionless.
   (c) Under static conditions, the electric field on a conductor surface is normal to the surface.
   (d) The magnetic flux lines always close upon themselves.