**ASSIGNMENT-1**

1. Express the point P(3,4,-5) in cylindrical co-ordinate system variables.
2. State coulomb’s law. Write the expression in SI form.
3. Draw the vector transformation matrix in Cartesian to cylindrical and cylindrical to spherical.
4. Write the applications of Gauss law.
5. Transform a vector$A$in spherical to Cartesian co- ordinate system and vice versa
6. Derive the Electric field intensity due to infinite line charge.