

**ASSIGNMENT: 5 IMPORTANT QUESTION ON DC MACHINE**

1. Draw the schematic diagrams and explain the winding connections for the short shunt and long shunt compound generators.
2. Briefly describe the voltage build up process of a self excited DC shunt generator.
3. Briefly explain the concept of electrical degree and mechanical degree in case of rotating machines.
4. Draw the schematic diagram and explain the solid state speed control (Speed control using power electronic switches) of DC motors.
5. Explain the power flow diagram of a DC machine.  
Draw and explain the internal characteristic of a DC shunt generator.