(a) By using a coil rather than a loop the magnetic flux through the whole circuit is increased in proportion to the number of turns. Thus the change in flux during each revolution is increased and so is the magnitude of the induced emf.

(b) The rotating coil represents a current carrying conductor moving in a magnetic field. This conductor experiences a force that always opposes the motion - Lenz’s law. The greater the speed of rotation the greater the induced current and the greater the opposing torque.

(c) Brushes enable the generator to be connected to the external circuit without the wires becoming increasing tangled together as the armature in the generator rotates.

**DC generator uses a single split ring commutator.**
(d) The advantage of a DC generator is that the current in the external circuit is DC — the direction of the current is constant although its magnitude continually changes.