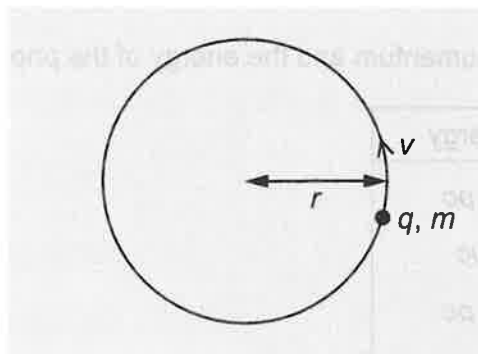**24** A particle of charge q and mass m moves with speed v in a circle of radius r. The particle travels in a uniform magnetic field of flux density B acting at right angles to the plane of the motion of the particle.

Which expression is correct about the time T for the particle to complete one revolution?

A T is independent of m.

B T is independent of r.

C T is proportional to q.

D T is proportional to B.