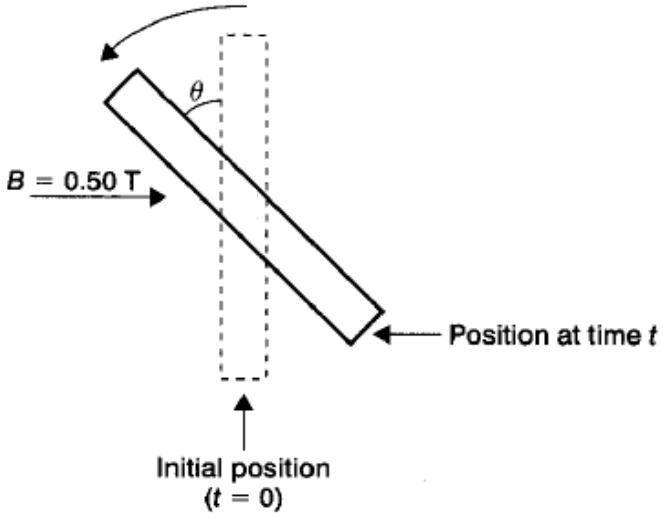
24 A flat circular coil of wire 30 turns, each of area 0.025 m^2, is initially placed with its plane at right angles to a uniform magnetic field of flux density 0.50 T.



What is the magnitude of the induced e.m.f. in the coil when t = 1.0 s, if the coil is rotating at 60° s^{-1}?

A 0.20 V

B 0.34 V

C 0.38 V

D 0.39 V