

34 A coil contains N turns of insulated copper wire wound on to a cylindrical iron core of diameter D . The copper wire has a diameter d . The resistivity of copper is ρ . Diameter D is much greater than diameter d .

What is the total resistance between the two ends of the coil?

A
$$\frac{4N\rho D}{d^2}$$

B
$$\frac{4N\rho d}{D^2}$$

C
$$\frac{8N\rho D}{d^2}$$

D
$$\frac{8N\rho d}{D^2}$$

35 Two cells are connected to a load resistor of resistance $2\,\Omega$. The electromotive force (e.m.f.)