25 A metal disc of radius r is spinning with an angular velocity ω about an axis through its centre and perpendicular to its plane. The disc is in a uniform magnetic field B which is perpendicular to the plane of the disc.

What is the electromotive force induced between the centre of the disc and its edge?

A $\pi r^2 \omega B$ **B** $\pi r \omega^2 B$ **C** $\frac{\omega r^2 B}{2}$ **D** $\omega r^2 B$