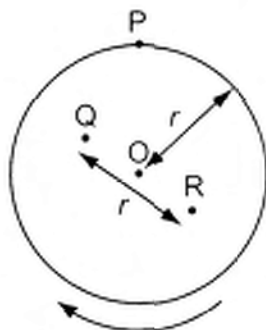**32** An aluminium disc of radius r rotates about its centre at a constant speed. It is placed in a uniform magnetic field perpendicular to its surface. A steady electromotive force (e.m.f.) E is generated between the centre O and the rim at P.

What is the e.m.f. generated between points Q and R, each a distance $\frac{r}{2}$ from the centre?

A zero **B** $\frac{E}{4}$ **C** $\frac{E}{2}$ **D** E