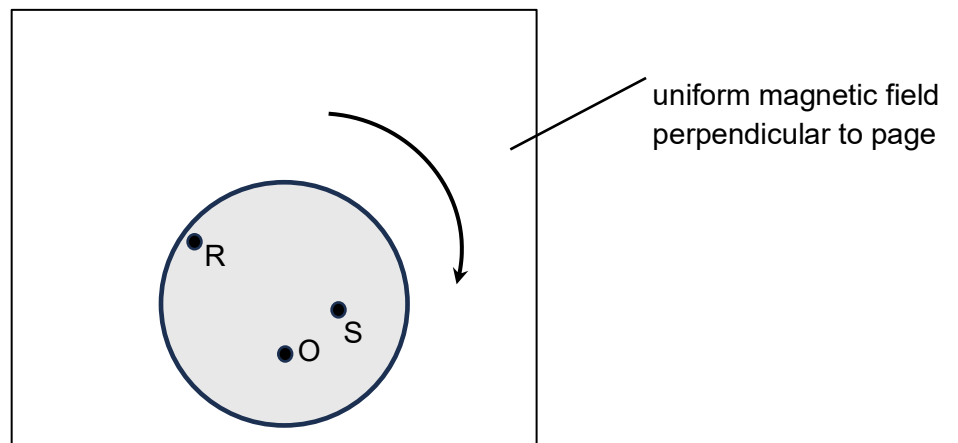25 The figure below shows a copper disc rotating at constant angular speed about its centre O in a uniform magnetic field acting perpendicular to the page. Point R is at a distance r from the centre O. The induced e.m.f. between O and R is E.

Point S is at a distance $\frac{r}{2}$ from O.

uniform magnetic field perpendicular to page

What is the induced e.m.f. between R and S?

A $E/4$ **B** $E/2$ **C** $3E/4$ **D** E