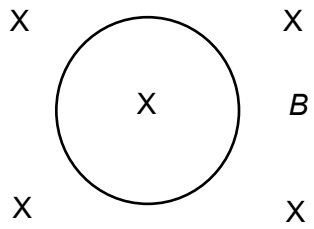
22 A circular loop of wire of electrical resistance R and radius r is oriented with its plane perpendicular to a magnetic field B as shown. What must be the rate of change of the magnetic flux density in order to produce a current I in the loop?



A $IR/\pi r^2$ **B** $I\pi r^2/R$ **C** $IR/\pi r$ **D** $I\pi r/R$