

- 25** A circular coil with a radius of 0.10 m has 200 turns. The coil rotates at 50 revolutions per second about an axis which is perpendicular to a uniform magnetic field and in the plane of the coil. The magnetic flux density of the field is 0.20 T.

The maximum induced e.m.f.  $E_0$  is given by the expression

$$E_0 = \text{maximum magnetic flux linkage} \times \text{angular speed of the coil}$$

What is the maximum e.m.f. induced in the coil?

**A** 63 V

**B** 126 V

**C** 195 V

**D** 395 V

- 26** The alternating current from an a.c. mains supply varies sinusoidally. The graph shows how the square