

**22** An overhead power cable carries an alternating current of 2000 A r.m.s.

At what perpendicular distance would the peak magnetic flux density due to the current in the cable be  $100\ \mu\text{T}$ ?

**A** 2.8 m

**B** 4.0 m

**C** 5.7 m

**D** 8.0 m