

**13** Vertical plane-polarised radio-waves of amplitude  $A$  is transmitted towards a receiving antenna. The antenna is tilted at an angle  $\theta$  from the vertical in the plane perpendicular to the direction of propagation of the radio-waves.

Which of the following is the power received by the antenna proportional to?

**A**  $A^2 \cos^2 \theta$

**B**  $A \cos \theta$

**C**  $A \sin \theta$

**D** zero