

**16** Unpolarised light of intensity  $I_0$  is incident on the first of two polarising sheets. Initially the axis of polarisation of the sheets are perpendicular to each other.

Which of the following should be done so that light intensity of  $0.25I_0$  can emerge from the second polarising sheet?

- A**    Rotate either sheet by  $45^\circ$ .
- B**    Rotate either sheet by  $60^\circ$ .
- C**    Add a third sheet in between with same plane of polarisation as the first sheet.
- D**    Remove one of the 2 sheets.

**17** A telescope with an aperture of 45 cm receives light of wavelength 630 nm from a binary star system