

- 18** When light waves pass through a double slit, interference patterns are observed. Similar interference patterns can be observed using a double source of other types of wave.

Interference maxima produced by a double source of different types of wave are observed at a distance of 15 m from the source.

In which case are the maxima furthest apart?

- A** red light of wavelength 700 nm from sources 4.0 mm apart
- B** sound waves of wavelength 20 mm from sources 50 mm apart
- C** blue light of wavelength 450 nm from sources 2.0 mm apart
- D** surface water waves of wavelength 10 mm from sources 200 mm apart

- 19** A proton of mass m , charge e and velocity v enters a uniform electric field between two parallel