

- 24** A car is travelling at a constant velocity directly towards a man standing in the middle of the road.

The driver sounds the car's horn as a warning. The horn emits a sound wave of constant frequency.

The frequency of the sound heard by the man is different from the frequency of the sound emitted by the horn.

Which statement is correct?

- A** The frequency of the sound emitted by the horn is greater than the frequency of the sound heard by the man.
  - B** The frequency of the sound heard by the man depends on the distance between the car and the man.
  - C** The sound waves continually accelerate as they move from the horn to the man.
  - D** The wavelength of the sound heard by the man is less than the wavelength of the sound emitted by the horn.
- 25** Which statement about electromagnetic waves is correct?
- A** A wave of wavelength  $5.0 \times 10^{-6}$  m is invisible to the human eye.
  - B** They can all travel at different speeds in free space.
  - C** They cannot be polarised.
  - D** They consist of vibrating atoms.
- 26** A stationary wave is set up on a string that is stretched between two fixed points that are 48 cm apart.

At one instant, the appearance of the string is as shown.



What is the wavelength of the stationary wave?

- A** 16 cm                      **B** 32 cm                      **C** 48 cm                      **D** 72 cm