

- 25** A wave has a speed of  $340 \text{ m s}^{-1}$  and a period of  $0.28 \text{ ms}$ .

What is its wavelength?

- A**  $0.095 \text{ m}$       **B**  $95 \text{ m}$       **C**  $1.2 \times 10^3 \text{ m}$       **D**  $1.2 \times 10^6 \text{ m}$

- 26** Which line in the table summarises the change in wave characteristics on going from infra-red to ultraviolet in the electromagnetic spectrum?

	frequency	speed in a vacuum
<b>A</b>	decreases	decreases
<b>B</b>	decreases	remains constant
<b>C</b>	increases	remains constant
<b>D</b>	increases	increases

- 27** Light of wavelength  $600 \text{ nm}$  is incident on a pair of slits. Fringes with a spacing of  $4.0 \text{ mm}$  are formed on a screen.

What will be the fringe spacing when the wavelength of the light is changed to  $400 \text{ nm}$  and the separation of the slits is doubled?

- A**  $1.3 \text{ mm}$   
**B**  $3.0 \text{ mm}$   
**C**  $5.3 \text{ mm}$   
**D**  $12 \text{ mm}$

**Space for working**