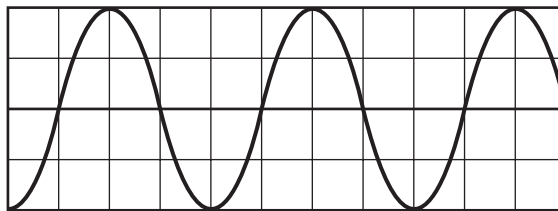


- 23** The diagram shows the waveform of a signal displayed on a cathode-ray oscilloscope.



The time-base is set at 5.0 ms per division.

The Y-gain is set at 5.0 mV per division.

What are the amplitude and the frequency of the signal?

	amplitude /mV	frequency /Hz
A	10	50
B	10	100
C	20	50
D	20	100

- 24** A jet aircraft travels at a speed of $0.8v$ where v is the speed of sound. The aircraft approaches a stationary observer. The frequency of sound emitted by the aircraft is 100 Hz.

Which frequency does the observer hear?

- A** 56 Hz **B** 180 Hz **C** 400 Hz **D** 500 Hz

- 25** A telescope detects and analyses some electromagnetic radiation of wavelength 2 cm.

Which type of telescope is it?

- A** microwave telescope
B optical telescope
C radio telescope
D X-ray telescope

- 26** What may be used to produce stationary waves?

- A** blowing air over the top of an empty bottle
B making a loud sound near a mountain
C passing monochromatic light through a double slit
D passing water waves through a narrow slit