

# Questions about multiple contributions from sources

## Question 1

The spreading of a wave through a gap in a barrier is called: A. interference. B. superposition. C. dispersion. D. diffraction.

## Question 2

Light passing through a small pinhole does not make a shadow with a distinct, sharp edge because of: A. refraction. B. diffraction. C. polarisation. D. interference.

## Question 3

A train of water waves travels from an area of deep to shallow water, crossing the boundary at right angles. Which of the following statements is/are correct: 1. The water waves change direction as they meet the boundary. 2. The water waves do not change direction as they meet the boundary. 3. The water waves speed up as they meet the boundary. 4. The water waves slow down as they meet the boundary. A. 1 only. B. 2 only. C. 1 and 3. D. 2 and 4.

## Two more questions

### Question 4

Which of the following kinds of waves can show interference effects? 1. sound 2. water 3. infrared A. 1 only. B. 1 and 3 only. C. 2 only. D. 1, 2 and 3.

### Question 5

Which of the following settings in a ripple tank will produce the most prominent diffraction pattern of a water wave of wavelength of 2 cm? A. The wave passes through a gap of 20 cm. B. The wave passes through a gap of 10 cm. C. The wave passes through a gap of 4 cm. D. The wave passes through a gap of 2 cm.

## The last two questions

### Question 6

The polarisation of light is best explained by thinking about light as being: A. a longitudinal wave. B. a transverse wave. C. a transverse wave with components in different planes. D. a stream of energy photons.

### Question 7

Light is passed through a polarising filter with its transmission axis is in the horizontal plane. It then passes through a second filter with its transmission axis is in the vertical plane. After passing through both filters the light will be: A. polarised. B. unpolarised. C. entirely blocked. D. returned to its original state.