Practice Question Set For GCSE
Subject : Physics
Paper-1 Topic : Waves

Name of the Student:_____
Max. Marks : 16 Marks **Time : 16 Minutes**

Q1.

A sound wave in air travels a distance of 220 m in a time of 0.70 s.

(i) State the equation linking speed, distance and time.

(1)

(ii) Calculate the speed of the sound wave in air.

(2)

wave speed = ... m/s

(Total for question = 3 marks)

Q2.

This question is about waves.

Figure 3 is a diagram of a **water wave** in a ripple tank.

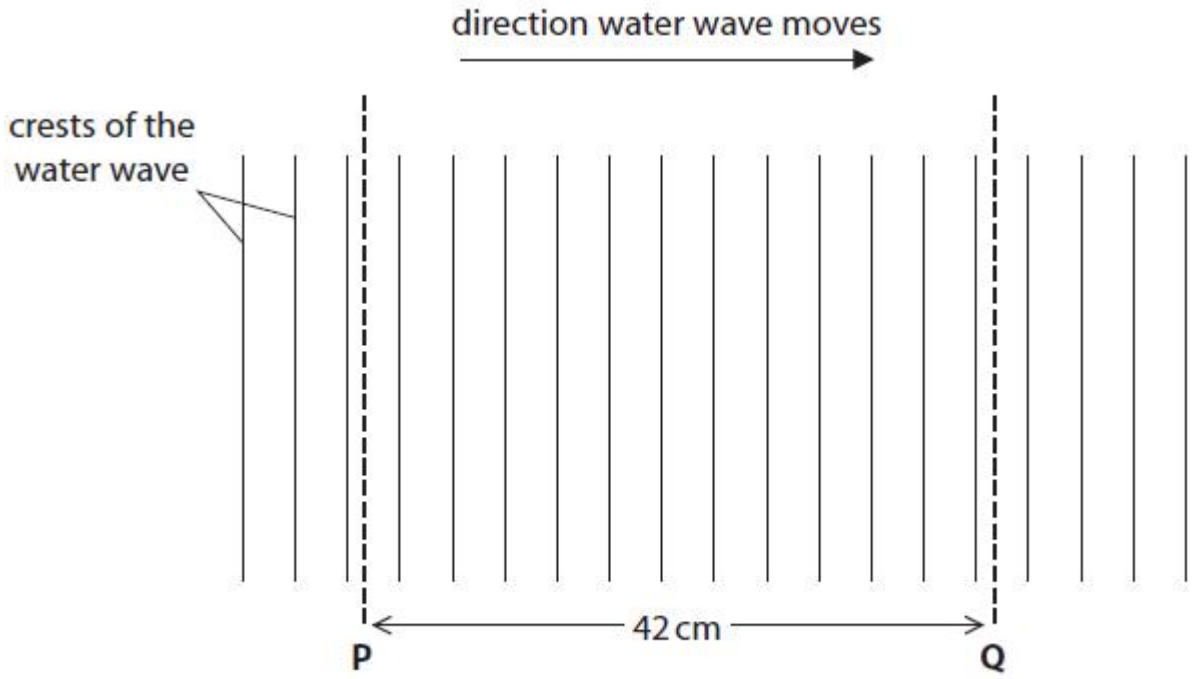

Figure 3

(i) State the number of crests of the wave between **P** and **Q**.

(1)

number of crests= .....

(ii) The distance between **P** and **Q** is 42 cm.
Calculate the wavelength of the water wave in Figure 3.

(2)

wavelength= ..... cm

(iii) Describe how a student could determine the wave speed of the water wave in Figure 3.

(3)

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(Total for question = 6 marks)

Q3.

Figure 4 shows a wave on the sea moving towards a beach.

Figure 4

(i) State the relationship between the speed, frequency and wavelength of a wave.

(1)

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(ii) A water wave has a frequency of 0.40 Hz and a wavelength of 1.2 m.

Calculate the speed of the water wave.

(2)

speed = ... m / s

(Total for question = 3 marks)

Q4.

Figure 9 is a diagram of a water wave.

A cork is floating on the water.

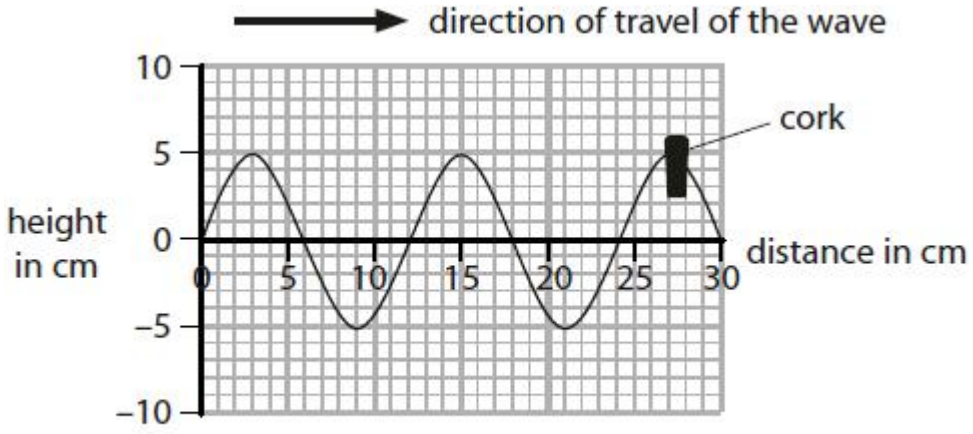

Figure 9

(i) Use the scale on the diagram to measure the wavelength of the wave.

(2)

wavelength = ... cm

(ii) Describe the motion of the cork.

You should include how the cork moves relative to the direction of travel of the wave.

(2)

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(Total for question = 4 marks)