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

Name of the Student:_____
Max. Marks : 17 Marks **Time : 17 Minutes**

Q1.

Some questions must be answered with a cross in a box(☒). If you change your mind about an answer, put a line through the box(☒)and then mark your new answer with a cross(☒).

This question is about waves.

(i) Which row of the table is correct for **sound waves**?

(1)

		sound waves are	can sound waves transfer energy?
☐	**A**	longitudinal	yes
☐	**B**	longitudinal	no
☐	**C**	transverse	yes
☐	**D**	transverse	no

(ii) A sound wave has a frequency of 440 Hz and a wavelength of 0.75 m.
Calculate the wave speed of the sound wave.

(2)

wave speed = ... m/s

(Total for question = 3 marks)

Q2.

Ripples travel out from the centre of a small circular pond to its edge.

(i) Describe how a student could determine the wave speed of the ripples.

(3)

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(ii) Figure 11 shows a duck floating on the pond.

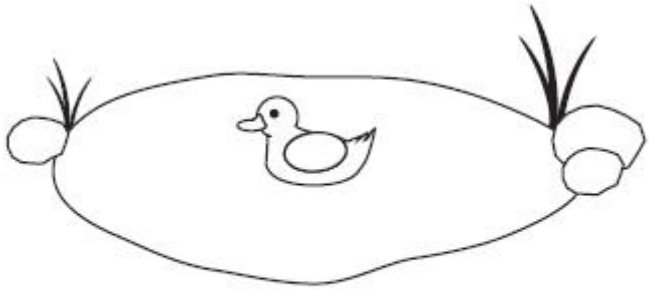

Figure 11

The ripples cause the duck to move.
Draw arrows on Figure 11 to show how the duck moves due to the ripples.

(1)

(Total for question = 4 marks)

Q3.

* A teacher takes a group of students on to a sports field to measure the speed of sound in air.

The teacher fires a starting pistol.
It produces a loud bang and a flash of light at the same time.
The students take measurements.

Describe how the measurements are made and used to determine the speed of sound in air.

You may draw a labelled diagram to help with your answer.

(6)

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(Total for question = 6 marks)

Q4.

Figure 8 shows a ripple tank.

A screen is placed below the ripple tank.

The wave pattern produced by the ripples can be seen on the screen.

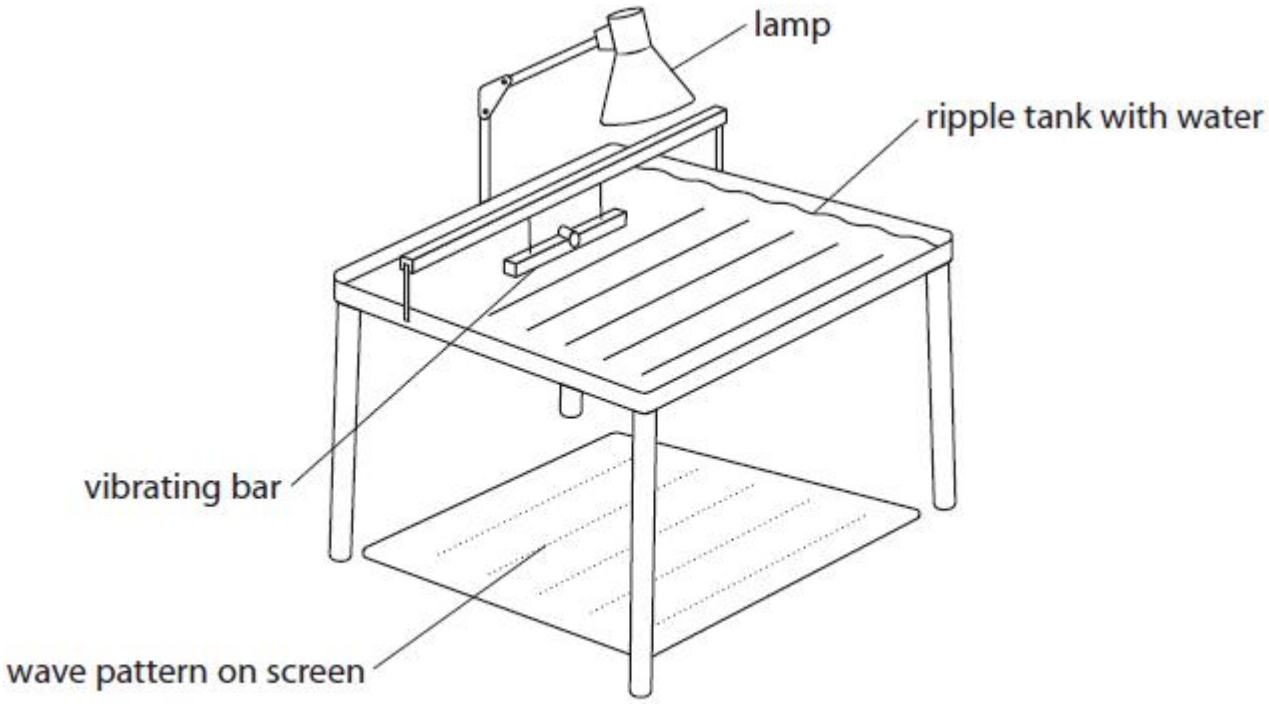

Figure 8

A student has a stop clock and a ruler.

(i) Describe how the student could measure the frequency of the ripples.

(2)

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(ii) Describe how the student could measure the wavelength of the ripples.

(2)

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(Total for question = 4 marks)