Practice Question Set For GCSE
Subject : Physics
Paper-2 Topic: Waves (Low Demand Questions)

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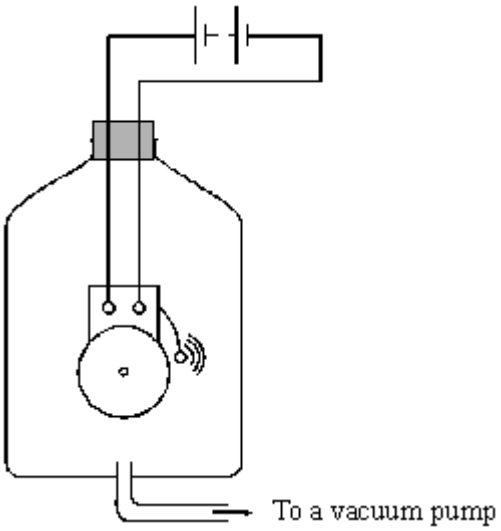
Name of the Student:_____
Max. Marks : 18 Marks **Time : 18 Minutes**

Q1.

(a) The diagram shows an electric bell inside a glass jar. The bell can be heard ringing.



In the following sentences, cross out the **two** lines that are wrong in each box.

When all the air has been taken out of the glass jar, the ringing sound will

stop.
get louder.
get quieter.

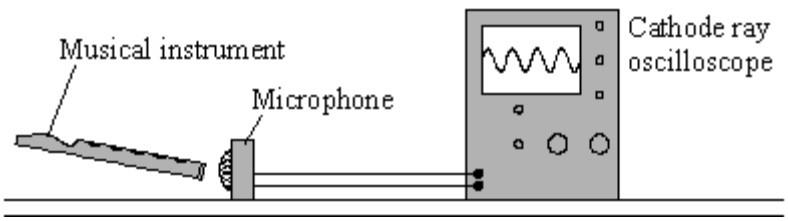
This is because sound

travels faster
travels slower
cannot travel

through a vacuum.

(2)

(b) The microphone and cathode ray oscilloscope are used to show the sound wave pattern of a musical instrument.



One of the following statements describes what a microphone does. Tick the box next to the correct statement.

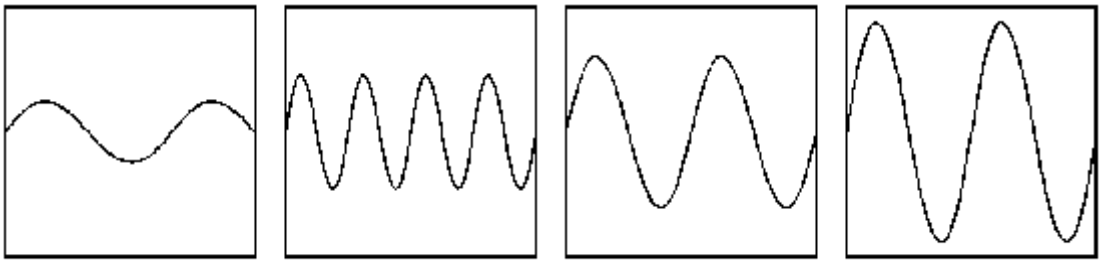
A microphone transfers sound energy tolight energy. ☐

A microphone transfers sound energy toelectrical energy. ☐

A microphone transfers electrical energy tosound energy. ☐

(1)

(c) Four different sound wave patterns are shown. They are all drawn to the same scale.



(i) Which sound wave pattern has the highest pitch?

_____

Give a reason for your answer.

_____

(2)

(ii) Which sound wave pattern is the loudest?

_____

Give a reason for your answer.

_____

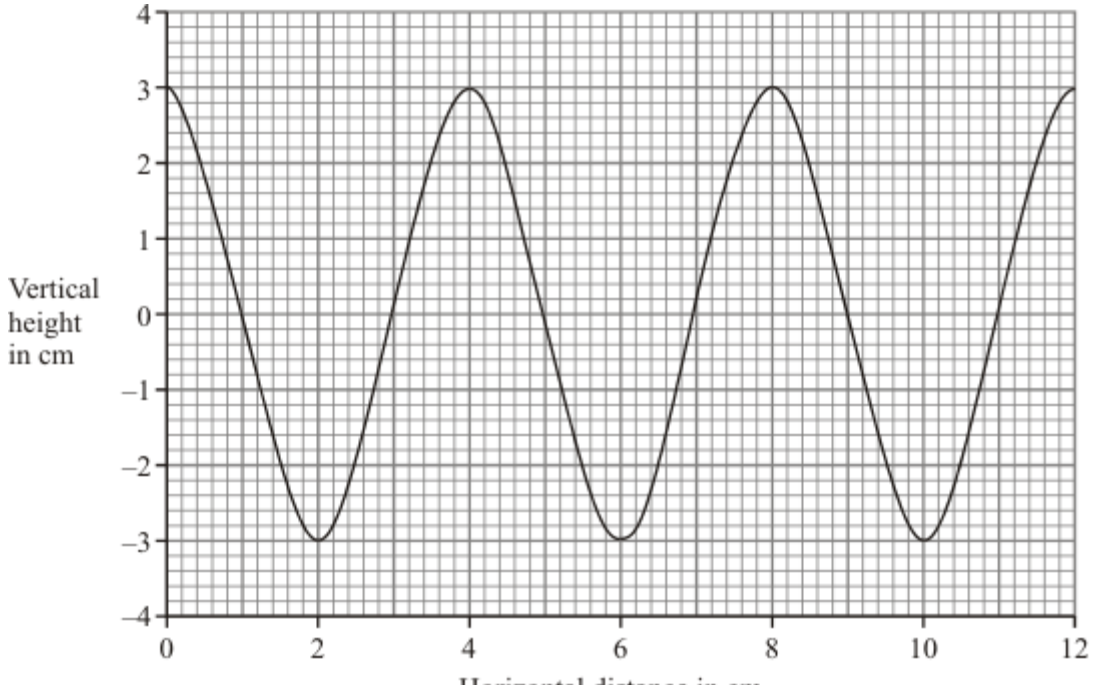
_____

(2)

(Total 7 marks)

Q2.

The diagram shows a water wave drawn to scale.



(a) What is the wavelength of this water wave? _____ cm

(1)

(b) What is the amplitude? _____ cm

(1)

(c) Twelve waves pass an observer in four seconds.

What is the frequency of the waves? Show clearly how you work out your answer and give the unit.

_____

_____

Frequency = _____

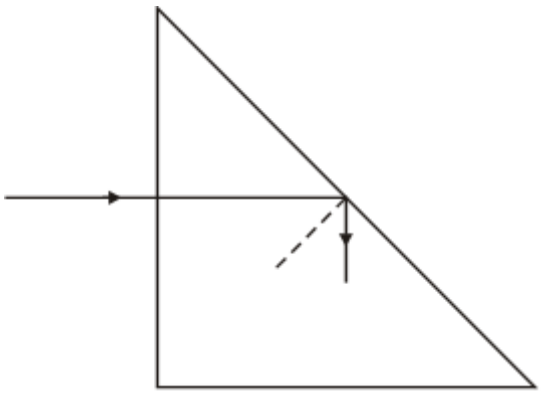
(3)

(Total 5 marks)

Q3.

Glass prisms are used in many optical devices.

(a) The diagram shows what happens to a ray of light as it travels through a glass prism.



To gain full marks for this question you should write your ideas in good English. Put them into a sensible order and use the correct scientific words.

Use the words in the box to help you to explain why the ray behaves in this way.

angle	critical	normal

_____

_____

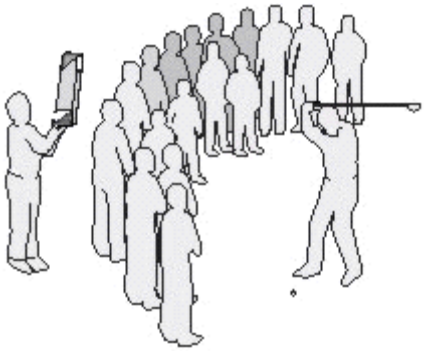
_____

_____

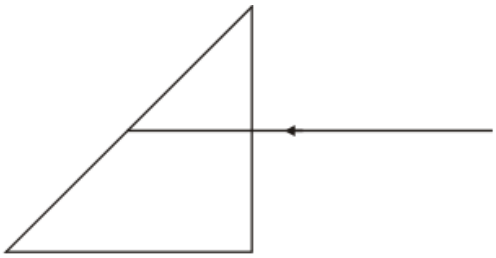
_____

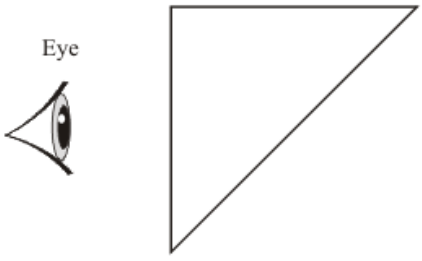
(3)

(b) Periscopes can be used to look over the heads of other people.



A periscope contains two glass prisms.
Complete the diagram to show the ray of light reaching the person's eye.





(3)
(Total 6 marks)