Practice Question Set For GCSE
Subject : Physics
Paper-2 Topic: GCSE Triple Science_Waves (LDQ)

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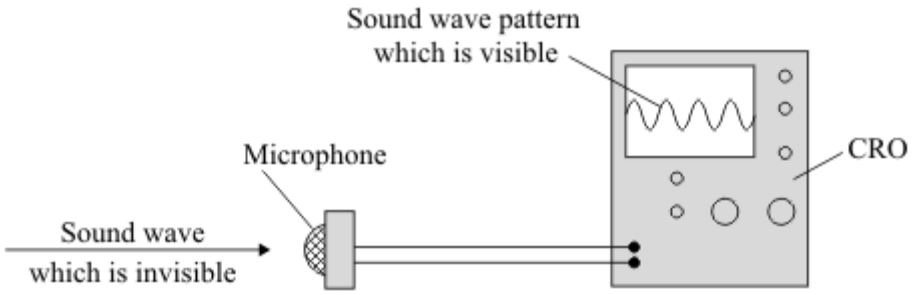
Name of the Student:_____
Max. Marks : 17 Marks **Time : 17 Minutes**

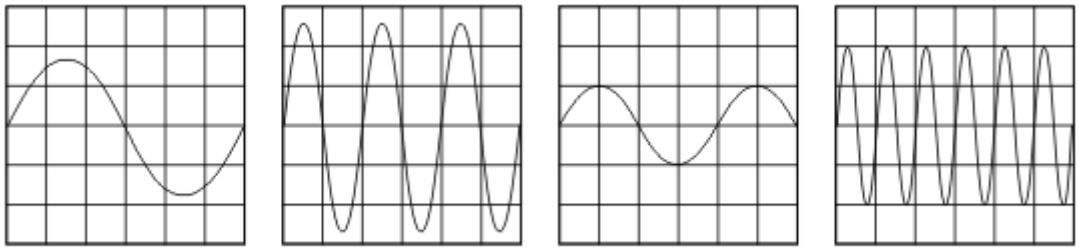
Q1.

A microphone and a cathode ray oscilloscope (CRO) can be used to show the pattern of a sound wave.



Four sound wave patterns, **A**, **B**, **C** and **D**, are shown.

They are all drawn to the same scale.



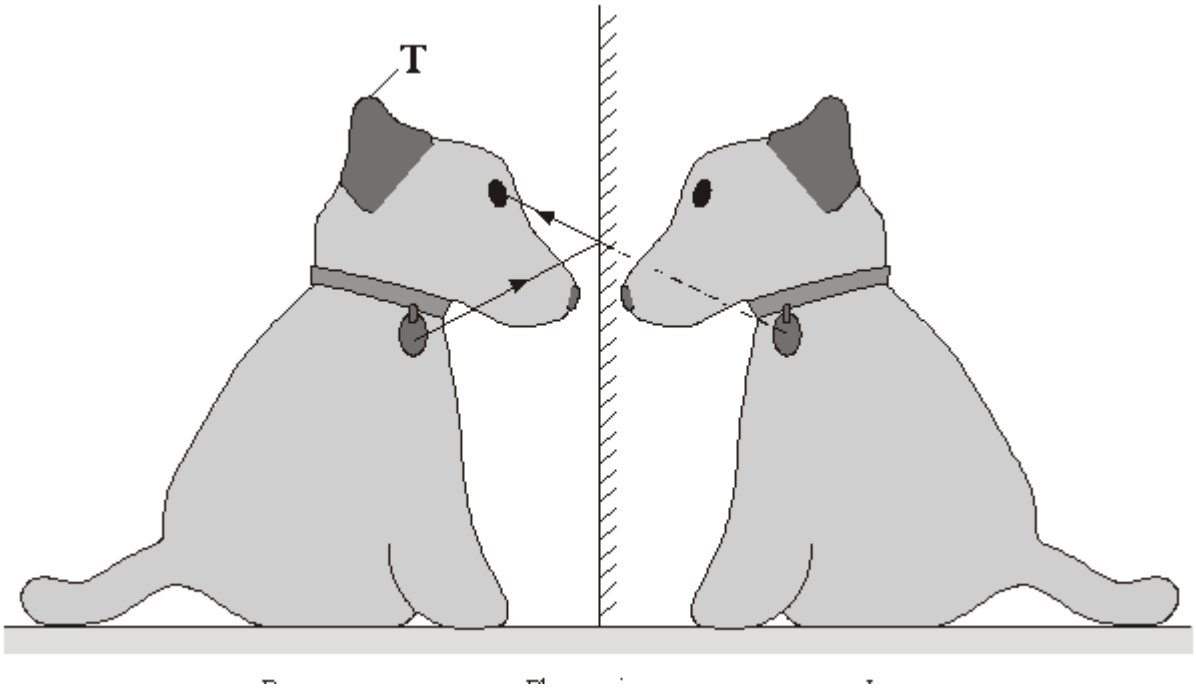
(a) Which **one** of the patterns has the smallest amplitude? _____

(b) Which **one** of the patterns has the lowest frequency? _____

(Total 2 marks)

Q2.

A puppy can see an image of himself in a plane mirror.



The diagram shows how the puppy can see his disc.

(a) On the diagram, use a ruler to draw a ray to show how the puppy can see the top of his ear, which is marked as **T**.

(3)

(b) What is a plane mirror?

_____

_____

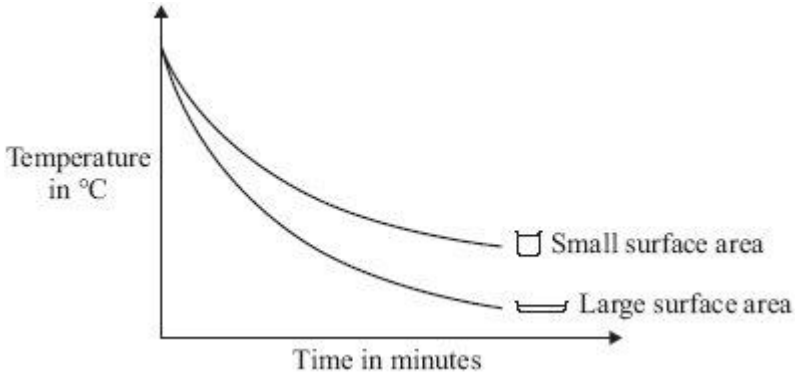
(1)

(Total 4 marks)

Q3.

(a) The graph compares how quickly hot water cooled down in two glass beakers with different surface areas.

The volume of water in each beaker was the same.



Describe how the surface area of the water affected how fast the water cooled down.

_____

_____

(1)

(b) Some foxes live in a hot desert environment.

This type of fox has very large ears.

Explain how the size of the fox's ears help it to keep cool in a hot desert.

_____

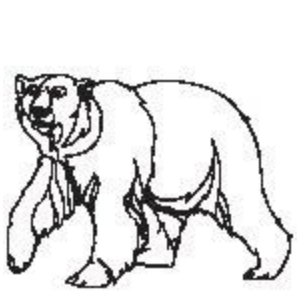
_____

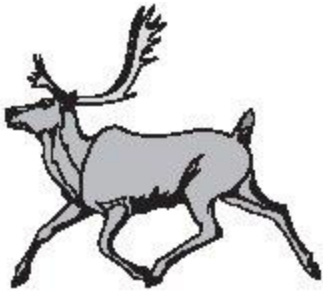
_____

_____

(2)

(c) Polar bears and reindeer are adapted to live in cold environments.





Use the words in the box to complete the following sentences.

conduction	**convection**	**radiation**

(i) The white colour of a polar bear's fur helps to keep the polar bear warm by reducing the heat lost by _____ .

(1)

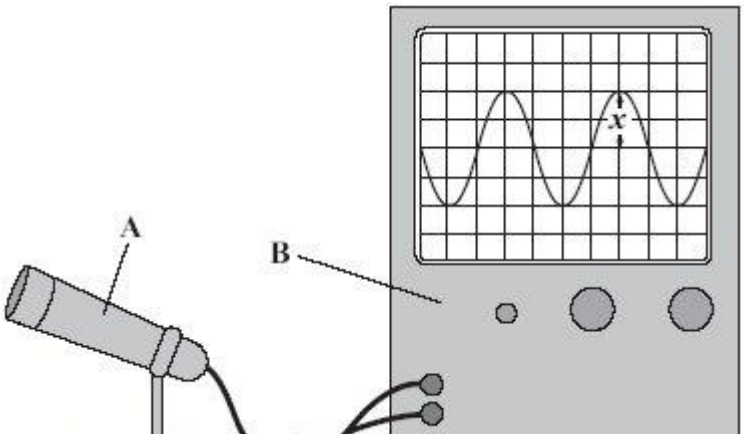
(ii) The hairs of a reindeer are hollow. The air trapped inside the hairs reduces the heat lost by _____ .

(1)

(Total 5 marks)

Q4.

(a) A student uses two pieces of equipment, **A** and **B**, to display a sound wave.



(i) Use words from the box to complete the sentence.

a loudspeaker	**a microphone**	**an oscilloscope**	**a screen**

A is _____ and **B** is _____ .

(2)

(ii) Use words from the box to complete the sentence.

the amplitude	**half the amplitude**	**the frequency**	**half the frequency**

The distance ***x*** marked on the diagram measures _____ of the sound wave.

(1)

(iii) Complete the sentence.

The distance ***x*** becomes smaller. This is because the sound has

become _____ .

(1)

(b) There is no air in space.

Astronauts in space cannot hear sounds from outside their spacesuits.

Explain this.

_____

_____

_____

_____

(2)

(Total 6 marks)