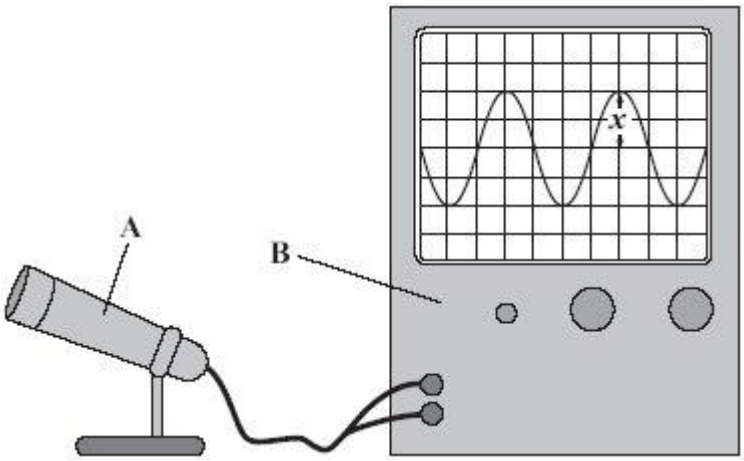
Practice Question Set For GCSE
Subject : Physics
Paper-2 Topic: Waves (Low Demand Questions)

Merit Minds
www.merit-minds.com
Exam Preparation and Free Resources

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

Q1.

(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.

Downloaded from www.merit-minds.com

Explain this.

_____

_____

_____

_____

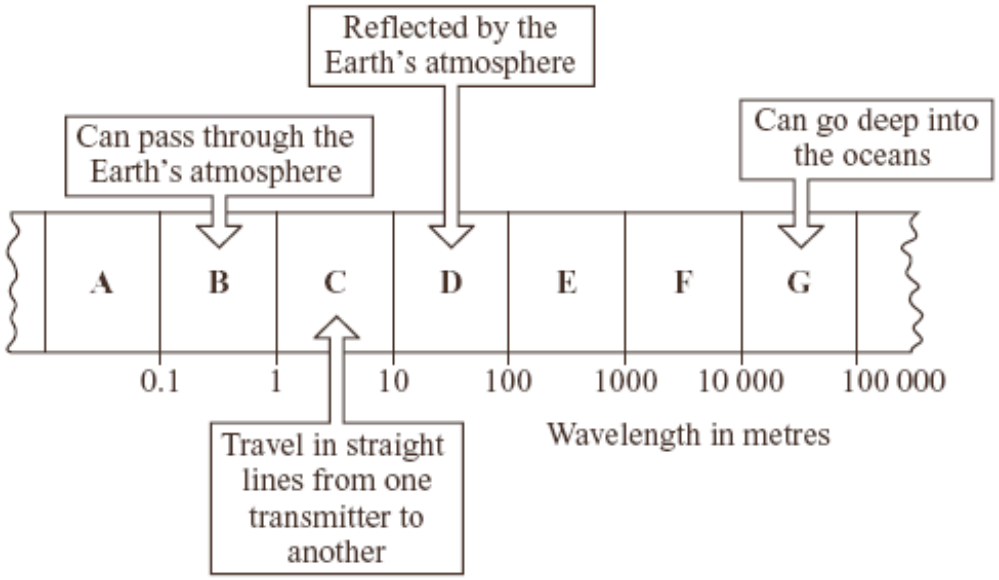
(2)

(Total 6 marks)

Q2.

The diagram shows a small part of the electromagnetic spectrum divided into seven sections.

The different properties of the waves in each section make them useful in different ways.



The waves in which section, **A**, **B**, **C**, **D**, **E**, **F** or **G**, are:

(a) used to send a signal to a satellite in space

_____

(1)

(b) used to communicate with a submarine under the water

_____

(1)

(c) used by a radio station to broadcast programmes around the world

_____

(1)

(d) the waves with the shortest wavelength?

_____

(1)

(Total 4 marks)

Downloaded from www.merit-minds.com

Q3.

(a) Mobile phones send *digital* signals using electromagnetic waves.

(i) Which **one** of the following types of electromagnetic wave is used to carry information between masts in a mobile phone network?

Draw a ring around your answer.

light	**microwave**	**radio**

(1)

(b) Some people worry that using a mobile phone may be bad for their health.

Look at this information taken from a recent newspaper article.

- Scientists in Sweden found that the regular use of a mobile phone increases the risk of a cancerous growth between the ear and the brain.
- Some people who use mobile phones for a long time complain of headaches and tiredness. The same effect has not been noticed in laboratory tests.
- There is no reliable evidence to link using mobile phones with ill health.
- The waves from a mobile phone are not strong enough to cause long-term heat damage to cells in the body.

(i) Complete the following sentence by drawing a ring around the word in the box that is correct.

The evidence from different scientists doing the same investigation is reliable if

all the scientists get | different / identical / random | results.

(1)

(ii) What information in the article supports the idea that mobile phones are bad for your health?

_____

_____

_____

_____

(2)

(iii) Some scientists say that using a mobile phone is totally safe.

What information in the article supports this view?

_____

_____

_____

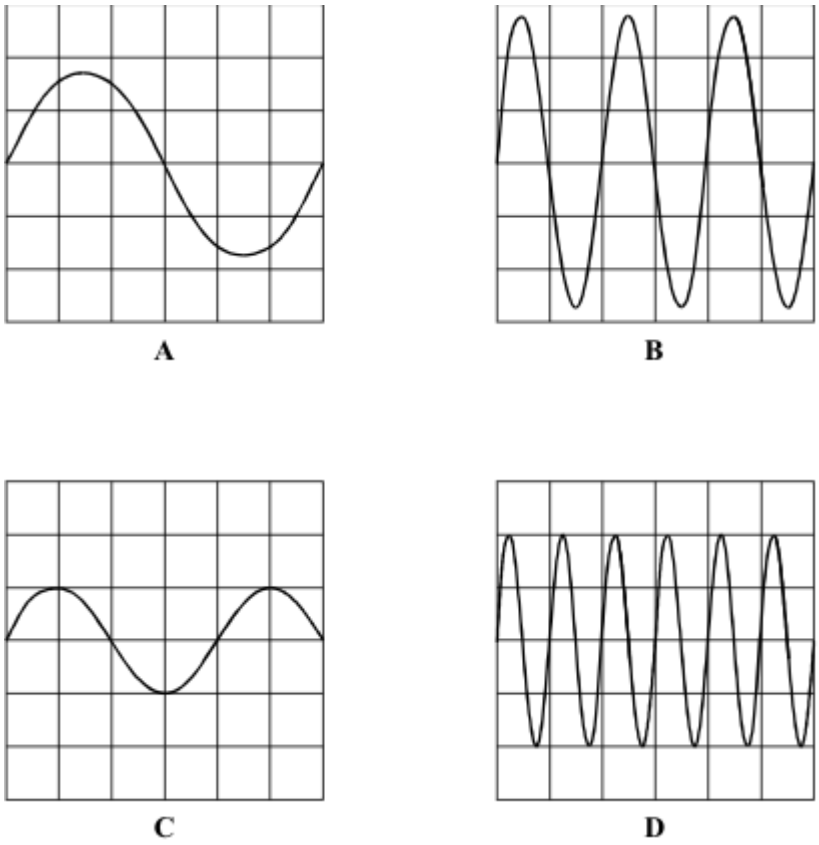
Downloaded from www.merit-minds.com

(2)

(Total 6 marks)

Q4.

The diagram shows four oscilloscope wave traces. The controls of the oscilloscope were the same for each wave trace.



Which **one** of the waves traces, **A**, **B**, **C** or **D**, has:

(i) the largest amplitude," _____

(1)

(ii) the lowest frequency? _____

(1)

(Total 2 marks)

Downloaded from www.merit-minds.com