

Waves

Past Paper Questions AQA Physics GCSE

Figure 1 shows a water wave.

Figure 1



01.

What type of wave is a water wave?

[1 mark]

Tick (✓) **one** box.

Electromagnetic

Longitudinal

Transverse

02.

Which statement describes the movement of the water at point X?

[1 mark]

Tick (✓) **one** box.

The water at point X does **not** move.

The water at point X moves to the left and right.

The water at point X moves up and down.

03.

The wave has a frequency of 2.0 hertz.

The wavelength is 0.032 metres.

Calculate the wave speed.

Use the equation:

$$\text{wave speed} = \text{frequency} \times \text{wavelength}$$

Choose the unit from the box.

[3 marks]

m^2/s	m/s	s^2
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Wave speed = _____ Unit _____

04.

What is transferred by all waves?

[1 mark]

Tick (✓) **one** box.

Energy

Information

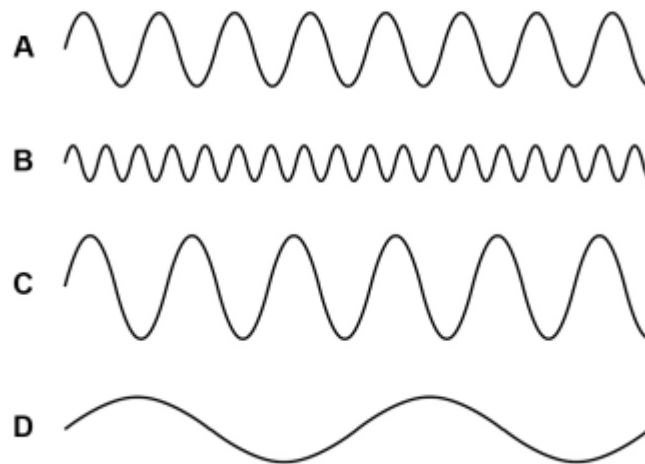
Water

Figure 2 shows four water waves.

The waves are all drawn to the same scale.

The waves all travel at the same speed.

Figure 2



05.

Which wave has the longest wavelength?

[1 mark]

Tick (✓) **one** box.

A B C D

06.

Which wave has the highest frequency?

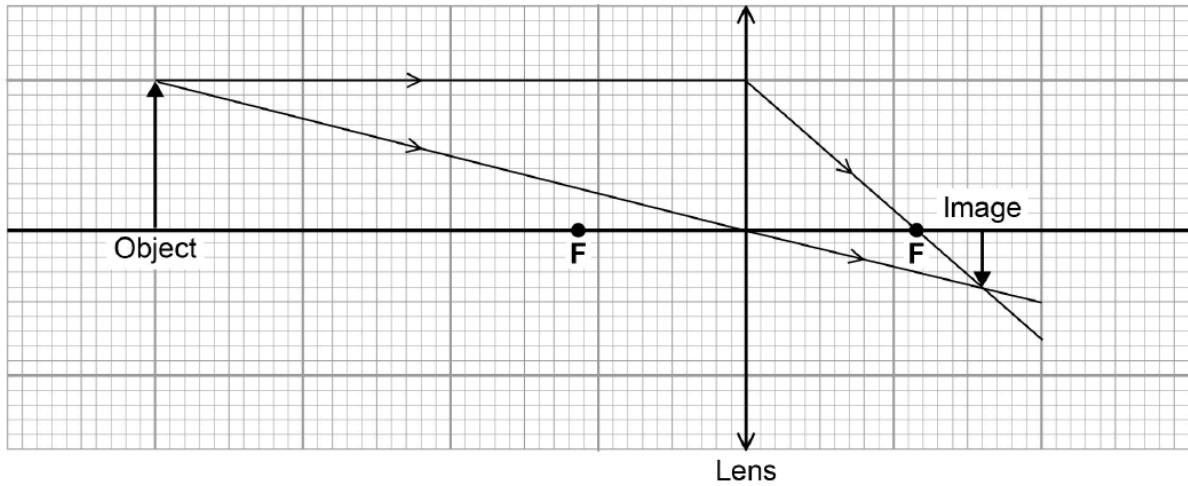
[1 mark]

Tick (✓) **one** box.

A B C D

Figure shows how a lens forms an image of an object.

Figure



07.

What type of lens is represented in **Figure**

[1 mark]

Tick (✓) **one** box.

- Concave
- Convex
- Diverging

08.

Measure the image height and the object height in **Figure**

[1 mark]

Image height = _____ cm

Object height = _____ cm

09.

Calculate the magnification produced by the lens.

Use the equation:

$$\text{magnification} = \frac{\text{image height}}{\text{object height}}$$

[2 marks]

Magnification = _____

10.

Which **two** words describe the image in **Figure**

[2 marks]

Tick (✓) **two** boxes.

- | | |
|----------|--------------------------|
| Enlarged | <input type="checkbox"/> |
| Inverted | <input type="checkbox"/> |
| Real | <input type="checkbox"/> |
| Upright | <input type="checkbox"/> |
| Virtual | <input type="checkbox"/> |

11.

The object was blue.

A student looked at the blue object through a green filter.

Complete the sentences.

Choose answers from the box.

[2 marks]

black	blue	green	red	white
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Looking at the blue object through a green filter makes the object appear

_____ .

This is because the green filter only transmits the light that is _____ .