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

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Name of the Student:_____
Max. Marks : 23 Marks **Time : 23 Minutes**

Mark Schemes

Q1.

(a) (i) B

1

(ii) longitudinal

1

(b) (i) the sound wave travels to the building and back

allow (because) it is an echo

1

(ii) 0.30 / 0.3

*allow **1** mark for*

$$\frac{0.30 + 0.27 + 0.33}{3}$$

or

$$\frac{0.9}{3}$$

2

(iii) 100 (m)

allow ecf from (b)(ii) with a tolerance of ± 10 (m)

1

(iv) use a sound sensor and a datalogger to measure the time

1

(v) (amplitude of echo is) smaller

ignore quieter

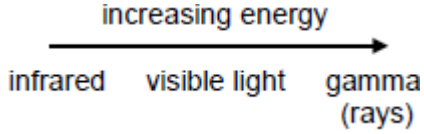
allow lower

1

[8]

Q2.

(a)



*3 correct = **2** marks*

*1 or 2 correct = **1** mark*

allow IR for infrared

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allow visible or light for visible light

2

(b) (i) frequency

1

(ii) vacuum

1

(c) IR - remote control / fibre optic

ignore phones and cables unless qualified

1

microwave - mobile phone / satellite (TV)

1

radio – (terrestrial) TV / radio transmissions

allow walkie talkies

1

visible light – photography / fibre optic

allow valid examples of communication using visible light e.g. traffic lights, sign language

1

[8]

Q3.

(a) convection

1

(b) any **two** from:

- easier / clearer to read **or** reading error less likely / takes readings for you
- greater resolution / temperature displayed to two decimal places

  ignore precision / accurate / reliable / sensitivity
- more frequent readings

  ignore readings every second / plots graph / quicker
- more data
- live graphical representation

  allow references to safety

  allow no need to open lid (thus preventing cooling)

2

(c) (i) black is a better emitter / radiator of energy / infrared radiation

allow heat

for full marks there must be a comparison in terms of emission / radiation

*allow **1** mark for: temperature of black can decreases faster / more*

or

water in black can has reached room / constant temperature whilst water in white can is still cooling

or

correct description of temperature drop in both cans after 14 minutes

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2

(ii) (any) line drawn between the white can and black can lines on graph **starting at 100** (°C)

1

line shows the same trend as white can line **or** black can line

second mark only scores if first marking point correct

*do **not** award this mark if line shows intentional rise at any point*

1

[7]

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