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

Name of the Student:_____
Max. Marks : 20 Marks **Time : 20 Minutes**

Mark Schemes

Q1.

(a) (i) infrared / *IR*

1

(ii) *UV / X-rays / gamma rays*

1

appropriate use corresponding with given wave:
dependent on first marking point

- UV: security marking ***or*** *tanning*
- X-rays: medical imaging ***or*** *checking baggage*
- gamma rays: sterilising surgical instruments ***or*** *killing harmful bacteria in food*

accept any sensible alternative uses

1

(b) D

1

gap must be comparable to wavelength
accept converse

1

can create gap of that size in classroom
dependent on first marking point

1

(c) (i) Q

1

(ii) sound waves reflected
accept 'it' for sound waves
ignore bounce

1

at EF

1

angle of incidence equal to angle of reflection

1

(iii) stop sound going direct from clock to ear

1

(iv) 22 (m)

*allow **1** mark for correct substitution, ie*
*330 = 15 × λ scores **1** mark*

2

(v) outside audible range

1

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Q2.

(a) infrared / IR

correct answer only

1

(b) any **two** from:

- increase the power / watts
  allow increase the temperature of the oven or make the oven hotter
- decrease the speed
  allow leave the biscuits in for longer
- put biscuits through again
  increase radiation is insufficient
  ignore changes to the design of the oven

2

(c) (inside) surface is a (good) reflector or poor absorber (of IR)

Ignore bounce for reflect
surface is a (good) reflector of light does not score
surface is a (good) reflector of light and infrared / heat does score

1

(and) <u>outside</u> surface is poor emitter (of IR)

1

(so) increases the energy reaching the biscuits

allow reduces energy loss or makes oven more efficient
*do **not** accept no energy losses*
keeps oven hotter is insufficient

1

[6]