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

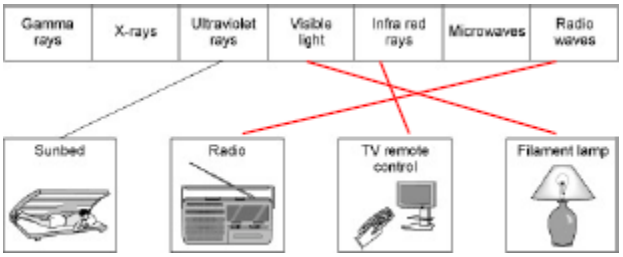
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Name of the Student:_____
Max. Marks : 25 Marks **Time : 25 Minutes**

Mark Schemes

Q1.

(a) all three lines correct



*allow **1** mark for each correct line*

if more than one line goes from a device then all lines from that device are wrong

3

(b) (i) <u>skin</u> cancer

*do **not** accept cancer*
*do **not** accept sunburn*
correct answer only

1

(ii) other factors may be involved

accept may have been in the Sun too long
accept (over)-use of sunbeds and (over)- exposure to the Sun (both) give the same symptoms
accept any other sensible factor that could lead to doubt
*do **not** accept irrelevant answers eg may be run over by a car*
*do **not** accept killed by exposure to the Sun*

1

(iii) can assess risk

answers should be in terms of assessing our own health risk

or

make your own decision

accept so you limit its use / don't use one
*do **not** accept so you don't get skin cancer*
*do **not** accept so you don't get sunburn*

1

[6]

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Q2.

less / no light pollution

accept no / fewer streetlights

1

less cloud cover / above clouds

1

less atmospheric pollution

accept air for atmosphere
accept idea of thinner atmosphere
*do **not** accept closer to stars*

1

[3]

Q3.

(a) (i) bat(s)

1

(ii) any example in the inclusive range 5 ↔ 29 Hz / hertz

appropriate number and unit both required

1

(b) (i) A, C, D

all three required and no other

1

(ii) D, E

both required and no other

1

(c) sound cannot travel through a vacuum / (empty) space / free space

accept there is no medium (for the sound to travel through)
*do **not** accept there is no air (for the sound to travel through)*

1

(because) there is / are nothing / no particles to vibrate

accept because there is / are nothing / no particles between them and the source (of the sound)

1

[6]

Q4.

(a) (i) X-ray(s)

1

(ii) gamma rays

1

(iii) infrared

1

(b) the same speed as

1

(c) (i) horizontal arrow drawn pointing to the right

judge by eye

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accept drawn anywhere on diagram

1

(ii) **Y**

1

(iii) any **one** from:

- any type of electromagnetic wave
  accept electromagnetic wave(s)
- water (wave)
  *do **not** accept seismic waves*
- (earthquake / seismic) S waves
  *do **not** accept P waves*
  *do **not** accept earthquakes*

1

(d) (i) 3

1

(ii) 3.6

or

their (d)(i) × 1.2 correctly calculated

v = f × λ
*allow **1** mark for correct substitution*
ie 3 or their (d)(i) × 1.2 provided that no subsequent step is shown

2

[10]

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