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

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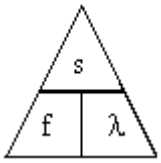
Name of the Student:_____
Max. Marks : 18 Marks **Time : 18 Minutes**

Mark Schemes

Q1.

(i) speed = frequency × wavelength

accept the equation rearranged
*accept v **or** s = f × λ*
do not allow w for wavelength
do not accept



unless subsequent calculation correct

1

(ii) 330 (m)

allow 1 mark for

$\lambda = \frac{300\,000\,000}{909\,000}$

***or** 300 000 000 = 909 000 × λ*
***or** answer of 330000(m) **or** 330033(m)*

2

[3]

Q2.

(i) wave speed = frequency × wavelength

accept correct transformation
accept v = f × λ
accept s for speed
accept m/s = Hz x m

accept  *if subsequent use of*  *is correct*

1

(ii) 500 000 000

*credit for **1** mark correct transformation in words **or** numbers **or** correct substitution*

2

Hertz

3 *marks for 500 000k Hz* ***or*** *500 MHz*

numerical answer **and** *unit must be consistent for full credit*

1

[4]

Q3.

(i) 0.5

1

(ii) wave speed = frequency × wavelength

accept $v = f \times \lambda$

accept s for v

accept m/s = Hz × m

accept

providing subsequent method correct

1

(iii) 15.2 km

both numerical answer and unit are required for both marks

numerical answer and unit must be consistent

allow ***1*** *mark for 15.2 with incorrect or no unit*

allow ***2*** *marks for an answer of 1.52 km if the answer to (b)(i) was given as 5*

r *1 mark for correct transformation*

or *1 mark for correct use of speed = distance/time*

unit on its own gains no credit

2

[4]

Q4.

(a) (i) Image distance increases
Image size increases
Remains inverted
Remains real

for 1 mark each

2

(ii) Image distance decreases
Image size decreases
Becomes upright
Becomes virtual

for 1 mark each

2

(b) Move lens with respect to film
Closer for distant objects
Further for near objects

for 1 mark each

3

[7]