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

Name of the Student:_____
Max. Marks : 21 Marks **Time : 21 Minutes**

Mark Schemes

Q1.

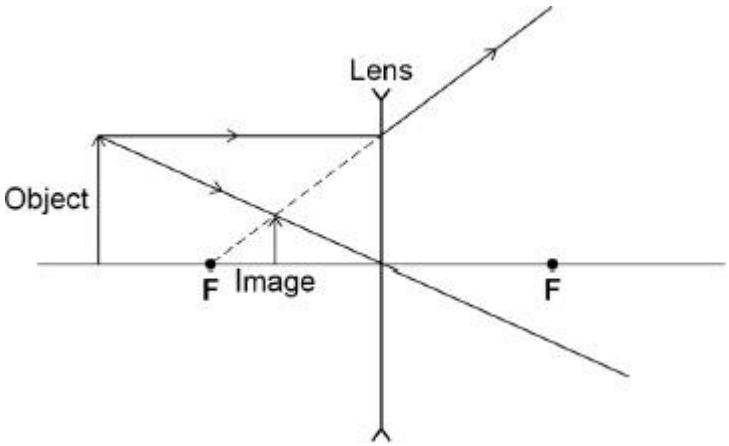
(a) principal focus

1

(b) ray through the centre of the lens

1

image in correct position and with correct orientation



1

(c) upright

allow right way up

1

virtual

ignore not real

1

ignore it is on the same side of the lens

(d) $3.5 = \frac{\text{image height}}{1.6}$

1

image height = 3.5 × 1.6

1

image height = 5.6 (mm)

1

[8]

Q2.

(a) ultraviolet travels at the same speed as visible light

1

(b) D

1

C

1

this order only

(c) A 400 – 315 = 85 (nm)
B 315 – 280 = 35 (nm)
C 280 – 100 = 180 (nm)

three calculations correct 2 marks
one or two calculations correct 1 mark

2

ultraviolet C (UVC)

mark dependent on all three calculations being made

1

(d) **Level 2:** Relevant points (reasons/causes) are identified, given in detail and logically linked to form a clear account.

3–4

Level 1: Points are identified and stated simply, but their relevance is not clear and there is no attempt at logical linking.

1–2

No relevant content

0

Indicative content:

- ozone absorbs all of the UVC
- UVC is the most dangerous
- ozone absorbs nearly all (95%) of the UVB
- UVB has a medium risk
- ozone doesn't absorb any UVA
- ozone does not reduce risk from UVA
- UVA is the least dangerous
- the greater the ionising power the greater the absorption by ozone
- the greater the ionising power the greater the risk

- UV damages skin cells
- can lead to skin cancer
- can cause sunburn
- UV can damage eyes
- leads to problems with eyesight

(e) our eyes detect visible light

allow it would be dark all the time
allow specific effect ie plants couldn't grow

1

(f) transmitted

1

absorbed

1

this order only

[13]