

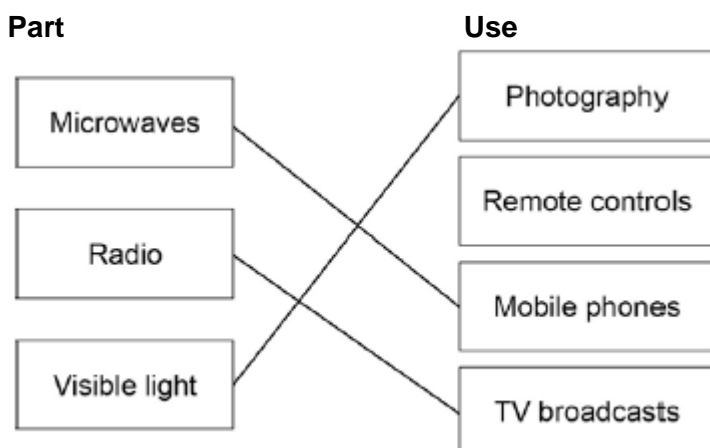
Name of the Student: _____

Max. Marks : 18 Marks

Time : 18 Minutes

Mark Schemes

Q1.



any extra line negates mark

3

[3]

Q2.

(a) 2(dB)

1

(b) 5500(Hz)

1

(c) 340(m / s)

allow 1 mark for correct substitution (20 x 17) provided no subsequent step

2

(d) echo(es)

1

[5]

Q3.

(a) *straight line continued through glass block to meet edge of the block
do not allow dotted / dashed lines
judge by eye*

1

*straight line drawn through crosses to meet the edge of block
judge by eye*

ignore reflection within the block
ignore 'normal' line

1

(b) any **one** from

- safety / dark glasses
ignore goggles / glasses
unqualified
- safety / dark goggles
ignore special goggles / glasses
ignore sunglasses / eye protection
- don't look at laser (directly)
allow don't shine laser into someone's eyes

1

(c) (i) any **one** from:

- too many points above line
allow line of best fit only goes through 2 points
allow line doesn't go through most points
allow line should go through more / most points
allow 3 points have been ignored
- no points below the line
- line should be curved
allow there should be equal numbers of points on both sides of line

1

(ii) any **two** from:

- use smaller interval between readings
eg allow go up in 10's
- take readings at more angles
allow take readings at different angles / named angles
- repeat the experiment / readings *and calculate a mean*
allow repeat the experiment to identify anomalies
- use a narrower ray of light
ignore take more readings
ignore compare results (with other students)

2

[6]

Q4.

(a) transverse

1

(b) (i) 700

in either order

1

400

1

(ii) stays the same

1

[4]