

Name of the Student: _____

Max. Marks : 18 Marks

Time : 18 Minutes

Mark Schemes

Q1.

- (a) (i) cat 1
- (ii) tuna 1
- (b) (i) ultrasound 1
allow ultrasonic
- (ii) cleaning / quality control / flaw detection / medical scanning /
animal scaring / sonar 1

[4]

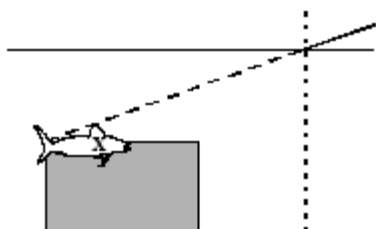
Q2.

- idea that (in words or on diagram)
- sound reflects / bounces off cliff
- returns the way it came / produces an echo
each for 1 mark

[2]

Q3.

- (a) line (from fish) to complete ray to eye
[mark awarded even if begins outside the box]
[credit only if fish shown to left of normal]
- fish within the region shown or X or start of ray
(i. e. not necessarily directly below x) each for 1 mark



2

- (b) bent/refracted/deviated/speeded up

Q4.

D

gains 1 mark

but E ($D + E = 1$)

gains 2 marks

[2]

Q5.

X-rays {infrared}
 {radiation} {radio}
 {waves}

for 1 mark each

[3]

Q6.

(a) ray shown refracted (to rhs or along normal)
gains 1 mark

but

ray shown refracted away from normal
gains 2 marks

2

(b) *idea that*
travels at a different speed
gains 1 mark

(allow refracted / travels slower in air / air is less dense) (*do not allow bent*)

but

travels more quickly in air
gains 2 marks

2

[4]