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

Merit Minds
www.merit-minds.com
Exam Preparation and Free Resources

Name of the Student:_____
Max. Marks : 19 Marks **Time : 19 Minutes**

Q1.

The data given in the table below was obtained from an investigation into the refraction of light at an air to glass boundary.

Angle of incidence	Angle of refraction
20°	13°
30°	19°
40°	25°
50°	30°

Describe an investigation a student could complete in order to obtain similar data to that given in the table above.

Your answer should consider any cause of inaccuracy in the data.

A labelled diagram may be drawn as part of your answer.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

(Total 6 marks)

Q2.

The data given in the table below was obtained from an investigation into the refraction of light at an air to glass boundary.

Downloaded from www.merit-minds.com

Angle of incidence	Angle of refraction
20°	13°
30°	19°
40°	25°
50°	30°

(a) Describe an investigation a student could complete in order to obtain similar data to that given in the table above.

Your answer should consider any cause of inaccuracy in the data.

A labelled diagram may be drawn as part of your answer.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

(6)

(b) State the reason why light is refracted as it crosses from air into glass.

_____

_____

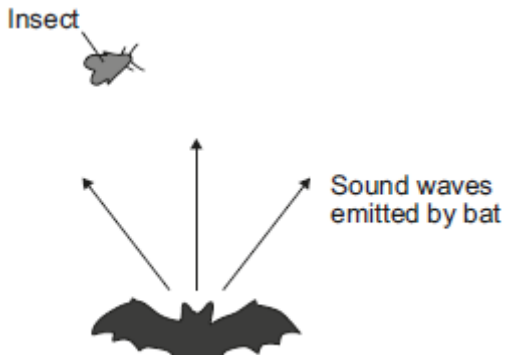
(1)

(Total 7 marks)

Q3.

Bats use the reflection of high pitched sound waves to determine the position of objects.
The image below shows a bat and an insect flying in front of the bat.

Downloaded from www.merit-minds.com



(a) What determines the pitch of a sound wave?

Tick (✔) **one** box.

	Tick (✔)
amplitude	
frequency	
speed	

(1)

(b) State the name given to reflected sound waves.

_____

(1)

(c) The bat emits a sound wave with a frequency of 25.0 kHz and a wavelength of 0.0136 metres.

Calculate the speed of this sound wave.

_____

_____

_____

Speed = _____ m/s

(2)

(d) Sound waves are longitudinal. Describe a longitudinal sound wave.

_____

_____

_____

_____

(2)
(Total 6 marks)

Downloaded from www.merit-minds.com