

9 i. Carries vibrations through ear so hearing can occur.

ii) The wavelength of a sound determines what range it will be in, which determines how high or low the pitch will be (this in turn determines the wavelength.) The relationship with frequency is also dependent of how high or low the sound is.

iii) Two structures used by animals to produce sound are

* human's voice box

* elephant's trunk

The human voice box allows for communication ^{over short distance} by

speech of medium/low level, while the elephant's trunk allows echolocation to occur & communication

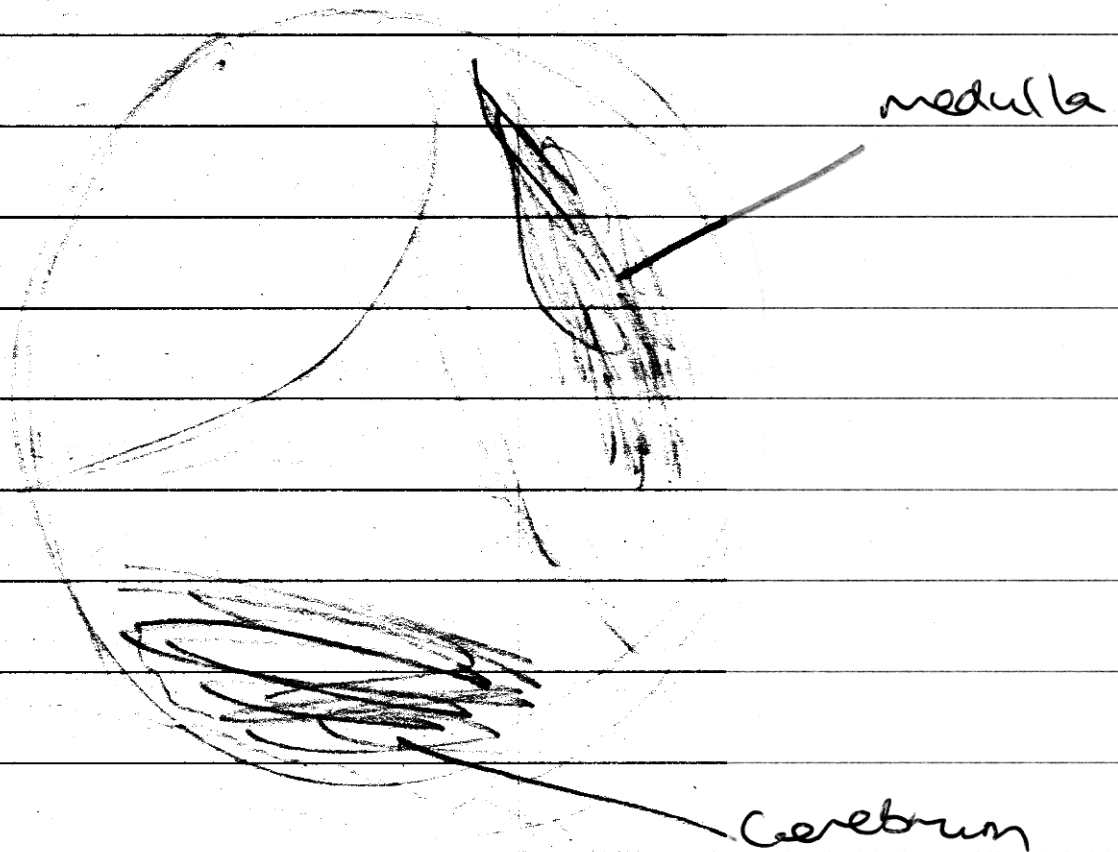
over long distances. The wavelength is much higher & lower than a human's.

b); Cerebrum - nerves at the base
(going to the spine)

Cerebellum - smaller half (than medulla)

medulla - darker parts (greyish)
than cerebellum.

ii)



i)

ii) As the lens thickness decreases, so does the focal length - ie, the thicker the lens the greater the focal length.

iii) Human eyes can focus on objects at different distances by the lens changing shape (and by this thickness.)

Thus, the focal length is then changed allowing the eye to focus on the chosen object.

d) The retina is ~~at~~ the structure towards the back of the eye in which the picture ^{seen by} is ^{the eye} flipped. This allows normal vision. It is also made of rods and cones (red, blue, green)



which allow the picture
(vision) to be colour.

These are photo receptors

~~As the~~ The light

signal reaching the

retina is transformed into

electrochemical signals

by the photoreceptors and

this ~~achieved~~ process of

achieving normal (not upside down)

and colour vision achieves

this energy process.

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Biology

This page is to be detached, completed and attached to the inside front cover of your writing booklet for the option question you have attempted.

Six lenses with same diameter
but different thickness

