BOARD OF STUDIES
NEW SOUTH WALES

Question 28

a) i) The function of the Organ of Corti in hearing is allowing sound by pass via mechanorecteptors in the ear.

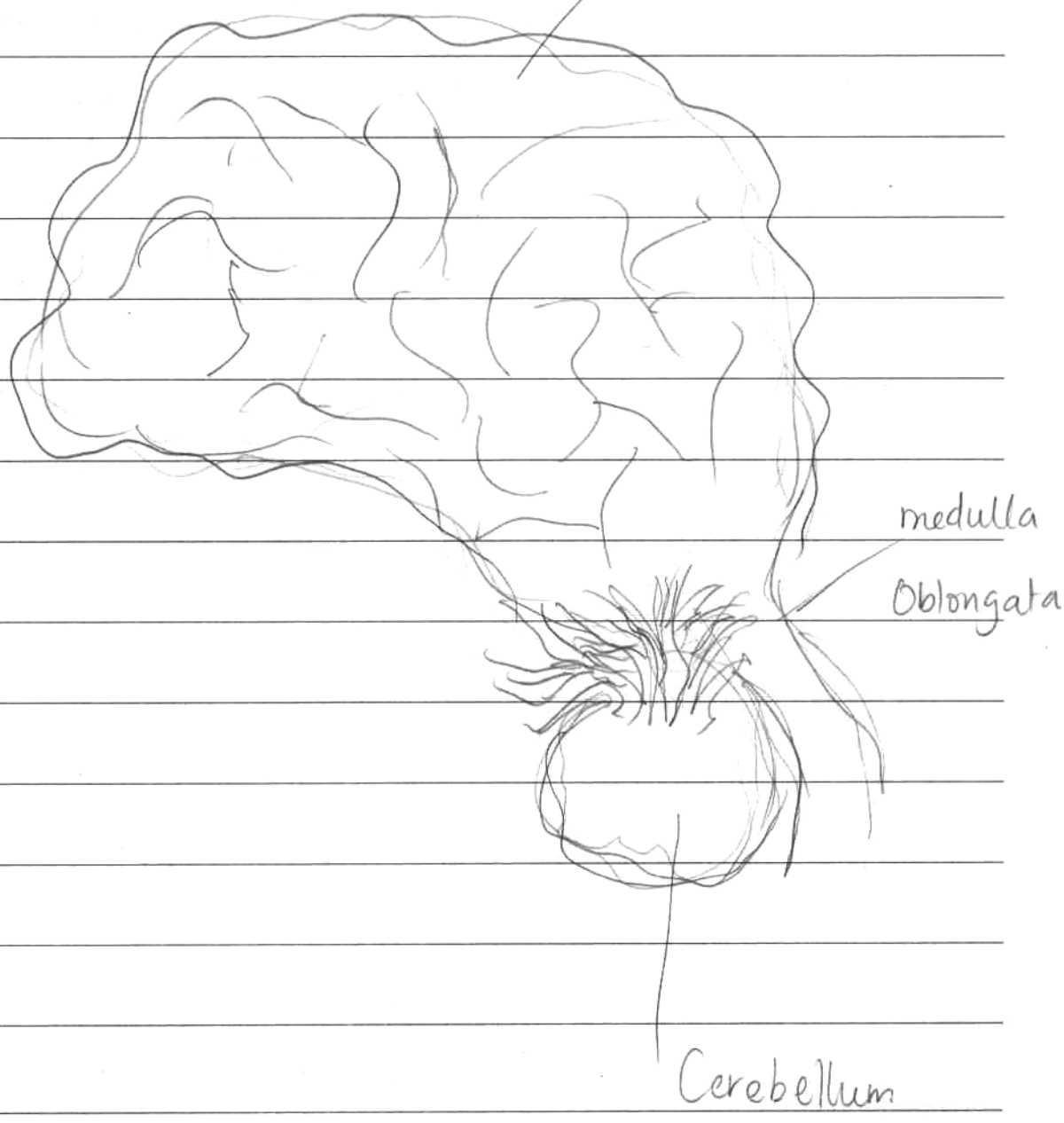
ii) Relationship between wavelength, frequency + [redacted] they all describe how far or loud sound can travel. and they all interlink.

iii) One of the structures that animals use to produce sound is by the Larynx which is also known as the voice box located near the trachea and behavioural communication of sound by echolocation, used in whales and dolphins they make noises that send signals to their species.

BOARD OF STUDIES
NEW SOUTH WALES

b) i) The structural features of the cerebrum, cerebellum, medulla oblongata the student could use to identify each photograph correctly is description, speaking about the features and discussing their function and where they are situated.

ii)



BOARD OF STUDIES
NEW SOUTH WALES

c) i) on graph

ii) The relationship between thick lens and focal length is that with a thick transparent lens the focal length tends to be short in length as the lens is circular in shape and is very dense

iii) Accommodation is the process that allows us to focus on objects near and far. This process is mainly controlled by the flattening and spherical shape the lens creates to distinguish and focus far and close objects. The lens flattens when focussing on far objects and the opposite happens as ligaments in the eye tighten and create a spherical shape to focus on an objects near by.

d) The light signal reaching the retina is transformed into electrochemical signals. The retina is found at the back of the eye its the most important feature of the eye as it transmits the object to the optic nerve to the brain where the brain "sees" the object and it is sent back. Retina is composed with photoreceptor cells Cones and rods. Cones are photo-receptive cells that determine bright colours and rods determine black and white, dim colours. Light enters the retina, the retina contains a pigment called melanin to [redacted] eliminate the refraction of light. Electrochemical signals ~~are~~ travel until they reach the retina where light is refracted and this provokes a signal.

2002 HIGHER SCHOOL CERTIFICATE EXAMINATION

Biology

Communication

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.