

- (i) Name the apparatus.
- (ii) Which phenomenon is demonstrated by this apparatus?
- (iii) Explain the phenomenon mentioned in (ii) above.
- (iv) State two limitations of using this apparatus.
- (v) What is the importance of the air bubble in the experiment?
- (vi) Name the structures in a plant through which the above process takes place.

Question 4

(a)

- (i) Draw a well labelled diagram of the membranous labyrinth found in the inner ear. [5]
- (ii) Based on the diagram drawn above in (i) give a suitable term for each of the following descriptions :
 1. The sensory cells that helps in hearing.
 2. The part that is responsible for static balance of the body.
 3. The membrane covered opening that connects the middle ear to the inner ear.
 4. The fluid present in the middle chamber of cochlea.
 5. The structure that maintains dynamic equilibrium of the body.

(b) Give the Biological/technical term for the following: [5]

- (i) Complete stoppage of menstrual cycle in females.
- (ii) Pigment providing colour to urine.
- (iii) The vein which drains the blood from the intestine to the liver.
- (iv) The canal through which the testes descend into the scrotum just before the birth of a male baby.
- (v) The process causing an undesirable change in the environment.
- (vi) The removal of nitrogenous wastes from the body.
- (vii) The repeating components of each DNA strand lengthwise.
- (viii) An alteration in the genetic material that can be inherited.
- (ix) The process of uptake of mineral ions against the concentration gradient using energy from the cell.
- (x) Blood vessels carrying blood to the left atrium.

