Minuwangoda Educational Zone

Second Term Evaluation - 2023

Grade 7

Science Time : 2 hours

Part I

- **Answer all the questions.**
- **Underline the correct or most suitable answer.**

(1) Coconut plant gives us various benefits. The true statement about the plant is that.

(i) Coconut is a dicotyledonous plant
(ii) The stem is branched.
(iii) With a tap root system.
(iv) The leaves show parallel venation

(2) The shape of the body of the pigeon is streamlined. Benift that a pigeons get due to that shape is,

(i) It can easily find its prey.
(ii) Loss of body weight
(iii) Being able to move easily through the air
(iv) Being able to go up in the sky.

(3) Select the category with invertebrates.

(i) Cockroach, bee, ant
(ii) Frog, snake, earthworm
(iii) Fish, dog, housefly
(iv) Snail, worm, Gecko

(4) A plant with a fibrous root system.

(i) Cashew (ii) Mango (iii) Jack fruit (iv) Coconut

(5) The amount of electric charges that can be stored in a capacitor is measured in,

(i) Hertz (ii) Millimeters (iii) Farads (iv) Volts

(6) What is the principle behind the generation of electricity in a dynamo.

(i) Through a chemical reaction
(ii) By a simple current
(iii) By solar energy
(iv) By electromagnetic induction

(7) Water has the property of reducing the heal of an external object by absorbing heat. This property is known as,

(i) Solubility
(ii) Coolant property
(iii) Exponsion property
(iv) Freezing property.

(8) The case involving kinetic energy is,

(i) The energy of a fruit on a tree.
(ii) The energy in a winding clock.
(iii) Energy in a stretched bow.
(iv) Energy of flowing water.

(9) Measured in joules.

(i) energy (ii) Voltage (iii) Temperature (iv) Pressure

(10) The answer which correctly shows the tranformation of energy during heating of water by an electric kettle is,

(i) Thermal energy ⟶ Electric energy
(ii) Electric energy ⟶ Thermal energy
(iii) Light energy⟶ Electric energy
(iv) Electric energy ⟶ Kinetic energy

(11) Which statement is correct regarding electron microscope?

(i) A light beam used in the electron microscope.
(ii) Live specimens cannot be used for this purpose.
(iii) Maximum magnification power is only 200 000.
(iv) The maximum resolution is 0.05 Mm (micro meter)

(12) A characteristics of images formed by the convex mirror is that the image,

(i) Inverted
(ii) Can be obtained on to a screen.
(iii) Being smaller than the object.
(iv) Being larger than the object.

(13) The mirror used to obtain an inverted image that can be obtained on to a screen is,

(i) Convex mirror
(ii) Plane mirror
(iii) Concave mirror
(iv) Convex lens

(14) If a microscope is not used for a long period of time the lenses should be removed and place inside a .....

(i) Desiccator
(ii) In a glass cupboard
(iii) In a metal box
(iv) In a wooden box

(15) Consider the following statements.

$A -$ Sound needs medium to travel

$B -$ Sound travels through a vaccum

$C -$ The speed of sound in air is faster than the speed of light.

Which of the above statement/statements are correct?

(i) $Only\ A$ (ii) $Only\ B$ (iii) $Only\ C$ (iv) $Both\ A\ and\ B$

(16) Given below are the level of organization in living organisms. It is best to apply for A and B are.

Cell → A → Organs → B → Organism

(i) Tissues, Organs
(ii) Cells, organs
(iii) Systems, organs
(iv) Tissues, Systems.

(17) What tissue transports water through plant stem?

(i) Xylem tissue
(ii) Cambium tissue
(iii) Pholoem tissue
(iv) epidermal tissue

(18) The chamber common to the alimentary canal (digestive traet) and respiratory tract is,

(i) stomach (ii) oesophagus (iii) pharynx (iv) large intestine

(19) What action does not take place in the small intestine?

(i) Digestion is completed
(ii) Secretion of digestive juices.
(iii) Absorption of digestive products
(iv) Absorption of water

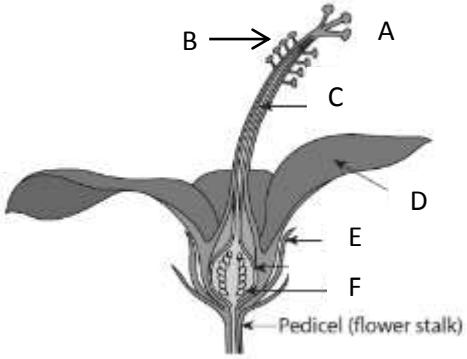
(20) The layer of atmosphere that International space station is situated?

(i) Troposphere (ii) Stratosphere (iii) Mesosphere (iv) Thermosphere

Part II

- **Answer first question and four other questions.**

(1) Flowers show great diversity among them, but they have common structural plan. A typical flower consists of main three parts. All the parts can be easily observed in a shoe flower.



(A)

(i) Name the parts A, B, C, D, E, F (M.3)
(ii) What is the part that contributes to the production of seeds? (M.1)
(iii) Butterfly often flies among the flowers. Is the butterfly vertebrate or an invertebrate? (M.1)
(iv) The colour of the flowers and the colour of the butterfly match well. What is called the difficulty to identify the animals separately from their environment? (M.1)
(v) State and advantage to the butterfly due to above reason? (M.1)

(B)

(i) A butterfly performs some work while flying from flower to flower. What is the ability to do that work called. (M.1)
(ii) What is the international unit of measure of ability to do work? (M.1)
(iii) Write the forms of energy possessed by a mango on the top branch of a tree and the form of energy passessed by it falls down? (M.2)

(C)

(i) What type of lens can be used to clearly observe the parts of shoe flower? (M.1)
(ii) What is the minimum number of lenses used in a compound light microscope? (M.1)
(iii) What is the name of the lens closed to the eye of a light microscope? (M.1)
(iv) Draw a line diagram of the epidermal tissue of a Roheo leaf observed under a light microscope? (M.2)

(16 marks)

(2) If the following statements are true mark them as true (✓) If they are false mark them as (✗)

(i) Decorative glass is a translucent object. ( )

(ii) Shadows are caused by light passing through transparent materials. ( )

(iii) To get a clear umvra, the light source must be place very close to the object. ( )

(iv) During a solar eclipse, the earth comes between the sun and the moon. ( )

(v) Light is reflected by the plane mirrors. ( )

(vi) A rough surface can also be called a plane mirror. ( )

(vii) A plane mirror form a real image. ( )

(viii) Canvex mirrors are used as side mirrors in vehicles. ( )

(ix) The nature of the image formed by concave mirror does not change with the distance from the object to the mirror. ( )

(x) When the angle between two mirrors is 45^0, three images are formed. ( )

(3) Compared to the other planets in the solar system, the surface of the earth is very beautiful because there are mountains, rivers, seas, trees, forests etc. The environment conditions suitable for living being exists on the earth. Many scientists obtain information about what the earth interior is like in various ways.

(i) Write two way that geoloists obtain information about the interior of the earth. (M.2)

(ii) Name the 3 main parts which the interior of the earth can be divided. (M.1.5)

(iii) Indicate the thickness of each parts in Km. (M.1.5)

(iv) What are the ways in which the Earth's techtonic plates can move relative to each other. (M.3)

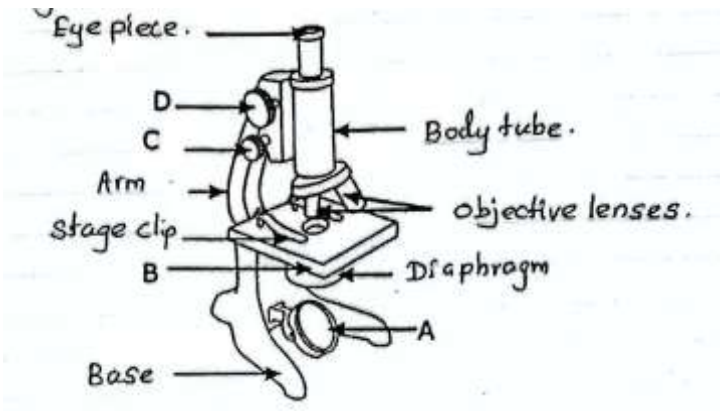
(v) On which techtonic plate Sri Lanka is situated? (M.1)

(vi) Which country has a plate margin on land? Name that plate boundry/plate margin. (M.1)

(vii) What is the reason for the movements of techtonic plates? (M.1)

(11 marks)

(4) A diagram of a light microscope is shown below.



(i) Name the parts A, B, C, D (M.2)

(ii) What are the functions performed by parts a and b? (M.1)

(iii) Who is credited with inventing the microscope first? (M.1)

(iv) What is the magnification of the microscope if it is mentioned as x5 for the eye piese and x40 for the objective? (M.2)

(v) How do you call the minimum distance by which two points must be separated in order to be seen as two distinct points? (M.1)

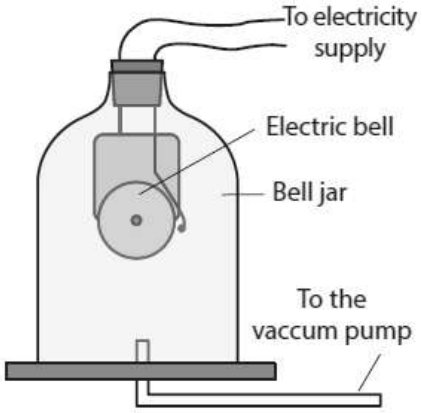
(vi) What is value of the above distance in human eye (naked eye) (M.1)

(vii) How many time the maximum magnification of an improved compound light microscope? (M.1)

(viii) Write two factors to be considered in the use of compound microscope? (M.2)

(11 marks)

(5) Following setup was used by the group of students to study about sound.



(*A*) Fill in the blanks according to the activity given in the diagram.

(i) Ringing of the electric bell can be …….. when the bell jar is filled with ……..

(ii) When the air in the bell jar is gratually …….. (iii) The ringing of the bell gradually ……..

(iv) When the air in the bell jar is …….. evacuated ringing …….. fades of.

(v) Thus it is clear that a …….. is essential for sound to ……..

(1 × 8)

(*B*)

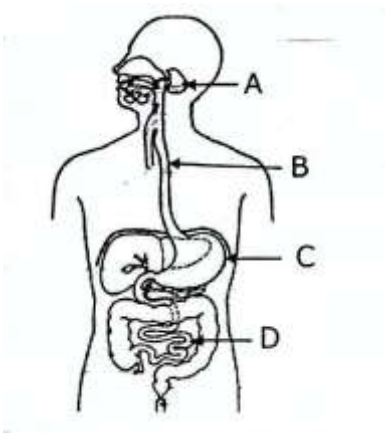
(i) Through which medium is sound transmitted faster? (M.1)

(ii) Write the part of vibration when producing sound by flute and drum? (M.1)

(iii) Arrange the following substances in such a way that the speed of sound increases. (M.1)
Water, air, steel

(11 marks)

(6) A group of 7th grade student made a model of the human digestive system and its parts are shown below.



(A)

(i) Name the parts A, C and D in this diagram. (M.3)

(ii) Write two main functions of the human digestem system. (M.2)

(iii) Mention any two changes that occur in food in oral cavity? (M.1)

(iv) Name the organs of the digestive system that perform the following functions.

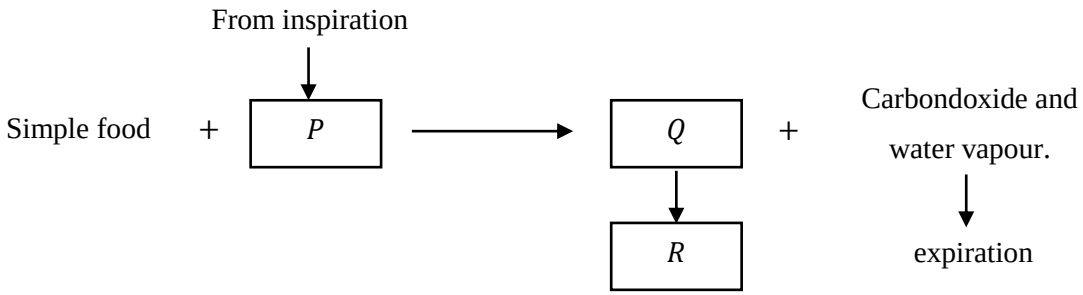
(a) Withholding food for three hours.

(b) Complete the process of digestion.

(c) Absorption of digested products into the body.

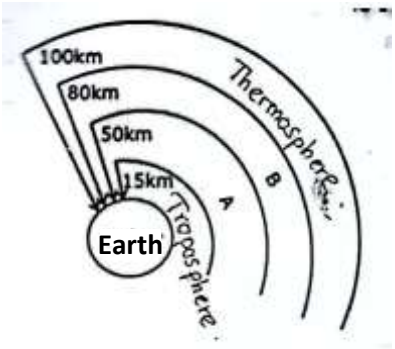
(d) Absorption of water. (M.2)

(B) Following chart explains the utilization of digested for the respiration of living organisms.



Name P, Q and R respectively. (M.3)

(7) Following diagram illustrades the different layers of the atmosphere when go up in the air.



(i) Which layer is used by the aeroplanes and the parachutes? (M.1)

(ii) Name A and B layers. (M.2)

(iii) In which layer ozone layer is present? (M.1)

(iv) What is the benefit of having a ozone layer? (M.1)

(v) Name the layer having lowest temperature. (M.1)

(vi) The addition of harmful substances to the atmosphere causes air pollution. Write two gaseous pollutants that pollute the atmosphere. (M.2)

(vii) State the percentages of the gases in the atmosphere. (M.3)

(a)Nitrogen (b) Oxygen (c) Carbon dioxide

(11 marks)