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மேல் மாகாணக் கல்வித் திணைக்களம் - கொழும்பு கல்வி வலயம்
Western Provincial Education Department - Colombo Educational Zone

දෙවන වාර ඇගයීම
இரண்டாம் தவணை மதிப்பீடு
Second Term Evaluation
2017

ශ්‍රේණිය தரம் Grade	07	විෂයය பாடம் Subject	Science	පත්‍රය வினாத்தாள் Paper	I,II	කාලය காலம் Time	2 Hours

Index no : ……

Important :

- **Select the most appropriate answer from questions 1-20 and underline it.**

Part I

(1) Energy transformation taking place when lighting up a LED using a dry cell is,

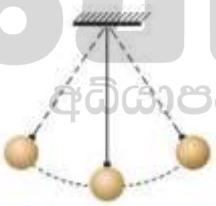
(1) Chemical energy → Electric energy → Light energy
(2) Electric energy → Chemical energy → Light energy
(3) Light energy → Chemical energy → Heat energy
(4) Chemical energy → Electric energy → Heat energy

(2) International unit of measuring energy is

(1) N (Newton) (2) F (Farad) (3) V (Volt) (4) J (Joule)

(3) Select the correct answer considering the following instances.

A Stretching a rubber band



B Pushing a hanging stone

In which of the above instance/s, following energy transformation occur?

Kinetic energy → Potential energy

(1) Only A (2) Both A,B
(3) Only B (4) None of A, B

(4) In which tectonic plate Sri Lanka is located?

(1) Antartica tectonic plate (2) Australian Indian tectonic plate
(3) African tectonic plate (4) Indian Philipine tectonic plate

(5) What is the range of thickness of the earths crust?

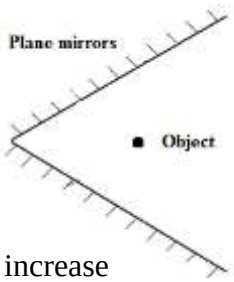
(1) 5km – 15km (2) 5km – 20km (3) 5km – 35km (4) 5km – 50km

[Turn over

(6) Which of the following waves is used by scientists to study about the internal structure of earth?

(1) Sound waves (2) Seismic waves

(3) Light waves (4) Water waves



(7) When reducing the angle between two mirrors kept at an angle for getting multiple images, what would happen to the number of images obtained?

(1) Doesn't change (2) Increase

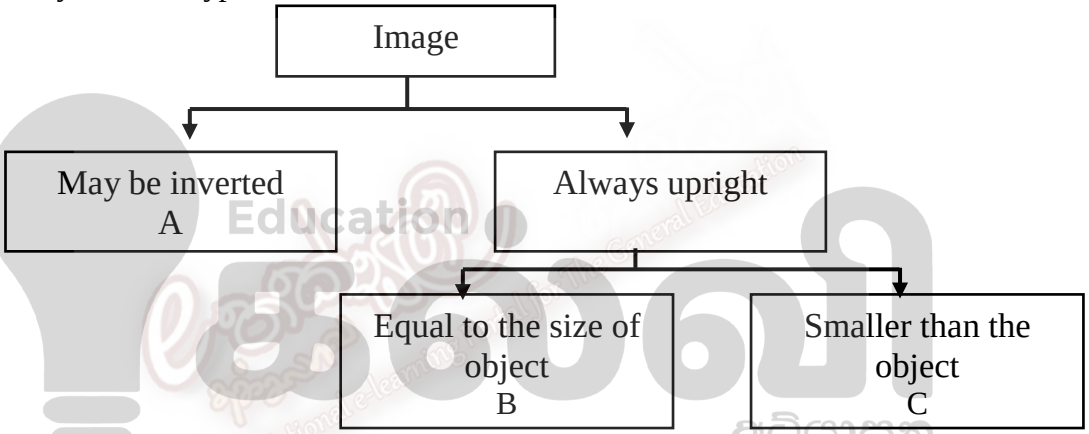
(3) Decrease (4) Decrease and then increase

(8) In which of the following instances, convex mirrors are used?

(1) As mirrors used for shaving (2) As side mirrors of motor vehicles

(3) To make solar cookers (4) To make kaleidoscopes

(9) The following chart is made based on the features of images formed by mirrors. Select the answer which correctly state the type of mirrors used as A, B, and C.



	Type of mirror		
	Plane	Convex	Concave
(1)	A	B	C
(2)	B	C	A
(3)	C	A	B
(4)	A	C	B

(10) Which of the following correctly states the resolution power of human eye and light microscope respectively?

(1) 0.1mm, 0.1μm (2) 0.1mm, 0.2μm (3) 0.2mm, 0.3μm (4) 0.2mm, 0.4μm

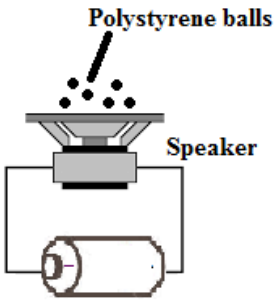
(11) The maximum magnification power of an improved light microscope is,

(1) 200 (2) 400 (3) 2000 (4) 4000

[Turn over

(12) Alan is a student who likes to learn through activities. He supplied current to a speaker using a dry cell. Then he used a bicycle dynamo to supply current to the speaker instead of the dry cell. Select the instance in which the rigifoam balls would move according to his observation.

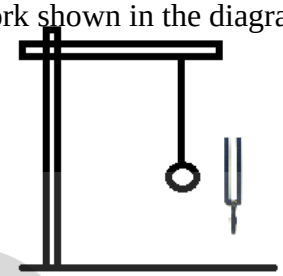
A - When connecting dry cells
B - When connecting bicycle dynamo
C - When dry cells remain connected
D - When bicycle dynamo remain connected



The most appropriate answer among given is,

(1) Only instance A (2) Only instance B
(3) Both A and C instances (4) Both A and D instances

(13) How the tuning fork shown in the diagram should be placed in order to vibrate the rigifoam ball hung?



(1) Only when moved closer to rigifoam ball
(2) Only when the rigifoam ball is touched
(3) When moved closer to rigifoam ball or when touched
(4) Cannot vibrate the rigifoam ball

(14) Which of the following musical instruments produce sound by vibration of air column?

(1) Beraya (2) Violin (3) Flute (4) Thalampata

(15) The organization of parts for the formation of organism can be correctly given as,

(1) Tissues → Cells → Organs → Systems
(2) Cells → Tissues → Organs → Systems
(3) Organs → Tissues → Systems → Cells
(4) Systems → Organs → Cells → Tissues

(16) The organ which does not belong to the path through which the digested food pass along,

(1) Mouth (2) Liver (3) Stomach (4) Oesophagus

(17) In which layer of the atmosphere aurora borealis can be seen?

(1) Troposphere (2) Stratosphere (3) Mesosphere (4) Thermosphere

(18) Select the incorrect statement regarding melting point.

(1) Temperature at which solid material turns into liquid state.
(2) Melting point of ice is 0°C.
(3) Melting point of different liquids differ.
(4) Hydrometer is used to measure the melting point.

[Turn over

(19) Consider two points X and Y in air close to a heap of fire and, choose the correct statement regarding them.

❋ Methods of heat gain at points X and Y are

(1) X – Conduction Y – Convection and Radiation
(2) X – Radiation Y – Convection and Radiation
(3) X – Convection Y – Convection and Conduction
(4) X – Convection and Radiation Y – Convection

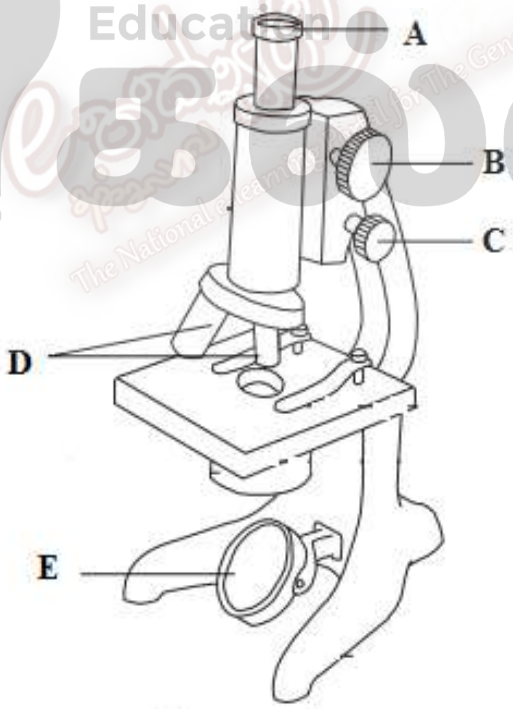
(20) The qualities which should be present in you as a student who learn science are,

(1) Reading books and watching television.
(2) Listening to the school teacher, attending tuition classes.
(3) Reading and understanding practicals.
(4) Reading books and experimenting practicals.

Part II

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

(1) The following is a diagram of a compound light microscope which is used for observing objects that are not visible to the naked eye.



(A)

(i) Name the parts A, B, C, D.
(ii) What are the optical equipment which can be used as E?
(iii) State the use of B.
(iv) State 2 things which should be considered when handling the compound light microscope.

(B)

(i) Following are the steps of handling a compound light microscope. Read and write the English letters in the correct order.

A – Place the prepared glass slide on the stage.

B - Using the coarse adjustment, lower the low power objective to get a clear light patch.

C – Place it stationary on a horizontal table.

D - Obtain a clear image using the fine adjustment.

E - Observe with a convenient eye through eye piece while both eyes are open.

(ii) Briefly describe what is magnification.

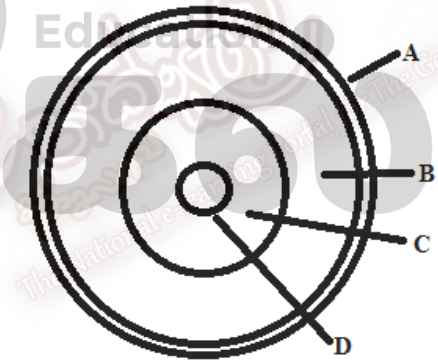
(iii) If magnifying power of eye piece is x5 and magnifying power of objective is x40, find the magnifying power of the microscope.

❋ Electron microscope is an advanced equipment than compound light microscope.

(iv) State 2 advantages of electron microscope.

(v) State a disadvantage of electron microscope.

(2) A group of grade 7 students made a clay model of earth's inner composition and coloured it. A rough sketch of the model is shown below.



(i) Name A, B, C, D in the diagram.

(ii) A is made up of rocks and soil. State two elements present in it.

(iii) State one feature present in layer C, which cannot be shown using students model.

(iv) Which of the layers contain both solid and liquid rocks?

(v) State two ways by which the plates on the earth move with respect to one another?

(vi) Write one example for a plate margin.

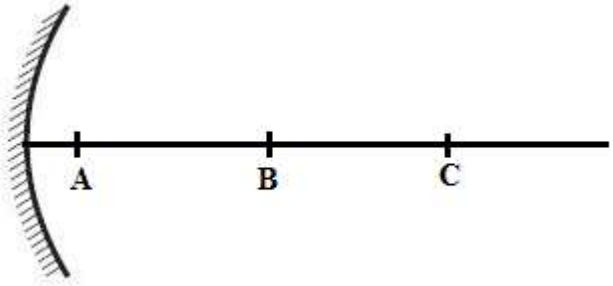
(3) (A) Assume that you stood 1m in front of a plane mirror to look at the face.

(i) State two features of the image visible through mirror.

(ii) What is the distance between the plane mirror and the image?

(iii) If the mirror was moved 20cm towards you, find the distance between you and your image visible now.

(B) An object was placed in front of a concave mirror at positions A, B, C and the nature of the image was observed at different instances.

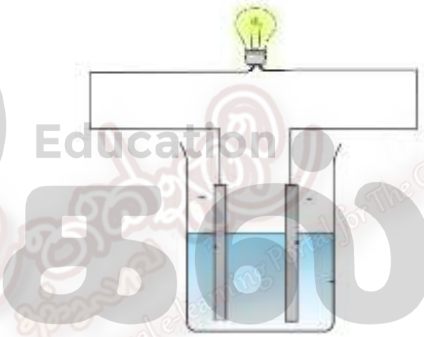


(i) Position A is located very close to the concave mirror. Write two features of the image obtained.

(ii) When object was placed at B, an inverted image of equal size was obtained. Write two features of the image obtained at C.

(iii) Write two instances where concave mirrors are used in day-to-day life.

(4) (A) A simple cell was made in the laboratory as a source of electricity. A diagram of it is given below.



(i) Name three materials needed to make this cell.

(ii) Name another device which can be used instead of the bulb to observe that electricity is generated in the cell.

(iii) State two defects of a simple cell.

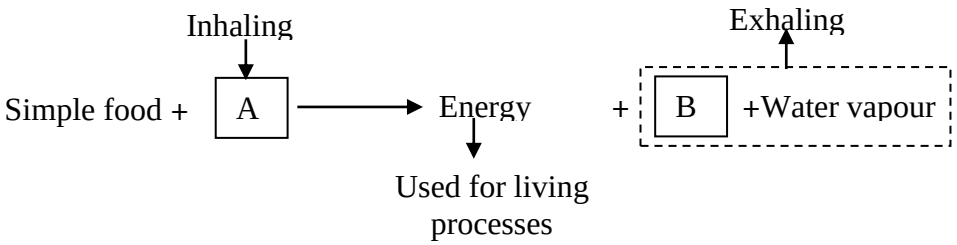
(B) Dynamo is used as a source of electricity to light up bicycle lamps.

(i) State two stratergies which can be used to increase the efficiency of a dynamo.

(ii) State two other sources of electricity in addition to above.

(iii) Suggest a source of electricity which is environment friendly.

(5) (A) Organisms produce energy required for living processes by respiration. A flow chart representing the process is given below.

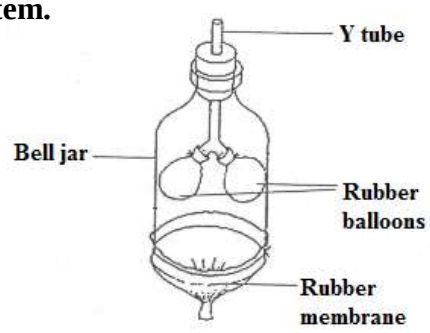


(i) Name A and B of the flow chart.

(ii) Name 3 organs through which A required for this process pass through after entering the human body.

(iii) State two common features seen in an organ.

(B) Following is an equipment which is made for demonstrating the functioning of respiratory system.



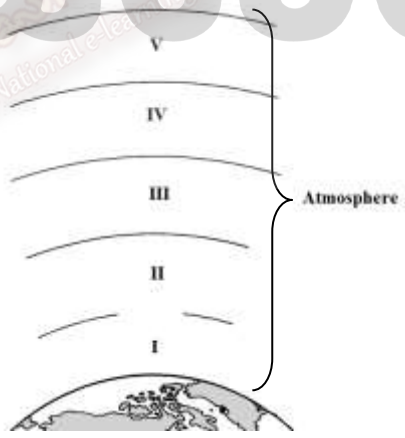
(i) State one change which can be observed when pulling rubber membrane.

(ii) State the respective human organs which are represented by following parts of the model.

1. Y tube
2. Rubber balloons
3. Rubber membrane

(6) (A) Atmosphere is the spherical covering of air around the earth.

(i) Atmosphere is arranged as layers from ground level to above. Name them in order.



(ii) Name the layer with highest temperature by absorbing solar heat.

(iii) What is the zone of the atmosphere in which water vapour and dust found at highest amount?

(B) Atmosphere is made up of mixture of different gases for the survival of organisms.

(i) Name the most abundant gas found in the atmosphere.

(ii) State two main functions of atmosphere.

(iii) State two human activities which contribute to pollute the atmosphere.

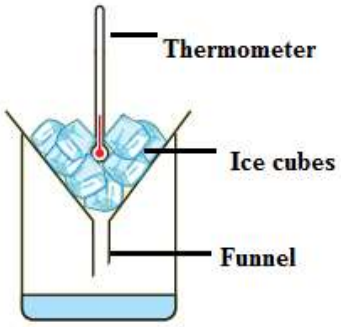
(7) (A) Temperature of an object can be increased by supplying heat energy to an object.

(i) What is meant by temperature?

(ii) What is the standard international unit of measuring temperature?

(iii) Draw a labelled diagram of a simple thermometer which can be made at home.

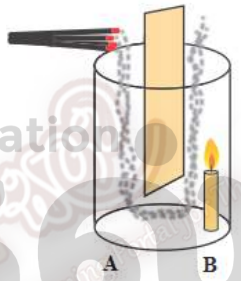
(iv)



a. What can be measured using this set up?

b. Explain the reason for keeping the ice cubes in a funnel?

(B) Convection is a method of heat transfer. A diagram of an experiment carried out to demonstrate convection is given below.



(i) State an expected observation of this experiment.

(ii) A student stated that the smoke within the beaker and the smoke which comes out **might be** released from the candle. Draw a modified diagram of the above setup which can be used to show that the smoke within the beaker and the smoke which come out are **not released** from the candle.

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