

බස්නාහිර පළාත් අධ්‍යාපන දෙපාර්තමේන්තුව மேல் மாகாணக் கல்வித் திணைக்களம் Department of Education - Western Province			
වර්ෂ අවසාන ඇගයීම - 2024 (2025) ஆண்டிறுதி மதிப்பீடு - 2024 (2025) Year End Evaluation - 2024 (2025)			
පිටුව 07 தரம் 07 Grade		විෂයය பாடம் Subject	
Science		පත්‍රය வினாத்தாள் Paper	
කාලය காலம் Time		2 hours	
නම பெயர் Name		විභාග අංකය சட்டிலக்கம் Index No.	

Answer all the questions in Part I.

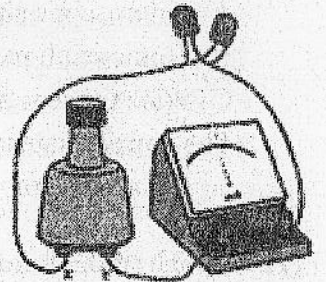
First question of Part II is compulsory and answer four more questions along with that question.

Part I

• Choose the correct answer from the given answers and underline it.

- (01) Which of the following is the pair of plants in which a tap root system can be seen?
- i. Kitul, Arecanut ii. Sal, coconut iii. Curry leaves, Beli iv. paddy, bamboo
- (02) A substance which **cannot** be charged by rubbing with another substance.
- i. Steel ii. Ebonite iii. Glass iv. Plastic.

- (03) Here is a circuit of a bicycle dynamo with two LEDs connected with + and - terminals oppositely and a center zero milli ammeter. Which of the following is an observation that can be seen in the rotation of the dynamo head?

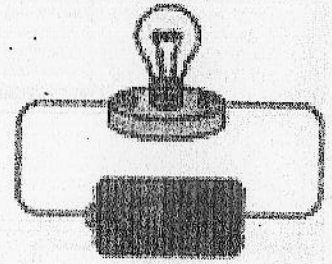


- i. Both LEDs are lit at the same time.
- ii. Lighting the two LEDs alternately.
- iii. The indicator of the center zero milli ammeter moves in one direction only.
- iv. The indicator of the milli ammeter remains at its zero point.
- (04) Choose the answer which includes only neutral substances from the following answers.
- i. Alcohol, vinegar ii. Kerosene, salt solution
- iii. Liquid soap, baking soda iv. Ash mixed with water, alcohol
- (05) Examine the following functions.
- A - Production of vaccines, saline etc. in health care.
- B - Washing the oil and dirt on the cloth.
- C - Dilution of concentrated acids to produce artificial vinegar, battery acid.
- Among these, the situations where the solvent property of water are utilized,
- i. A and B only. ii. B and C only. iii. A and C only iv. All of A, B, C.

- (06) An invertebrate animal found only near the seashore,
 i. Snail ii. Cockroach. iii. Star fish iv. Turtle

- (07) Which of the following is the form of energy that we cannot experience in connection with the setup as shown here?

- i. Light energy ii. Sound energy
 iii. Electrical energy iv. Thermal energy



- (08) Which of the following is the correct answer when the cross section of the earth is compared with the cross section of a boiled egg?

- i. The shell of the egg - the crust of the earth
 ii. The yolk of the egg - the mantle of the earth
 iii. The white of the egg - the core of the earth
 iv. The shell of the egg - the outer core of the earth

- (09) In which of the following pairs of plants do cotyledons emerge from the soil in a germinating seed?

- i. Maize, mung ii. Beans, pea iii. Paddy, cow pea iv. Arecanut, tamarind

- (10) The numbers of plane mirrors used in the instruments of microscope, periscope and kaleidoscope, respectively,

- i. One, two, three. ii. Two, two, three.
 iii. One, three, two. iv. One, two, four

- (11) Below are three statements that were written about the use of microscopes.

A - Microscope should be stored vertically so as not to settle dust.

B - Remove all parts and store in a desiccator when not in use for a long time.

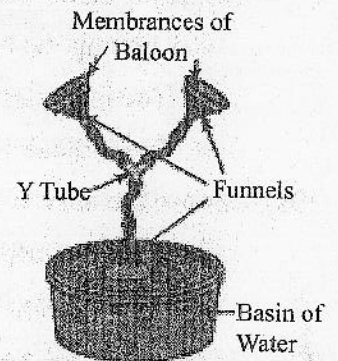
C - Wipe the lens and stage with a clean cloth after use.

The correct statements are

- i. A and B only. ii. B and C only. iii. A and C only. iv. All of A, B, C.

- (12) Which of the following is demonstrated by the setup shown in this figure?

- i. That sound needs a medium to travel
 ii. That sound travels through liquid media.
 iii. That funnels and balloon membranes have different uses.
 iv. That external work can be done by the arrangement of a stethoscope.



- (13) The following list shows some of the organs found in a plant.

- a) Flowers b) stem c) Lateral roots d) fruits e) yams f) Leaves

Which of the following answer includes only the organs belonging to the shoot system of a plant?

- i. a, b, c, d ii. a, b, d, f iii. b, c, d, e iv. b, d, e, f

- (14) The top of cumulonimbus clouds flattens and takes an anvil like shape when it reaches to which layer of the atmosphere?

- i. To stratosphere ii. To mesosphere iii. To exosphere iv. To troposphere

(15) Which of the following is the temperature range used in a clinical thermometer?

i. 0°C - 25°C

ii. 25°C - 35°C

iii. 35°C - 43°C

iv. 43°C - 100°C

(16) Which of the following animals can be easily identified?

i. A whip snake on a branch of a plant.

ii. A grasshopper in the grass.

iii. A leopard roaming among dry bushes.

iv. A cormorant in a reservoir.

(17) Consider the following characteristics.

A - Decreased soil air retention.

B - Using for making things like tiles and bricks.

C - Water retention and stickiness.

Among these, the characteristics of clay soil are,

i. A and B only.

iii. B and C only.

iii. A and C only.

iv. All of A, B, C.

(18) Which of the following actions does not cause a pull?

i. Lifting a load

ii. Riding a bike

iii. Taking a book from a shelf

iv. Opening a desk drawer

(19) Out of the systems that contributed to the formation of the human body what is the system which spread throughout the body?

i. Blood Circulatory system

ii. Respiratory system

iii. Digestive system

iv. Reproductive system

(20) Choose the answer that includes only foods rich in lipids from the following answers.

i. Coconut, soya, meat

ii. Fish, eggs, meat

iii. Bread fruit, coconuts, dried fish

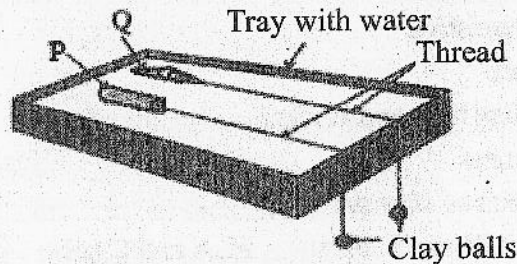
iv. Sesame, butter, curd

(Total Marks for Part 1 :- $2 \times 20 = 40$)

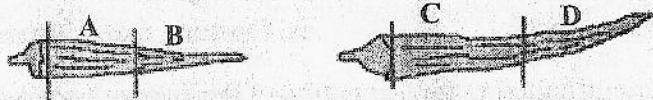
Part II

Answer the first question and four other questions.

- (01) (A) This figure shows a setup related to a certain activity you had to do at school. Two structures named P and Q placed in a vessel of water are tied with two strings of equal length, and two balls of clay are hung from the end of the string.

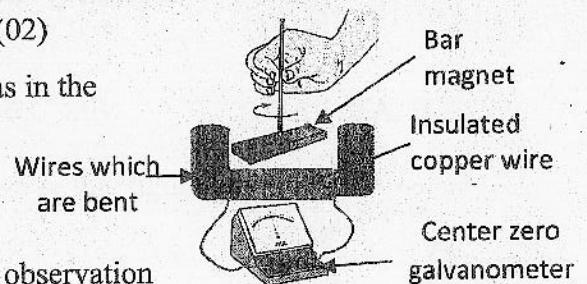


- i. Here P and Q structures are made using ladies fingers. Which parts of ladies fingers were used to make the structure Q and write the corresponding English letter/s from the figures below. (01)



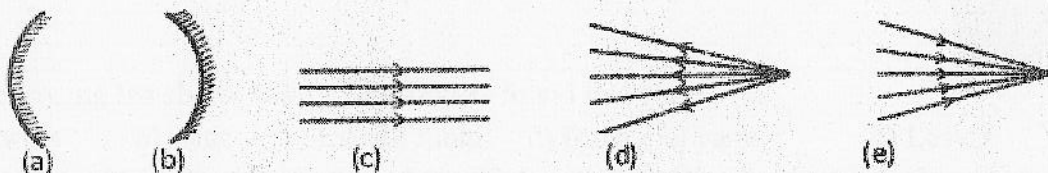
- ii. What observation is seen when the two clay balls shown in the diagram are dropped at the same time? (02)
- iii. What is the name given to a shape similar to the structure Q? (01)
- iv. What is demonstrated by this activity? (01)
- v. Write down the,
- Leaf venation
 - Nature of root system in the ladies finger plant (02)

- (B) The apparatus is set up and the bar magnet is rotated as in the figure



- i. What can you observe here? (01)
- ii. What is the reason for that observation? (01)
- iii. Write a change that can we do to further improve that observation (02)
- iv. This diagram illustrates the function of which device? (01)

- (C) Below are the two types of curved mirrors and the three types of light rays.



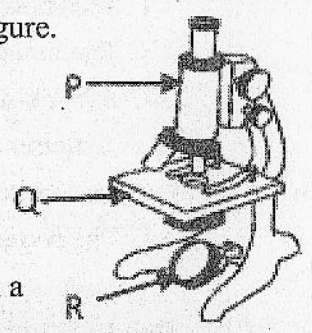
- i. Name the two curved mirrors (a) and (b) respectively. (02)
- ii. The light beam (c) is made to fall separately on mirrors (a) and (b). Choose and write from (c), (d), (e) the ways in which light is reflected by those mirrors separately. (02)

(Total Marks:- 16)

- (05) A. The human digestive system is a tubular structure starting from the mouth and ending at the anus. It has narrow long positions as well as wide positions. The digestive system performs two main functions.
- Write one major function of the digestive system. (01)
 - What is the widest muscular sac-like structure seen in the digestive system? (01)
 - Name the longest part of the digestive system. (01)
 - Mention a change in food that happens in the mouth. (01)
 - Along with food, there is a chance for small stones and grains of sand to enter the digestive tract. Different types of stones that we find in the environment can be classified as rocks and minerals.
 - Name a rock that is commonly found and which has lot of uses (01)
 - Rocks on earth are of three types according to how they are formed naturally. Name two of them. (02)

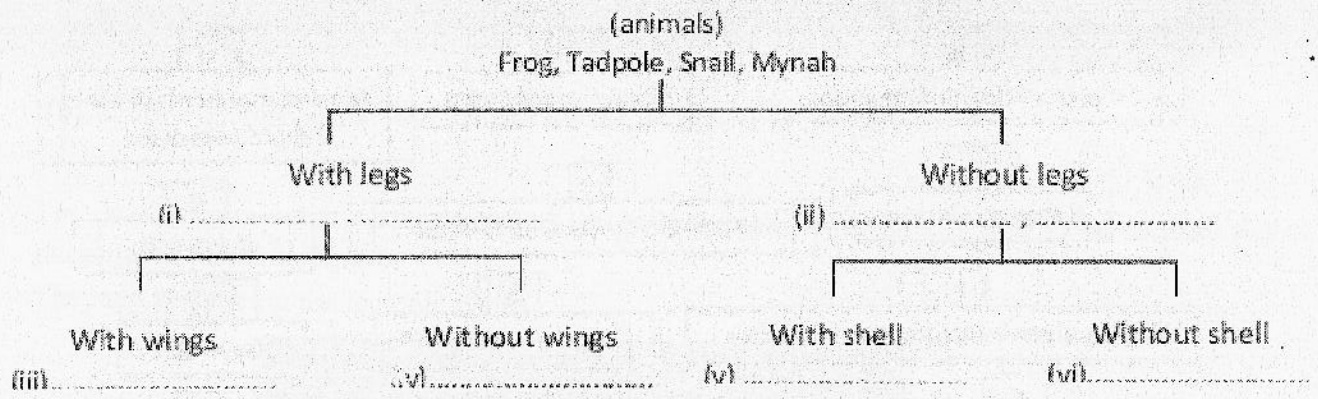
B. Answer the following questions based on the microscope shown in the figure.

- Name a device to adjust the part shown as P here. (01)
- What is the use of Q? (01)
- There are two types of mirrors in the part denoted as R. Which mirror should be used when the light intensity is low? (01)
- How should you place your familiar eye when observing something with a Microscope?



(Total Marks :- 11)

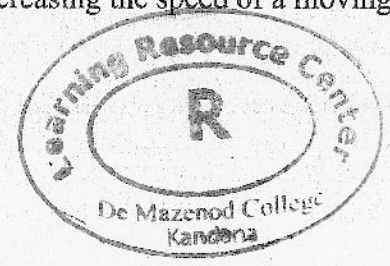
- (06) A. Complete the dichotomous key below. ($\frac{1}{2} \times 8 = 04$)



B. Select from (B) what effect of force is applied in the activities shown in (A) below.

- | A | B |
|--|--|
| i. Bending an iron rod. | Performing a rotation action on the object. |
| ii. Shooting an arrow from a bow. | Stop a moving object. |
| iii. Twist open a bottle cap. | Changing the shape of an object. |
| iv. Stepping on the accelerator in a moving vehicle. | Moving a stationary object. |
| v. Catching a ball in cricket. | Changing the direction of motion of an object. |
| vi. To hit a ball coming towards him. | Increasing the speed of a moving object. |

($\frac{1}{2} \times 6 = 03$)



(C) Fill in the blanks in the following clauses.

- The ability to do work is known as
- Light does not travel through objects.
- is the minimum distance by which two points must be separated in order to be seen as two distinct points. .
- The difficulty to identify animals separately from their surroundings due to blending of body colour to particular environments is called

(04)

(Total Marks:-11)

(07) (A) Mark '✓' if true and '✗' if wrong in the sentences below

- The mesosphere is the coldest layer in the Earth's atmosphere. ()
- The amount of lead particles in the air in the rural area of Sri Lanka is high. ()
- A brick-red precipitate is obtained in Benedict test to detect glucose. ()
- A dynamo is also used to generate electricity from solar cells. ()
- Insects such as bees and mosquitoes produce sound by rapidly flapping their wings. ()
- The roots of larger plants sometimes extend into the subsoil ()

(B) Below is a set of question-and-answer cards prepared by some Grade 7 students. Match the questions and answers given here appropriately. (One is done for you as an example)

(Questions are in capital letters and answers are in simple letters)

D

plants with climbing roots

e

Yellow, orange, red

F

Main components of air in the atmosphere

c

Nitrogen, Oxygen

B

Method to reduce air pollution.

d

Condys, salt

C

Colour given by pH papers for acids

a

Cutting contour ditches

b

Peper, betel

E

Method to reduce soil erosion

f

Protecting forests

A

Dissolve well in water

question	answer
A	d
B	
C	
D	
E	
F	

(05)

Total marks for part II :- 16+(11x4) = 60)

02) (A) Various forms of energy are around us and the conversion of one form of energy into another form of energy is called energy transformation.

- What form of energy is commonly stored in fuels, matchsticks, firecrackers and food? (01)
- From which one of the above 4 substances transforms the form of energy you mentioned in (i) clearly to heat and light energy forms. (01)
- What form of energy is stored in the book when picking up a book that had fallen on the floor and placing it on a table (01)
- (a) What can be tested by this device, which consists of two empty yoghurt cups connected by a thin length of string?



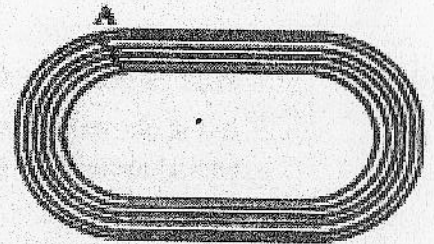
(b) How should the thread be used to check the point you mentioned above? (01)

(B) The atmosphere around us is divided into five layers based on two factors. The lowest layer we live in is called the troposphere.

- Name one factor on which the atmosphere is divided into layers. (01)
- What percentage of the total amount of air contained in the atmosphere is the amount of air contained in the troposphere? (01)
- How is the presence of an atmosphere important to birds compared to other animals? (01)
- Shown here is a 400 m track. 800 m race begins from place A.

(a) Write down the distance covered by a player who finished the race and his displacement separately.

(02)

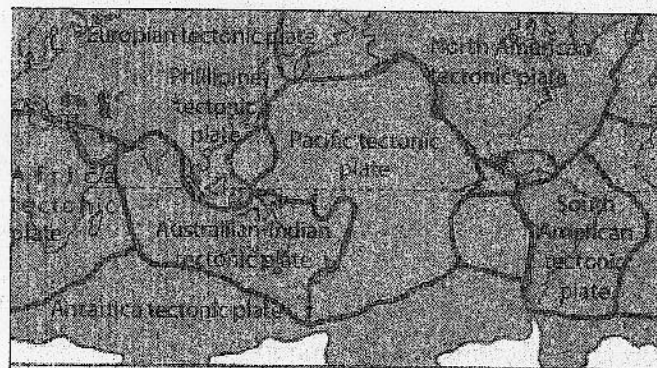


(b) What is the reason for your answer for displacement of the player? (01)

(Total Marks :-11)

(03) (A) The crust, which is the surface layer of the earth on which we live, is said to be divided into parts called tectonic plates.

The map is showing the tectonic plates.



- According to the map, what is the tectonic plate bordering to the east of tectonic plate to which Sri Lanka belongs? (01)
- There are three ways in which tectonic plates move relative to each other. Write down a mode of movement that causes earthquakes from those. (01)

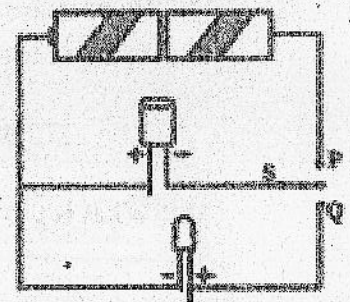
- iii. From which study geologists get the most information about Earth's interior? (01)
- iv. Name a material you used to build a model of the earth in school. (01)
- v. Most of the Earth is covered with water. Separation of dissolved substances in water is useful for us in various situations.
- (a) Give an example of one such case. (01)
- (b) In case of fever, the patient's body is moistened with water. Which property of water help in this situation? (01)

(B) A balanced diet is a diet that includes all the nutritional components and the required amount of fiber.

- i. Mention an adverse condition that may result from not eating a balanced diet. (01)
- ii. Mention the importance of including fiber in the diet. (01)
- iii. What type of nutrient contributes to the repair of worn tissue parts of the body? (01)
- iv. Various indicators are used to identify acids and bases in the laboratory. Name the indicators that give the following colours.
- (a) Pink colour in bases and colourless in acids.
- (b) Yellow colour in bases and red colour in acids. (02)

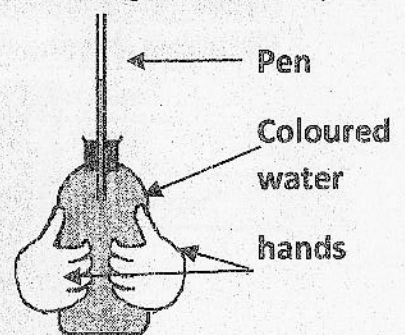
(Total Marks :- 11)

- (04) (A) i. What is meant by discharging a capacitor? (01)
- ii. In the above circuit, when the capacitor is discharged, the LED is expected to light up, but it does not. What is the reason for that? (01)
- iii. What unit is used to measure the amount of charge stored in a capacitor? (01)



iv. The picture shows a small glass bottle of coloured water, fitted with a pen tube, being held firmly by both hands.

- a) What observation is expected here? (01)
- b) What is the reason for that observation? (02)
- c) What measuring device is set in connection with the operation of this device? (01)



(B) Soil includes various minerals, organic matter, water, air and soil organisms.

- i. What is the short name for soil organic matter? (01)
- ii. Write a function of soil organic matter. (01)
- iii. What is the name of soil rich in organic matter? (01)
- iv. Among the particles of clay, sand, and silt, which type of particles has a rough texture? (01)

(Total Marks 11)