

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)					
ශ්‍රේණිය தரம் Grade	09	විෂයය பாடம் Subject	Science	පත්‍රය வினாத்தாள் Paper	1, II	කාලය காலம் Time	2 hours
නම பெயர் Name				විභාග අංකය சுட்டிலக்கம் Index No.			

- Answer all the questions.
- Underline the most suitable answer.

1. What is the name given to technology for metal extraction from ores - by the use of microbes?
 1. Industrial biology 2. Biological fixation 3. bio - leaching 4. bio - remediation.

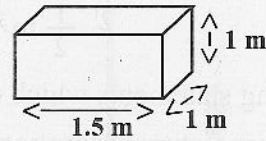
2. Given below are few characteristics of an organism.

- Unicellular
 - Flagella for locomotion
 - Live in aquatic
- The organism is

1. Mucor 2. Euglena 3. Amoeba 4. Paramecium

3. The weight of the given cuboid is 600 N.

1. 100 N 2. 150 N
 3. 400 N 4. 600 N

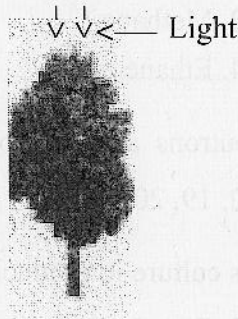


4. In which of the following shows the correct blood group for a transformation of a person with blood group A.

1. A and B 2. A and O 3. AB and O 4. A and AB

5. The figure shows the movement of plant shoot growing away from the ground. This type of movement is,

1. Positive geo trophic movement
 2. Positive hydro trophic movement.
 3. Positive photo trophic movement
 4. Positive thigmo torophic movement.



6. Consider following statements.

Statement A - Glaciers are melting rapidly in polar regions.

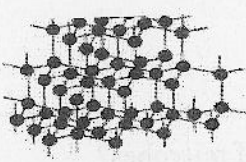
Statements B - Global warming is the main reason for melting glaciers.

1. Only statements A is true, but B is untrue.
2. A is untrue but statement B is true.
3. A and B both statements are untrue.
4. A and B both statements are true.

7. Select the equipment belong to second type of lever.

1. Sea saw, Scissor, pliers.
2. Nutcracker, Wheelbarrow, bait
3. ekel broom, mamoty, Wheelbarrow.
4. Wheelbarrow, nutcracker, bottle opener

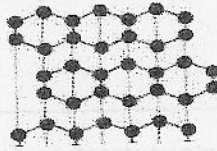
8. Of the following which one shows the structure of diamond.



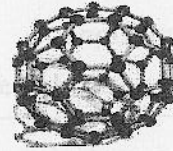
1.



2.



3.



4.

9. Of the following statements which factor is not a cause of cyclone.

1. Occurrence of convection current in the atmosphere.
2. Location of the point at which depression is far away from the equator
3. Existence of a large oceanic area and its temperature is high.
4. Increasing humidity of the atmosphere beginning from surface of the ocean to higher atmosphere level.

10. What is the volume of a liquid with 200kg mass and if the density is 1200kgm^{-3} ?

1' $\frac{1}{4} \text{ m}^3$

2' $\frac{1}{2} \text{ m}^3$

3' $\frac{1}{5} \text{ m}^3$

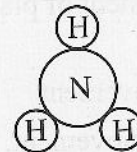
4' $\frac{1}{6} \text{ m}^3$

11. Of the following statements which one is **not** considered as a method of wood preservative method.

1. Preventing moisture absorption into timber.
2. Seasoning of timber.
3. Making carves on timber.
4. By soaking timber in wood preservative chemicals.

12. What is the structure of the compound given below.

1. Ethene
2. Methane
3. Ammonia
4. Ethane



13. The number of protons, Neutrons and electrons respectively in K_{19}^{39}

1. 19,19,18

2. 19, 20, 19

3. 20, 19, 19

4. 9, 19, 19

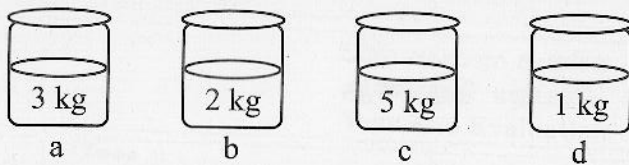
14. What is the bacteria used as culture in producing yoghurt?

1. Lacto bacillus
2. Pseudomonas.
3. Anthrax
4. Methano coccus.

15. Select the most correct living organism originated first on Earth.

1. Unicellular
2. Uni cellular auto trophs.
3. Multicellular but does anerobic respiration
4. Multicellular auto trophs.

16. Given below are four equal volume beakers with different masses.



In which choice shows the ascending order of density in above substances.

1. $c < a < b < d$
2. $b < d < a < c$
3. $d < b < a < c$
4. $c < d < b < a$

17. In which of the following statements shows the characteristic of image formed by a plane mirror?

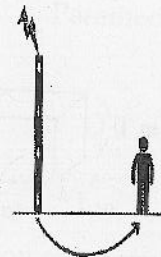
1. Real, lateral inversion, object is equal to image.
2. Virtual, Lateral inversion, both image and object are equal.
3. Inverted, real, lateral inversion
4. Upright, real, lateral inversion.

18. Of the following examples which one is not considered as fossil?

1. The external skeleton of some insects are preserved in tree resins.
2. The footprint of animals preserved due to extreme environmental conditions.
3. The preserved bodies of extinct animals found within ice in the countries of polar regions.
4. A dead body found in decayed matter.

19. What is the type of lightning shown in the picture given below.

1. Side flashes
2. Contact voltages
3. Step potentials
4. Direct strikes.

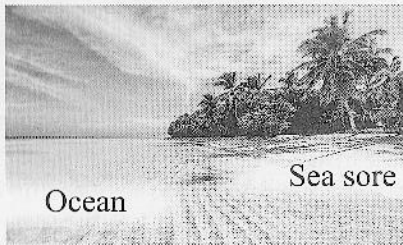


20. A gem belong to the Corundum Family is,

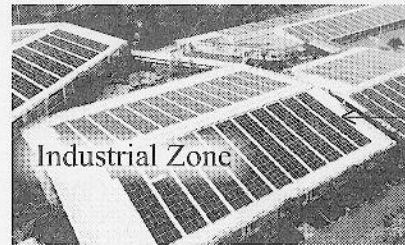
1. Yellow sapphire.
2. Pasingal
3. Cat's eye
4. star sapphire

● Answer the first question and four other questions.

A. A group of grade 9 students participated in their annual trip to go to Hambantota. Given below are two areas observed by them.



i



ii

- Mention an organism belongs to group mollusca and pieces in the area shown as (i) (2 Marks)
- Write the most abundant environmental problem in the area. (1 Mark)
- State a suggestion to over come above mentioned problem. (1 Mark)
- Write a natural disaster which is faced by living close to the sea shore as a result of earth quake occurred in the middle of the sea. (1 Mark)
- According to the disaster mentioned in (iv) above, if one boat was sailing in deep sea and the other was sailing in shallow sea. Which boat got damaged? Explain the reasons. (2 Marks)

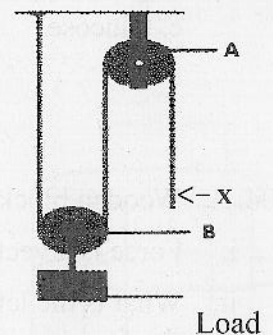
B. According to the students. There were many industries in the industrial zone.

- What is the source of energy used by the industries in this area? (1 Mark)
- Write 2 factors to select above mentioned energy source in this area to produce electricity. (2 Marks)
- By building alternative energy source mentioned above create an environmental problem in near by areas. Mention one such problem. (1 Mark)
- Suggest which can be suitable for this area. (1 Mark)

C. Given below is a set of pulleys.

- Name A and B pulleys. (2 Marks)
- What can you say about the force exerted one of the strings attached to pulley A? (1 Mark)
- What is the use of using pulley system? (1 Mark)

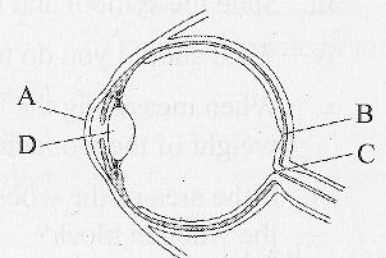
Total 16 marks



02. A cross section of human eye is given below.

- Name all parts A-D (2 Marks)
- What are the functions of given structures?
 - Yellow spot
 - Iris

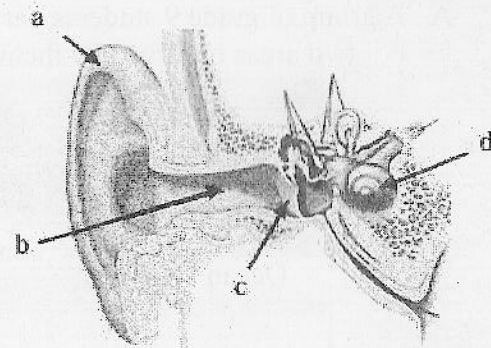
(2 Marks)



- iii. A person says that he can see the bus boards when they are coming from far away but he cannot read the letters of news papers in front of him.
- Name the eye defect he has got. (1 Mark)
 - Draw a ray diagram with the lens that can be corrected his eye defect and should be able to read letters clearly too. (1 Mark)

B. A diagram of the human ear is given below.

- Write functions of a,b,c and d organs. (2 Marks)
- Name 3 ossicles in middle ear. (2 Marks)
- Mention a defect of ear (1 Marks)



Total 11 marks

03. The basic unit of matter is atom. It has three sub atomic particles.

- Name 2 sub atomic particles. (1 Mark)
- Mg_{12}^{24} is the standard way writing Magnesium atom.

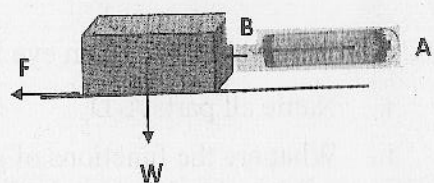
Find

- Atomic number -
 - Mass number -
 - No. of electrons -
 - No. of neutrons - (4 Marks)
- Write an example for elements and compound each. (2 Marks)
 - Draw a sketch diagram to show water molecule (1 Mark)
 - Name the elements present in compounds given below. (3 Marks)
- Calcium Carbonate
 - Sodium Chloride
 - Glucose

(Total 11 marks)

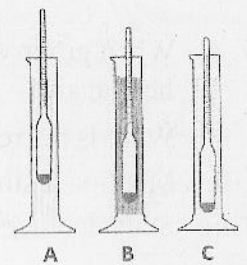
04. A. Wooden block is kept on a surface of a table and force is exerted by the Newton balance.

- Force is a vector quantity. Explain the reason. (1 Mark)
- What is the letter that indicate point of action of the force? (1 Mark)
- State the symbol and the standard unit of force. (1 Mark)
- What should you do to find the weight of the block of wood. (1 Mark)
- When measuring the weight of the wooden block the spring balance reading was 1500g. What is the weight of the wooden block. (1 Mark)
- If the area of the wooden block in contact with the floor is 0.5m^2 . What is the pressure exerted by the wooden block? (2 Marks)



B. Three hydrometers are made to float in three different liquids, are shown below

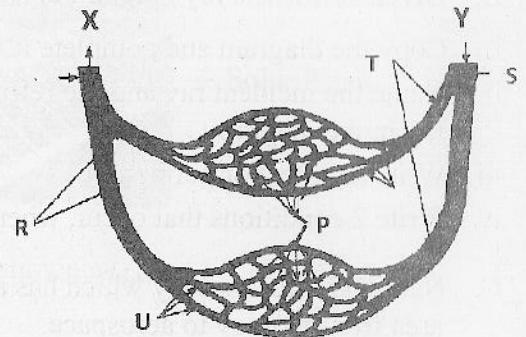
- Of the following liquids which one has the highest density? (1 Mark)
- Identify and separate A,B and C liquids if they are water, coconut oil and glycerin. (3 Marks)



Total 11 marks

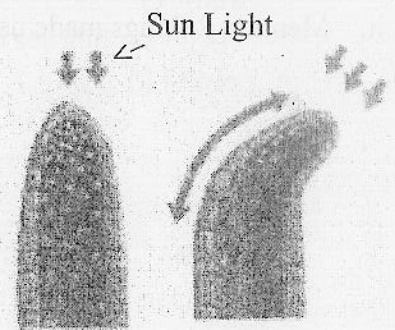
05. A. The diagram given below shows the blood circulation in blood vessel.

- Name the letter which shows that blood brings from the heart. (1 Mark)
- Name the letters in order to show arteries, veins and blood capillaries. (1 Mark)
- Of the veins U and T which vein had relatively less blood pressure. (3 Marks)
- How does the wall of vein 'p' made of? (1 Mark)
- Name the things consist in above mentioned vein. (1 Mark)



B. A growth substance that promote the growth of root apex and root apex regulate growth of plant cells.

- Name a natural auxin find in plants. (1 Mark)
- According to the figure 'A' how does shoot apex grow? (1 Mark)
- According to the figure 'B', does cell elongation takes place towards light or against it? (1 Mark)
- Which substance accelerates the seed germination in a plant? (1 Mark)



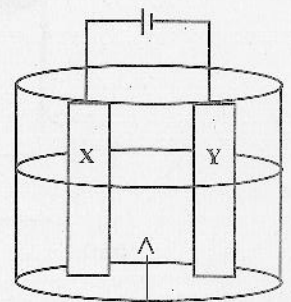
A

B

(Total 11 Marks)

06. A. Following set-up was done for electrolysis of copper sulphate.

- a. Name substances used as electrodes X and Y. (1 Mark)
b. Write positive (+) and negative (-) electrodes. (2 Marks)
- Write an observation at the electrode X. (1 Marks)
- Write can you see at the electrode Y. (1 Marks)
- What is the color of the electrolyte at the time of preparing this set up (2 Marks)
- What will happen to the color of the copper sulphate solution after sometime. (1 Mark)



Copper sulphate Solution

B. A metal can be applied on to another metal using an electric current.

- Name 2 metals used for this. (1 Mark)
- Write characteristics of such metals (1 Mark)
- Write 2 strategies used for quality planting. (2 Marks)

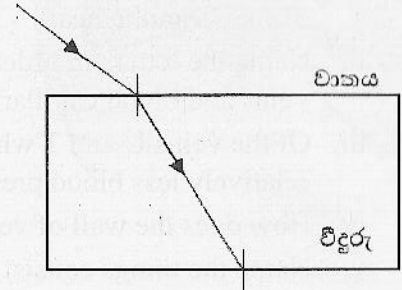
Total 11 marks

07. A. When group of students talking in an auditorium, they found that the sound emitted by them could hear again.

- What is the reason for this incident? (2 Mark)
- Mention 2 strategies taken to avoid this in an auditorium. (1 Mark)
- State another example for using above mentioned strategy. (1 Mark)

B. Given below is a ray diagram to show refraction when a light ray travels from air to glass block.

- Copy the diagram and complete it. (1 Mark)
- Name the incident ray and the refractive ray in the diagram (1 Mark)
- Write an effect on refraction. (1 Mark)
- Write 2 conditions that occur, when there is a rainbow. (2 Marks)



C. Nanon is a Technology which has applications in a diverse area from biology to aerospace.

- Write two types of microscopes used in nano scale observations and functions. (1 Mark)
- Mention 2 things made using active carbon. (1 Mark)

Total 11 marks