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Provincial Department of Education - NWP

Third Term Test - Grade 08 - 2023
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SCIENCE

Time: 2 hrs

Name / Index No:

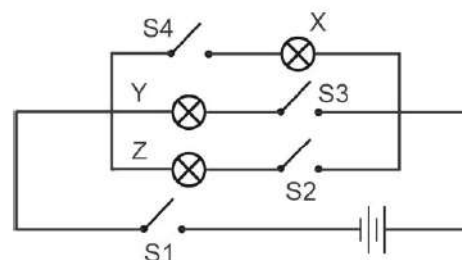
- Answer all the questions.
- Select and underline the most suitable answer.

PART - I

- The internal factors used in photosynthesis in green plants are,
 - 1 - Carbon dioxide
 - 2 - water
 - 3 - Chlorophyll
 - 4 - Light energy
- Consider the following living characteristics
 - a. Bilateral symmetry.
 - b. Slender elongated worm-like body.
 - c. Segmented body.The group of animals belonging to these characteristics are,
 - 1 - Arthropoda
 - 2 - Annelida
 - 3 - Mollusca
 - 4 - Cnidaria
- What is the name given to the change caused by the growth of microorganisms on food rich in protein?
 - 1 - Putrefaction
 - 2 - Rotting
 - 3 - Fermentation
 - 4 - Rancidity
- A part is **not** a part of the human brain
 - 1 - Cerebrum
 - 2 - Cerebellum
 - 3 - Spinal cord
 - 4 - Medulla oblongata
- The part of human skin made up of non-living cells is,
 - 1 - Sebaceous Gland
 - 2 - Epidermis
 - 3 - Dermis
 - 4 - Sweat gland

6. Mass, electric current, electrical resistance are measured in a unit respectively by,
- 1 - kilogram, ampere, ohm
 - 2 - newton, milliampere, ohm
 - 3 - newton, ampere, ohm
 - 4 - kilogram, volt, ohm

7. The switches to be closed (ON) to light bulb Z are,
- 1 - S1 and S3
 - 2 - S1 and S2
 - 3 - S2 and S3
 - 4 - S2 and S4



8. Among the following materials, brittle material is,
- 1 - lead
 - 2 - copper
 - 3 - sulphur
 - 4 - iron

9. What is the correct statement about the boiling point of a substance?
- 1 - A solid turns into a liquid at boiling point
 - 2 - The boiling point of the distilled water at the top of the hill is more than Celsius 100.
 - 3 - A liquid turns into a gas at boiling point.
 - 4 - When the atmospheric pressure increases, the boiling point decreases.

10. An example of a physical change
- 1 - rusting of iron
 - 2 - lighting a firecracker
 - 3 - burning a paper
 - 4 - Evaporation of liquid wax

11. Can be used as magnetic material to make magnets
- 1 - Perspex rod
 - 2 - Ferrite rod
 - 3 - Aluminum rod
 - 4 - Asbestos rods

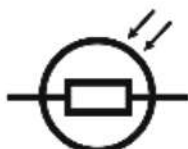
12. An animal showing incomplete metamorphosis is,
- 1 - mosquito
 - 2 - cockroach
 - 3 - house fly
 - 4 - fruit fly

13. The answer which correctly shows the circuit symbol for an LED is,

1-



2-



3-



4-



14. An organism that does not show morphological changes in the stages of its life cycle is
- 1 - squirrel
 - 2 - frog
 - 3 - mosquito
 - 4 - house fly
15. The star that appears to be stationary in the night sky from east to west is,
- 1 - Alpha Centauri
 - 2 - Polaris
 - 3 - Pollux
 - 4 - Regulus
16. Select the answer that correctly indicates the function performed by the following parts of the central nervous system
- 1 - Spinal cord – Controls higher mental functions
 - 2 - Cerebrum - Controls heart beat rate
 - 3 - Cerebellum - Controls the balance of the body
 - 4 - Spinal cord – Controls of voluntary actions
17. The factor that does not affect the resistance of a conductor is,
- 1 - Length of the conductor
 - 2 - Cross-sectional area of the conductor
 - 3 - Surface nature of the conductor
 - 4 - The material the conductor is made of
18. Not a function performed by underground trunks is,
- 1 - Spending dormant periode
 - 2 - Food storage
 - 3 - Vegetative propagation
 - 4 - Photosynthesis
19. Select the correct option about the frequency of sound emitted by a device which vibrating a string,
- 1 - When the tension increases, the frequency decreases.
 - 2 - When the thickness increases, the frequency increases.
 - 3 - When the length increases, the frequency increases.
 - 4 - When the thickness decreases, the frequency increases.
20. It is not a disease that is often seen during the rainy season
- 1 - Hydrophobia
 - 2 - Diarrhea
 - 3 - Dengue
 - 4 - Leptospirosis

PART - II

Instructions

- Answer the first question and 4 more questions
- Also use separate paper for writing answers
- The first question carries 16 marks and the other questions carry 11 marks each.

1. A. Below are the diagrams of several biological processes of plants, which are considered as a major organism that contributes to the safety of the environment.



A



B



C

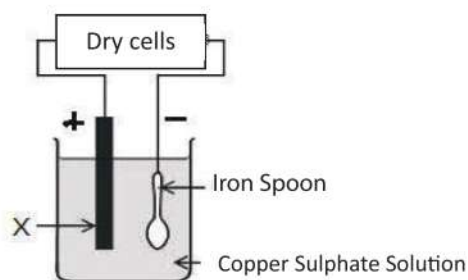


D

- Name the biological processes represented by A, B, C, D (4 marks)
- Write the process A in a word equation (2 marks)
- Write two differences between C and D processes (2 marks)

- B. The picture below shows a practical use of the chemical effect of electricity in day to day life.

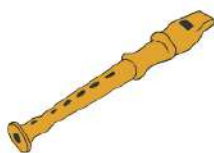
- Write two other effects of electricity besides chemical effect (2 marks)
- Write the name of the metal named X (1 mark)
- What is the change that happens on the spoon of the setup? (1 mark)



- C. Diagrams of three musical instruments are shown below.



X



Y



Z

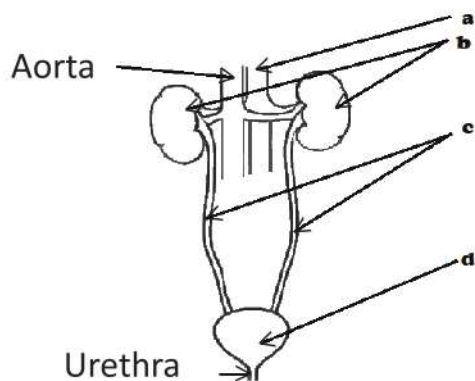
- Which part of the X, Y and Z need to vibrate to produce sound? (3 marks)
- What is the frequency range of sound that can be heard by human? (1 mark)

(Total 16 marks)

2. Below is a diagram of the human urinary system.

- I. Name the a, b, c, d parts of the diagram
- II. What is the excretion?
- III. Fill in the blanks corresponding to the w, x, y, z positions in the table below

(2 marks)
(2 marks)
($\frac{1}{2} \times 4 = 2$ marks)

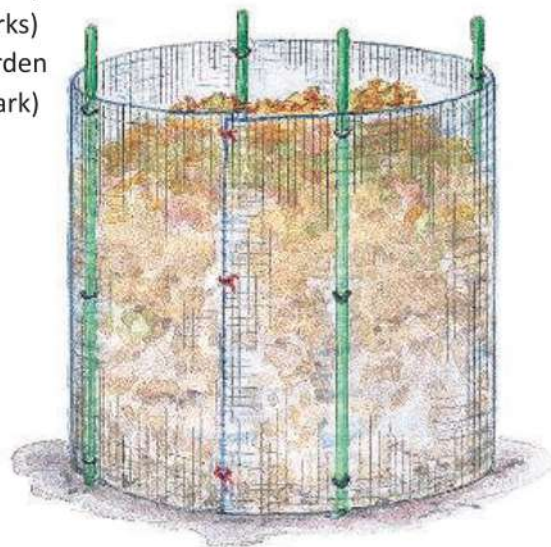


Excretory organ	Excretory substance	How to release
W.....	Urea, Salts, Water	Urine
Lungs	X.....	Exhalation
Skin	Y.....	Z.....

- IV. What is the salt causes the formation of urinary stones? (1 mark)
 - V. Write down any two common diseases related to urogenital system (2 marks)
 - VI. Write down two precautionary measures that can be taken to maintain a healthy urinary system (2 marks)
- (Total 11 marks)

3. A. A group of grade 8 students constructed a compost cell in the backyard of the laboratory is shown below.

- I. Define the term micro-organisms (2 marks)
- II. Write two possible microbial components in this cell (2 marks)
- III. Write two materials that can be collected from the school garden in the corresponding cell ($\frac{1}{2} \times 2 = 1$ mark)



B. Food spoilage due to microorganisms and other factors is a disadvantage.

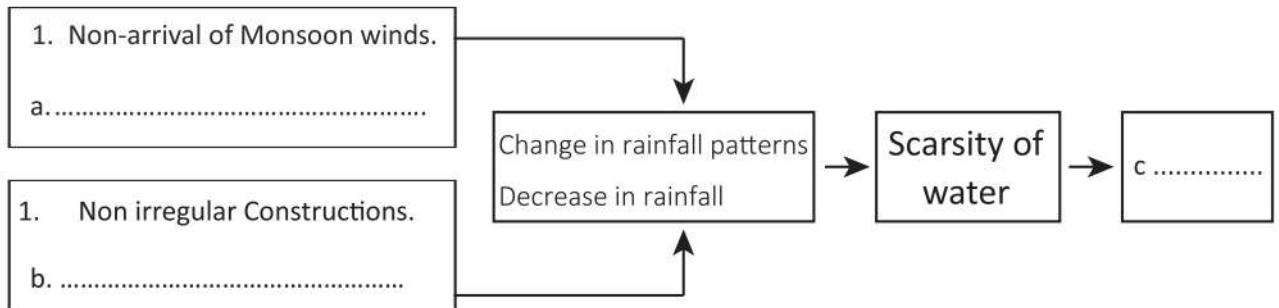
- I. Write down two factors affecting food spoilage other than micro-organisms (2 marks)
- II. What is preservation of food? (2 marks)
- III. Mention two traditional methods used for food preservation (2 marks)

(Total 11 marks)

4. A. Natural disasters affecting people's daily life. Below is a concept map describing such a disaster.

I. Fill the blanks a, b, c

(3 marks)



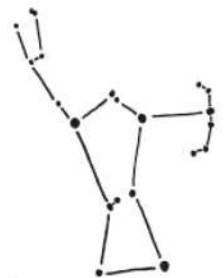
II. Write two other natural disasters affecting Sri Lanka

(2 marks)

B. Direction identification can be done by observing the constellations in the night sky.

Below is such a constellation.

- I. What is the constellation shown in the diagram? (1 mark)
- II. What direction does identify on Earth using this constellation? (1 mark)
- III. What is the difference between a star and a planet? (1 mark)
- IV. What is the unit of measuring distance between stars? (1 mark)
- V. Name the brightest star in the night sky and the constellation it belongs to. (2 marks)



(Total 11 marks)

5. Below is a diagram of some devices and equipment used by a group of grade 8 students in a group activity.



- I. Name a, b, c, f ($\frac{1}{2} \times 4 = 2$ marks)
- II. Draw the circuit to be designed to light a bulb using d, e, h, f, i devices using standard symbols (4 marks)
- III. What is the purpose of using the above circuit? (1 mark)
- IV. Select the appropriate instrument to measure the potential difference between the two ends of the bulb and draw it using the corresponding symbols in the above circuit diagram (1 mark)
- V. What is electric current? (1 mark)
- VI. What is the standard direction of electric current? (1 mark)
- VII. Write down an adverse effect of unregulated disposal of electronic waste into the natural environment (1 mark)

(Total 11 marks)

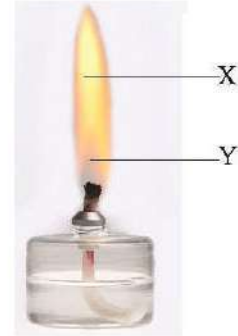
6. A. Below is a chart prepared based on the factors affecting the occurrence of a fire.

- I. What is the name of the figure? (1 mark)
- II. Write suitable factors for **a** and **b** in the diagram (2 marks)
- III. What is a Fuel? (2 marks)



B. A lamp flame is shown in the diagram.

- I. Name the regions X and Y in the diagram (2 marks)
- II. Write down the energy transformation that takes place in the combustion process of the lamp (1 mark)
- III. What kind of combustion takes place in the flame of the lamp? (1 mark)
- IV. Why water is used to extinguish the fire caused by inverting the lamp? (2 marks)



(Total 11 marks)

7. A. Write the scientific meaning / term that matches the following definitions.

Definition	Scientific Term
i. Roots absorb water from the atmosphere	
ii. Discharges starting from a cloud and ending at the Earth	
iii. Organisms that maintain their body temperature unchanged despite changes in the temperature of the environment	
iv. The mass of a unit volume of a substance	
v. The path a planet takes around the Sun	
vi. The area around the magnet which the magnetism is spreaded out	

(1 x 6 = 6 marks)

B. Answer the following questions based on the material given below

Pins, A piece of Styrofoam, A glass stick, A plastic pen lid, A pencil rod, A Blade.

- I. Draw and name a suitable diagram to distinguish conductors and insulators from the above materials (2 marks)
- II. Classify the above materials as conductors and insulators ($\frac{1}{2} \times 6 = 3$ marks)

(Total 11 marks)