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மாகாணக் கல்விப் திணைக்களம் - வட மத்திய மாகாணம்
DEPARTMENT OF EDUCATION – NORTH CENTRAL PROVINCE

Third Term Test - 2023

Grade **8**

Subject :- **Science**

School Name : .....

Index Number : .....

Time : **2 ½ hrs**

Part I

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

01. Which gas is produced by the action of yeast on the sugar solution?
(1) Oxygen (2) Nitrogen (3) Hydrogen (4) Carbondioxide

02. The characteristics that can be seen only in arthropods are,
(1) Have jointed appendages, Some species possess wings.
(2) Have muscular foot, Bear shells.
(3) Have jointed appendages, Have fins.
(4) Have exoskeleton, All are radial symmetrical animals.

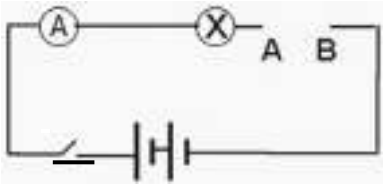
03. When mercury comes into contact with a gold item we can observe mercury particles in the gold item. It can be concluded from,
(1) Liquid matter is discontinuous. (2) Solid matter is discontinuous
(3) Gaseous matter is discontinuous (4) All solid, liquid and gaseous matter is

04. The higher the frequency, the higher the sound in the stings of a guitar,
(1) By increasing the length. (2) By reducing the length
(3) By increasing the diameter (4) By reducing the stretching amount

05. This is an image of bar magnet taken during an experiment on magnets.

This activity tries to show,
(1) To identify the magnetic poles.
(2) To distinguish the north from the south.
(3) To find out that the magnetic force of the poles is more.
(4) To detect the magnetic field.

06. Below is a circuit diagram of a circuit constructed by a student in the lab to investigate the resistance of conductors.



Here the reading of the ammeter is lowest and the brightness of the bulb is observed to be lowest by placing which type of metal wire between AB

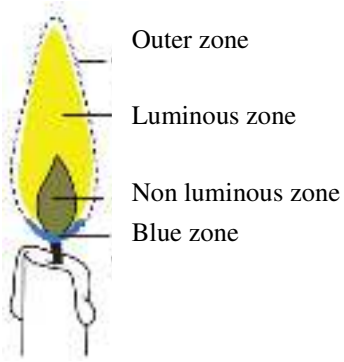
(1) A copper wire of the same length and diameter.
(2) A iron wire of the same length and diameter.
(3) A nichrome wire of the same length and diameter.
(4) A brass wire of the same length and diameter

07. What is the chemical change?

(1) Melting solid wax (2) Evaporating water
(3) Breaking granite into pieces (4) Rusting of iron

08. Which region shows the highest temperature in the flame?

(1) The blue part of the outer region.
(2) The dark region.
(3) The bright region.
(4) Barely visible external region



09. In relation to the occurrence of kidney stones, the least affecting cause may be

(1) Not drinking enough water.
(2) Suffering from diabetes for a long time
(3) Frequent consumption of highly salty foods
(4) Delaying of passing urine

10. What vitamin is produced in the cells of the human skin from the energy contained in sunlight?

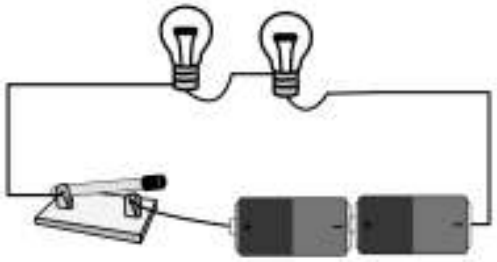
(1) A (2) B (3) C (4) D

Below are some statements related to the combination that takes place in the human body.
A – Coordination is a connection between receptors and effectors.
B – Nerves and hormones contribute to the coordination of the body.
C – Only nerves contribute to the coordination.

11. Which of the above statements is the most accurate?

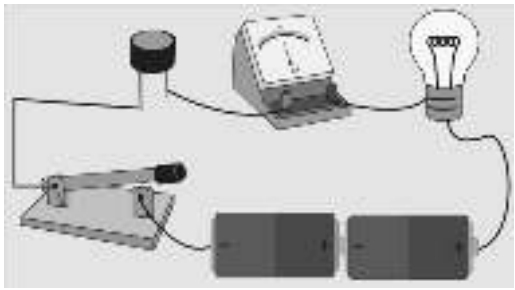
(1) Only A (2) Only B
(3) Only A and B (4) All A,B,C

12. A diagram of a circuit connected with bulbs and cells is shown below. In here,



(1) Bulbs and cells are connected in series.
(2) Bulbs and cells are connected in parallel.
(3) Bulbs are connected in series and cells in parallel.
(4) Bulbs are connected in parallel and cells are in series.

13. The circuit shown below causes the bulb to light up when placed in the open, and the brightness of the bulb decreases when placed in a dark environment



What is the special device is attached to this circuit?
(1) Rheostat
(2) Light dependent resistor.
(3) Light emitting diode.
(4) Fixed value resistor.

14. The main product of photosynthesis is,
(1) Oxygen (2) Water
(3) Glucose (4) Carbondioxide

15. Below are some of the processes that take place in the plant body.
A – Entry of carbondioxide through stomata of the leaf.
B – Transport of water and minerals to the leaves through root hairs.
C – Food produced in photosynthesis is taken from the leaves to the other parts of the plant.
D – Production of food in the chlorophyll of the leaf.

Among the processes the transport processes of the plant can be described as,
(1) A and B
(2) C and D
(3) A, B, C
(4) All A ,B ,C ,D

16. The main adaptation of a cactus plant to minimize transpiration is,
(1) Turning leaves into scale leaves
(2) Turning leaves into spines

(3) Storing water in the leaves
(4) Leaf fall.

17. How many stages are there in the life cycle of a cockroach?
(1) 2 (2) 3 (3) 4 (4) 5

18. Below is the constellation Taurus visible in the northwest of the night sky.

The red star of the eye is known as,
(1) Sirius (2) Polaris (3) Polucs (4) Aldebaran

19. A natural process that causes drought?
(1) Deforestation.
(2) Occurrence of El-Nino condition.
(3) Irregular constructions.
(4) Irregular use of water.

20. What is the stage of mosquito's life cycle can control easily by introducing some fish species?
(1) Eggs (2) Larva (3) Pupa (4) Adult

Part II

- Answer 5 questions including the first question .

01. (A) Natural disasters are the disasters that occur naturally without human intervention and cause damage to human life and property, the environment and the economy.

(I) Name 2 natural disasters that can affect Sri Lanka

(1)……. (2)……. (02 Marks)

(ii) Name 2 districts that landslides can occur

(1)…….. (2)……. (02 Marks)

(iii) Write 2 fields that can be affected by drought.

(1).....…..…...…...…..…...…. (2).....…...…..…..…..…..…..…. (02 Marks)

(iv) Write one human activity that causes drought (01 Mark)

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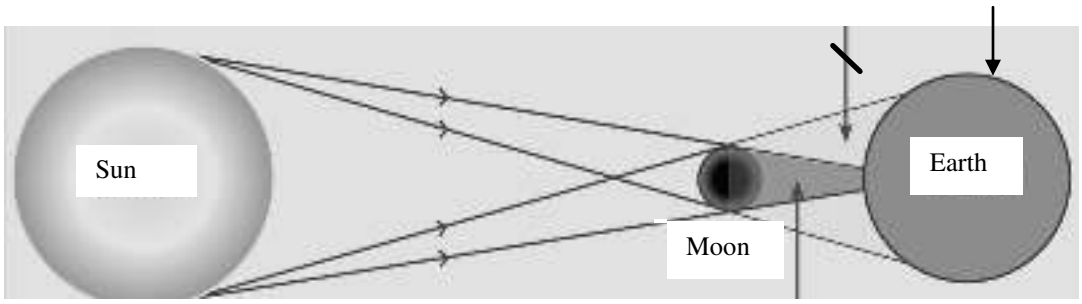
(B) We can see two wonderful phenomena that are rarely observed in the sky. The following is how one thing happens.



(I) What is this phenomenon? (01 Mark)

.....

(II) Identify X, Y and Z and write them.

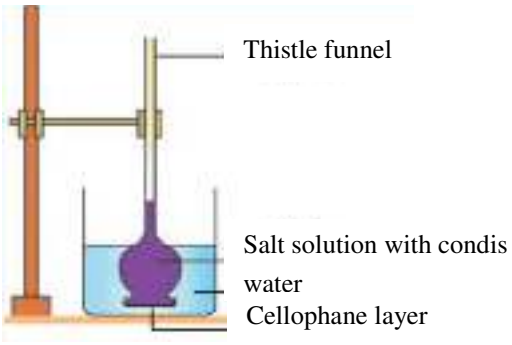
(1) X .....…..…...…. (2)Y ...……..…...…….

(3) Z ……..……... (03 Marks)

(iii) At what time of day can we see this incident? (01Mark)

.....

02. (A) This is the setup that we can arrange to observe osmosis.



(I) Which observation we can get after few minutes? (01 Mark)

(ii) What is the reason for your observation? (01 Mark)

(iii) What is the function of the cellophane film here? (02 Marks)

(iv) Which type of particle has passed through this membrane? (01Mark)

(v) What is the reason of using condis in this experiment? (01 Mark)

(B) When some ripe fruits are cut, small white worms are seen.

(I) Which animal's life cycle stage is seen like that? (01Mark)

(ii) Write the stages of life cycle of this animal? (02 Marks)

(iii) What is the harmful stage in the life cycle of this animal? (01 Mark)

(iv) Write a possible solution to protect fruit from these pests.

(02 Marks)

03. (A) Since ancient times, man has followed various methods to preserve food spoilage.

(I) What is food preservation? (02 Marks)

(ii) Food also undergoes changes naturally. It is called self decomposition.

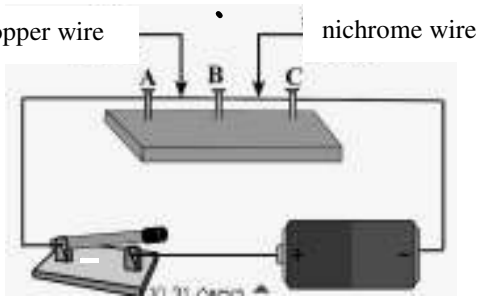
What is the reason for that? (01 Mark)

(iii) Write 2 traditional methods of food preservation. (02 Marks)

(iv) Which factor is removed from food when drying? (01 Mark)

(v) For what reason does refrigerated food not spoil? (01 Mark)

(B) Below is an experiment conducted by a group of students to find out whether the resistance of each conductor is different. A copper wire is tightly connected between the two pins AB on the board and a nichrome wire is tightly connected between the pins BC. They are equal in length and diameter.



Here, two identical balls of wax are placed on the copper wire and the nichrome wire.

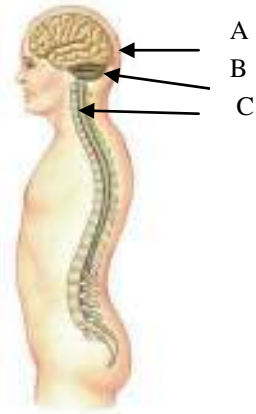
(I) What should you do first to get the observation here? (01 Mark)

(ii) What observation do you expect? (02 Marks)

(iii) According to your observation how do you find the material with higher resistance (01 Mark)

(iv) Out of these two materials, which material forms the heating part of the heating electrical equipments? (01 Mark)

04. (A) The central nervous system of man consists of the brain and spinal cord. A diagram of it is shown here.



(I) Name the parts A, B and C (Marks 03)

(ii) Which part helps to keep the body balanced? (Marks 01)

(iii) Which part of the brain controls mental functions like intelligence and memory (Marks 02)

(iv) What is he special fluid that protects the brain and spinal cord (Marks 01)

(B) Mark (✓) if the given statement is correct and (×) if it is incorrect.

(I) Voltmeter is used to measure electric current ( )

(ii) Ammeter is connected in series in a circuit ( )

(iii) Use ampere as the unit to measure the resistance of a conductor ( )

(iv) In fixed resistors the resistance can be changed when required ( )

(v) The resistance of a conductor varies with its length ( )

(05 Marks)

05. (A) Any magnet has 2 types of poles as north pole and south pole

(I) Copy the bar magnet given below on the answer sheet and draw the magnetic field lines of it. (02 Marks)

N		S

(ii) What happens when a string is tied in the middle of this magnet and hung on a support.(01 Mark)

(iii) Write 2 situations where electromagnets are used. (01 Mark)

(iv) Write 2 reasons for decrease in magnetic force of a permanent magnet. (02 Marks)

(B) Sounds that are played or sung rhythmically are called music.

(I) How does a musical tone differ from a noise? (02 Marks)

(ii) Name 2 string instruments. (02 Marks)

(iii) By what vibration does the flute act when played? (01 Mark)

(iv) If a certain object vibrates 50 times in 2 seconds, find the frequency. (01 Mark)

(v) Write one factor on which the frequency of vibration of a vibrating object depends. (01 Mark)

06. (A) (I) Write suitable words or sentences for the spaces ABCDEF below of an incomplete table containing the physical properties of solids, liquids and gases.

Characteristics	**Solids**	**Liquids**	**Gases**
Shape	A	No definite shape	B
Volume	Has a definite volume	C	No definite volume
Compressibility	Not easily compressed	Not easily compressed	D
Density	E	High density	F

(1 mark for each 6 marks)

(B) (I) What is an underground stem of a plant? (01 Mark)

(ii) Write another function performed by underground stems except propagating their species. (01 Mark)

(iii) Write 2 types of plants that store food in stem. (02 Marks)

(iv) Plants like peparomia, begonia, lily mainly spread from which growth part? (01 Mark)

(v) What is the requirement for plants to have a leaf configuration (01 Mark)