



Royal College - Colombo 07

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Grade 8 – Second Term Test – July 2019

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කාලය : පැය 2
Time : 2 hours

Science

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Name :-

Grade : -.....

Index number:-.....

Part I

Answer all questions

- Underline the most suitable answer.

- The standard unit used to measure frequency of sound is,
(i) s^{-1} (ii) Hz (iii) m (iv) ms^{-1}
- A piece of meat was spoiled due to the activity of micro organisms. What is the name used for this process.
(i) Fermentation (ii) Putrifaction (iii) Rancidity (iv) Spoilage
- A disease which does not caused by protozoa is,
(i) Pityriasis (ii) Malaria (iii) Leishmaniasis (iv) Amoebiasis
- Sound with high frequency can be obtained by,
a – making the length of the string short
b – making the thickness of the string high
c – making the tension of the string high
Correct methods are,
(i) a, b and c only (ii) a and b only
(iii) b and c only (iv) a and c only
- Name used for the formation of a gas from a solid, straightly without forming a liquid is
(i) Evaporation (ii) Freezing
(iii) Sublimation (iv) Fusion
- Not an observation when an iron nail is put in a copper sulphate solution.
(i) Deposition of reddish brown substance on the iron nail.
(ii) Reducing the blue colour of the solution.
(iii) Increasing the heat of the solution.
(iv) Evolving of gas bubbles.
- The membrane which occurs around the brain and spinal chord protecting them
(i) Plural membrane (ii) Alveolar membrane
(iii) Diaphragm (iv) Meninges

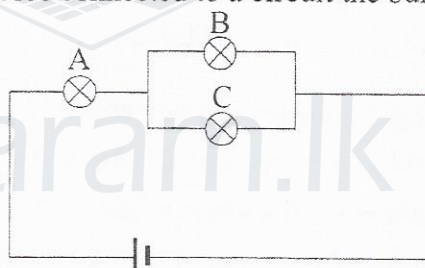
8. Number of cranial nerves and spinal nerves in the peripheral nervous system respectively are,
- (i) 21 and 13 (ii) 13 and 21
(iii) 12 and 31 (iv) 31 and 12
9. The electrical equipment in which the resistance, changes according to the intensity of light falling on it is.
- (i) LDR (ii) LED (iii) capacitor (iv) variable resistor

10. Consider the following factors.
- A – Current flow through a conductor
B – Number of turns in the coil
C – Direction of the current
D – Medium in the middle of the coil

Factors which affect to the strength of a magnetic field when a current flow through a conducting coil are.

- (i) A and C only (ii) B, C and D only
(iii) A and B only (iv) A, B and D only
11. The diagram shows three equal bulbs connected to a circuit the bulb/ bulbs glow with the maximum brightness is / are,

- (i) Bulb A
(ii) Bulb B
(iii) Bulb C
(iv) Bulb B and C



12. Not a chemical change,
- (i) Condensation of water vapour (ii) Tarnishing of metals
(iii) Rusting of iron (iv) Burning of magnesium ribbon
13. Function of Medulla oblongata is,
- (i) Control of high mental activities.
(ii) Control the balance of the body.
(iii) Control the heart beat rate.
(iv) Exchanging messages between brain and body.
14. Select the correct statement about the human urinary system.
- (i) Right kidney is situated slightly below than left kidney.
(ii) Removal of urine from the bladder is done by ureters.
(iii) Blood flows away from the kidneys through renal artery.
(iv) There are three parts that can be identified in the transverse section of a kidney.

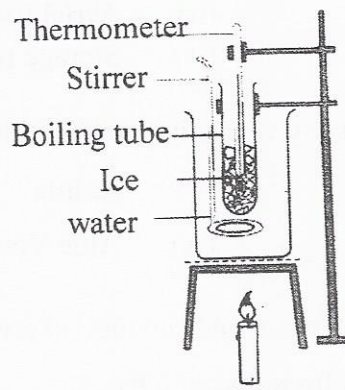
15. The group in which the maximum number of organisms are included is.
 (i) Aves (ii) Mammalia (iii) Amphibia (iv) Arthropoda
16. The type of roots which absorb atmospheric water vapour and supplies to the plant is.
 (i) Climbing roots (ii) Aerial roots
 (iii) Respiratory roots (iv) Storage roots
17. The plant which produce new plants by vegetative propagation of leaves is,
 (i) Centella (Gotukola) (ii) Kohila
 (iii) Peperomea (iv) Aloe Vera
18. Masses of density bottles filled with water and coconut oil are measured separately. Following observations were taken from that activity.
 A – Masses are equal
 B – Mass of the density bottle containing coconut oil is higher
 C – Mass of the density bottle containing water is higher.
 The correct observation is,
 (i) A only (ii) B only (iii) C only (iv) Nothing above
19. The incorrect statement about burning of magnesium ribbon is,
 (i) Burns with a bright white flame (ii) Physical change occurs.
 (iii) White residue remains after burning (iv) Chemical change occurs
20. The person who introduced the law of conservation of mass is.
 (i) Galileo Galilei (ii) Isaac Newton
 (iii) Antoine Lavoisier (iv) Benjamin Franklin

(2 × 20 = 40 marks)

Part II

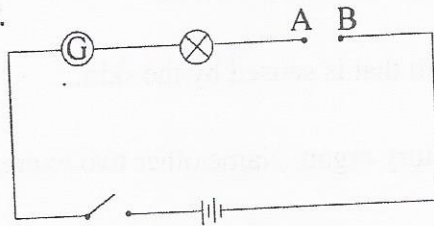
Answer 5 questions including the first question.

1. The following set up is arranged to identify the purity of a substance.



- (i) Which property of the substance is expected to measure using the above set up? (1 mark)
- (ii) Which readings are taken in the above activity? (1 mark)
- (iii) Write another two features that can be used to examine the purity of a substance. (2 marks)
- (iv) What are pure substances? (1 mark)
- (v) Pure substances can be divided into two groups as elements and compounds. Name the elements in the following compounds. (3 marks)
- (a) Copper sulphate (b) Sodium chloride (c) Calcium carbonate
- (vi) Write two common features of solids, liquids and gases. (2 marks)
- (vii) Write a difference between solids and gases. (1 mark)
- (viii) Write one characteristic feature that can be identified only in liquids. (1 mark)
- (ix) Characteristic features of matter are considered when selecting them for our day to day activities. Write the physical feature of the material considered when selecting them for following purposes. (4 marks)
- (a) Using Mercury as thermometer liquid
- (b) Using Diamond to cut glass
- (c) Using copper wires as electrical cables
- (d) Using bimetallic strip as automatic electrical switch.

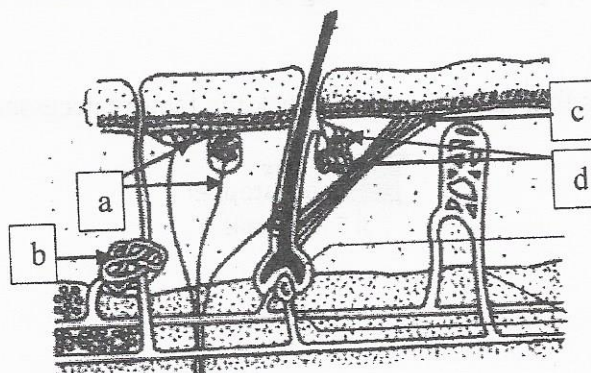
2. An activity planned to examine the factors which affects the current flow through a conductor is given below.



Reading were obtained by keeping Nicrome and copper wires having equal length and diameter between A and B, separately. (for equal time intervals)

- (i) Write one observation. (When copper and Nicrome wires were kept between A and B) (2 marks)
- (ii) Explain the reason for above observations? (1 mark)
- (iii) Write one observation when the switch is closed after placing copper wire between AB and change the terminals of the dry cells. (1 mark)
- (iv) Draw the way of connecting the suitable electrical equipment using circuit symbols, to measure the voltage between the bulb. (2 marks)
- (v) Write two instances where we get correct measurements of current and potential difference through a circuit in our day to day life. (2 mark)
- (vi) Which equipment is connected to its circuit to change the volume of a radio? (1 mark)
- (vii) Which electrical equipment is used to measure very small electrical currents? (1 mark)
- (viii) Write the connection between amperes and micro amperes. (1 mark)

3. The largest organ in the human body is skin. The diagram below is the structure of human skin.



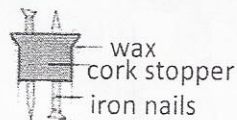
- (i) Name the parts a, b, c, and d (2 marks)
- (ii) Which pigment in the skin helps to protect the skin from harmful UV rays. (1 mark)

- (iii) Which vitamin is produced by the skin. (1 mark)
- (iv) Write two stimuli that is sensed by the skin. (2 marks)
- (v) Skin is an excretory organ. Name other two excretory organs in human body. (2 marks)
- (vi) Write two good habits that we need to follow to maintain a healthy skin. (2 marks)
- (vii) Write one skin disease. (1 mark)

4. Magnets are frequently used in our day to day activities. But most of the materials are not attracted to magnets. The materials that are attracted to magnets are called as magnetic materials.

- (i) Name an alloy which is attracted to magnets. (1 mark)
- (ii) Which nation designed the compass for the first time using magnets. (1 mark)
- (iii) Fill in the blanks.
North poles of two magnets are known as poles and when they are brought closer forces are created. North pole and south pole of magnets are known as poles and when they brought closer to each other forces are created. (4 marks)
- (iv) Draw how a temporary magnet is constructed in the lab and name the parts of the figure. (2 marks)
- (v) Mention two reasons to reduce magnetic power of permanent magnets. (2 marks)
- (vi) There are proper methods to store permanent magnets. Draw a figure to illustrate the way of storing a horse shoe magnet. (1 mark)

5. A set of apparatus that can be used to check the factors necessary for rusting is given below.



- (i) Name the chemical that is used in the above set up named as A?

(1 mark)

- (ii) Mention an observation of the above activity. (1 mark)
- (iii) What is the conclusion of the above activity? (1 mark)
- (iv) What factor is necessary for rusting, in addition to the factor you mentioned in (iii) above ? (1 mark)
- (v) List down two methods that can be used to prevent rusting. (2 marks)
- (vi) Explain the reasons for the following, phenomenon
 a) Adding lime to agricultural lands.
 b) Running is not suitable when the cloths are on fire. (2 marks)
- (vii) Region of the candle which is having the highest temperature. (1 mark)
- (viii) Name 2 main substances that are produced when hydrocarbons are burnt. (2 marks)
6. Photosynthesis is the main function of plant leaves. Plants are adapted for an efficient photosynthesis. "Leaf arrangement" is one such adaptation.
- (i) What is leaf arrangement? (1 mark)
- (ii) Through which structure of the plant leaf, the transpiration occurs mainly ? (1 mark)
- (iii) Write two adaptations of xerophytic plants and give one example for each. (to reduce transpiration) (2 marks)
- (iv) Write two other functions performed by some plant leaves except photosynthesis. Give examples for each function. (2 marks)
- (v) Food is stored in underground stems of plants like ginger and turmeric. Write two other functions performed by underground stems except storage of food. (2 marks)
- (vi) Give an example for a plant which store food in 'aerial stems'. (1 mark)
- (vii) Name the type of adventitious root that can be seen in Vanilla plant and write it's function. (2 marks)

7. Grouping animals according to their common features is known as "animal classification." Classification of animals can be done on the basis of various factors. Name the most suitable animal to the given description and the group of that animal in the following table. Copy down this table in your answer script and answer.

	Description	Name of organism	Group
(i)	Worm like body and segmented.		
(ii)	Fore limbs have converted in to wings.		
(iii)	Have ears with external ear lobes.		
(iv)	Cnidocytes present in tentacles.		
(v)	Organism with a muscular foot		
(vi)	Thin and moist skin without scales.		
(vii)	Have eyes without eyelids.		
(viii)	dry skin, without glands.		
(ix)	Chitinous exoskeleton and jointed limbs.		
(x)	Radial symmetrical body.		
(xi)	Having mammary glands.		

($\frac{1}{2} \times 22 = 11$ marks)