St. John's College, Nugegoda

First Term Test-March 2020

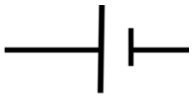
Science-Grade 7 **Duration 02 hours**

Name of the candidate: ……

Part I

Answer all questions in part I

Underline the most suitable answer.

1. The plant where seeds are dispersed with the help of animals.
   i. 'Hora'
   ii. 'Kaduru'
   iii. 'Gammalu'
   iv. 'Thuththiri'
2. The plant with compound leaves
   i. Papaya
   ii. Manioc
   iii. Tamarind
   iv. Guava
3. The plant that carries out vegetative propagation through roots
   i. Ginger
   ii. Breadfruit
   iii. Arecanut
   iv. Corn
4. The positive terminal in a simple cell is
   i. Copper sheet
   ii. Carbon rod
   iii. Zinc sheet
   iv. A mixture of carbon powder
5. Which of the following generates an alternating current
   i. Dynamo
   ii. Car battery
   iii. Button cell
   iv. Dry cell
6. The symbol for capacitor
   i. 
   ii. 
   iii. 
   iv. 

7. “A” rod is hung from the ceiling. It is observed that when “B” rod is brought close to “A” rod they are attracted to each other. Pick the correct statement about this incident.
   i. “A” rod is positively charged, “B” is uncharged.
   ii. “B” is positively charged, “A” is uncharged.
   iii. “A” and “B” are negatively charged.
   iv. “A” and “B” are positively charged.
8. When a current from a simple cell flows through a galvanometer it shows a deflection. At this point in which part of the simple cell are gas bubbles observed?
   i. Throughout the solution
   ii. At both the metal sheets
   iii. At the copper sheet
   iv. At the zinc sheet
9. A drinking straw which had been rubbed against a polythene is balanced on an upturned glass. Which of the following is attracted to it?
   i. The polythene against which the drinking straw was rubbed
   ii. Another drinking straw which had been rubbed against a polythene
   iii. A drinking straw which had not been rubbed against anything
   iv. When a piece of copper is brought close to the straw in the question
10. Which of the following is the most common solvent?
   i. Water
   ii. Ethanol
   iii. Thinner
   iv. Acetic acid
11. Which of the following functions of water is instrumental in the absorption of minerals to plants?
   i. Water acting as a reaction medium
   ii. Water acting as a solvent
   iii. Water acting as a coolant
   iv. Water acting as an insulator
12. A few solutions were tested with phenolphthalein in the lab. Which of the following gives pink colour in the presence of phenolphthalein?
   i. Vinegar
   ii. Hydrochloric acid
   iii. Sodium hydroxide
   iv. Sulfuric acid
13. Which of the following gives a red colour with methyl orange?
   i. Lime water
   ii. Sugar solution
   iii. Salt solution
   iv. Vinegar
14. An indicator found in nature
   i. Extraction from “Nil katarolu” flowers
   ii. Litmus paper
   iii. Lime juice
   iv. Ash in water

15. A vertebrate and an invertebrate respectively,
    i. Human, lizard
    ii. Lizard, leech
    iii. Snail, squirrel
    iv. Leech, Prawn
16. An equipment that produces electricity using movement, rotation
    i. Dry cell
    ii. Solar cell
    iii. Dynamo
    iv. Lead acid accumulator
17. A magnet was moved forward and backward inside a copper coil. A deflection was observed in a galvanometer attached to the copper coil. Which of the following actions will **not** cause this deflection to increase?
    i. Increasing the number of turns in the coil
    ii. Using a stronger magnet
    iii. Increasing the speed of the moving magnet
    iv. Interchanging the poles of the magnet.
18. The phenomenon where the body colour of an animal matches with the colour of its surrounding is known as,
    i. Camouflage
    ii. Metamorphosis
    iii. Adaptation
    iv. Transformation
19. Which of the following compounds dissolve slightly in water?
    i. Condis
    ii. Laundry blue
    iii. Copper sulfate
    iv. Wax
20. A hundred pieces of ekels /tooth picks were coloured in red, green, blue and brown. They were dispersed randomly on a gravel floor. A student was asked to collect the maximum number of sticks that he could collect within 10 seconds. In this collection of sticks which colour will be least represented? (In this collection of sticks the minimum number of sticks will be of this colour)
    i. Red
    ii. Green
    iii. Brown
    iv. Blue

(2x20=40 marks)

Part II

Answer 5 questions including the first one.

1.

A. Given below is a list of plants that a group of students had identified on a field visit. Look at this list and answer the questions given below.
('Salvenia', 'Albesia', 'Ipil Ipil', Guava, 'Kithul', 'Karapincha', Ferns)

i. Write 02 flowering plants and 02 non flowering plants from the list (02m)
ii. Write 02 monocot plants and 02 dicot plants (02m)
iii. Write a plant with an unbranched stem (01m)

B. Leaf venation is of two types.

A

B

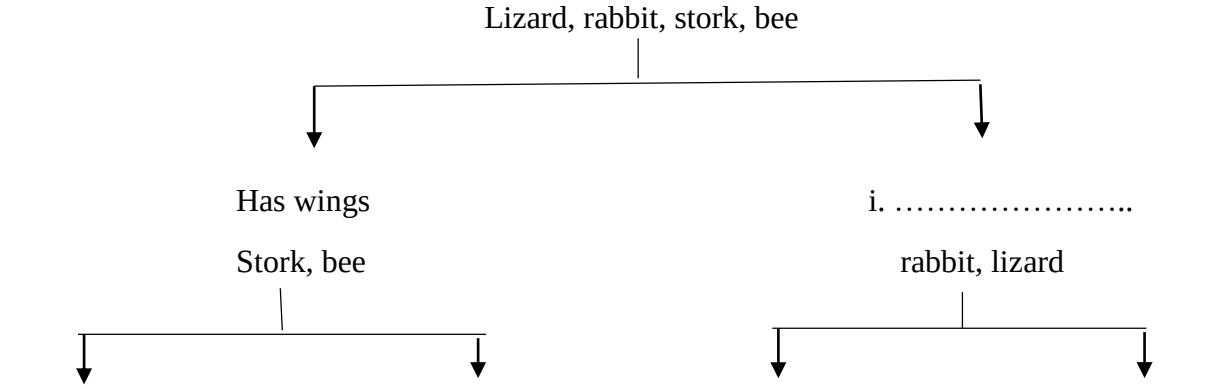
i. Name A and B types of venation (02m)
ii. Write 02 plants with A type venation and 02 plants with B type venation (02m)
iii. Write 02 main functions of plant stem (02 m)
iv. Certain plant stems carry out special functions.
   a. Write 02 plants with underground storage stems (02m)
   b. Write a plant with a stem adapted to carry out photosynthesis (01m)
v.
   a. Write down one of the main functions of plant roots (01m)
   b. Write down examples for 02 plants with roots adapted to carry out specific functions (01m)

(16 marks)

2. Mark the following as correct or incorrect.(Write the answer in your answer script)
   i. In fruits with seeds adapted to be dispersed by water, have a fibrous seed cover.
   ii. The function of the androecium of a flower is to produce seeds.
   iii. Betel has a weak stem and climbing roots
   iv. Plants with a fibrous root system have seeds with two seed leaves
   v. Corn is a plant with a fibrous root system
   vi. William Gilbert introduced the lightning rod/lightning conductor
   vii. When a glass rod is rubbed with a silk cloth the rod gets a (+) charge.
   viii. The specificity about a capacitor is that it produces light.
   ix. A bicycle lamp is lit by alternating current.
   x. When an ebonite rod is rubbed with a woolen cloth it gets a (+) charge
   xi. Fish utilize the oxygen dissolved in water in breathing

3.

A. Separate out the following list of animals using a dichotomous key



(3m)

B.

i. What are adaptations? (01m)

ii. Certain special adaptations of animals are important in fulfilling their various needs. Name 02 of them. (02m)

iii. Write down 01 adaptation shown by each of these species to their environment (02m)

   a. Caterpillar
   b. Grasshopper

iv. Write 02 adaptations shown by flowers to attract insects for pollination (02 m)

v. Write 01 advantage of camouflage for animals (01m)

(11 marks)

4.

A. Various properties of water are useful fulfilling the needs of living organisms. Further, water provides a medium for biological reactions.

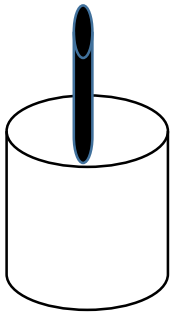
i. Write down a biological activity where water is used as the reaction medium. (01m)

ii. Write down one instance each where the solvent property and coolant property of water are used in the day to day activities of living organisms. (02 m)

iii. Which is the most abundant salt in sea water? (01m)

iv. Write down two aquatic animals (02m)

B.



This is an activity from your text book. It demonstrates one of the main functions of water.

You should get two beakers of similar size. Put the same amount of cotton wool into both beakers. And put a thermometer into each beaker.

The questions below are based on the above activity.

i. What can you tell about the thermometer readings of the two beakers at the beginning of the activity? (01m)

ii. In the second instance the dry cotton wool from the first beaker is wetted with some water and the thermometer reading is taken. Is this second reading greater or lower than the first reading you took? (01m)

iii. Which function of water is demonstrated by this activity? (01m)

iv. Write 02 things that you can do to preserve water. (02m)

(11 marks)

5.

A. Acids, bases and neutral substances are used in day-to-day life and also in the laboratory. Complete the following table about acids, bases and neutral substances.

	Acids	Bases	Neutral substances
At home	……	……	……
In the laboratory	……	……	……

(03 m)

i. What is the colour of pH paper in the presence of strong acids? (01m)

ii. What is an indicator? (02m)

iii. Name 02 indicators used at home and 02 indicators used in the laboratory (02m)

B.

i. Select and write down 02 vertebrates and 02 invertebrates from the list given below. (2 m)
Monitor (‘tala goya’), scorpion , mosquito, bat, bee, snake, starfish

ii. Is human a vertebrate or an invertebrate? (1 m)

(11 marks)

6. The diagram shows an experiment carried out by some students in grade 7.It shows a drinking straw balanced on an upturned glass by a drawing pin.

i. How do you charge the drinking straw balanced on the upturned glass? (01 m)

ii. What is the type of charge on the drinking straw? (01m)

iii. What are two types of static electric charges found in nature? (01m)

iv. What is the observation when a charged straw is brought close to another charged straw? What is the reason for this observation? (03m)

v. Write an instance where these charges become useful? (01m)

vi. What is the electronic device where these charges are stored? (01m)

vii. What is the equipment used in the laboratory to identify these charges? (02 m)

viii. Name the scientist who first studied about lightning? (01 m)

(11 marks)

(Tot. marks for part II= 60 marks)