



Royal College - Colombo 07

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Grade 7 – First Term Test – April 2019

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Science – I

úoHdj – I

Name :- Grade : -..... Index number:-.....

- Answer all questions.
- Select the correct or most suitable answer for each of the following questions from (1) to (20)
- Underline the correct answer.

(1) Certain materials can attract light-weight objects due to rubbing. This was observed for the first time by,

- (1) Gilbert Luise
- (2) William Sukerburg
- (3) Benjamin Franklin
- (4) William Gilbert

(2) Following features were found in a plant,

1. branched stem 2. Tap root system 3. reticulate venation

This plant can be,

- (1) Bamboo
- (2) Grass
- (3) Mango
- (4) Coconut

(3) What is the correct answer which shows the unit of electric charges that can be stored in a capacitor with its correct symbol?

- (1) Ampere - Pa
- (2) Farad - F
- (3) Ampere - F
- (4) Farad - Pa

(4) What is the part of the flower, which protects its inner parts when it is a bud?

- (1) Sepals
- (2) Petals
- (3) Androecium
- (4) Gynoecium

- (5) When a positively charged object is brought closer to another positively charged object Xoccurs, when a negatively charged object is brought closet to negatively charged object Y..... occurs. Positively charged object Z.....a negatively charged object. X, Y and Z should be,
- (1) Attraction, repulsion, repulsion (2) Repulsion, attraction, repulsion
(3) Attraction, attraction, repulsion (4) Repulsion, repulsion, attracts
- (6) Which of the below instances gives a positive static electrical charge when rubbing?
- A. Rubbing a glass rod with silk.
B. Rubbing an ebonite rod with wool.
C. Rubbing a PVC rod with wool
- (1) A instance (2) B instance
(3) C instance (4) All instance
- (7) What is the energy conversion that occurs when a small LED is illuminated using a simple cell?
- (1) Electric energy → Light energy → Heat energy
(2) Chemical energy → Electric energy → Light energy
(3) Chemical energy → Electric energy → Heat energy
(4) Electric energy → Chemical energy → Light energy
- (8) Flowering and non-flowering plants are there in the atmosphere. Which is not a flowering plant?
- (1) Jak (2) Sugar cane (3) Cycus (4) Coconut
- (9) Select the answer which contains vertebrate animals only.
- (1) Butterfly, bat, Sparrow (2) Geko, Iguana, Crocodile
(3) Seer fish, shark, crab (4) Craw, snail, cow
- (10) Liquid that is use in the simple cell and the colour we can observe after adding phenolphthalein in to it,
- (1) dilute sulphuric acid – colourless (2) dilute sulphuric acid – pink
(3) dilute acetic acid – blue (4) dilute acetic acid – red
- (11) Plants having storage roots, climbing roots aerial roots, and respiratory roots, respectively,
- (1) Carrot, orchid, betel, Kirala (2) Carrot, betel, orchid, Kirala
(3) Carrot, orchid, Kirala, betel (4) Carrot, betel, Kirala, orchid

- (12) Which of the following electricity producing equipment produces electricity using the method of 'electromagnetic induction'?
- | | |
|--------------------------|-------------------------|
| (1) Dynamo, dry cell | (2) Dry cell, capacitor |
| (3) Capacitor, generator | (4) Generator, dynamo |
- (13) Water which contains Sodium chloride can be found in,
- | | | | |
|------------|-------------|------------|-----------|
| (1) Rivers | (2) Streams | (3) Oceans | (4) Ponds |
|------------|-------------|------------|-----------|
- (14) Answer which shows the equipment and the electricity generating method properly,
- | | |
|------------------------------|---------------------------------|
| (1) Solar panels – movement | (2) Dry cell – Chemical process |
| (3) Generator – Solar panels | (4) Dynamo – Chemicals |
- (15) Which is not a coolant property of water,
- | |
|---|
| (1) Cooling heated instruments. |
| (2) Cooling vehicle engines. |
| (3) Placing inside water in order to cool a hot water vessel. |
| (4) Transporting food and oxygen to the lungs. |
- (16) Adjusting body colour with the colour of the environment is known as,
- | | |
|-----------------|-----------------|
| (1) Migration | (2) Hybernation |
| (3) Camoplalage | (4) Predation |
- (17) Which indicator gives the red, orange and yellow with acids and green blue and purple with bases?
- | | |
|-------------------|---------------------|
| (1) Litmus papers | (2) pH |
| (3) Methyl orange | (4) Phenolphthalein |
- (18) Which answer shows a difference in mixing with water from the other answers?
- | | |
|-------------------|-------------------------|
| (1) Chalk powder | (2) Washing blue powder |
| (3) Yellow powder | (4) Salt powder |
- (19) Using presence or absence of an external feature to separate them in to groups is,
- | | |
|---------------------------|---------------------|
| (1) Flower diagram | (2) Dichotomous key |
| (3) Animal classification | (4) Naming animals |
- (20) Which aqueous solution of the following responds as an acid,
- | | | |
|------------------|------------------|---------------|
| A. Vinegar | B. Lime juice | C. Soap water |
| (1) A only | (2) A and B only | |
| (3) B and C only | (4) C and A only | |



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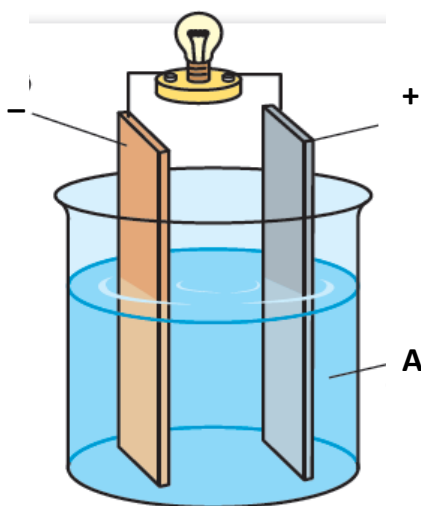
Science – II

úoHdj – II

Name :- Grade : -..... Index number:-.....

- Answer 1st question and 4 more questions
- 1st question carries 16 marks and other questions 11 marks respectively.

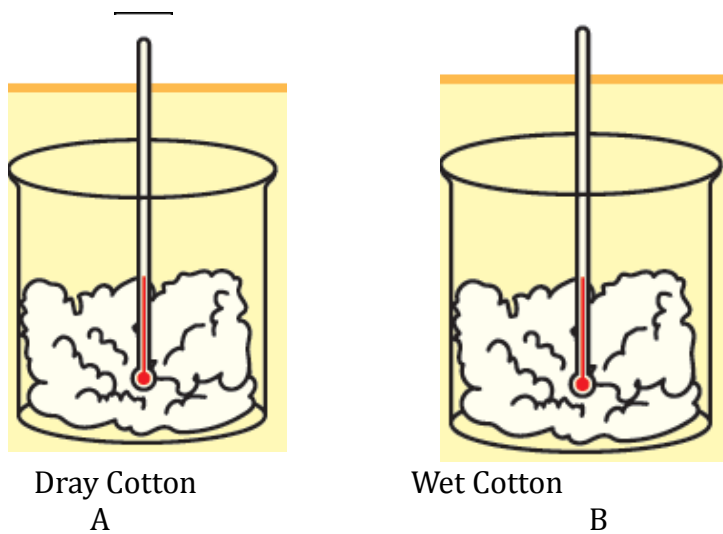
(1) A chemical cell is given in the diagram.



- Name solution A? (2 mark)
- What is the observation that you can observe when red and blue litmus is added to solution A? (1 mark)
- Write two observations of the above diagram? (2 marks)
- Name the above set-up. (2 mark)
- Mention the metal used in + and – terminals respectively. (2 marks)
- Write two weaknesses of the above set-up. (2 marks)
- Mention a chemical cell that we use in day to day life after overcoming the above weaknesses. (2 marks)
- Chemical cells can be classified into two groups. What is the name that you can give for the above type of cell (1 mark)
- Name another energy source that belong to the above type. (1 mark)

- (x) What is the name that you can give to a setup which contains few of the above beakers joined together?

(2)



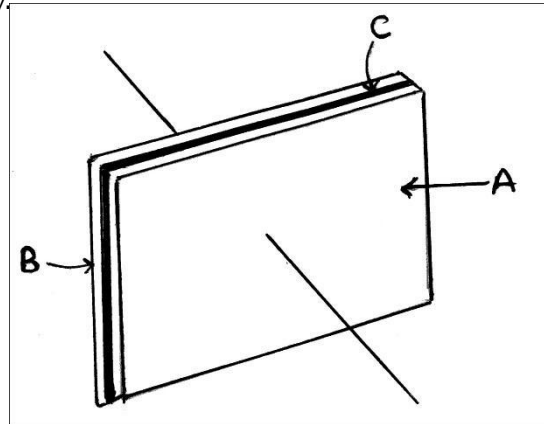
Given above is a setup which was used by a group of grade 7 students in an experiment on properties of water.

A	B
30 °c	30 °c
30 °c	27 °c
27 °c	23 °c
27 °c	22 °c

- (i) Water is their observation? (1 mark)
- (ii) What is the property of water that is experimented in the above practical?
Give reasons for above? (1 mark)
- (iii) Give two other occasions that we make use of the above property of water. (2 marks)
- (iv) Mention two "other" properties of water. (2 marks)
- (v) What is the observation when you add blue and red litmus to pure water? (2 marks)
- (vi) Write your conclusion of the above. (2 marks)

- (vii) Write your observation when litmus papers are added to the beaker with few drops of acid into. (1 mark)

- (3) Given below is a setup of a simple condenser formed by grade 7 students in their science group activity.



- (i) What is an above condenser? (1 mark)
- (ii) Name A, B and C of the above figure. (3 marks)
- (iii) Use standard symbols and show in a circuit diagram how you can charge the above capacitor with a dry cell. (1 mark)
- (iv) Mention an electronic equipment which uses capacitors. (1 mark)

- B) Light weight object like cotton, small pieces of paper can be attracted to objects after rubbing.

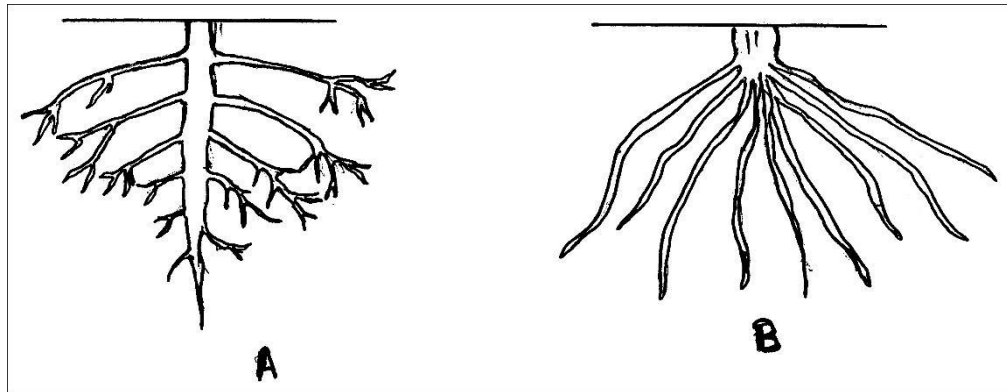
- (i) What is the reason to attract objects after rubbing? (1 mark)
- (ii) Name the above incident. (1 mark)
- (iii) When a glass rod is rubbed with a silk cloth, negative charges move from rod to the silk cloth. Mention the relevant charges in both objects Separately. (2 marks)

- (4) (A) Given below are parts of a plant
- a. leaves
 - b. stem

c. roots

d. flowers

- (i) Which part fix the plant to the soil?
- (ii) Mention another main use of the above mentioned part of the plant.
- (iii) What is a root system?
- (iv) Given below are two root systems. Name A and B



- (B) Given below are few types of adventitious roots.

Aerial roots

Storage roots

Stilt roots

- (i) What are adventitious roots?
- (ii) Name another 2 types except the ones mentioned above.
- (iii) What is the type of root that store food?
- (iv) Name 2 plants that store food in the top roots.

- (5) A student of grade 7 boiled Hibiscus flowers in water and made a colourful solution. He was amazed with what happened to the solution after adding lime juice.

- (i) What happened in the above incident?
- (ii) What is the reason for the above incident that happened when lime juice is added?
- (iii) Name 2 other solutions which acts as above solution.
- (iv) Name 2 types of papers that are used in the,

- a) Laboratory which can be sued identify acids or bases.
- b) Name 2 types of powder.
- (v) Mention two types of liquids or solutions which are not acids or bases.

(6) Mention ✓ or X in front of the sentence

- A)
- (i) Animas can be classified using their external features. (.....)
 - (ii) Bat, Crow and butterfly are having same location methods. (.....)
 - (iii) Python does not have a backbone. (.....)
 - (iv) Leaf insect shows camouflage. (.....)
 - (v) Streamlined shapes of the body helps fish in locomotion (.....)
 - (vi) Dolphin is an anima which shows locomotion by in the sea. (.....)

B) Use the words in the brackets to fill the blanks.

(adaptations , Invertebrates , Vertebrates , leopard , streamline shape of the body, locomotion)

- (i) Camouflage helps to disguise from the bray and attack
- (ii) Adaptations of living beings to the environment is named as
- (iii) are animals with backbones.
- (iv) Mouth is a animal.
- (v) helps birds in flying.

(7) Some plants bear flowers and some plants do not,

- (i) How can you name the above two groups of plants?
- (ii) Mention a main difference between lotus and Salvinia.
- (iii) What is the used of hook like structure in Nagadarana seeds?
- (iv) Give two other examples like the plants mentioned above.
- (v) Give two methods of dispersal of fruits and seeds.

A – stigma

B – anther

C – style

D – filament

E – ovary

- a) Mentioned the parts that belongs to the Gynoecium and Androecium
- b) Which part of the above mentioned part turns into the fruit?