

# Zahira College – Colombo

Online Holiday Assignment – August 2015

**Medium :** English

**Grade :** 9

**Subject :** Science

**Date :**

**Adm. No :**

**Name :**

1) There are many different types of energy sources

- i. Name 2 major element in firewood, petrol and LP gas.
- ii. Write an advantage and disadvantage of using a solar cooker.
- iii. (a) What is the main use of bio gas?  
(b) Mention the type of bacteria involved in producing bio gas.
- iv. Mention a poisonous gas released from a coal power plant.
- v. Write 2 methods used to obtain electricity in Sri Lanka.
- vi. (a) Give 2 reasons for energy crisis.  
(b) Propose a suitable solution for the energy crisis.

2) A body moves along a straight line. This table shows the variation of displacement according to the time.

Time(s)	0	1	2	3	4	5	6
Displacement (m)	0	3	6	9	12	15	18
Velocity ( $\text{ms}^{-1}$ )	0	.....	.....	.....	.....	.....	.....

- i. Fill the above gaps
- ii. Give an example for linear motion and rotational motion.
- iii. A vehicle took 2 hours to go from Colombo to Meepe with the speed of  $30 \text{ kmh}^{-1}$ . What is the distance from Meepe to Colombo?
- iv. Give an equation for acceleration.
- v. (I) A child walks 8m to the north along a linear path and turns around and walks 8m along the same path to south. Find the distance travelled by him and the displacement.  
(II) What are the devices used for the following activities?
  - (a) Fit or undo nuts
  - (b) To elevate a vehicle to a higher level

3) A. (1) Identify the arrangement of these inflorescence and give an example

(2) To which group do the fruits belong to?

(a) Pineapple

(b) Coconut

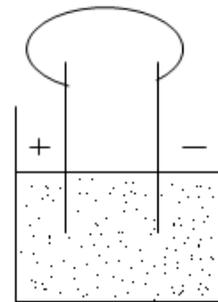
(c) Maize

(3) Write two types of fruits which are dispersed by explosive mechanism.

B. The process of forming polymers are called polymerization

(i) Name 2 natural and artificial polymers.

(ii) Mention the monomer of protein.



4) This diagram illustrates simple cell

(a) Name A, B & C.

(b) What is the instrument you can fix to the metal wire to find out whether electricity is produced here?

(c) Write 2 observations when the two rods are inserted in C.

(d) State a defect of this cell.

(e) (i) What is a secondary cell? Give an example.

(ii) Name 3 chemicals used in a dry cell.

5) A.

(i) Complete this table.

Food	Main nutrients of food	Test to identify
(1) Rice	.....	.....
(2) Fish	.....	.....
(3) Butter	.....	.....
(4) Ripe plantain	.....	.....

B) (i) State the suitable element for each of the following instance,

(a) Burns in the air with a white flame.

(b) Burns in the air with a bright blue flame and a gas is evolved with a choking smell.

(c) It's a dark black substance, when burnt in air it gives a colorless gas, which turns lime water into milky white.

(ii) Write the word equations for (a), (b) & (c)

(ii) What are the elements taken for making a Duralumin?

6) A. Assume that you have powder and heat potassium permanganate in the laboratory.

(i) Name suitable lab equipment you used to fulfill below given functions.

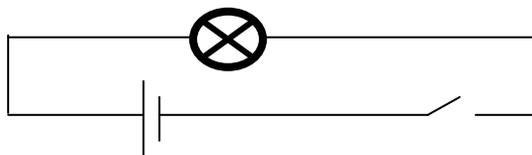
a. To powder potassium permanganate crystals.

b. The vessel to heat potassium permanganate.

c. To provide heat.

(ii) Well heated potassium permanganate is dissolved in water and got the solution filtered. Write the colour of the solution you got.

(iii) Draw a circuit to show the flow of current through the bulb and to find out potential difference at the two terminal of the bulb using the above mentioned equipment.



(iv) Mention the units of measuring voltage and current in order