

Department of Education - Western Province

Second Term Test - 2018

Grade 7

SCIENCE I - II

Time : 2 hours

Name :

Part I

Answer **all** the questions.

01. The bacteria in the root nodules of the Mimosa plant,

- (1) helps to supply nitrogen nutrients.
- (2) helps for reproduction
- (3) helps to fix to the soil.
- (4) helps to absorb water.

02. What is the main function of sepals?

- (1) Produce ova.
- (2) Protect flower buds.
- (3) Produce pollens.
- (4) Vegetative reproduction

03. Scientifically, animals are grouped together

- (1) based on locomotion.
- (2) based on size of the body.
- (3) as vertebrates and invertibrates.
- (4) as flying and non flying.

04. Resolution power of the human naked eye is,

- (1) 0.1mm
- (2) 0.2µm
- (3) 0.1µm
- (4) 0.2mm

05. Select the correct statement regarding the compound light microscope.

Eyepiece	Objective
1. Lens close to the specimen.	Lens close to the eye.
2. Lens close to the eye.	Lens close to the specimen
3. Direct light towards the diaphragm.	Control the amount of light.
4. Control the amount of light.	Direct light towards the diaphragm.

06) Consider the following statements.

A . The structural and functional unit of life is cell.

B . A group of cells to perform a specific function is called tissue.

From **A** and **B**,

1. Only **A** is correct.
2. Only **B** is correct.
3. Both **A** and **B** are incorrect.
4. Both **A** and **B** are correct.

07) The common area for both digestive system and the respiratory system is,

- | | |
|-----------------|--------------|
| (1) Oesophagus. | (3) Tongue. |
| (2) Larynx. | (4) Pharynx. |

08) The process of releasing energy by breaking food using oxygen is called

- | | |
|---------------------|------------------|
| (1) Photosynthesis. | (3) Respiration. |
| (2) Inhale. | (4) Exhale. |

09) What is not occurred in the nasal cavity?

- | | |
|---------------------------|----------------------|
| (1) Air gets warm. | (3) Air gets wet. |
| (2) Air mixed with blood. | (4) Air gets filter. |

10) A base found in houses,

- | | |
|---------------------|-----------------|
| (1) Bilimbi juice. | (3) Lime water. |
| (2) Sugar solution. | (4) Lime juice. |

11) A tectonic plate margin on the land is,

- (1) Antarctic tectonic plate.
- (2) Pacific tectonic plate.
- (3) European tectonic plate
- (4) San Andreas Fault in North America.

12) A type of sugar found in sugar cane juice,

- | | |
|-------------|---------------|
| (1) Glucose | (3) Lactose |
| (2) Sucrose | (4) Galactose |

13) The pH value of solution X is 10. X might be,

- | | |
|-----------------|-------------------|
| (1) lime juice. | (3) lime water |
| (2) water. | (4) salt solution |

14) "Some of the rubbed objects attract to light things." Who is the founder of it?

- | | |
|-----------------------|---------------------|
| (1) Willium Gilbert. | (3) Gastan Plantae. |
| (2) Benjamin Franklin | (4) Michael Faraday |

15) The conversion of electrical energy into kinetic energy is done by,

- (1) motor and fan
- (2) light bulb and dynamo.
- (3) toy car and radio.
- (4) solar cell and electric bell.

16) The lowest speed of sound is found in,

- (1) solid medium.
- (2) gaseous medium.
- (3) liquid medium.
- (4) fluid medium.

17) The number of images formed when two plane mirrors kept at angle of 60° is,

- (1) 3.
- (2) 4.
- (3) 5.
- (4) 7.

18) What is the symbol of the capacitor?



19) What is the standard international unit of measuring energy?

- (1) Ohm
- (2) Joule
- (3) Farad
- (4) Celsius

20) Pictures of Papaw, Manioc and Kathurumurunga (Sesbania) leaves are given below.



Papaw



Manioc



Kathurumurunga

Select the correct statement.

- (1) Papaw and Kathurumurunga are compound leaves.
- (2) Kathurumurunga and Manioc are compound leaves.
- (3) Papaw and Manioc are compound leaves.
- (4) Papaw and Manioc are partially divided simple leaves.

Part II

Answer only 5 questions including the **first** question.

1.

(i) Which instances give us electrical energy from the instances A,B,C,D,E given below?

(3 Marks)

(A)



(B)



(C)



(D)



(E)



(ii) What is the energy stored in a stretched bore?

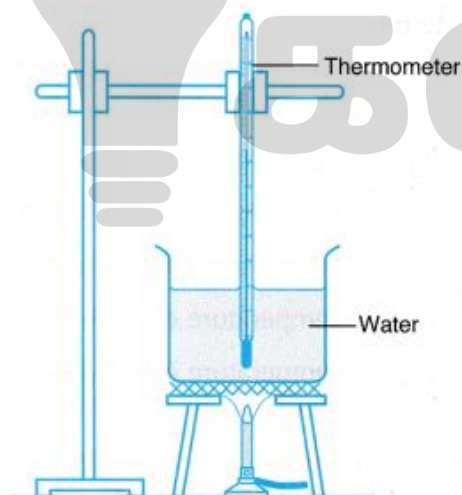
(2 Marks)

(iii) What is the energy transformation when releasing the arrow?

(2 Marks)

(iv) Study the following diagram.

A.



a. What is the energy that used to boil water as in this figure. (1 Mark)

b. How do you identify whether the water is heated? (2 Marks)

B. The two types of electric currents are DC and AC.

a. Name **DC** and **AC** currents. (1 Marks)

b. Explain the difference between **DC** and **AC** currents. (1 Marks)

c. Give one way of obtaining,

i. DC current-

ii AC current-

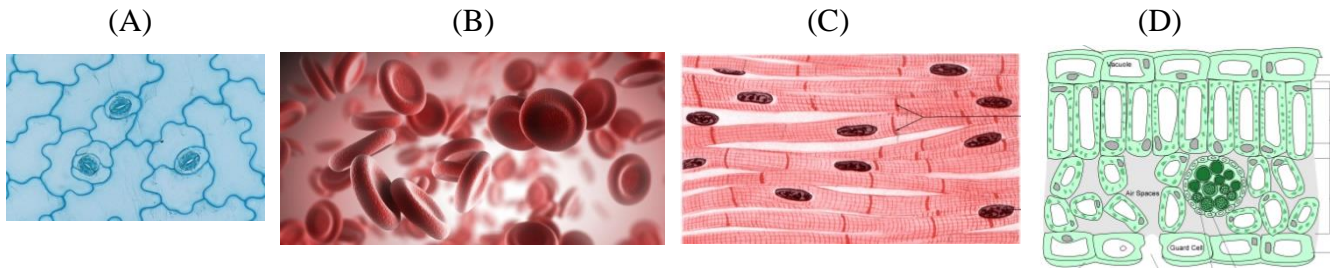
(2 Marks)

d. Name the cell that made using copper, zinc and sulphuric acid.

(2 Marks)

(Total Marks = 16)

2. Diagrams of animal and plant structures are given below as A,B,C & D.



i. Identify and name A,B,C,D.

(2 Marks)

ii. What is meant by a system?

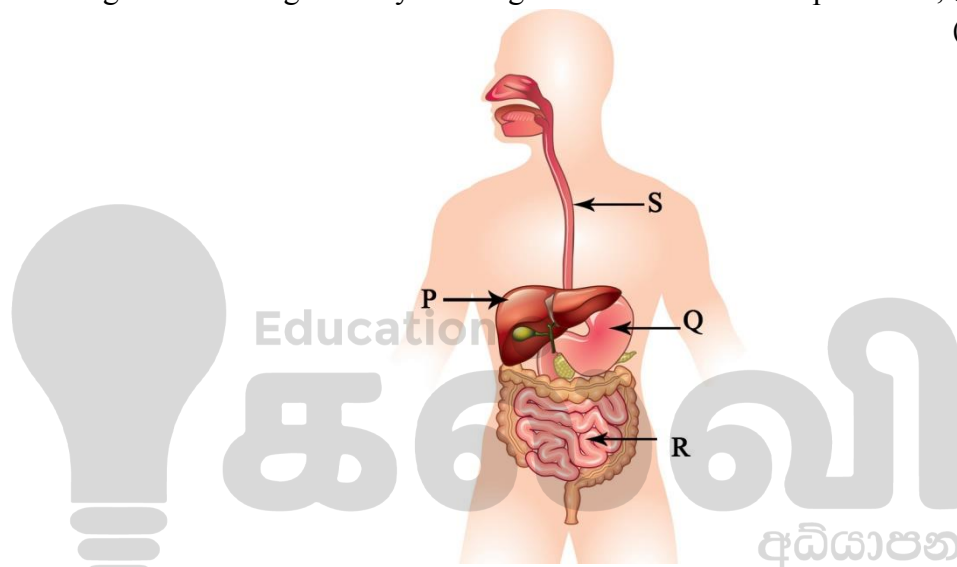
(1 Mark)

iii. Digestive system is a system in the human body. Name two other systems in the human body.

(2 Marks)

iv. A diagram of the digestive system is given below. Name the parts of P,Q,R,S.

(4 Marks)



v. Name **two** systems in a plant.

(2 Marks)

(Total Marks = 11)

03. Two diagrams of an activity a student have performed in a laboratory is given bellow.



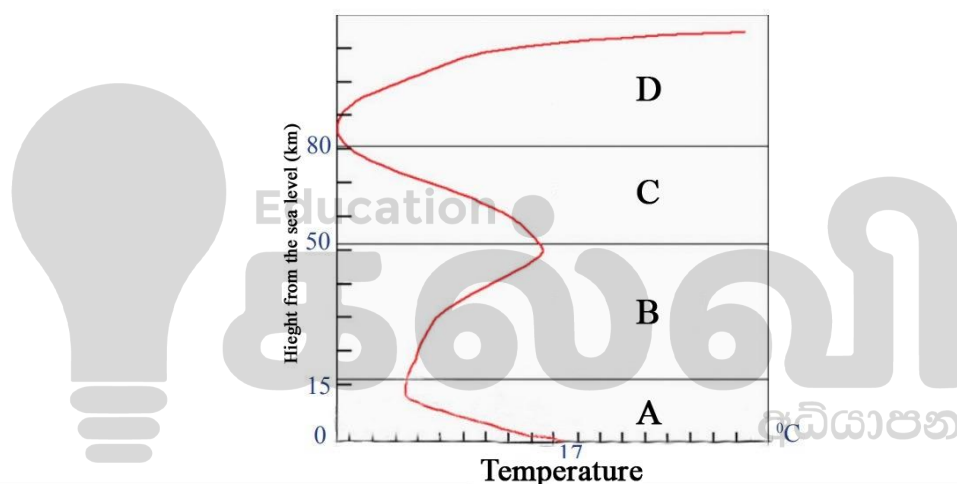
Checking the gap between two points by using one hand lens.

Checking the gap between two points by using two hand lenses

- What is the lens used in the simple microscope? (1 Mark)
- Which instance increase the gap between the two points? (1 Mark)
- Which instance gives the maximum magnification? (1 Mark)

- iv. What is the maximum magnification of the compound light microscope? (1 Mark)
 - v. What is the method used to store lenses when the compound light microscope is not used for a long time? (2 Marks)
 - vi. What microscope is used to describe in detail the inner structure of a cell? (1 Mark)
 - vii. How many times is it larger the resolution power of the compound light microscope, when compared to the human naked eye? (1 Mark)
 - viii. Give two differences between compound light microscope and the electron microscope. (2 Marks)
 - ix. Write down the correct procedure to take the compound light microscope from one place to another. (1 Mark)
- (Total Marks = 11)

4. The following figure shows the changing of temperature in each layer of the atmosphere.



- i. Which letter represents,
 - a. Stratosphere -
 - b. Troposphere -
- ii. Name the sphere D.
- iii. What you can say about the temperature of this sphere compared to others?
Is it high or low?
- iv. What is the coldest layer from the above layers?
- v. There are gaseous pollutants and particulate pollutants in the atmosphere.
Name **two** gaseous pollutants and **one** particulate pollutants.
- vi. Give **two** adverse effects of air pollution.
- vii. Write one precaution that you can taken to reduce air pollution as a grade 7 student.

(Total Marks = 11)

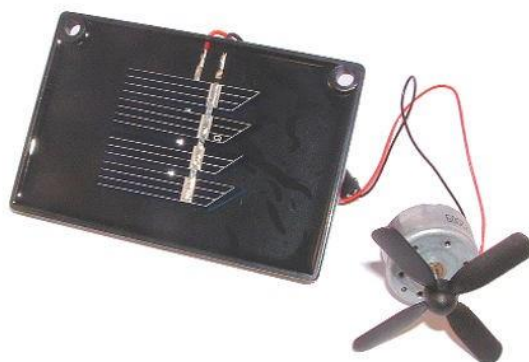
5. Put (✓) mark at the correct statement and (X) mark at the false statement.

- i .Non flowering plants can be classified as monocot plants and dicot plants. ()
- ii .Vertibrates have a backbone. ()
- iii. A dichotamouskey is use to classify organisms. ()
- iv. If the magnification power of the light microscope is x 100, its resolution power is also x 100 ()
- v. Organs are collection of tissues. ()
- vi. Dissolving ethanol in water shows the coolant property of water. ()
- vii .Lime water and soap are bases. ()
- viii. When a glass rod is rubbed with a silk clothe, the glass rod is charged as positive. ()
- ix. A cell, battery and dynamo are sources of electricity. ()
- x. The speed of transmission of sound in water and air same. ()
- xi. Interchanging of the left and right sides of the image formed by the plane mirror is known as lateral inversion. ()

(Total Marks = 11)

6. Activity to identify the functioning of a solar cell is given below.

- * Connect the electric motor to the terminals of the solar cell.
- * Keep it in a lighted area and observe.
- * Change the terminals of the solar cell and connect to the motor.
- * Connect a bulb instead of the motor and repeat the activity.



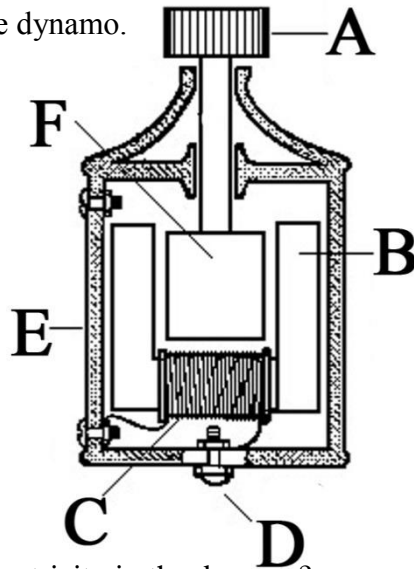
i. (A) Fill in the blanks regarding the above activity.

Instance	Motor	Bulb
1. In the light
2. In the dark
3. After changing the terminals

(Marks ½ x 6=3)

(B). i. Name the parts of the given bicycle dynamo.

(Marks $\frac{1}{2} \times 6=3$)



ii. What is the principle used to generate electricity in the dynamo? (2 Marks)

iii. Give two factors affecting the power of electricity generated in a simple dynamo (2 Marks)

iv. Write two other instances that generate electricity using a dynamo. (Instead of bicycle) (2 Marks)

(Total Marks = 11)

7. (A) (light, energy, kinetic, thermal, energy, transformation.)

Fill in the blanks using the above words.

i. The skin feels energy when near a camp fire.

ii. Dry cell converts chemical energy into energy.

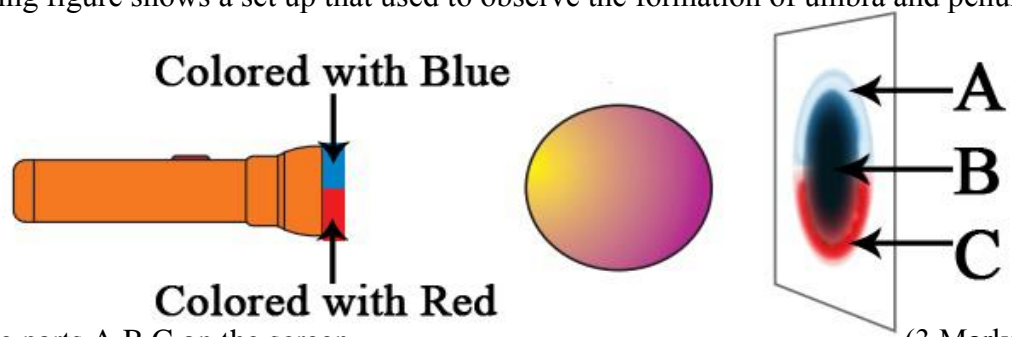
iii. Green plants produce food using energy.

iv. The energy found in moving objects is known as energy.

v. Conversion of one form of energy to another form is called

(Marks $1 \times 5= 5$)

(B) Following figure shows a set up that is used to observe the formation of umbra and penumbra.



i. Name parts A, B, C on the screen. (3 Marks)

ii. By which colour is the part A on the screen seen? (1 Mark)

iii. What happens to the umbra when the object is moved away from the ball? (2 Marks)

(2 Marks)

(Total Marks = 11)