



Zonal Education Office - Jaffna

Second Term Examination – 2018

Grade - 9

Science

Time : 2.00 Hours

Index No :

Paat- I

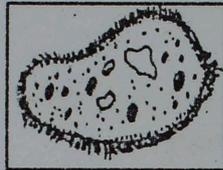
01. Underline the correct answer.

1) Which of the following micro organism can grow in straw water?

1.



2.



3.



4.



2) The organism which is used to produce golden rice rich in vitamin A

1. Bacteria

2. fungus

3. Virus

4. Algae.

3) For which of the following diseases of the vaccine that is produced by live causative agent whose growth is inactivated given?

1. Polio

2. Tuberculosis

3. small pox

4. Hepatitis B

4) What elements are separated by bio leaching method?

1. Iron, Copper

2. Copper, Uranium

3. Iron, Uranium

4. Copper, Zinc.

5) Which part of the eye is responsible for supplying blood,

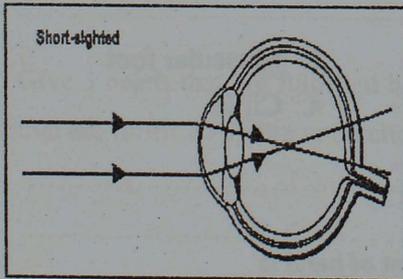
1. Sceleroid

2. Choroid

3. Cornea

4. Retina

6)



The defect and its responsible for the shown figure are respectively.

1) Long sightedness, concave lense.

2) Long sightnedness, convex lense

3) Short sightedness, concave lense

4) Short sightedness, convex lense

7) Which of the following parts of ear does not contribute to transmit sound for hearing.

1. ear lobe

2. Eustasian tube

3. ear membrane

4. Cohlea

8) Identify the compound from the following.

1. Carbon

2. Chlorine

3. Glucose

4. Mercury.

9) The scientist who said positively charged nucleus is at center

1. J.J Thomson

2. Ruther ford

3. Chadwikck

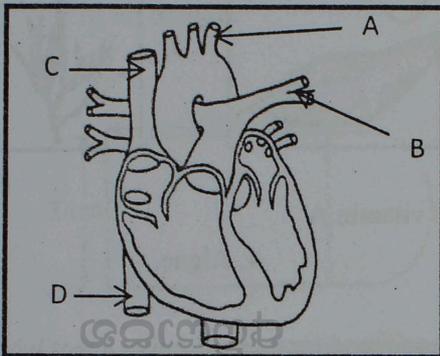
4. Dolton

10) The number of protons, neutrons and electrons of the given element ${}_{13}^{27}X$ respectively.
 1. 13,13,13 2. 13,14,14 3. 14,13,13 4. 13,14,13

11) The reason to consider the force is a vector quantity is
 1. has point of application 2. has unit
 3. has magnitude and direction 4. has different forms.

12) The pressure is exerted by a wooden block is 55 Pa and the contact surface area is $2m^2$. What force is applied on it?
 1. 2N 2. 55N 3. 110N 4. 22.5N

13) Identify the part denoted by the letter A in the given picture?

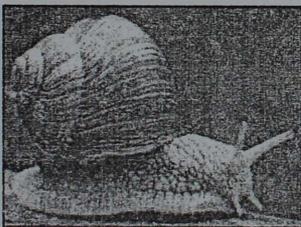


- 1. Pulmonary artery 2. Aorta
- 3. Pulmonary vein 4. Inferior vena cava

14) The letter denoted the superior vena cava is
 1. A 2. B 3. C 4. D

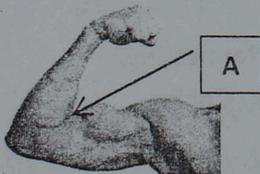
15) The plant growth substance related to the elongation of cells is.
 1. Auxin 2. Gibberalin 3. Cytokinin 4. Ethelene

16) Which part is used for locomotion in the given organism?



- 1. Exoskeleton 2. Muscular foot
- 3. Antenna 4. Cillia

17) Which is denoted by the letter A. Contributes for movement of hand is

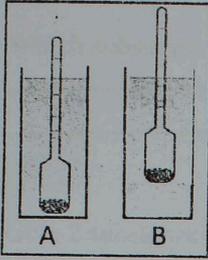


- 1. Biceps muscle 2. Triceps muscle
- 3. Smooth muscle 4. Cardiac muscle

18) Not an application of electrolysis is,

- 1. Metal separation 2. Producing caustic soda industrially
- 3. Electroplating 4. Iron rusting

19) The liquids A and B are respectively.



- 1. Water, kerosene
- 2. Kerosene, Water
- 3. Water, Coconut oil
- 4. Salt water, water.

20) What concept is represented by this symbol?

- 1. Conserving plants
- 2. Maintaining water balance
- 3. Green concept
- 4. Connecting with nature



(20X2= 40 Marks)

Part -II

❖ Answer all questions.

01. The given picture shows an ecosystem. There are many ecosystems on the earth.



1) Name the given ecosystem and give an autotroph from the above shown figure?

(2 Marks)

2) Give 3 needs that are fulfilled by the living – living interaction of an ecosystem? Write 2 needs that are fulfilled by the interaction of autotroph with abiotic things?

.....

(2 Marks)

3) Write 2 examples of natural fresh water bodies?

.....

(2 Marks)

4) Mention a specific character of plants in a tropical rain forest?

.....

(1 Mark)

5) Which grass land is mostly like by elephants? Give 2 examples for that grassland found in srilanka

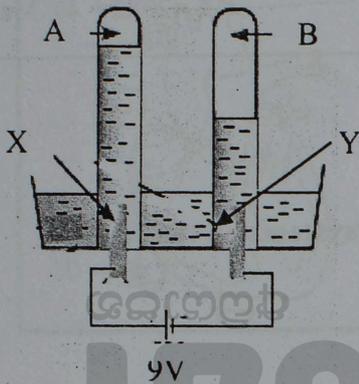
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(2 Marks)

6) Give the special type of lichens that grows in wet patana?

.....(1 Mark)

02. The experiment setup shows the electrolysis of acidulated water, using carbon electrodes.



1. In this experiment, what are the observations?

..... (2 Marks)

2. Which substance is used as electrolyte?

..... (1 Mark)

3. Name the positive and negative electrodes, X and Y?

..... (2 Marks)

4. Which gas is collected in A?

..... (1 Mark)

5. One of the application of electrolysis is electroplating.

i) The gold needs to be plated on copper, So which pole of dry cell should be connected to the copper?

.....

ii) Which type of electric current is used in electrolysis?

.....

(2 Marks)

6. Fill the table Based on the given compounds.

Compounds	Elements
Water
Sulphuric acid	H, S, O
Calcium sulphate

(2Marks)

03. The human blood is red in colour. It contains small particles and plasma.

1) Which substance gives red colour for blood?

.....
.....
(1 Marks)

2) Give 2 substances that are present in blood plasma?

.....
.....
(2 Marks)

3) Give the names of 4 valves and its location in human heart?

.....
.....
(1 Marks)

4) Write 2 ways to maintain good condition of blood circulatory system?

.....
.....
(2 Marks)

5) Give 2 instances where blood transfusion is needed

.....
.....
(2 Marks)

6) What are the 2 important things that should be considered while blood transfer?

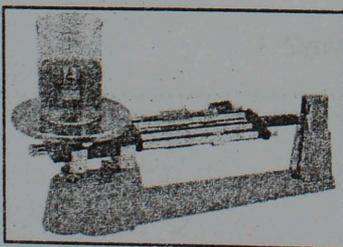
.....
.....(1 Mark)

7) The national blood donated association should keep the data about donar in a report. How is this report called?

.....(1 Mark)

10

04. The experiment was arranged by students to find the density of water.



1) Which instrumentone is used to measure the volume of water in the laboratory?

..... (1 Mark)

2) Which instrument is used to measure the mass of water?

..... (1 Mark)

3) What do you mean by density?

.....
.....
(2 Marks)

4) The volume of water is 200ml, Mass of beaker is 50g. The mass of beaker with 200ml water is 252g. Find the density of water?

.....
.....
.....

(2 Mark)

5) In 100 ml water and 100ml of coconutoil. Which of the above liquids has more mass? Give the reason for the answer?

.....
.....

(2 Marks)

6) Name the types of hydrometers for the following.

- a) To measure the density of rubber latex
- b) The measure the density of alcohol
- c) To measure densiry of seawater

(2 Marks)

10

05. The picture shows that 100g of wooden block placed on the table is pulled by a spring balance.



1) Give the change by applying force on spring balance?

.....

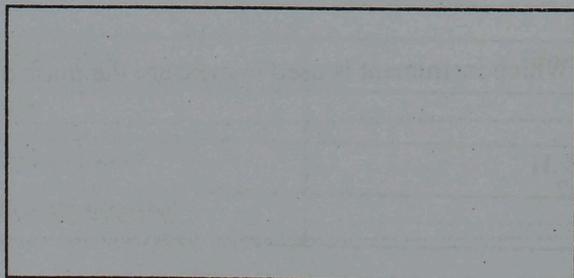
(1 Mark)

2) Name the instrument to measure force that is used in Laboratory

.....

3)) draw the diagram and indicate the force applied in the above activity?

.....



(2 Marks)

4) The area of wooden block is $0.1m^2$. The force applied on the by the wooden block is 1N. Calculate the pressure created by the wooden block?

.....
(2 Marks)

5) Give 2 instances where pressure is reduced by increasing area in day to day life

.....
.....
(2 Marks)

6) When walking on muddy areas, a wooden plank is used. Reason out the above scientifically.

.....
.....
(1 Mark)

06. A) The long term changes of unicellular organisms Creates fauna and flora in the world.

1) Which is the most developed plant division in the world?

.....
(1 Mark)

2) Which substances secreted by plants caused to preserve exoskeleton of insects.

.....
(1 Mark)

3) Name in the chemical substance which is secreted by plants to control their growth?

.....
(1 Mark)

4) Name the substance secreted by plants to promote positive phototropism?

.....
(1 Mark)

5) Branching of plants is increased by cutting the tips of shoot. Give the reason for this?

.....
(1 Mark)

6) Give a reason for preferring the vegetables that are produced by using organic fertilizers?

.....
(1 Mark)

7) Give 2 ways to conserve water by water management?

.....
.....
(2 Marks)

B) The earth originated 4.5 billion years ago.

1) Give two theories of the origination of the earth?

.....
.....

(1 Mark)

2) Explain briefly the theory of bio chemical Evolution?

.....
.....
.....

(1 mark)

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Education

