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Provincial Department of Education - NWP

දෙවන වාර පරීක්ෂණය - 2025
Second Term Test - 2025

Grade 9

Science

Time : 2 hors.

Name / Index No.:

Part - I

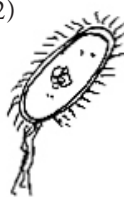
- Answer all questions.
- Underline the most appropriate answer.

01. A pathogen cause tuberculosis to the human is,

(1)



(2)



(3)



(4)



02. Audible range of human ear is,

- (1) 20Hz - 20000 Hz (2) 20Hz - 2000 Hz (3) 200Hz - 2000 Hz (4) 200Hz - 20000 Hz

03. The structure control the light entering to the eye is,

- (1) Eye lens (2) Iris
 (3) Sclerotic layer (4) Cilliary muscles

04. Which of the following is correct symbol of Calcium,

- (1) CA (2) ca (3) cA (4) Ca

05. A compound contain only Carbon and Hydrogen is?

- (1) Glucose (2) Eathene (3) Carbon dioxide (4) Water

06. A component can be separated by steam distillation is,

- (1) Cinnomon oil (2) Sugar (3) Salt (4) Coconut oil

07. Not a plant growth substance is,

- (1) Auxin (2) Gibberelin (3) Cytokinin (4) Acetalin

08. The appendages used for movements of amoeba paramiciam and snail respectively are,

- (1) False feet, Cillia, Muscular foot (2) Cillia, Muscular foot, False feet,
 (3) False feet, Muscular foot, Cillia (4) Muscular foot, Cillia, False feet

09. Given below are sub atomic particles of an atom of element,

- a. Electron b. Proton c. Neutrons

The sub atomic particles found in nucleus are,

- (1) a and b (2) a and c (3) b and c (4) a, b, c all

10. The Criteria based on bio diversity is,

- (1) Bio - chemical evolution (2) Spontaneous generation theory
 (3) Evaloution theory (4) Nebular theory

11. The use of microbes in bio leaching is,

- (1) Extraction of metals from metal ores. (2) Producing dairy products
 (3) Used for environmental conservation (4) Producing biodegradable plastics

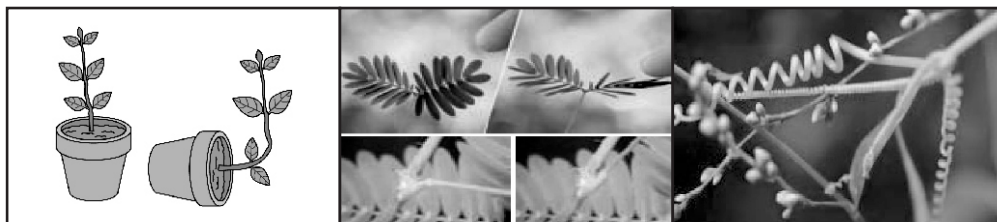
12. Due to microorganism brown spots can be seen on the potato leaves and later it turn in to black. Above disease is known as,
- (1) Powderly mildew (2) Leaf curley
(3) Late blight (4) Wilting
13. The blood vessel starts from the left ventricle of human heart is,
- (1) Aorta (2) Pulmonary artery
(3) Superior vena cava (4) Inferior vena cava
14. Which of the following instances increase the pressure,
- (1) Use large number of wheels in heavy vehicles.
(2) Increase the width of a strip of school bag.
(3) The bottom of the skates used by skiers to make sharp like a knife edge.
(4) A sack of paddy carried on the back of a man.
15. Given below are some functions of parts of an ear,
- A - Semi circular canal contributes to maintain the balance of body.
B - Eustachian tube controls the pressure on either sides of the tympanic membrane.
C - Auditory nerve interprets the sound.
- The correct statement are,
- (1) only A (2) A and B (3) A and C (4) ABC all
16. Given below are some statements of ideas put forward by a student related to the functions of blood.
- A - Transport excretory products to the relevant organ.
B - Destroy pathogenic microbes.
C - Coagulation of blood during external bleeding.
- The correct statements are,
- (1) only A (2) only B (3) only C (4) ABC all
17. The factor affected for keeping erect of non-woody plant is,
- (1) Air (2) Hormone (3) Water (4) Chemical substance
18. Which of the following answer is correct about the products evolved at each electrode during the electrolysis of acidulated water,
- | <u>Electrode</u> | <u>Product</u> |
|------------------|--------------------|
| (1) Positive | Hydrogen gas |
| (2) Negative | Hydrogen gas |
| (3) Positive | Carbon dioxide gas |
| (4) Negative | Oxygen gas |
19. Which of the following is correct about a building process green concept,
- (1) High cost of maintenance.
(2) Increase the use of fossil fuel.
(3) Waste management takes place with minimum waste products.
(4) Do not consume water.
20. Incorrect statement about green transportation is,
- (1) Can be promoted vehicles with solar panels.
(2) Minimize the usage of vehicles by individuals.
(3) Use bicycles for short distance travels.
(4) Increase the food mile is feature of a green transportation.

- Use separate papers to answer this part.
- The first question is compulsory
- Answer 4 other questions out of other 06 questions.

01. (A) Given below are some instances occurred in the past on earth.

- A simple unicellular organisms are created in oceans due to bio chemical reactions.
 - Simple organisms gradually took place many Changes to form organisms in modern earth.
 - Mark trace of organisms who trapped among lava flows from volcanoes.
- What is the name given for instance (a). (01m.)
 - Write letter of the statement that explain process of evolution. (01m.)
 - What is the name of trace occurred due to the instance (c) (01m.)
 - What is the name given for organisms survive even today retaining their physical properties unchanged. (02m.)
 - Write an example for above organism. (01m.)

(B) Diagrams given below are some plant movements.



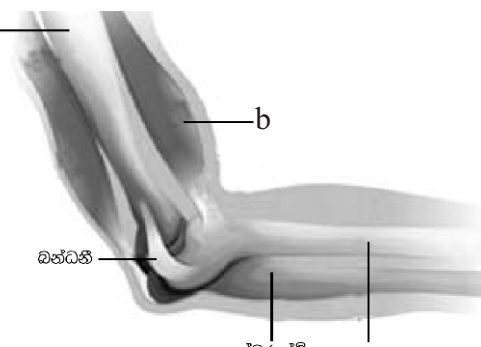
A

B

C

- What is the substance contributes for control the plant movements? (01m.)
- What is the name of the plant movement shown by the figer A. (01m.)
- Give an example for plant which shows movement as figer B. (01m.)
- What is the advantage of movement shown by figer C. (01m.)
- What is known as positive hydrotropism (02m.)

(C) a _____



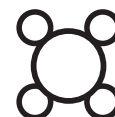
Given below is a elbow joint of a human hand.

- Name a and b. (02m.)
- What is the muscle contributes for bend the arm. (01m.)
- Write another function of bones instead of showing movements. (01m.)

02. Given below is a stranded representation of an element.



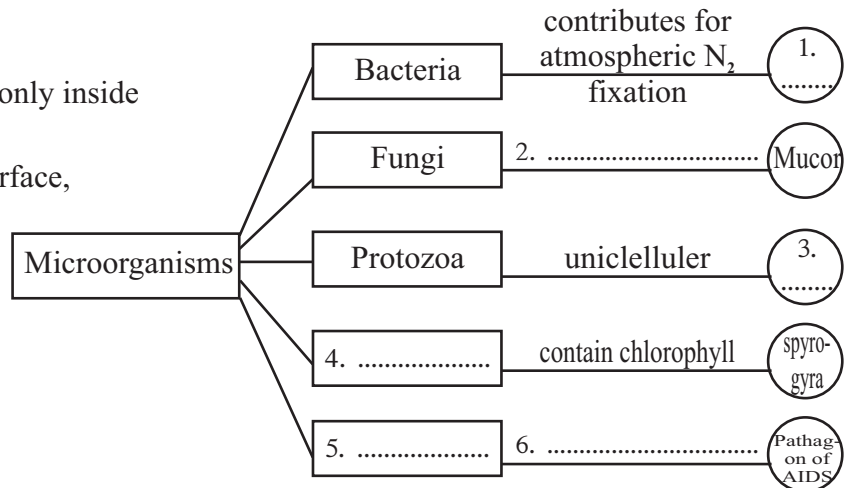
- Write number of electrons protons and neutrons respectively. (03m.)
- Given below is a diagram of a methane molecule which created by a student. Write standard symbols of relevant elements inside the circles. (02m.)
- Above molecule is a hetroatomic molecule explain what is hetroatomic molecule. (02m.)



- (iv) Write an example for homogeneous mixture. (01m.)
- (v) There is a mixture of sulphur powder and iron powder, Is it a homogeneous mixture or heterogeneous mixture. (01m.)
- (vi) Write a strategy to separate components of above mixture. (01m.)
- (vii) What is the compound written as C_2H_5OH . (01m.)

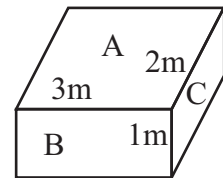
03. (A) Given concept map illustrate information about microorganisms write answer in the spaces choose from words within brackets.

(Corona, Amoeba, reproduce only inside the living cell, Rhizobium, Fungi, Algae grow on moist surface, Virus, Filamentous)



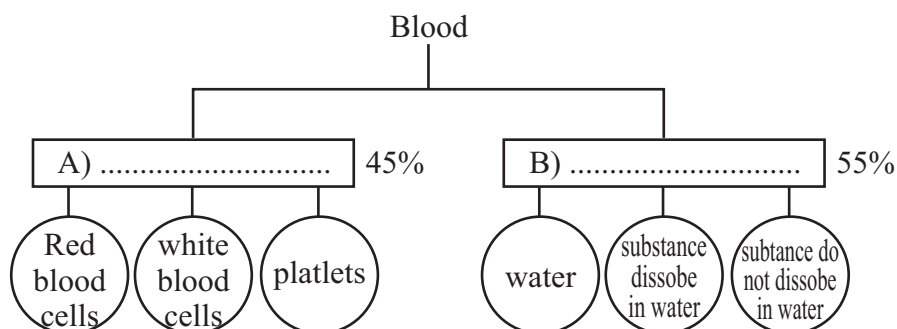
(1×6=6 m.)

- (B) Given below is a concrete slab with the weight of 200N which keep on the ground. The length width and height of the slab are 3m, 2m, 1m respectively. It exerts pressure perpendicular on the earth.



- (i) What is known as pressure. (02m.)
- (ii) Write the length and width of a surface which exerts highest pressure on the ground. (01m.)
- (iii) Find the maximum pressure can be exerted by the slab in above instance. (02m.)

04. (A) Given below is a Chart of Component of blood.

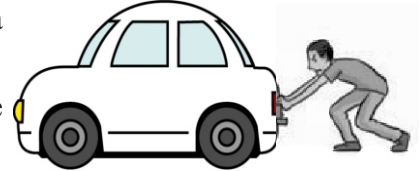


- (i) Write suitable words for space A and B. (02m.)
- (ii) What are the components of blood contribute for transport substances given below.
- (a) Oxygen (b) Protein (02m.)
- (iii) What is the component of blood cause rapid decline during the infectious disease as leptospirosis "Me Una". (01m.)

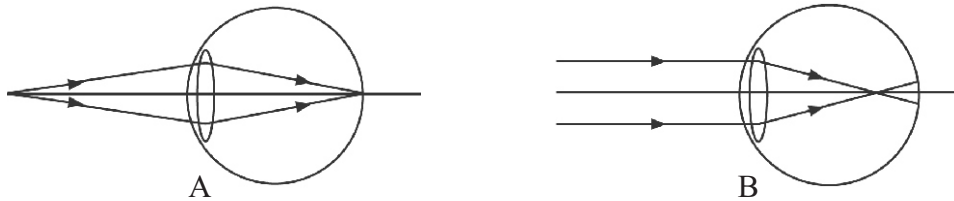
- (iv) Write a structural difference between artery and veins. (01m.)
- (v) The doctor advice to a patient to transfuse only blood with group "O" what can be the blood group of above patient. (01m.)
- (vi) Write a favourable habit to maintain healthy blood circulatory system. (01m.)

(B) Given below is an instance of pushing vehicle using a force.

- (i) Write two changes that can be done on an object applying a force. (02m.)
- (ii) Name the point on which the force is acting on the object to move it. (01m.)

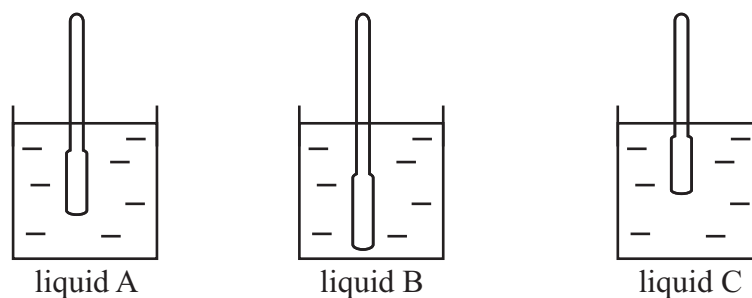


05. (A) Given below are two instances of focusing light rays on the eye of the person with defects of vision.



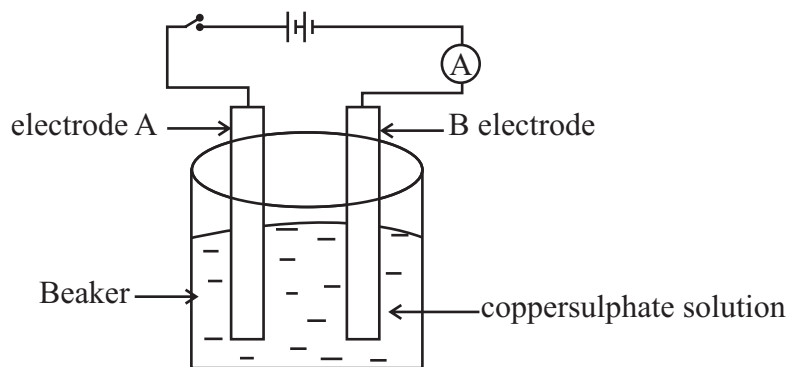
- (i) What is the figure used to show the defect of vision of above person. (01m.)
- (ii) Name the above defect of vision. (01m.)
- (iii) What is the type of lens that can be used to correct above defect of vision. (01m.)
- (iv) Write two common eye diseases instead of defect of vision. (02m.)
- (v) Write a precautionary measure that should be followed to prevent health problems of the eye. (01m.)

(B) Three diagrams given below show the same hydrometer float on different liquids.



- (i) Write descending order of the density of above three liquids. (01m.)
- (ii) B and C liquids are immiscible to each other, Draw a diagram to show the location of liquids when it is poured into a same vessel. (01m.)
- (iii) A is named as water, what is the change that can be seen in hydrometer when salt is dissolved in water. (01m.)
- (iv) The mass of 0.5 m^3 of water is 500kg. Calculate the density of water. (02m.)

06. (A) The diagram below shows a set up used to electrolysis of copper sulphate solution.



- Name most suitable material for A and B electrodes. (01m.)
- State a special property of above electrodes instead of electric conductivity. (01m.)
- Draw the table in your answer sheet and fill the spaces according to the observations.

Place of the setup	Observation
a) In the copper sulphate solution
b) At A electrode
c) At B electrode

(03m.)

- A student said kerosene oil can not be electrolysed. Explain the reason for above statement. (02m.)

- (B) Electrolysis process can be used to plate copper on iron nail.

- Mention positive electrode and negative electrode separately in above activity. (02m.)
- How to prepare the solution for increase the quality of electroplating. (01m.)
- State a industrial use of electroplating. (01m.)

07. (A) A built environment was taken place on the natural environment because of the man who changed the natural environment according to their requirements. Therefore come to limelight of the green concept.

- Write an environmental crisis which face due to human activities. (01m.)
- Define, green concept. (02m.)
- Green concept also used in agricultural proposes. Write a method of applying green concept in given instances.
 - Control pest and diseases. (01m.)
 - Water management (01m.)
- People pay attention to facilitating transporting method through water, write advantage of above method. (01m.)

- (B) Sri Lanka consist with various eco-systems.

- What is known as eco-system. (02m.)
- Write an example for eco-system. (01m.)
- Write a plant type can be seen mostly in above eco-system. (01m.)
- Write importance of eco-system with brackish water. (01m.)

Answer Paper - Part I

01. (2) 02. (1) 03. (2) 04. (4) 05. (2) 06. (1) 07. (4) 08. (1) 09. (3) 10. (3)
 11. (1) 12. (3) 13. (1) 14. (3) 15. (2) 16. (4) 17. (3) 18. (2) 19. (3) 20. (4)

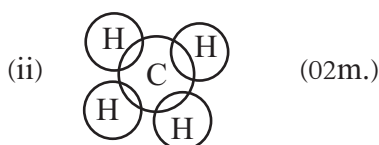
(2 x 20 = 40 marks)

Part - II

01. (A) (i) bio chemical evaluation (01m.) (ii) b (01m.)
 (iii) fossil (01m.) (iv) living fossil (02m.)
 (v) Cockroach, Dragon fly (01m.)
 (B) (i) Plant growth substance (01m.)
 (ii) positive phototropism / Negative geotropism (01m.) (iii) Mimosa (01m.)
 (iv) Clinging of the coiling with the support (01m.)
 (v) Part of a root grows towards the water (02m.)
 (C) (i) A - Humerus B - Biceps muscle (02m.)
 (ii) Biceps muscle (01m.)
 (iii) Provide support (01m.)

(16 marks)

02. (i) • Electron - 13
 • Proton - 13
 • Neutron - 14 (03m.)



- (iii) form molecular with different atoms (02m.)
 (iv) Suitable answer (01m.) (v) Heterogeneous (01m.)
 (vi) Separate using a magnet (01m.) (vii) Ethyl alcohol (01m.)

03. (A) (1) Rhizobium (2) grow on moist bread
 (3) Amoeba (4) Algae
 (5) Virus (6) Reproduce in suitable living cell. (1x6=6m.)
 (B) (i) A perpendicular force acts on a unit area. (02m.)
 (ii) C (01m.)

(iii) $\text{Pressure} = \frac{F}{A}$ or $\frac{200}{2}$ (01m.)

$\text{Pressure} = 100 \text{ Pa}$ or 100 Nm^{-2} (01m.)

(11 marks)

04. (A) (i) A - Corpuscles B - blood plasma (02m.)
 (ii) (a) Red blood cells (b) blood plasma (02m.)
 (iii) Platelets (01m.) (iv) Suitable answer (01m.)
 (v) O group (01m.) (vi) Suitable answer (01m.)
 (B) (i) Stop the moving object / Change the speed (02m.)
 (ii) Point of application (01m.)

(11 marks)

05. (A) (i) B (01m.) (ii) Short sight (01m.)
 (iii) Concave lens (01m.) (iv) Glucoma cattracts (02m.)
 (v) Suitable answer (01m.)
- (B) (i) $C > A > B$ (01m.) (ii)

B
C

 (01m.)
 (iii) Hydrometer goes up (01m.)
 (iv) density = $\frac{\text{mass}}{\text{value}}$ (01m.)
 = $\frac{500}{0.5}$
 = $1000 \text{ (kgm}^{-3}\text{)}$ (01m.)

(11 marks)

06. (A) (i) Carbon / Platinum (01m.)
 (ii) Electric conductivity / Insert with electrolyte (01m.)
 (iii)

location	observation
a) CuSO_4 solution	reduce colours
b) At A electrode	evolving air bubbles
c) At B electrode	Deposit reddish brown substances

 (03m.)
 (iv) No mobile ions / Not a electrical conductor (02m.)
- (B) (i) • Positive - Copper plate • Negative - Iron nail (02m.)
 (ii) Solution become dilate (01m.)
 (iii) Suitable answer (01m.)

(11 marks)

07. (A) (i) Answer like increasing global warning. (01m.)
 (ii) Correct explanation (02m.)
 (iii) (a) Traditional agricultural stratenge (01m.)
 (b) Suitable method (01m.)
 (iv) Minimize environemtal pollution, Power management, attraction of tourist (01m.)
- (B) (i) Correct explain for, (02m.)
 (ii) Lagoon (01m.)
 (iii) Mangrooves, Sonaratia, Ginpul (01m.)
 (iv) Suitable answer (01m.)

(11 marks)