බස්නාහිර පළාත් අධ්‍යාපන දෙපාර්තමේන්තුව
Department of Education – Western Province

දෙවන වාර ඇගයීම
Second Term Evaluation } **2018**

ශ්‍රේණිය **Grade** 9	**විෂයය** **Subject** Science	පත්‍රය Paper I,II	**කාලය** **Time** 02 hrs

නම Name ..... විභාග අංකය Index Number .....

Answer all the questions. Underline the correct or most suitable answer.

1. Select the group of organisms that show characteristics between living and nonliving.
   (i).Algae (ii).Bacteria (iii).Virus (iv). Fungi

2. To control which aquatic weed is the fungus *Alternaria* used as a biological pesticide?
   (i) Hydrilla (ii) Salvinia (iii). Japanjabara (iv).Pitcher plant

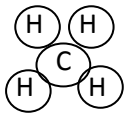
3. What is the part of the eye that has the rods and cones which are sensitive to the light?
   (i). Sclera (ii). Eye lens (iii).Blind spot (iv). Choroid

4. Select the structure that is connected to the pharynx which helps keep the pressure on both sides of the ear drum equal.
   i). External auditory canal ii). Cochlea iii). Optic nerve iv). Eustachean tube.

5. Which of the following correctly shows the atomic number and the mass number of the chorine (Cl) atom?
   i) ${}^{35}_{17}Cl$ ii) ${}^{17}_{35}Cl$ iii)Cl^{35}_{17} iv) Cl^{17}_{35}

6. What is the physical method of separating components in a mixture that are used to extract cinnamon oil from cinnamon leaves?

   i). vaporisation ii). Crystallisation iii). Fractional distillation iv). Steam distillation

7. 

   The structure of which compound is shown in the above diagram?

   i). Methane molecule ii). Ethane molecule iii). Ammonia molecule iv). Ethene molecule

8. Consider the following statement regarding pressure.
   A). Surface area effects the pressure.
   B). Pressure increases with the increase of perpendicular reaction.
   C). Pressure decreases with the increase of the perpendicular reaction.

   The correct statement from the above
   i). A and B Only ii). A and C only iii). B and C only iv). A , B and C only.

9. Right and left pulmonary arteries are opened to the

   i). Right ventricle ii). Right atrium iii). Left ventricle iv). Left atrium

10. Growth of the pollen towards the ovary is known as

   i). Positive geotropic movement ii). positive thigmotropism

   iii). Positive phototropic movement iv). Positive chemotropic movement

11. The first form of life on earth is considered as

   i). Unicellular algae ii). Fungus iii). Unicellular bacteria iv). Virus

12. Who are considered as the 1st group of vertebrates?

   i). Amphibian ii). Birds iii). Reptiles iv). Fish

13. What is the name used to denote the liquid part of the blood.

   i). Blood plasma ii). Red blood cells iii). White blood cells iv). Platelets

14. The structure located at the base of the leaflets and at the base of the petiole of leguminous plant is known as

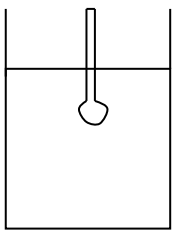
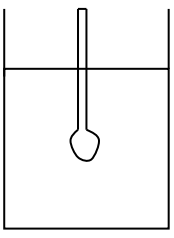
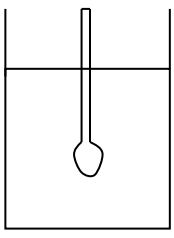
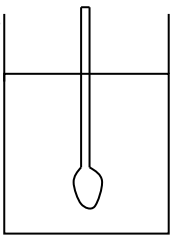
   i). Tendrils ii). Pulvinus iii). Lateral bud iv). Apical bud

15. What is the standard unit of measuring density?

   i). Grams per cubic centimeters ii). Grams per square centimeters

   iii). Kilograms per cubic meters iv). Newtons per square meters

16. Out of the solutions given below, select the diagram with the highest density.

i).  ii).  iii)  iv). 

17. Which of the following is an application of biotechnology?

i). Use of *Acetoactor* to destroy Japanjabara (water hyacinth).

ii). Production of Golden rice containing Vitamin ‘ A’

iii). Use of *Rhizobium* nitrogen fixation.

iv). use of *penecillium* for producing antibiotics.

18. A place where green concept is not used

i). German parliamentary building ii). Beijing national sports complex in china

iii). White house in England iv). K2 housing project in Australia

19. Select the correct statement/s in relation to the electroplating.

A- A solution of copper sulphate should be used to coat copper on iron ring

B – A high voltage should be applied.

C- The Iron ring should be connected to the positive terminal.

i). B only ii).A only iii). A and B only iv).A and C only.

20. Which of the following is an endemic animal to Sri Lanka?

i). Jungle fowl ii). Elephant iii). Monkey iv). Green viper

Part II

Answer the first question and four other questions.

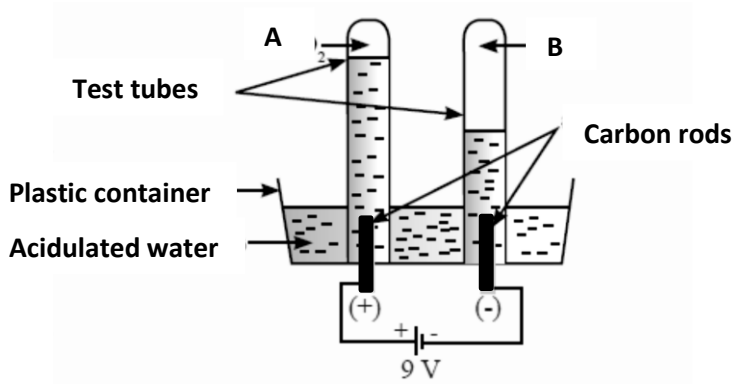
01. The following set up was arranged by a student to identify electrolyte and non-electrolyte.

i). The activity was done for the following liquids/solutions.
Record the observations in the following table.

Liquids/solutions	Indicator deflects / does not deflects
Kerosene	
Salt solution	
Copper sulphate	
Distilled water	

ii). Name two electrolytes from the above solutions / liquids.

iii). A set up that is arranged to electrolyse acidulated water is given below.



a). Explain how acidulated water is made?

b). What is the material used here for the electrode?

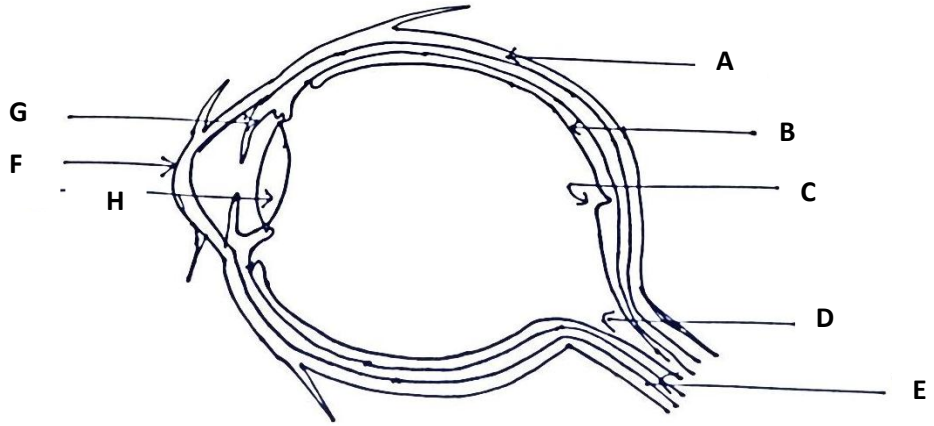
c). Explain why the electrodes used here are considered as inactive electrodes?

d). Name the gases ‘A’ and ‘B’

e). How can we identify the gas ‘B’

iv). Calculate the density of coconut oil if the volume of 1800kg of coconut oil is $2m^3$.

02.



The above diagram shows the structures of the human eye.

i). Name the parts A,B, C,D E and F

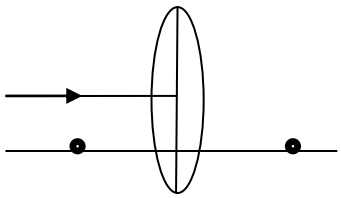
ii). What is the place of the retina in which a clear image is formed by the light that enters the eye?

iii). Identify the structure named as 'H' and state its function.

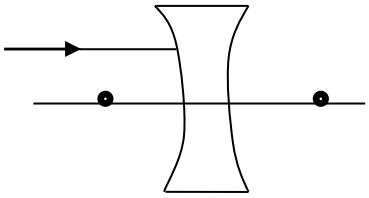
iv). State the letter of the structure which controls the amount of light that enters the eye and write down the name of that structure.

v). Name two eye diseases.

vi). Complete the following ray diagrams.



(a)



(b)

03. Match Part A with part B and state the matching its letter in the brackets given below.

Part A	Part B
i). Genes of this bacteria is muted in *zea maize* genome to produce toxins to crop pest.( ) ii). A photosynthetic protozoa consisting chlorophyll.( ) iii). A bacteria important in the production of bio gas ( )	a).Lorris b). *Methanococcus* c). *Bacillus thuringiensis* d). Mixtures

iv).A structure of the eye which contribute for maintaining the equilibrium of the body. ( )	e). Mass number
v). A chemical compound in vinegar which contain C,H and O.( )	f). Ice cream
vi). This method is used to separate various fuels from crude oil.( )	g). Semi-circular canals
vii). An example of a heterogeneous mixture. ( )	h). Euglena
viii). The total number of protons and neutrons inside the nucleus is stated as . ( )	i). Fractional distillation
ix). An example of a vector quantity.( )	j). Acetic acid
x). Two or more pure substances combine to form .( )	k). Force
xi). An animal with both binocular and stereoscopic vision.( )	

04. i). What do you mean by pressure?

ii). Write down the word equation for the pressure caused by solid objects.

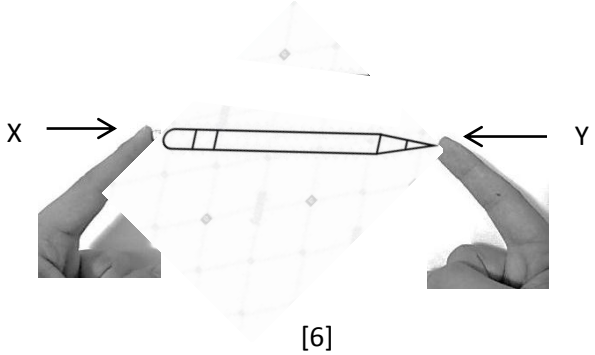
iii). What is the standard unit of measuring pressure?

iv).There was a 50Pa pressure due to perpendicular force acting on an area of $2.5m^2$.Calcuate the perpendicular force exerted on the surface.

v). Write down two instances of increasing pressure in our day to day life.

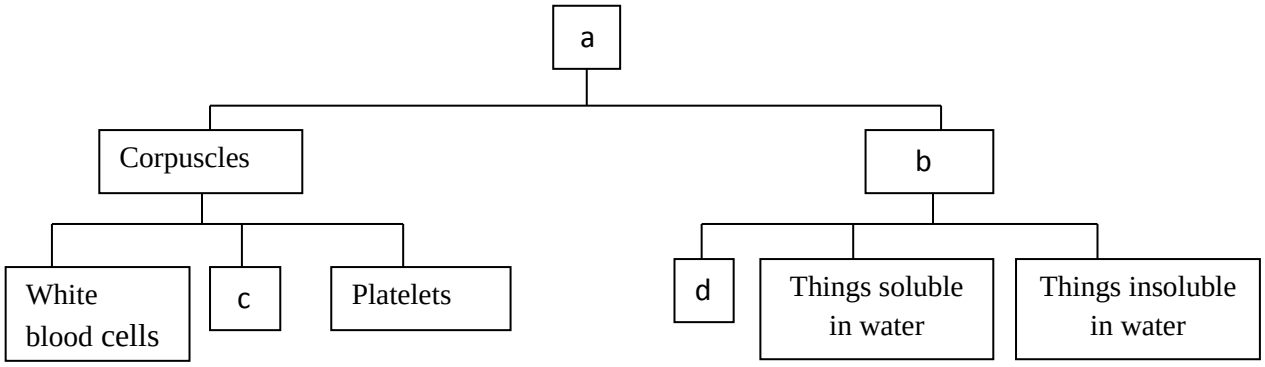
v).Write down two instances of decreasing pressure in our day to day life.

vii). To which finger is more pain caused when the pencil is held by two fingers as shown in the diagram given below? Briefly explain the reason.



[6]

05. i). Complete the following chart.



ii). Write down two functions of blood.

iii). Write down two differences between arteries and veins.

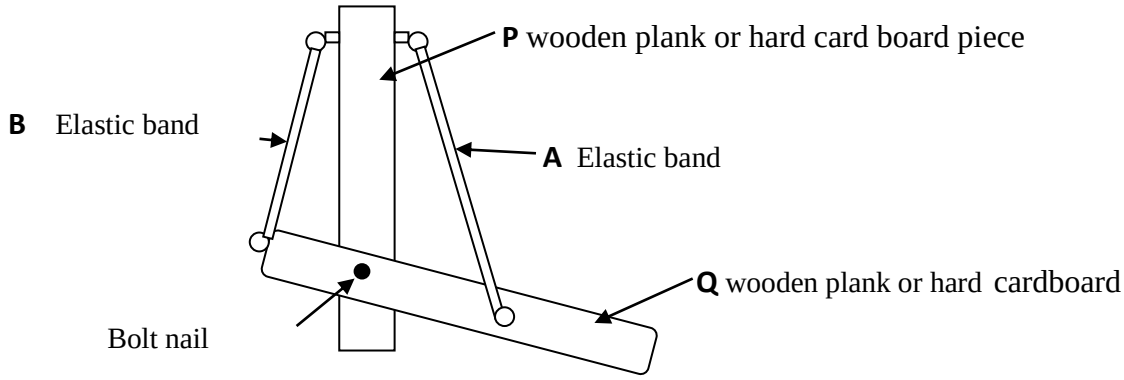
iv). State the universal donor and the universal acceptor of blood respectively.

v). What is known as blood transfusion?

vi). Mention two favourable habits to maintain a healthy blood circulatory system.

vii). Name the two blood vessels connected to the right ventricle of the heart.

06. i). A model of an elbow unit prepared by using hard cardboard pieces or light wooden planks to study how the elbow joint works is given below.



ii).What happens when elastic band **A** contracts without moving the wooden plank P?

iii).What happens when elastic band **B** contacts without moving the wooden plank P?

iv). What happens when biceps muscle is contracted?

v). What happens when triceps muscle is contracted?

vi). Write down a growth substance that is used to destroy weeds with broad leaves.

vii). Name an artificial growth substance that is used to induce root formation from stem cuttings.

ix). Write down an example for a positive phototropic movement.

x). Write down the appendages used by the following animals for their locomotion.

a). Amoeba

b). Euglena

c). Paramecium

d). Dolphin

07. Fill in the blanks of the following sentences by using words given within brackts.

(Montane forests, Ozone layer depletion, cycling, Gene diversity, Species diversity, Unidirectional, Mannawa fish, competition, Mammoth, Gandapana, Settlement environment)

There are three main types of biodiversity. The diversity among living species is known as (1)…… .The differences among the organisms within the same species is known as (2)……

Bio diversity reduces(3) ……between species. Global warming has caused the extinction of (4)…… Introduction of invasive plant (5)……. and invasive animal (6)……. can be considered as a threat to bio diversity.

Environmental problems such as global warming and (7)……. can be considered as environmental factors that affect biodiversity damage.

Flow of energy in an ecosystem occurs in (8)…….. and materials are (9)……... Stunted trees with twisted stems are found in (10)…….. A rural or urban environment where man has established his habitat is known as (11)……..