002

Southern Provincial Department of Education

Year End Test - 2018

Science

Grade 07

Name / Index No. ..... **Time** - 2 hours

- **Answer all questions.**
- **Underline the most Suitable Answer.**
- **After answering, attach paper 01 and answers for paper 02 together and submit**

(01) The gas that helps to maintain the temperature of the earth in an optimum level is,
(1) Oxygen (2) Nitrogen (3) Carbon dioxide (4) Argon

(02) Which of the following answer shows the quantities with both magnitude and a specific direction?
(1) Distance and displacement (2) Force and displacement
(3) Time and force (4) Distance and force

(03) The appliance that converts kinetic energy into electrical energy is,
(1) electric motor (2) simple cell (3) electric fan (4) dynamo

(04) The amount of light enters to the specimen in the compound microscope is controlled by,
(1) mirror (2) objective lens (3) eyepiece (4) diaphragm

(05) Igneous rocks are formed by,
(1) metamorphing limestones
(2) metamorphing granite
(3) cooling lava
(3) skeletons of marine animals getting subjected to high pressure

(06) A - air B - steel C - water

The correct answer when the speeds of sound of A, B, C media are arranged in the ascending order is,
(1) A, B, C (2) B, C, A (3) B, A, C (4) A, C, B

(07) Which of the following is not a function of plant leaves?
(1) doing photosynthesis (2) making fruits
(3) making new plants (4) storing water

(08) A student saw these features in a plant he observed.
- Fibrous root system
- Parallel venation
- Timorous flower parts

This plant can be,
(1) beans (2) coconut (3) kottamba (4) jak

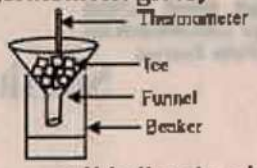
(09) Several Sources of electricity used in various instances are shown below.
A - Dynamo B - Drycell C - Solarcell D - Generator
The sources of electricity that produce direct current are,
(1) A, B (2) B, C (3) C, D (4) A, D

(10) Which of the following answer shows an acid, a base and a neutral substance in sequence?
(1) vinegar, distilled water, lime water (2) lime water, vinegar, distilled water
(3) vinegar, lime juice, soap water (4) lime juice, soap water, distilled water

(11) This diagram shows an activity done in the laboratory. The reading of the thermometer gives,

(1) melting point of ice (2) boiling point of water

(3) freezing point of water (4) room temperature



(12) This diagram shows a lighted a torch which is placed in front of a screen, small ball and a piece of cardboard.

What can be observed after this activity,

(1) Clear umbra is formed on the screen (2) Unclear umbra is formed on the screen

(3) Umbra and penumbra are formed on the screen (4) Umbra is not formed on the screen

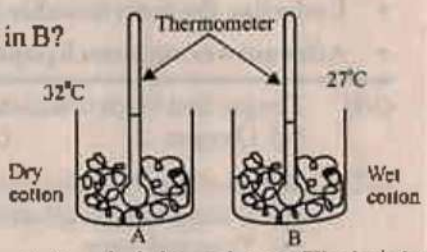
(13) What property of water helps to decrease the thermometer reading in B?

(1) Cooling property

(2) Solvent property

(3) Insulating property

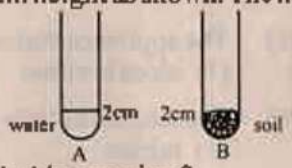
(4) Conducting property



(14) A and B are two identical test tube. Water and soil are added to them to 2cm height as shown. The height of the test tube B from its bottom when water in A is added to B is,

(1) 4cm (2) more than 4cm

(3) less than 4cm (4) 2cm



(15) This diagram shows an electron microscopic view of an organism. What is this organism?

(1) paramecium (2) AIDS virus

(3) euglena (4) bacteria

(16) In which organ of the digestive system absorbs digested food?

(1) Small intestine (2) Large intestine (3) Oesophagus (4) Stomach

(17) The answer which shows the deficiency diseases of vitamin D and vitamin C in sequence is,

(1) lethargic and goiters

(2) weakening the memory power and decaying gums

(3) rickets and decaying gums

(4) decreasing development of bones and lethargic

(18) Generation of electricity in a conductor when magnetic field is cutting with the conductor is known as,

(1) electro magnetic induction (2) static electricity

(3) current electricity (4) an alternating current

(19) The incorrect statement regarding the static electricity is,

(1) objects are not charged before rubbing.

(2) They repel when positively and negatively charged rods are brought closer.

(3) Unlike charges are neutralized when charged objects contact with each other.

(4) Thunders are formed due to static electric charges formed on clouds.

(20) The correct statement regarding the sustainable use of energy sources is,

(1) The fossil fuels should be consumed more.

(2) Usage of alternating sources of energy should be decreased.

(3) Usage of hybrid vehicles should be increased.

(4) Private transporting methods should be used instead of using common transporting methods.

Paper II

- **Question No. 01 is compulsory.**
- **Answer question No. 01 and 04 more questions.**

(01)(A) The table below shows several organisms observed by a group of children who participated in a field trip.

Animals	leech, worm, bulath hapaya, lizard, spider
Plants	monara kudumbiya, ferns, kuppameniya, bamboo, ginger

(i) Write the relevant plant from the table for the question (a) to d.

(a) A monocotyledonae plant

(b) A non-flowering plant

(c) A plant with an under ground stem

(d) A plant with a tap root system

(ii) Classify all the animals given above for the two groups shown below.

(a) Vertebrates (b) Invertebrates

(iii) What do you call the "blending of body colour to particular environments"

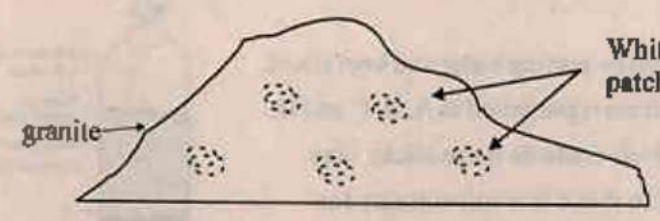
(iv) Name an animal that can blend its body colour according to environment selecting from the above table.

(v) Mention an advantage obtained by the animal by changing it's body colour in that way.

(B) (i) Classify the sources of energy shown below as renewable energy and non-renewable energy sources.
Sun, Coal, Mineral oil, Bio mass

(ii) Solar energy is a cheap source of energy which does not pollute the environment. Write two reasons for not popularizing it yet in Sri Lanka.

(C) This diagram shows a big granite with white and green patches on it.



(i) What are these patches which help for the weathering of rocks?

(ii) Name to groups of organisms living in these patches.

(02) (A) This note shows the organizational levels of organisms bodies.

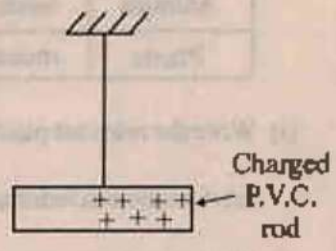
Cell → A → Organ → B → Organisms

(i) Name A and B organizational levels.

(ii) Name a unicellular organism.

(iii) What is the instrument used in the laboratory to identify them.

(B) One end of a P.V.C tube was charged by rubbing with polythene. This diagram shows how it is balanced by hanging on a stand.



(i) What is the charge gathered in the polythene membrane used for rubbing?

(ii) What can you observe when a positively charged glass rod by rubbing with silk is brought closer to the charged end of the P.V.C tube.

(iii) What conclusion can you make by this observation.

(C)(i) Name a strong acid present in the laboratory.

(ii) What will be the colour of pH paper, when a piece of pH paper is put into this acid

(iii) What is the reagent given to normalize the acidic nature in the stomach?

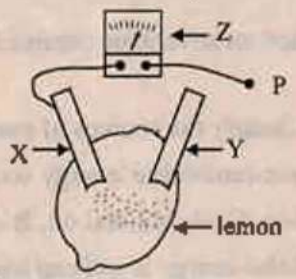
(iv) A piece of red litmus turns into blue when it is put into a certain solution. What can be this solution?

(03)(A) This diagram shows a device prepared by using a lemon to obtain electricity

(i) Name the instrument Z.

(ii) Name two metals that can be used for X and Y metal plates.

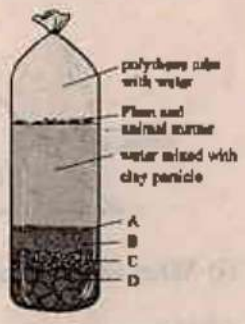
(iii) When the P terminal is connected to Y, What observation can be seen in Z?



(iv) Is the current produced here direct current or alternating current?

(v) Mention 2 methods that can be used to increase the efficiency of a dynamo which is used for generating electricity.

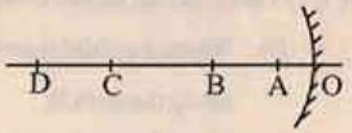
(B)(i) A soil sample was shaken well by putting water and kept silent. Name it's components which are represented as A, B, C and D.



(ii) (a) Write a use of soil which contains more sticky clay.

(b) What should be done to make this soil suitable for agriculture?

(04) (A) This set-up can be used to observe the images made by a concave mirror by placing a lighted candle on A, B, C, D places. The distances between OB and BC are equal. When the object is placed on C the image obtained is similar to the object.



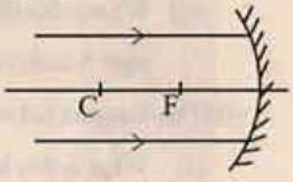
(i) Write another feature that can be seen when the object is placed on C.

(ii) On which place out of A, B and D should the object be placed to obtain an upright image?

(iii) Write a feature of the image obtained when the candle is placed on D.

(iv) Write 2 instances where concave mirrors are used in day to day life.

(v) Complete the path of the beam of light shown in this diagram



(B) Bi-urette test is done to show that eggs contain Proteins. First 2ml of sodium hydroxide is added to a solution made by dissolving albumin in water.

(i) What is the other chemical used in this activity?

(ii) Mention the final observation obtained?

(iii) Name 2 plant food items that supply the same nutrient supplied by eggs for a person who does not eat eggs?

(iv) What is the nutrient out of all nutrients that gives the highest amount of energy by one gram?

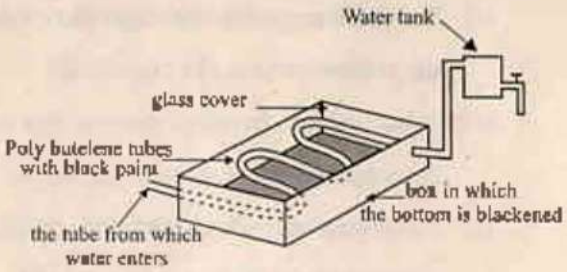
(05) This diagram shows a set-up prepared to obtain hot water using solar energy.

(i) What is the reason for painting black colour inside the box?

(ii) What is the method of obtaining heat by water in the tank?

(iii) What is the reason for covering the surface of the box by glass?

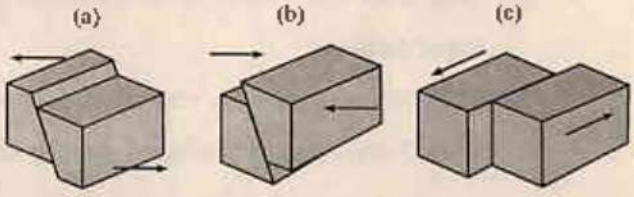
(iv) It is said that metals are not suitable for making the water tank. Explain the reason for it.



(B) These diagrams show 3 ways of moving tectonic plates.

(i) Mention two instances out of them that an earthquake could occur.

(ii) In which instance could a deep gulf occur?

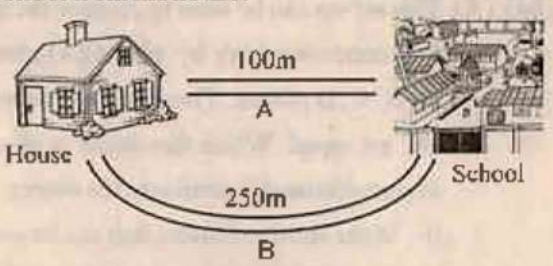


(iii) In which layer in the earth do these moving tectonic plates locate?

(iv) Write a specific feature of rocks present in this layer.

(v) What instrument gives us prior notices about earthquakes?

(06) (A) This diagram shows two paths for a child to go to his School from his house.



(i) When the child travels to school from home along the path B,

(a) What is the distance traveled by him?

(b) What is his displacement?

(ii) What is his displacement if the child travels from house to his school along the path A and come back?

(B) The diagram below shows an instrument that can store charges.

(i) What is this instrument?

(ii) You are supplied with conducting wires, a battery with 3 dry cells, draw a circuit diagram using symbols that can be used to store charges in this device.

(iii) What unit can be used to measure the amount of charges?

(iv) What is the instrument present in the laboratory that can be used to identify static electric charges?

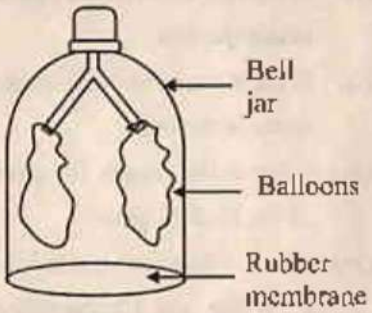
(C) Answer the questions below using the layers of the atmosphere.

(i) In which layer in the atmosphere do people live?

(ii) In which layer can the ozone layer be seen?

(iii) In which layer is the International space station situated?

(07) (A) This diagram shows a set-up prepared to demonstrate the human respiratory system.

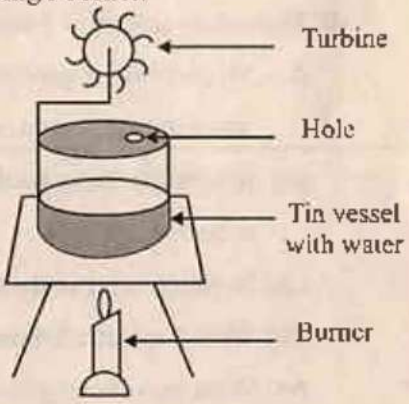


(i) To which organs in the respiratory system can the rubber balloons be equalized?

(ii) What change should be done in this model to demonstrate the process of inhalation?

(ii) To demonstrate which part of the respiratory system is the rubber membrane fixed?

(B) The set-up shown below is placed on a tripod and heated hard by using a burner.



(i) What is the observation you can see when steam comes out of the hole?

(ii) Name the type of energy which produces steam.

(iv) Write 2 other actions that can be done by using this energy.

(C) How do these musical instruments produce their sound?

(a) Flute - .....

(b) Violin - .....

(c) Thabla - .....