



PROVINCIAL DEPARTMENT OF EDUCATION NORTH WESTERN PROVINCE

## THIRD TERM TEST - 2018 SCIENCE

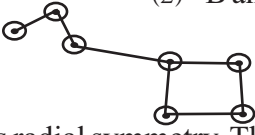
Grade 08

Two Hours.

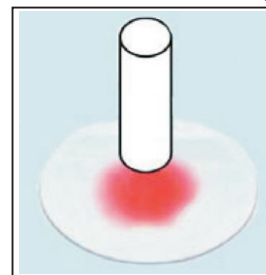
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### Part - I

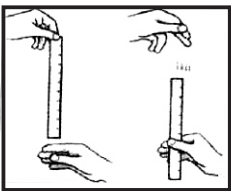
- **Underline the most suitable answer in the paper itself.**

01. The structure that stores food in carrot plant is  
(1) stem (2) lateral roots (3) tap root (4) adventitious roots
02. An alloy with magnetic properties is,  
(1) Iron (2) Nickle (3) Ferrite (4) Invar
03. Which of the following indicates the factors essential for firing that are present in fire triangle?  
(1) Heat, oxygen, fuel  
(2) Temperature, oxygen, fuel  
(3) Heat, oxygen, combustible materials  
(4) Temperature, supporters of combustion, combustible materials
04. Select the areas in which land slides occur abundantly,  
(1) Anuradhapura, Badulla, Mathara (2) Mathale, Badulla, Kurunegala  
(3) Galle, Mathara, Jaffna (4) Nuwara Eliya, Puttalam, Badulla
05. The constellation to which the star series belongs is  
(1) Gemini (2) Canis major (3) Ursa major (4) Leo
06. The most effective vitamins essential for a healthy skin are  
(1) vitamin A and E (2) vitamin A and D (3) vitamin K and D (4) vitamin C and E
07. Which of the following musical instruments produce sound only by vibrating strings?  
(1) Guitar, drum, flute (2) Udekkiya, trumpet, sitar  
(3) Flute, trumpet, xylophone (4) Guitar, violin, sitar
08. The planets which have not yet been found sub planets are,  
(1) Mercury and Venus (2) Venus and Urenus  
(3) Mercury and Urenus (4) Mercury and Neptune
09. Which of the following affects the occurrence of seasonal changes?  
(1) Revolution of the earth.  
(2) Revolution of the sun.  
(3) Freezing of snow in poles and tilting of sun.  
(4) Revolution of the earth and tilting of its axis to orbital plane.
10. There statements about the electric current are given below,  
A - Electric current flows from a higher electric potential to a lower electric potential.  
B - Unit 'Ampere' is used to measure the electric current.  
C - Direction of electric current is from positive terminal to negative terminal.  
The correct statements are,  
(1) A (2) B and C (3) A and C (4) A, B and C all.
11.  Figure indicates the constellation,  
(1) Ursa major (2) Plough  
(3) Seven sages (4) All above
12. Body shows radial symmetry. There are two forms as polyps and medusa. Cripple small creatures with special tentacles having cnidocytes. The invetebrate group which shows the above features is  
(1) Arthropoda (2) Cnidaria (3) Mollusca (4) Annelida

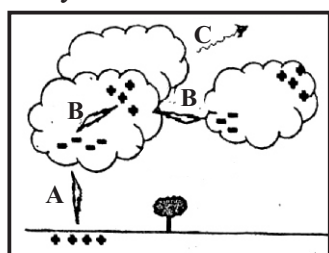
13. An activity that can be carried out to investigate the effects of micro organisms on food is,
- (1) Spraying some water on the slice of bread and keeping it for three days.
  - (2) Keeping several slices of potatoes in a salt solution.
  - (3) Keeping several pieces of fish in deep freezer.
  - (4) Boiling some pieces of pine-apple with sugar.
14. Two other products which make in addition to carbon dioxide and water when incomplete combustion occurs are,
- (1) Unburnt carbon particles and nitrogen.
  - (2) Unburnt carbon particles and carbon monoxide.
  - (3) Carbon monoxide and nitrogen.
  - (4) Nitrogen and sulphur dioxide.
15. Which of the following is not an instance which indicates neutralization carried out domestically or day to day activities?
- (1) Mixing lemon juice and salt solution when food is prepared.
  - (2) Getting milk of magnesia to relieve from the acidity in stomach.
  - (3) Applying lime or baking soda when bees bit.
  - (4) Applying lemon juice when wasps bit.
16. When a piece of chalk was placed on the red ink solution in the watch glass as shown in the figure, colour is soaking up through the piece of chalk. The conclusion of the activity is that,
- (1) The piece of chalk is continuous.
  - (2) The piece of chalk is discontinuous.
  - (3) The chalk dissolves in ink.
  - (4) The ink is volatile.
17. Which of the following correctly shows differences between transpiration and guttation.



Transpiration	Guttation
(1) Water releases in the form of liquid water	Water releases in the form of water vapour.
(2) Occurs during night.	Occurs during day time.
(3) Only water is released.	Water and salts are released.
(4) When the humidity in the atmosphere is increased, rate of transpiration is increased.	When the humidity in the atmosphere is high, it reduces the guttation.

18.  Figure indicates an activity engaged to study the impulse transmission speed in human body. When one student released the ruler in two turns by keeping the mark 'O' of the ruler toward ground, students A and B caught the ruler in two instances. Then their finger touched the ruler at the point 10cm and 15cm respectively. According to that the most correct statement is,
- (1) Impulse transmission speed of student A is higher than the impulse transmission speed of student B.
  - (2) Impulse transmission speed of student B is higher than the impulse transmission speed of student A.
  - (3) Impulse transmission speed of students A and B is equal.
  - (4) It is unable to draw a conclusion about impulse transmission speed of both students from the above activity.
19. Some of the measures taken in disaster management are given below.
- A - Reforestation  
 B - Planning agricultural activities with the view of conservation of water.  
 C - Digging contour ditches to drain water down the slope without letting it soak into soil.
- The measures that can be taken in drought disaster management are
- (1) only A.
  - (2) only A and B
  - (3) only A and C
  - (4) all A, B and C

20.



- A, B and C show the way of occurring three types of lightning. Respective order which represents A, B and C is,
- (1) Earth lightning, air lightning, cloud lightning,
  - (2) Cloud lightning, air lightning, earth lightning
  - (3) Air lightning, earth lightning, cloud lightning
  - (4) Earth lightning, cloud lightning, air lightning

- Answer first question and four other questions.
- Use a separate paper to answer the questions. Each question carries 09 marks.

(01)

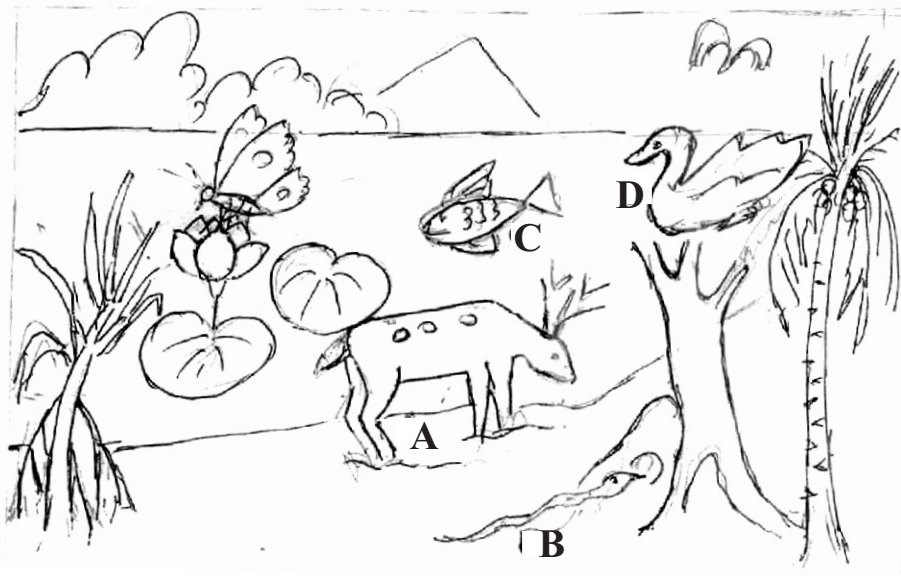


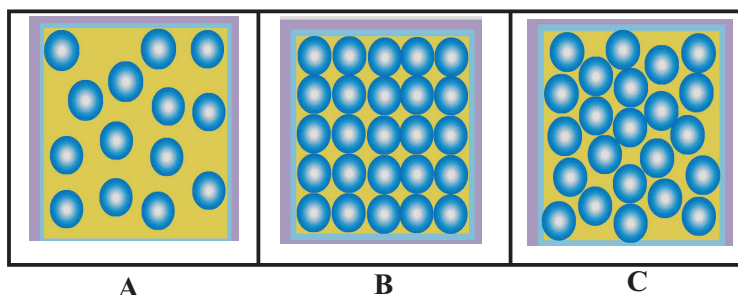
Figure above is a fresh water ecosystem.

- Name vertebrate groups which A and B belong to. (02m.)
- Write the invertebrate group which butterfly belongs to. (01m.)
- Write two features of the vertebrate group which animal C belongs to. (02m.)
- There is a vetakeyya plant associated with the pond. What is the specified roots seen in this plant? (01m.)
- Write a feature that is specific only to the vertebrate group to which animal D belongs. (01m.)
- Name the animal which possess external ears, lungs for breathing and skin with sebaceous glands and hair. (01m.)
- When a water sample from the pond was observed under lower power objective of light microscope, it was observed a microorganism often changes its shape. Name this microorganism. (01m.)

(total marks 09)

02. Environment around us can be categorized as matter and energies. Matter can be further divided into pure substances and mixtures.
- Name two types of energies in the environment. (01m.)
  - Write an example for a mixture found in nature. (01m.)
  - Name a compound found abundantly in house (01m.)
  - Write the elements in the compound you mentioned in part (iii). (01m.)

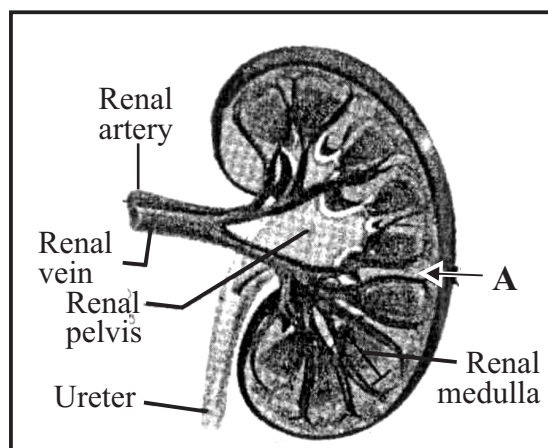
- (v) Write two physical properties of metals. (01m.)
- (vi) A student crushed several yellow colour large pieces into small pieces. What is this physical property of matter? (01m.)
- (vii) Particulate nature of three states of matter is given below. Identify and name these three states? (01m.)



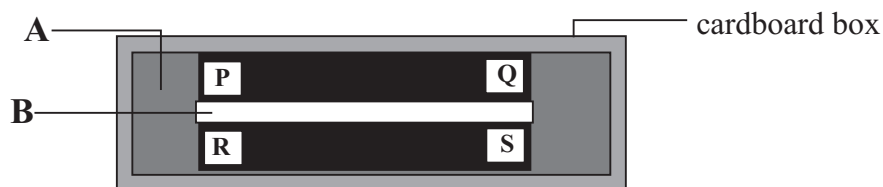
- (viii) Which can be easily compressed from above A, B and C? (01m.)
- (ix) Which is most suitable to make parts of machineries and vehicles, building materials and weapons out of A, B and C? (01m.)

03. (a) Figure below is a longitudinal section of the human kidney.

- (i) Name the area shown as A, which consists of lot of blood capillaries. (01m.)
- (ii) Name two excretory products release from kidneys. (02m.)
- (iii) Write a reason that affects for kidney stones. (01m.)
- (iv) What is the effect to the kidneys of using drugs for a long time period for certain diseases? (01m.)



(b) Figure below shows the way of storing two bar magnets in a cardboard box.



- (i) Which are used as A and B? (02m.)
- (ii) P, Q, R and S are poles of magnets. Name poles introduced as P, Q, R and S. (01m.)
- (iii) When a bar magnet was hung from the middle in a balanced way, north of the magnet directs to true North and south of the magnet directs to true South. What is the reason for this? (01m.)

(total marks 09)

04. (a) Steps of an activity carried out by a group of students are given below.

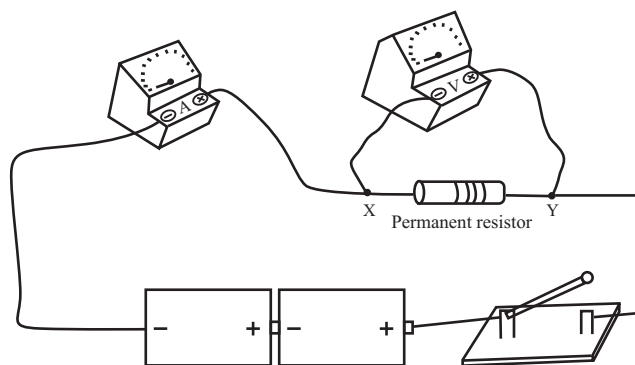
- Making a copper sulphate solution by adding copper sulphate crystals and water and mixing it well.
- After putting a clean iron nail into copper sulphate solution, fixing a thermometer correctly as temperature of the solution is able to be measured.

(i) Write two observations made from this activity. (02m.)

(ii) According to the observations made in above (i), which type of reaction occurs inside the boiling tube? (01m.)

(iii) Write the law of conservation of mass. (01m.)

(b) Answer the questions given using the electric circuit below.



(i) Write the method of connecting voltmeter and the quantity measured by the voltmeter. (02m.)

(ii) First switch on and get the ammeter reading. Secondly remove the permanent resistor and connect X and Y using a copper wire. Switch on and get the ammeter reading.

(a) Is there any difference in ammeter readings of above two instances. (01m.)

(b) What is the reason for it? (02m.)

(09m.)

05.

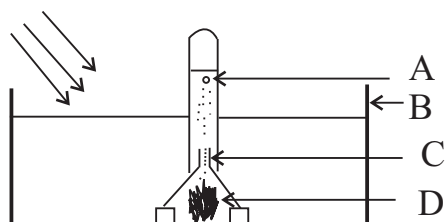


Figure shows an apparatus arranged by a group of students to study a certain process.

(i) Name A, B and C. (03m.)

(ii) What have been used as D? (01m.)

(iii) What is the process occurring here? (01m.)

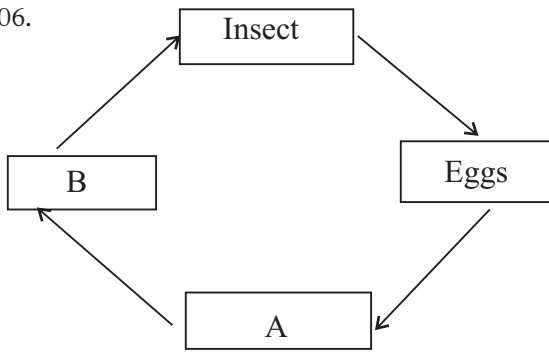
(iv) In which place this apparatus should be kept to occur above process more efficiently? (01m.)

(v) Mention one observation made after keeping this some time in that place. (01m.)

(vi) Which conclusion you make based on the above observation? (01m.)

(vii) Write the word equation to show the process occurs here. (01m.)

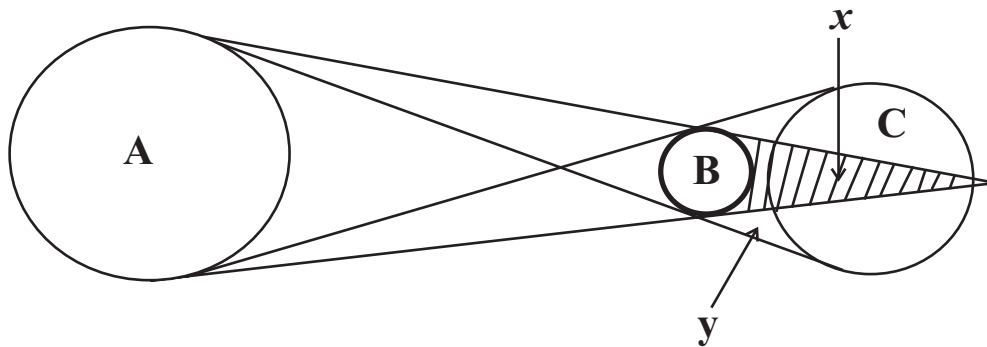
06.



Life cycle of an insect is shown by the figure.

- (i) What is meant by the life cycle? (01m.)
- (ii) If stages of this life cycle shows a morphological change, which term is most suitable to explain this life cycle? (01m.)
- (iii) Name A and B according to the above. (02m.)
- (iv) Name an insect which shows a life cycle as shown above. (01m.)
- (v) Which name is used for the stage seen in life cycle of frog in addition to the two stages, adult frog and eggs? (01m.)
- (vi) Write two importance of studying life cycles of organisms. (02m.)
- (vii) Sensitive stages of life cycles should be identified for the conservation of biodiversity. What is the sensitive stage of fish? (01m.)

07.



- (a) Figure shows the way of arranging three objects, when a curious scene occurs in the sky.
  - (i) What is the incident shown here? (01m.)
  - (ii) Name A and B. (02m.)
  - (iii) Which letter indicates the place where umbra occurs? (01m.)
  - (iv) On which day this type of incident might be seen? (01m.)
- (b) When observing the sky, artificial objects can be seen in addition to the natural objects mentioned above.
  - (i) Name an artificial celestial body moving in Western horizon after sun set. (01m.)
  - (ii) Who is Sri Lankan scientist first presented views about these objects? (01m.)
  - (iii) Name first person who sent to space. (01m.)
  - (iv) Write two constellations in zodiac which take the shape of animals. (01m.)

## ANSWER - Part - I

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

(40 x 2 = 80)

## Part - II

- (01) (A) (i) A Mammalia  
B Reptilia (02m.)  
(ii) Arthropoda (01m.)  
(iii) For two correct answers (one answer does not carry marks) (02m.)  
(iv) Stilt roots (01m.)  
(v) Body is covered with feathers / Forelimbs are adapted as wings / Do not have teeth but the beak is adapted for feeding (01m.)  
(vi) A/ deer (01m.)  
(vii) Amoeba (01m.)
02. (i) Heat, Light, Sound etc., (01m.)  
(ii) Drinking water, Air, Soil (01m.)  
(iii) Water, Glucose, Carbon dioxide, Salts etc, (01m.)  
(iv) For relevant elements in the compound written in part (iii) (01m.)  
(v) For two correct physical properties (01m.)  
(vi) Brittleness (01m.)  
(vii) A - Gas  
B - Solid  
C - Liquid (01m.)  
(viii) A/ Gas (01m.)  
(ix) B (01m.) (09m.)
03. (a) (i) Renal cortex (01m.)  
(ii) Urea, Uric acid, salts, water (two out of above) (02m.)  
(iii) Not drinking enough water  
Taking salty diets regularly  
Not passing urine at proper time (01m.)  
(iv) Kidney failure (01m.)
- (b) (i) A - Soft iron  
B - Strap of wood (02m.)  
(ii) P and S - North poles Q and R - South poles  
P and S - South poles or Q and R - North poles (01m.)  
(iii) Due to geomagnetism (01m.) (09m.)

04. (a) (i) Blue colour of the solution decreases.  
A reddish brown substance deposits at the bottom of the boiling tube.  
Temperature of the solution rises. (02m.)
- (ii) A chemical change (01m.)
- (iii) During chemical reactions the total mass does not change. That means the mass is conserved. (01m.)
- (b) (i) Parallel way  
Voltage difference (02m.)
- (ii) A - Yes (01m.)  
B - Less current flows when the permanent resistor is there. If a copper wire is used instead of the permanent resistor, high current flows in the circuit. (02m.) (09m.)
05. (i) A - Test tube / Boiling tube  
B - Beaker / Water trough  
C - Glass funnel (03m.)
- (ii) A water plant / Hydrilla (01m.)
- (iii) Photosynthesis (01m.)
- (iv) In a place where more sunlight falls. (01m.)
- (v) Emitting air bubbles (01m.)
- (vi) A gas produces during photosynthesis (01m.)
- (vii) Water + Carbon dioxide  $\xrightarrow[\text{Chlorophyll}]{\text{Sun light}}$  Glucose + Oxygen (01m.) (09m.)
06. (i) The sequence of events in stages of development as a cyclic process, which a living organism passes from its birth to death is termed as a life cycle. (01m.)
- (ii) Metamorphosis (01m.)
- (iii) A - Larva  
B - Pupa (02m.)
- (iv) Butterfly / Mosquito etc., (01m.)
- (v) Tadpole (01m.)
- (vi) Pest controlling / controlling disease vectors (02m.)
- (vii) Eggs (01m.) (09m.)
07. (a) (i) Solar eclipse (01m.)
- (ii) A - Sun  
B - Moon (02m.)
- (iii) X (01m.)
- (iv) On a new moon day (01m.)
- (b) (i) Artificial satellites (01m.)
- (ii) Sir Arther C. Clerke (01m.)
- (iii) Yuri Gagarin (01m.)
- (iv) Taurus, Cancer, Pisces, Scorpio etc., (01m.) (09m.)

