

**Primary Four
Science
Continual Assessment One**

Section A

I. Choose the most appropriate answer and write its number (1, 2, 3 or 4) in the boxes provided. (15 X 2 Marks)

1. Read the following table carefully. Which one gives the best estimate of the percentage of gases in the air?

Gases	Oxygen	Carbon Dioxide	Nitrogen	Water Vapour
(1)	21%	78%	0.03%	Variable
(2)	78%	21%	0.03%	Fixed
(3)	21%	0.03%	78%	Variable
(4)	0.03%	21%	78%	Variable

2. Jimmy's father wants to make a path in his garden. He places a row of concrete slabs over some grass. What will happen to the grass that is underneath the concrete slabs after one month?

- (1) die
- (2) turn yellow
- (3) remain healthy
- (4) grow downwards

3. Limewater turns chalky in the presence of _____.

- (1) carbon dioxide
- (2) oxygen
- (3) saliva
- (4) starch

4. Which of the following breathe in through gills?

- A: Frog
- B: Tadpole
- C: Garoupa
- D: Mudskipper

- (1) A and B
- (2) A, B and C
- (3) B, C and D
- (4) A, B, C and D

5. Which of the students will have the fastest rate of heart beats per minute?

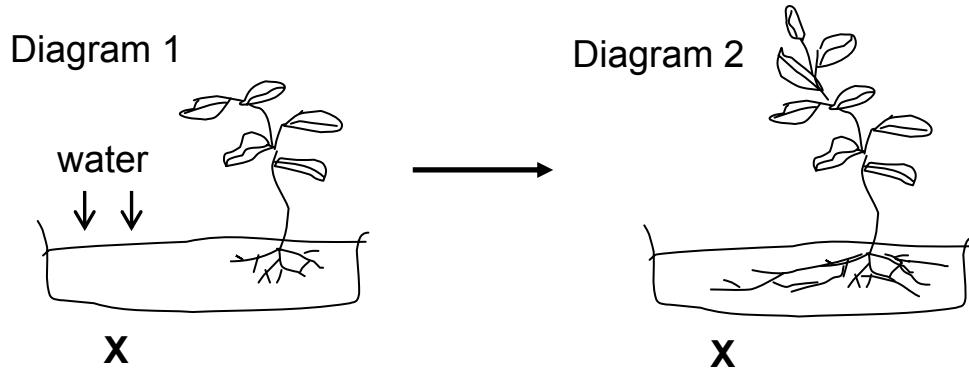
- (1) Tom who is sleeping
- (2) Jac who is watching television
- (3) Alvin who is doing his homework
- (4) Catherine who has been running for ten minutes

6. Which of the following statements about the stomata is/are true?

- A: Stomata takes in sunlight
- B: Water enters through the stomata
- C: Stomata allow exchange of gases in the plant

- (1) B only
- (2) C only
- (3) A and B only
- (4) B and C only

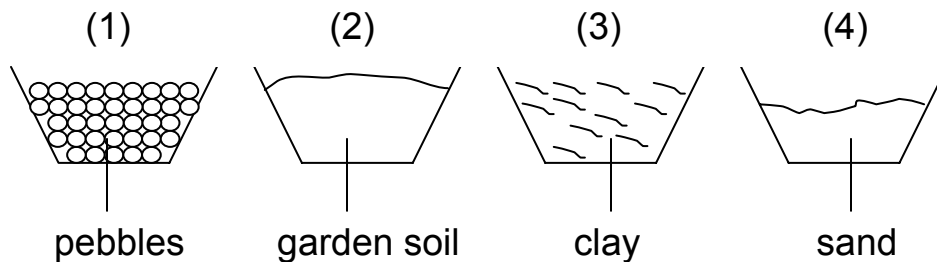
7. A plant is placed in a basin of soil. Sufficient amount of water is poured at X so that half of the basin of soil becomes wet.



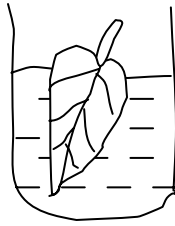
After two weeks, it is observed that the roots have grown in the direction shown in diagram 2. This shows that the roots grow in search of _____.

- (1) fertiliser
- (2) soil
- (3) sunlight
- (4) water

8. Which jar of material has the most amount of air trapped in it?



9. A hibiscus leaf is plucked and then placed into a beaker of warm water. There will be _____.



- (1) No air bubbles seen.
- (2) An equal number of air bubbles on both sides of the leaf.
- (3) Less air bubbles on the upper side than the underside of the leaf.
- (4) More air bubbles on the upper side than the underside of the leaf.

10. When oxygen is transported in the body, which of the following shows the correct order?

- (1) nose → lungs → blood vessels → windpipe
- (2) nose → windpipe → lungs → blood vessels
- (3) windpipe → nose → blood vessels → lungs
- (4) windpipe → blood vessels → windpipe → lungs

11. Which of the following statements about the tiny tubes in the stem is **false**?

- (1) Food made by leaves are stored in these tiny tubes.
- (2) They carry food made by the leaves to the other parts of the plant.
- (3) The tubes that carry food are not the same as those that carry water and mineral salts.
- (4) They carry water and mineral salts from the roots to the leaves and other parts of the plant.

12. The functions of the roots are: to _____.

- A: loosen the soil in the ground
- B: hold the plant firmly to the ground
- C: absorb water and mineral salts from the soil

- (1) A and B only
- (2) A and C only
- (3) B and C only
- (4) A, B and C

13. Look at the diagram below. Name the part of the plant the arrow is pointing at.

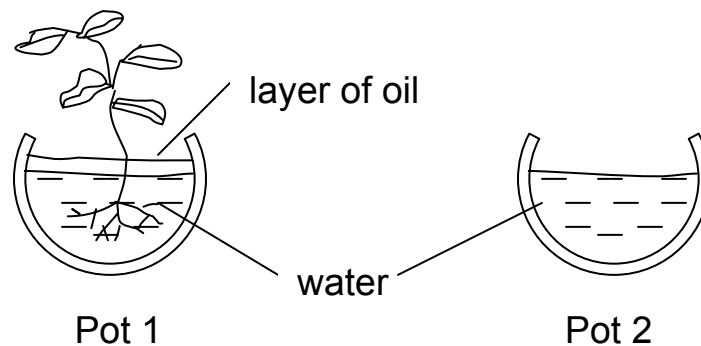


- (1) Flowers
- (2) Leaves
- (3) Branches
- (4) Roots

14. A plant is put into a pot of soil and watered every day. After a few days, the leaves started to droop and turn yellow. What could be a possible reason for this?

- (1) The leaves do not have enough food.
- (2) There is too much oxygen in the air.
- (3) The tubes that transport water are damaged.
- (4) The tubes that transport food are damaged.

15. Eunice wanted to carry out an experiment to find out whether roots take in water. She set up two pots as shown below.



After three days, she observed that the water level of Pot 2 was lower than that of Pot 1. Her teacher told her that her experiment was not a fair one. Which one is the correct reason why the experiment is not a fair one?

- (1) She should use Pot 1 only.
- (2) Both pots should have a layer of oil.
- (3) She should use identical plants for the pots.
- (4) She should put both pots under the sunlight.

Section B (20 Marks)

II. Fill in each blank with the most suitable answer. The mark for each question is written in brackets.

16a) Name the gas that escapes when you open a can of Pepsi.

_____ (1 Mark)

b) Fill in the blanks with these words: **upper , lower** (1 Mark)

Most land plants have stomata found on the _____
surface of the leaves while most water plants have stomata on
the _____ surface of the leaves.

17. The table shows the properties of some gases of air. (3 Marks)

(a)	Is a gas that supports burning
(b)	Is used in fire extinguishers
(c)	Is used by plants for photosynthesis
(d)	Is the most abundant gas in the atmosphere
(e)	Is used to form a compound to make fertilisers
(f)	Makes up of nitrogen, carbon dioxide, oxygen and other gases

Match the properties that best describe the gas/air by writing the letter(s) in the table below.

Gas	Properties
1) Oxygen	
2) Nitrogen	
3) Carbon Dioxide	
4) Air	

18a) The information below gives the results collected from the heartbeat and breathing rate of a 10-year-old girl, MeiHui, according to her activities.

Swimming	Eating	90	65	28	18
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Complete the table below with the correct activity that matches her heartbeat and breathing rate. (½ Mark per blank)

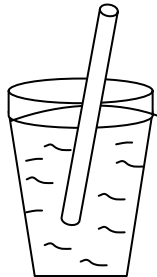
Activity	Heartbeats per minute	Breaths per minute

18b) If MeiHui had been sleeping, what would be her heartbeat rate and her breathing rate?

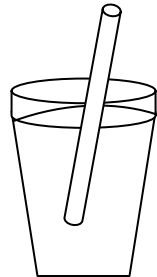
Her heartbeat rate is most likely to be _____ beats per minute.

Her breathing rate is likely to be _____ breaths per minute.

19. Two beakers of clear liquid are set up as shown below. A person blows his breath into Beaker A, and then into Beaker B. The liquid in Beaker A turns chalky, but the liquid in Beaker B remains clear.



Beaker A

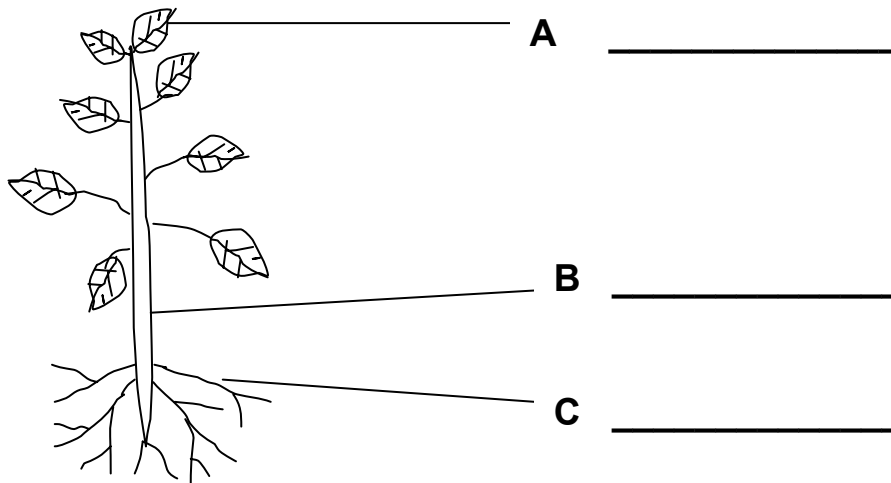


Beaker B

Liquid A is _____ . (1 Mark)

Liquid B is _____ . (1 Mark)

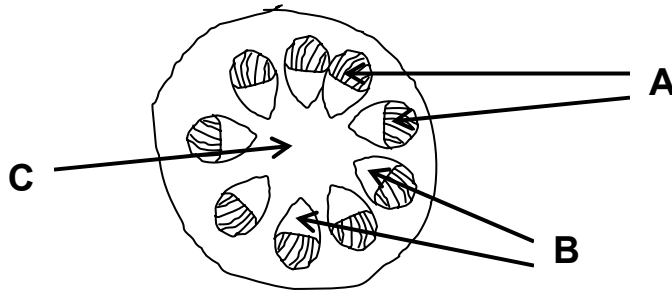
- 20a) Label the parts of the plant: (1 ½ Marks)



20b) Which part of the plant holds the plant upright even when there is a strong wind blowing?

It is the _____. (½ Mark)

21. The diagram shows a cross-section of a stem.



Which letter represents food-carrying tubes? _____
(1 Mark)

Which letter represents the water-carrying tubes? _____
(1 Mark)

22. For each of the statements below, put a tick ✓ in the boxes if it is true and a cross X if it is false. (2 Marks)

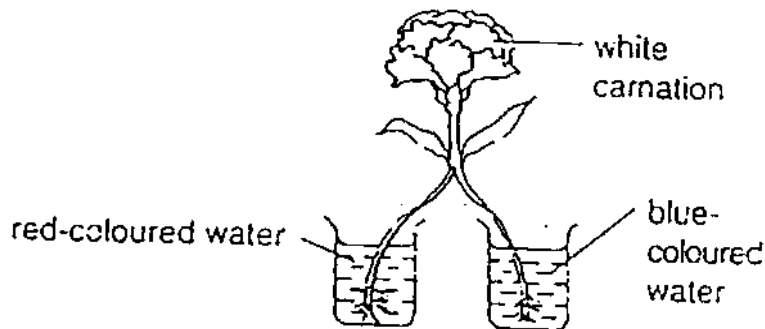
(a) Water and minerals move up the plant through food-carrying tubes.

(b) Sunlight is important to plants because it is used by green leaves to make food for the plants.

(c) There are two different sets of tiny tubes in the stem of a plant.

(d) Excess water escapes through the stomata as water vapour.

23. A white carnation had its stem split and it is placed into two beakers, as shown in the diagram. One beaker has blue-coloured water and the other has red-coloured water.



What do you think will happen to the white carnation after 3 days? Fill in the blanks using the most appropriate word from the helping words provided in the box below.

Red and Blue	Stomata	Stem	Colouring
Tiny tubes	Red tubes	Red	Roots

- a) The carnation will turn _____ . (1 Mark)
- b) This happened because the _____ took in _____ water and this coloured water travelled up the _____ .
The _____ reached the carnation, thus staining it. (2 Marks)