



NAN HUA PRIMARY SCHOOL
CONTINUAL ASSESSMENT 2 2009
PRIMARY FIVE
SCIENCE

Name : _____ ()

Class : Primary 5 / _____

Date : 26 August 2009

Duration : 1 hr 30 min

MARKS	
Sect A:	/ 40
Sect B:	/ 40 ³⁷
Total :	/ 80 ⁷⁷

Parent's Signature: _____

Section A: (20 x 2marks = 40marks)

For each question from 1 to 20, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet.

1. Water fall from the sky as rain. Where does it go to?

- A: It goes into the soil.
- B: It is absorbed by the plants.
- C: It collects in the rivers and seas.
- D: It collects in ponds and reservoirs.

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

2. Lauren wants to grow some orange trees which have sweet flesh, few seeds and thin skin. Study the table below and decide which fruit she should get the seeds from.

Orange	Sweet flesh	Sour flesh	Juicy	Not juicy	Few seeds	Many seeds	Thin skin	Thick skin
A ✓	✓			✓		✓	✓	
B		✓	✓		✓		✓	
C ✓	✓		✓		✓		✓	
D		✓		✓		✓	✓	✓

- (1) Orange A
 (2) Orange B
 (3) Orange C
 (4) Orange D

3. Which of the following statements about the male reproductive cell is/are correct?

- A: It has a tail that helps it to move.
 B: It has a head which contains all the hereditary materials of the child.
 C: It has to leave the male's body to fertilise the female reproductive cell.
 D: It will fertilise the female reproductive cell in the penis.

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

4. Which of the following shows the composition of air correctly?

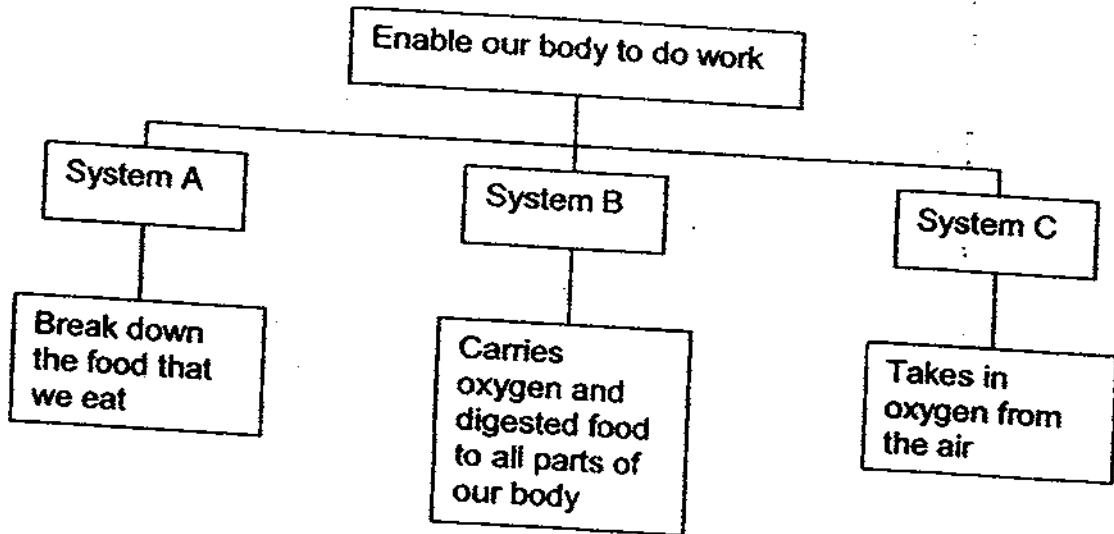
(1) **Composition of Air**
 Nitrogen – 78%
 Oxygen – 21%
 Other gases – 1%

(2) **Composition of Air**
 Oxygen – 78%
 Carbon dioxide – 21%
 Other gases – 1%

(3) **Composition of Air**
 Nitrogen – 78%
 Carbon dioxide – 21%
 Other gases – 1%

(4) **Composition of Air**
 Oxygen – 78%
 Nitrogen – 21%
 Other gases – 1%

5. Study the chart below.



What are the correct headings for the different human systems?

	A	B	C
(1)	Respiratory system	Digestive system	Skeletal system
(2)	Skeletal system	Respiratory system	Circulatory system
(3)	Digestive system	Circulatory system	Respiratory system
(4)	Circulatory system	Respiratory system	Digestive system

6. Some water containing purple dye was poured into the soil of a potted plant. After a few hours, some parts of the flowers and leaves turn purple.

Which of the following statements are correct for the potted plants?

- A: Water is taken in by the plant.
- B: Water is carried through the stem.
- C: Water is transported to the leaves.
- D: Water is transported to the flowers.

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

7. Look at the following sentences which documents Amy's recent trip to the botanic gardens.

A: A bird flew away when Amy got too near to it.

B: Amy yelled out, "Ouch!" when she tripped over a rock and fell.

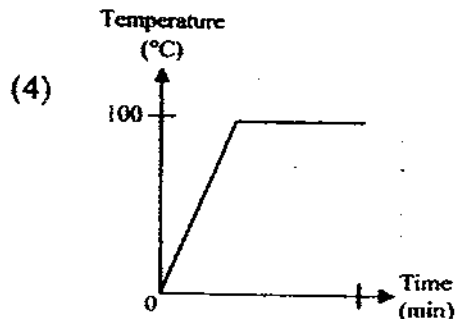
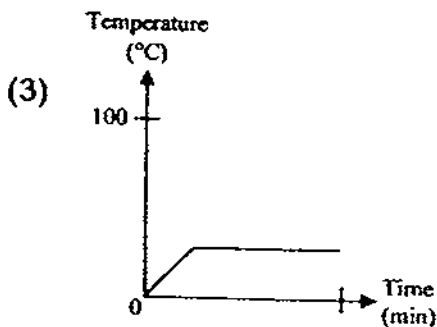
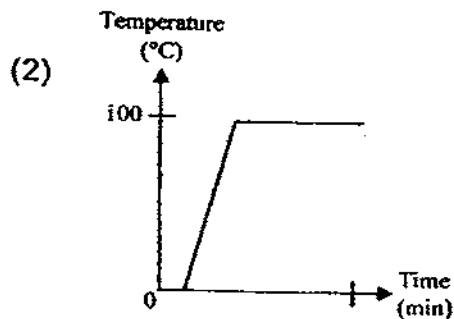
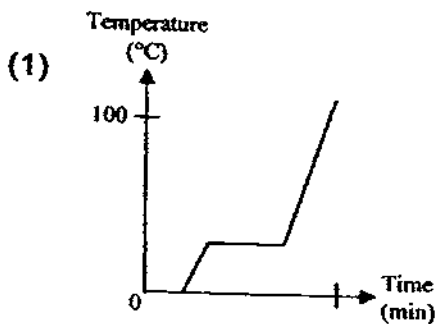
C: The leaves of a mimosa plant folded when Amy's leg brushed against it.

D: Amy threw some fish food into a pond and the fishes started swimming towards the fish food.

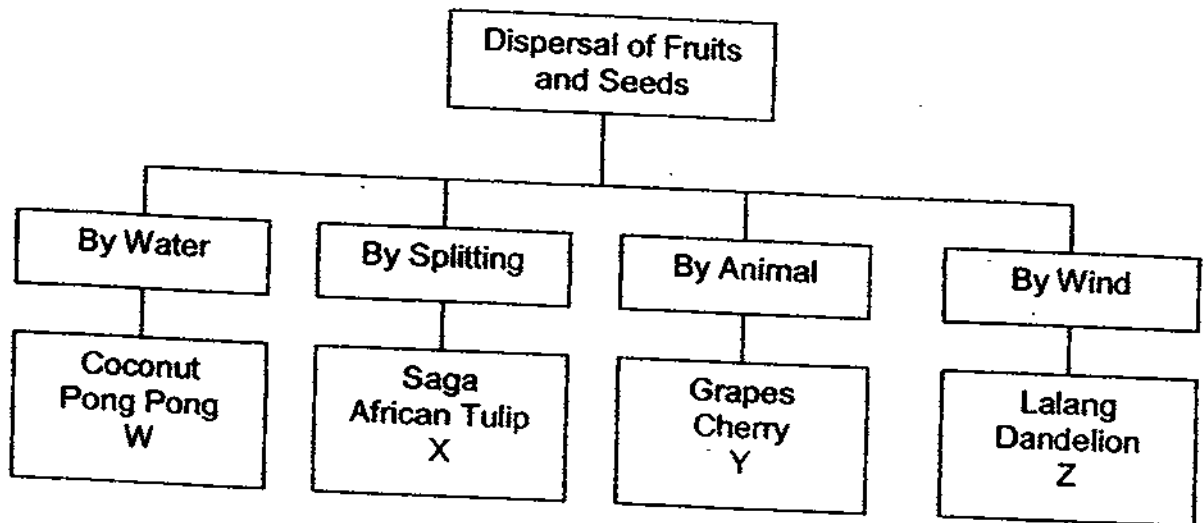
Based on the above observations, which of the above best represents the characteristic of all living things?

- (1) Living things can grow.
- (2) Living things can reproduce
- (3) Living things can respond to changes around them.
- (4) Living things can move from place to place by themselves.

8. Henry put some ice cubes in a pot which is placed above the stove. He then turned on the fire and left the fire on for 20 minutes. He noticed that all the ice cubes had turned into water at the end of the 20 minutes. At the same time, the amount of water had been decreasing steadily. Which of the following graphs would correspond to his observations?



9. Study the classification table below and answer the question.



What information can you get from the table above?

- A: Fruit Y will dry up when ready for dispersal.
 B: Fruit W have fibrous husk to help in dispersal.
 C: Fruit Z will most likely be not attractive to animals.
 D: How fruits and seeds of some non-flowering plants are dispersed.

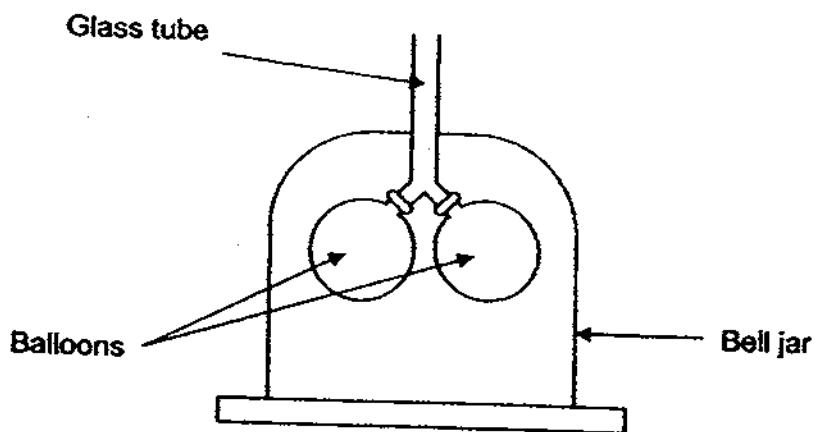
- (1) A and B only
 (2) A and D only
 (3) B and C only
 (4) C and D only

10. Compare a sperm and a pollen grain. Which of the following comparison is/ are true?

	Sperm	Pollen grain
A:	It cannot move by itself	It moves by itself
B:	It is produced in the testis	It is produced in the anther
C:	It does not contain hereditary information	It contains hereditary information

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

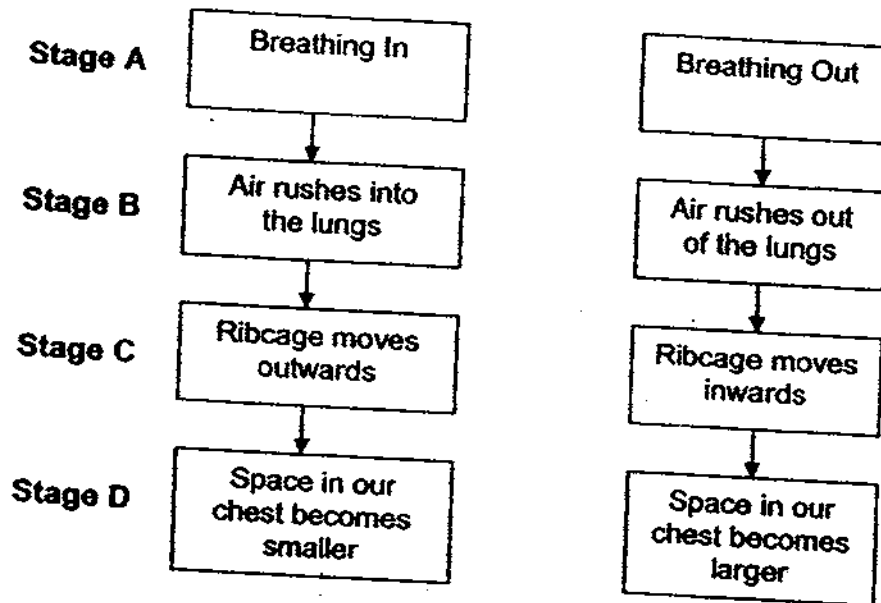
11. The diagram below models a human respiratory system.



Which of the following statement is correct?

- (1) The glass tube represents the lungs and it is where air enters our body.
- (2) The bell jar represents the mouth as it has the same shape as our mouth.
- (3) The balloons represent our lungs as it is flexible and will inflate and deflate just like our lungs.
- (4) The glass tube represents our chest cavity as it determines the amount of air that can enter our lungs.

12. We breathe all the time. Compare the mechanisms involved in breathing in and out in the chart below.



At which stage of the description is the information provided incorrect?

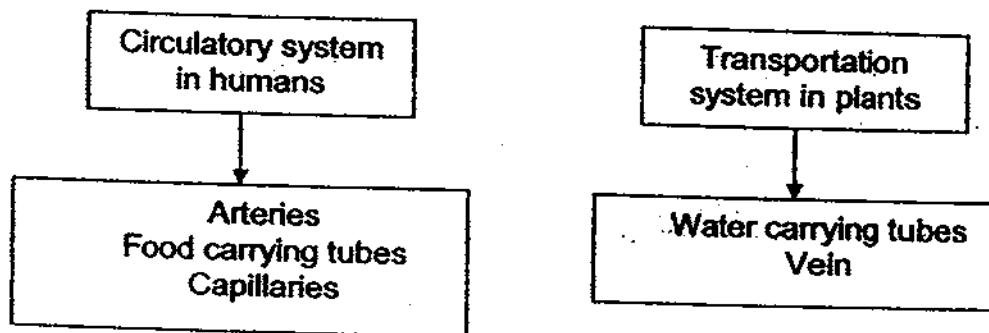
- (1) Stage A
 - (2) Stage B
 - (3) Stage C
 - (4) Stage D
13. Four pupils, Andy, Ben, Claris and Dave made some statements on the process of respiration.
- Andy: "During respiration, energy is being stored."
Ben: "Sugar and water are being released during respiration."
Claris: "Respiration is a process that takes place in both plants and animals."
Dave: "During respiration, energy and carbon dioxide are being released."
- Who have made a correct statement about respiration?
- (1) Andy and Ben
 - (2) Andy and Claris
 - (3) Ben and Claris
 - (4) Claris and Dave

14. Pat is running a marathon. The different body systems will have to work together to meet her increased demand for energy. What are the systems involved?

- A: Skeletal system
- B: Digestive system
- C: Circulatory system
- D: Respiratory system

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

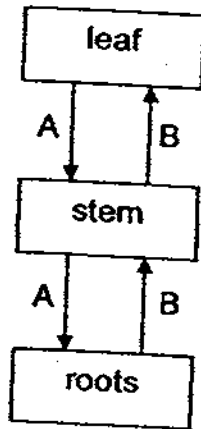
15. Henry drew up a classification chart to compare the circulatory system of humans and the transportation system of plants below.



In his haste, he made some mistakes. Identify the parts which have been classified wrongly.

- (1) Vein and Arteries
- (2) Vein and Food carrying tubes
- (3) Food carrying tubes and Arteries
- (4) Food carrying tubes and Capillaries

16. Study the diagram below.



Which of the following shows correctly what substances A and B are?

	Substance A	Substance B
(1)	oxygen	water
(2)	water	food
(3)	minerals	water
(4)	food	water

17. After jogging for an hour, Mr Tan discovered that his heartbeat had increased.

Which of the following statements best explains the increase in heartbeat?

- A: His rate of respiration has increased.
- B: His heart was beating to the rhythm of his steps.
- C: His body was tired so the heart needed to push his other organs to keep up.
- D: His heart needed to transport the blood that contains more energy to other parts of his body.

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

18. Susan observed two cells under a microscope and made the following observations.

Cell structure	Cell X	Cell Y
Cell wall	Present	Absent
Cytoplasm	Present	Present
Nucleus	Present	Present
Vacuole	Present	Present
Cell membrane	Present	Present
Chloroplast	Present	Absent

What can you infer from the information above?

- (1) Cell X cannot trap light but Cell Y can.
- (2) Cell X can make food but Cell Y cannot.
- (3) Cell X is an animal cell and Cell Y is a plant cell.
- (4) Cell X does not have a regular shape but Cell Y has.

19. Study the classification table below carefully.

Heading A	Heading B
Seal	Snake
Human	Frog
Whale	Fly
Dolphin	Angelfish

What should headings A and B be?

	Heading A	Heading B
(1)	Live in water	Live on land
(2)	Gives birth to young alive	Lays eggs
(3)	Has hair as body covering	Has scales as body covering
(4)	Moves very fast	Moves very slow

20. Jason is a toymaker and he needs to design a new toy that is suitable for young children to play with in the sea and on the beach. Based on the table below, deduce which material is the most suitable for this toy.

Material	Heavy	Light	Sink in water	Float in water
Metal	√		√	
Cloth		√	√	
Glass	√		√	
Rubber		√		√

- (1) Metal
- (2) Cloth
- (3) Glass
- (4) Rubber



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Name : _____ ()

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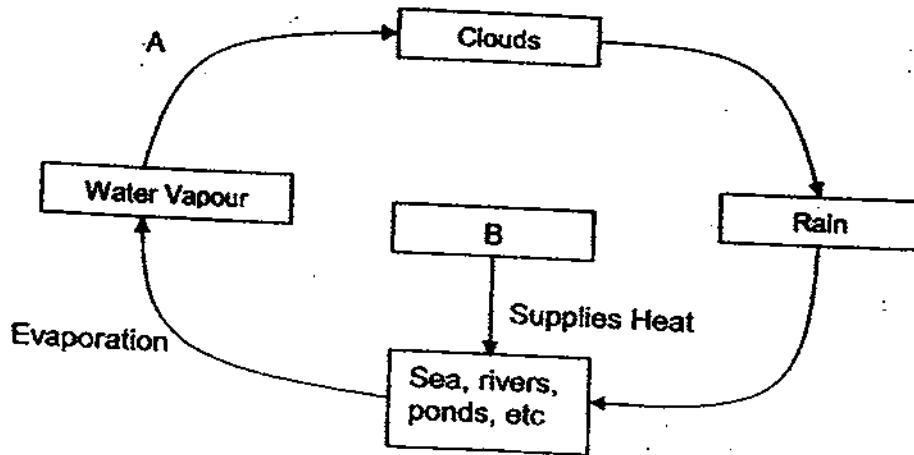
MARKS	
	37 40

Section B: (40marks)

Write your answers to question 21 to 34.

The number of marks available is shown in brackets [] at the end of each question or part question.

21. Study the diagram of the water cycle below.



(a) What do the letters A and B represent respectively? [2]

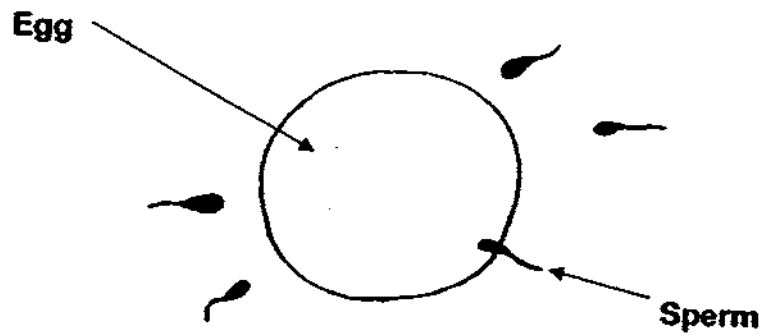
A: _____

B: _____

(b) Explain why the water cycle is important to Man. [1]

Score	3
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22. The diagram below shows the fusion of the egg cell and the sperm cell.



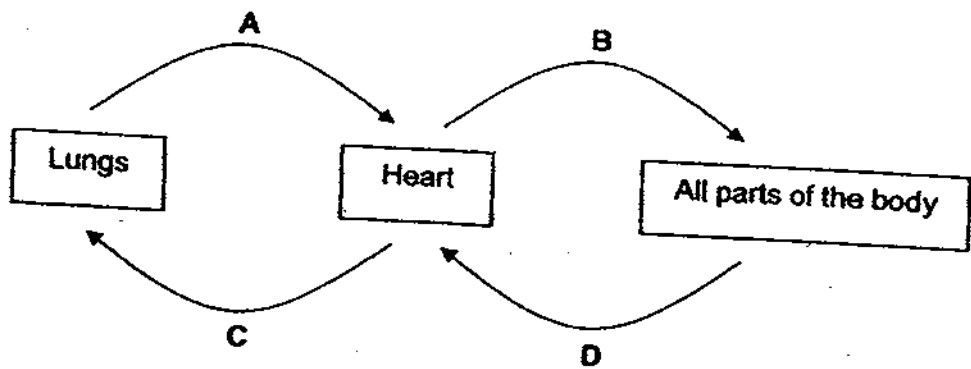
Put a tick (✓) in the box to indicate whether the statement is 'True', 'False' or 'Not Possible to Tell'.

[2]

	Statement	True	False	Not Possible to Tell
(a)	The process shown above takes place inside the body of a female.			
(b)	A few sperms must fuse with the egg before fertilisation can occur.			
(c)	The fertilised egg developed in the stomach of the female.			
(d)	A male young will develop from the above process.			

Score	2
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23. The diagram below represents the Human Circulatory System.

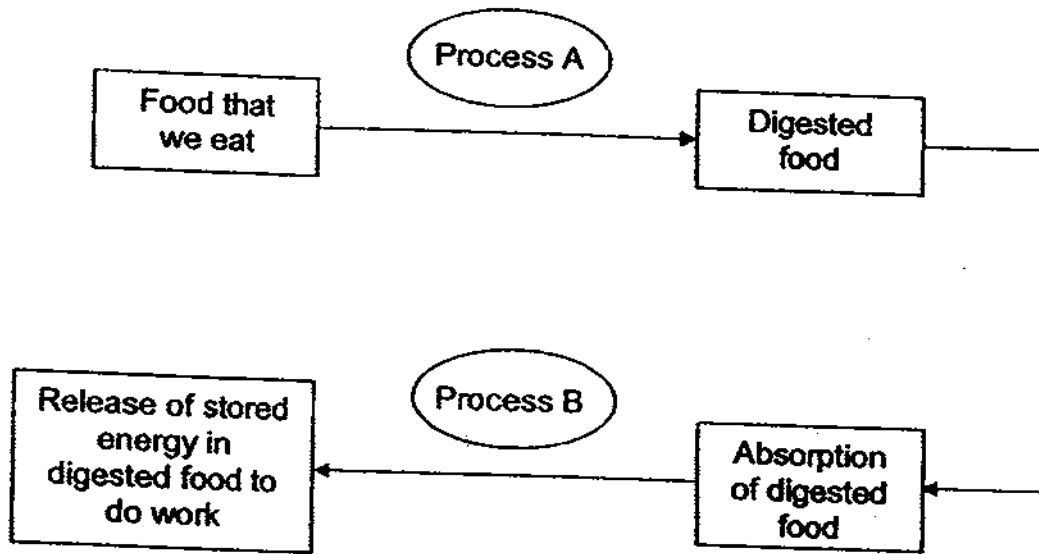


(a) Which letter(s) represents blood rich in oxygen? [1]

(b) Name two substances our blood can carry other than gases. [1]

Score	2
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24. Study the diagram below carefully. The diagram shows 2 processes that take place in our bodies to enable us to make use of the stored energy in the food that we eat.



(a) What are Processes A and B respectively? [1]

Process A: _____

Process B: _____

(b) Name the human system that is involved in Process A and B. [1]

Process A: _____ system

Process B: _____ system

(c) Which process (A or B) takes place in plants as well? [1]

Score	3
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25. Classify the following objects into the correct group. Use each word ONCE only

[3]

tree

light bulb

ants

dried flowers

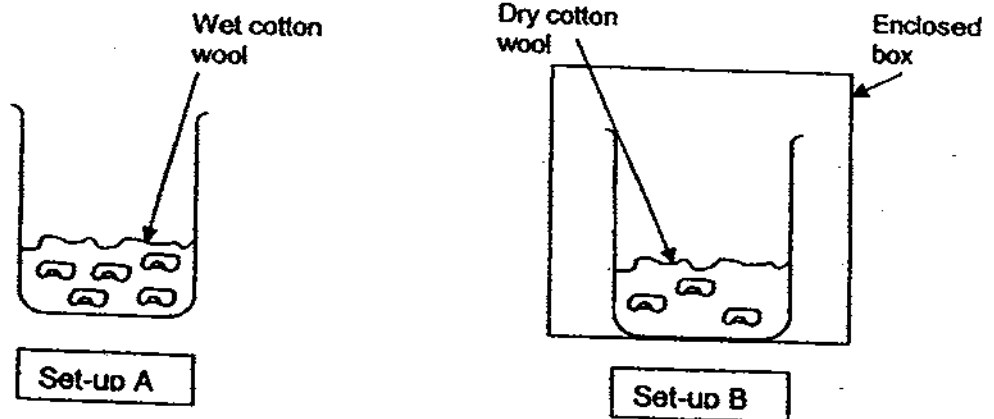
butterfly

water bottle

Living things	Non-living things

Score	3
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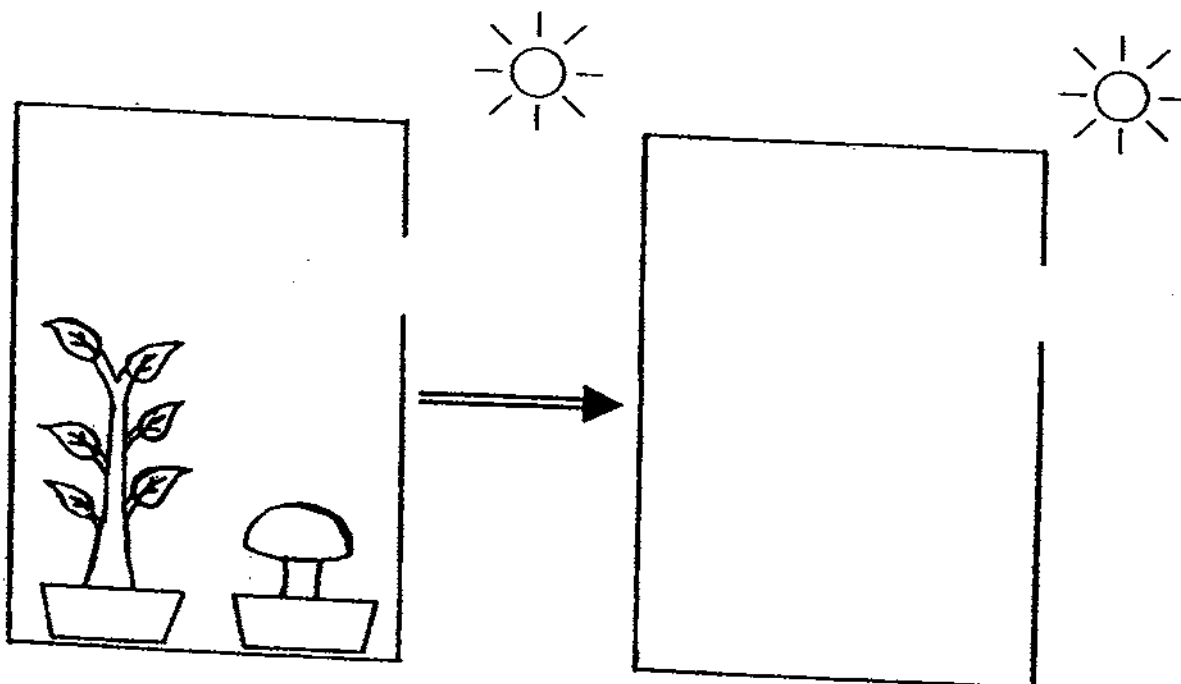
26. Susan wanted to find out if the presence of water affects the germination of seeds. She decided to conduct the following experiment.



(a) Her friend commented that it was not a fair test. Explain clearly what Susan needed to do in order to ensure that the test conducted is a fair one. [1]

Score	1
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After a few weeks, Susan placed the developed bean plant with a mushroom in the set-up shown below for two days and made an observation.

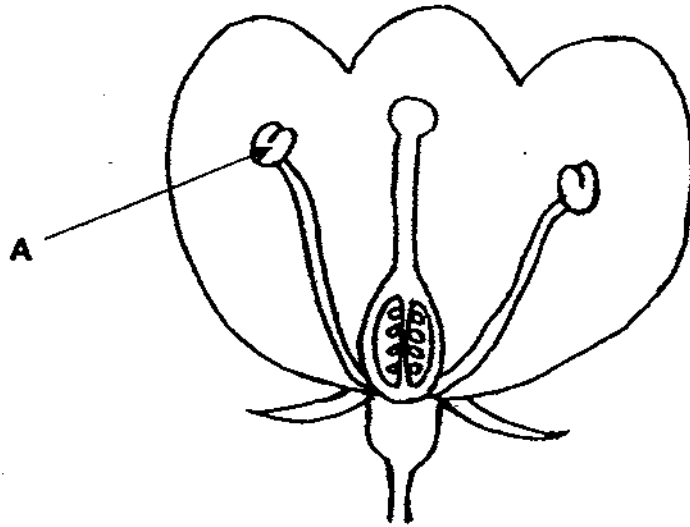


(b) In the diagram above, draw what she will observe in the set-up after two days. [1]

(c) Give a reason for your answer in (b). [2]

Score	3
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27. The diagram below shows a cross-section of a flower.



(a) Name the part marked "A".

[1]

(b) The part marked "A" in the flower above performs similar functions to a part of the human reproductive system. What is the name of the part of the human reproductive system?

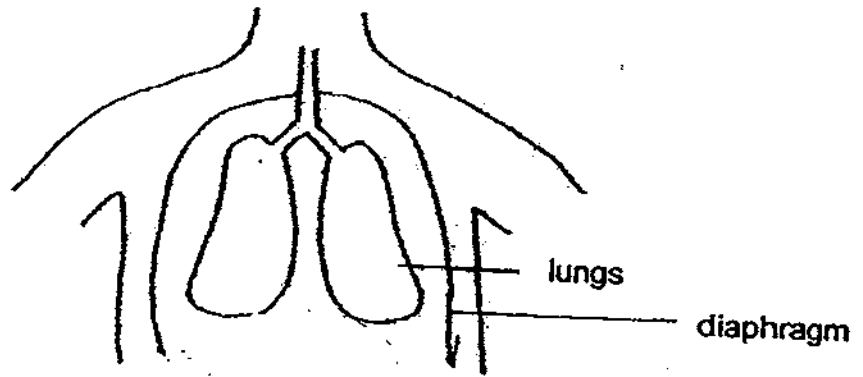
[1]

(c) What function does the part marked "A" as well as the part of the human reproductive system mentioned in your answer in (b) perform?

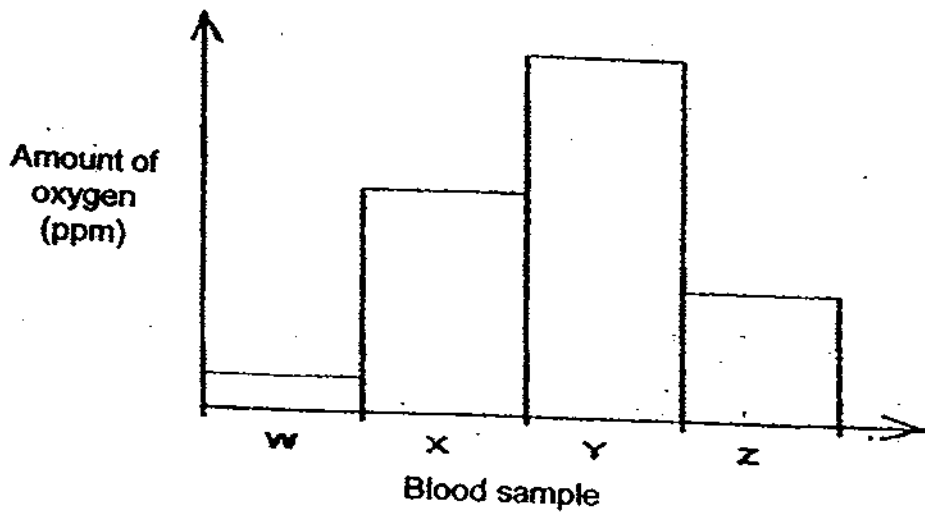
[1]

Score	3
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28. -The diagram below shows an incomplete diaphragm.
 (a) In the diagram, draw to complete the diaphragm to show what the diaphragm looks like when a person exhales completely. [1]



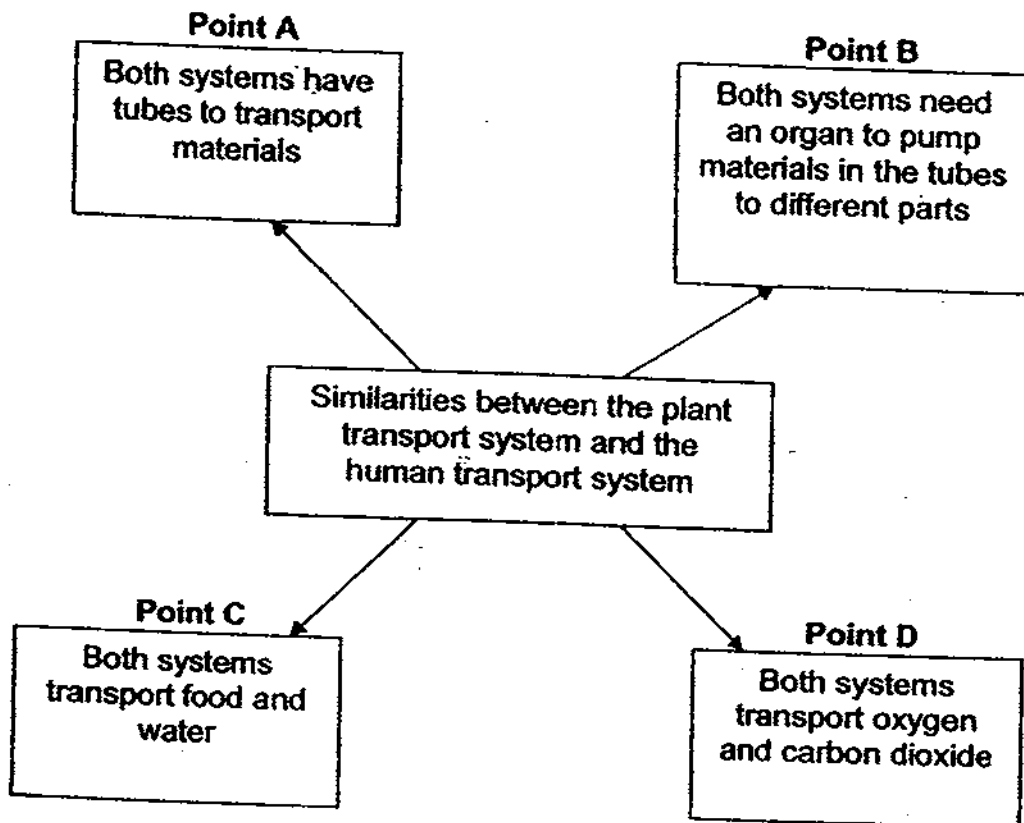
- (b) Four blood samples W, X, Y and Z, were taken from different blood vessels in the body. The following graph shows the amount of oxygen in each of these blood samples.



Which blood sample was most probably taken from the blood vessel carrying blood from the heart to the lungs. Give a reason for your answer. [2]

Score	3
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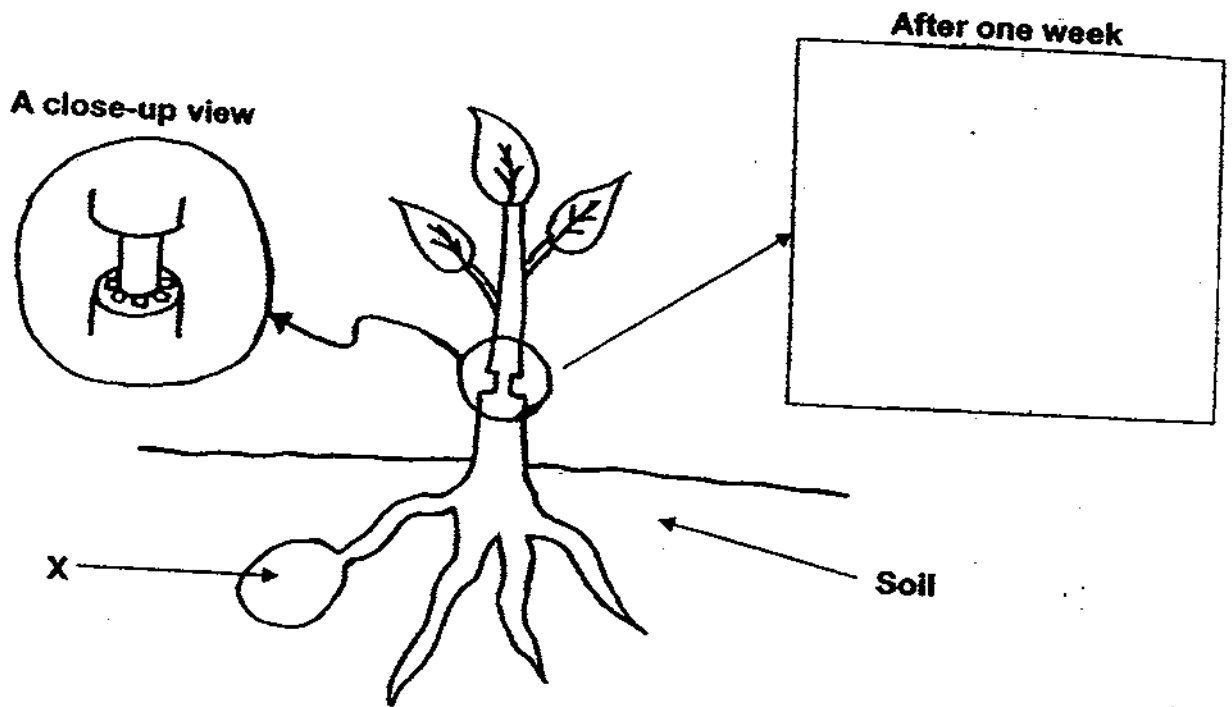
29. Ophelia was studying the way the plant transport system and the human transport system work. She drew up a graphic organiser to help her remember the facts better.



- (a) She made a mistake in the above graphic organiser. Which Point (Point A, B, C or D) was a wrong statement? [1]
-
- (b) Give one difference between the way the plant transport system and the human transport system work. [1]
-
-
-

Score	2
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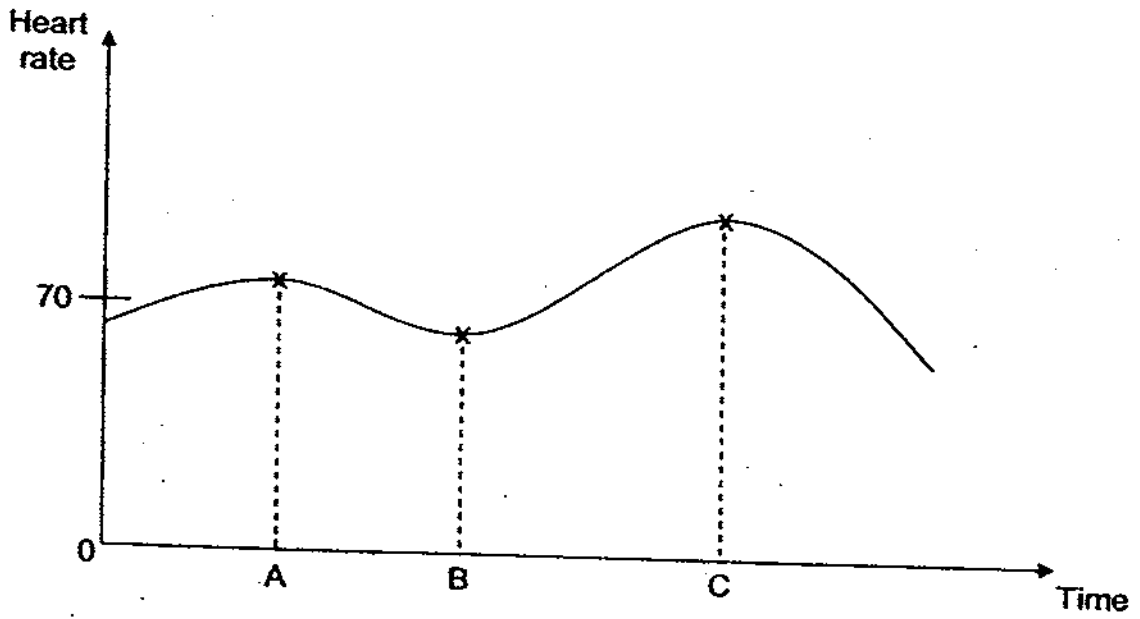
30. The diagram below shows a plant with the outer ring of the stem removed. As a result, the tubes carrying food were removed.



- (a) Name the tubes on the stem that carry [1]
- (i) Food: _____
- (ii) Water: _____
- (b) In the diagram, which part of the plant is X? [1]
- _____
- (c) In the box above, draw how the stem will look like after one week. [1]

Score	3
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31. The graph below shows Linda's heart rate over a few hours. Linda's normal heart rate is 85 beats per minute.



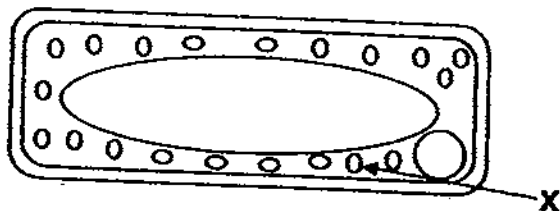
- (a) Linda was exercising vigorously at a certain time. During which time interval (AB or BC) was she exercising? [1]

- (b) Give a reason for your answers in (a) [1]

- (c) How would her breathing rate change when she started to exercise vigorously? [1]

Score	3
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32. Study the diagram of a cell shown below carefully.



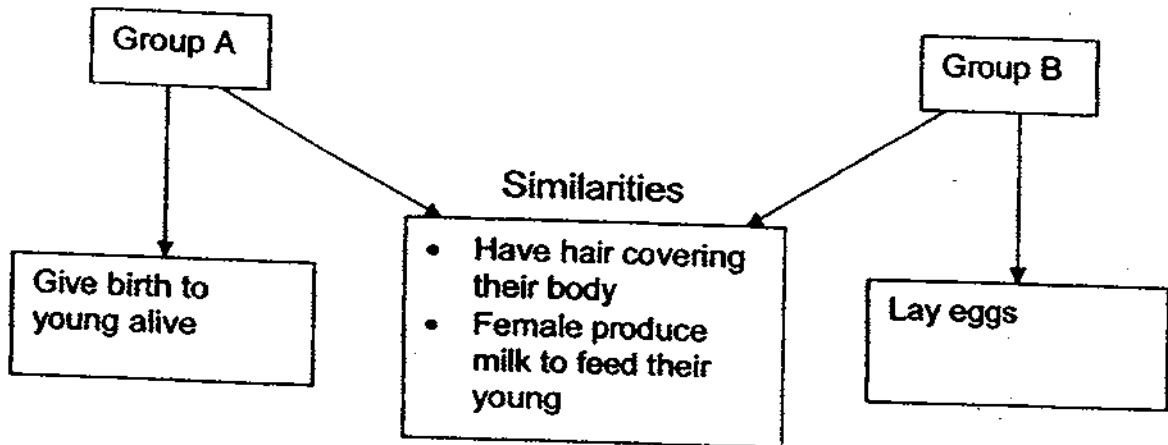
(a) What is the function of the part labelled X? [1]

(b) Peter is sure that the cell is not an animal cell. Give two reasons why he says so. [1]

(c) Peter examined some mushroom cells through a microscope. He would not find the part labelled X. What can you conclude from Peter's observation? [1]

Score	3
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33. Study the graphic organiser below.



(a) Based on the organiser above, classify the animals listed in the box below into Group A and B respectively by writing their names in the table below. [2]

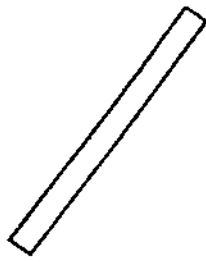
Spiny anteater Seal Whale Leopard

Group A	Group B

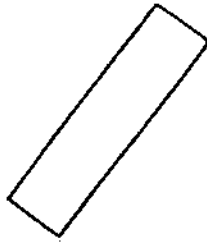
(b) Name another animal that can be classified under Group B. [1]

Score	3
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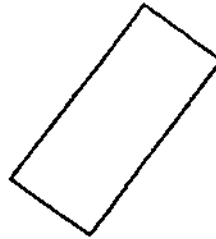
34. Jon had some tubes of different sizes and materials.



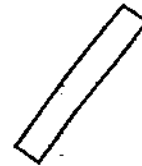
Metal tube



Plastic tube

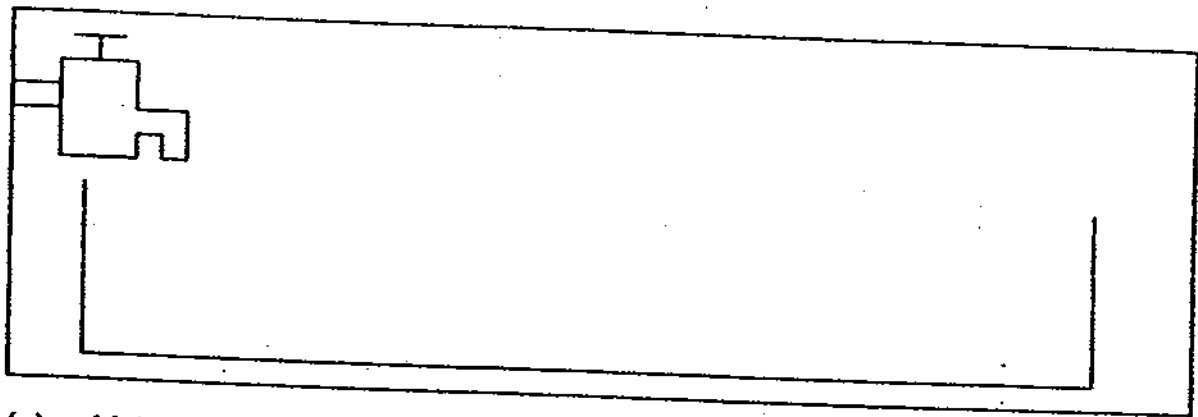


Wooden tube



Ceramic tube

He wanted to find out if the different tubes float or sink in water. He was given the following items.



(a) List the steps he would take to find out which tube would sink or float. [2]

Step 1: _____

Step 2: _____

(b) Jon's Science Teacher said that the test was not fair. What must he do to ensure that it was a fair test? [1]

End of Paper

Score	3
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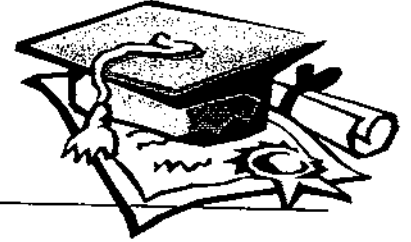


ANSWER SHEET

EXAM PAPER 2009

**SCHOOL : NAN HUA PRIMARY
SUBJECT : PRIMARY 5 SCIENCE**

TERM : CA2



Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17
4	3	2	1	3	4	3	2	3	2	3	4	4	4	2	4	4

Q18	Q19	Q20
2	2	4

21) a) A: condensation B: sun
b) It ensures a continuous supply of fresh water.

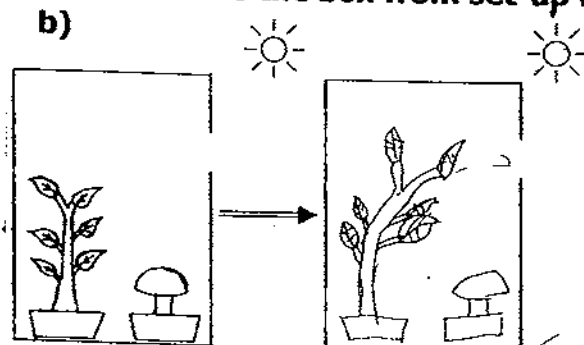
22) a) T b) F c) F d) Not

23) a) Letters A and B.
b) Digested food, waste material, water/ minerals.

24) a) A: digestion B: transportation
b) A: digestive B: circulatory
c) Process B.

25) tree water bottle
butterfly light bulb
ants dried flowers

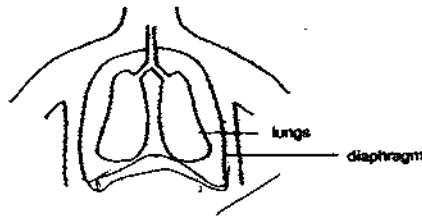
26) a) She needs to have the same number of seeds in each set-up A. She needs to remove the box from set-up B.



26)c) The plant grows towards sunlight it needs light energy to photosynthesize, whereas the mushroom is a fungus which does not make its own food.

- 27)a) Anther
b) Testis.
c) They produce the male reproductive cell.

28)a)



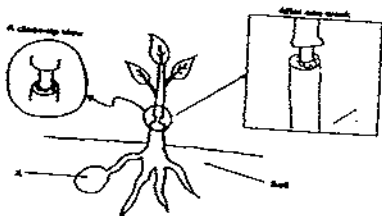
b) W. The oxygen in the blood is used by different parts of the body.

- 29)a) Point B.
b) Plants do not have an organ to pump blood to the different parts while humans have an organ that pumps blood.

30)a) i) Phloem. ii) Xylem.

b) Root.

c)



31)a) B C

b) When Linda is exercising the body needs more energy causing the heart to beat fast to pump more oxygen-rich blood to the other parts of the body to release energy.

c) She would breathe faster than normal.

32)a) It contains chlorophyll which is being used during photosynthesis.

b) An animal cell does not have a cell wall and chloroplasts.

c) A mushroom cannot make food on its own as it does not have chlorophyll.

33)a) Group A: Seal, Whale, Leopard.

Group B: Spiny anteater.

b) Platypus.

34)a)1: Fill the sink with water.

2: Place each material in the water.

b)He must use different materials of the same size.