



NAN HUA PRIMARY SCHOOL  
SEMESTRAL ASSESSMENT 1  
PRIMARY FIVE  
SCIENCE

Name : \_\_\_\_\_ ( )

Class : Primary 5 / \_\_\_\_

Date : \_\_\_\_\_

Duration : 1 hr 45 min

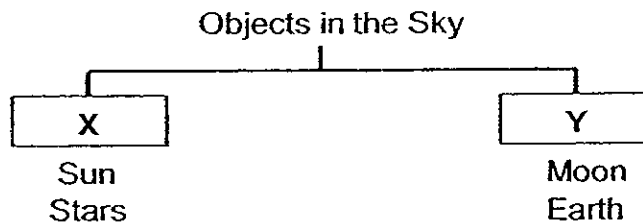
MARKS	
Sect A:	/ 60
Sect B:	/ 40
<b>Total :</b>	<b> / 100</b>

Parent's Signature: \_\_\_\_\_

**Section A: (30 x 2marks = 60marks) -**

For each question from 1 to 30, 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.

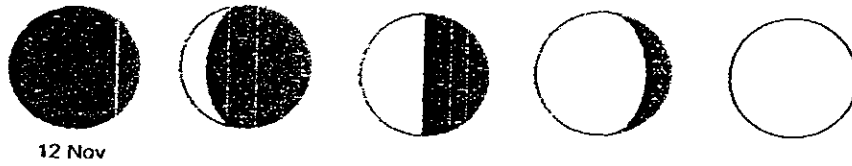
1. Study the classification diagram below carefully.



Which of the following are suitable headings for X and Y?

	X	Y
(1)	Objects that give out light	Objects that do not give out light
(2)	Objects that are able to support life	Objects that are unable to support life
(3)	Objects that revolve and rotate	Objects that do not move
(4)	Objects that go through a regular pattern	Objects that do not go through a regular pattern

2. The different phases of the moon is shown below.



12 Nov

If you were to observe a new moon on the 12<sup>th</sup> of November, on which date would you expect to see a full moon?

- (1) 16<sup>th</sup> November
- (2) 19<sup>th</sup> November
- (3) 21<sup>st</sup> November
- (4) 26<sup>th</sup> November

3. Study the table below.

X	Y
Amoebae	Flea
Yeast	Penguin

What does X and Y represent?

	X	Y
(1)	Single-celled organism	Multi-cellular organism
(2)	Plant	Animal
(3)	Give birth	Lay eggs
(4)	Budding	Binary fission

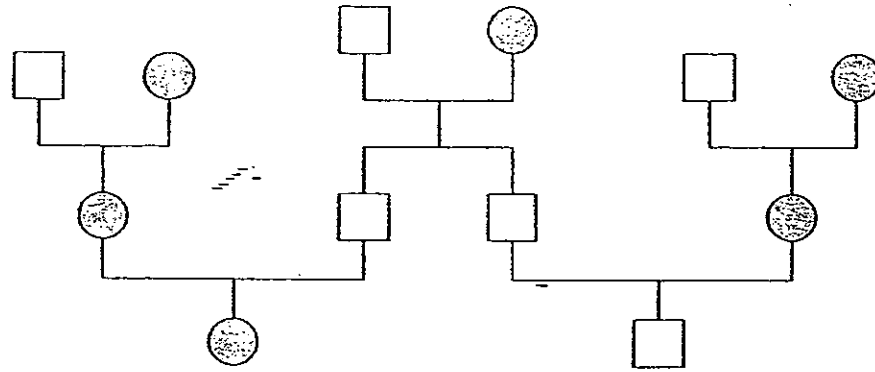
4. Imagine that you were a brilliant scientist and you successfully implanted chloroplast into an amoeba and the chloroplast functions normally in the cell. Which of the statements is likely to be true about the amoebae?

- A The amoebae has become a plant cell.
- B The amoebae can now make its own food.
- C The amoebae will have a regular shape.

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

5. The diagram below shows the tiger's family tree at a certain region in the forest of India.

□ - Male      ● - Female

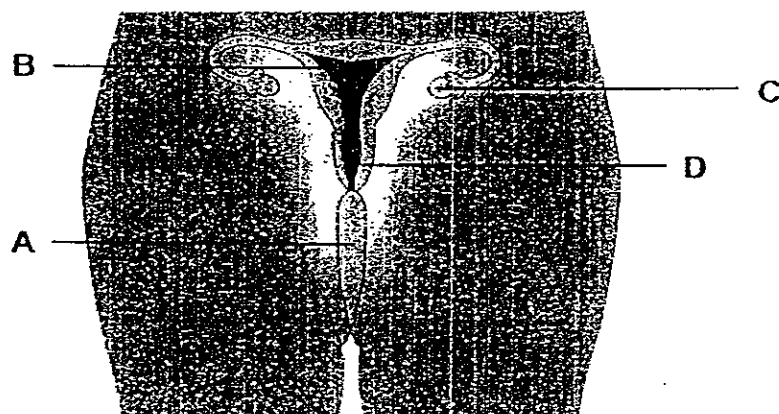


Which statements about the above family tree are **correct**?

- A The tigers are reproducing well.
- B The tigers are not reproducing enough.
- C The tigers are in danger of dying out.
- D The tigers will definitely become extinct.

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

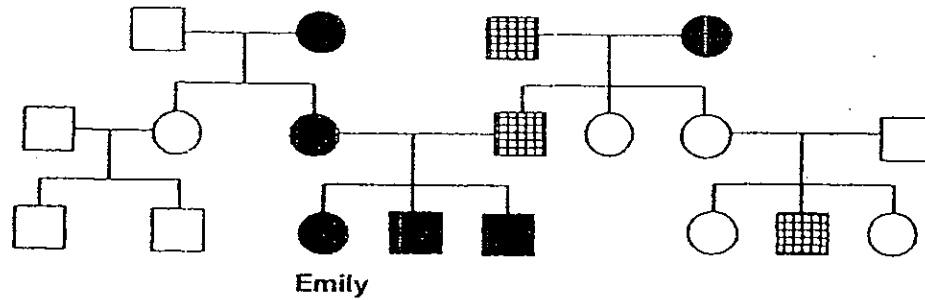
6. The diagram below shows the female reproductive system.



Identify the part which releases the egg.

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

7. Study Emily's family tree below carefully.



- Key:
- Female
  - Female with curly hair
  - Male
  - ▣ Male with freckles
  - Male with curly hair

Which one of the following statements is **not true**?

- (1) Emily has three aunts altogether.
- (2) One of Emily's aunts has no children.
- (3) Emily's maternal grandmother has curly hair.
- (4) Emily's male cousin's freckles were passed on from her grandmother.

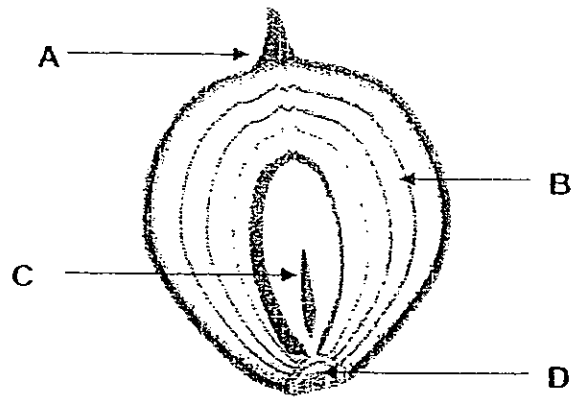
8. Two pots of plants, A and B, were set up to test how overcrowding affects the way plants grow. The diagram below shows Pot A.



Which one of the following shows how Pot B should be set up to make the test a fair one?



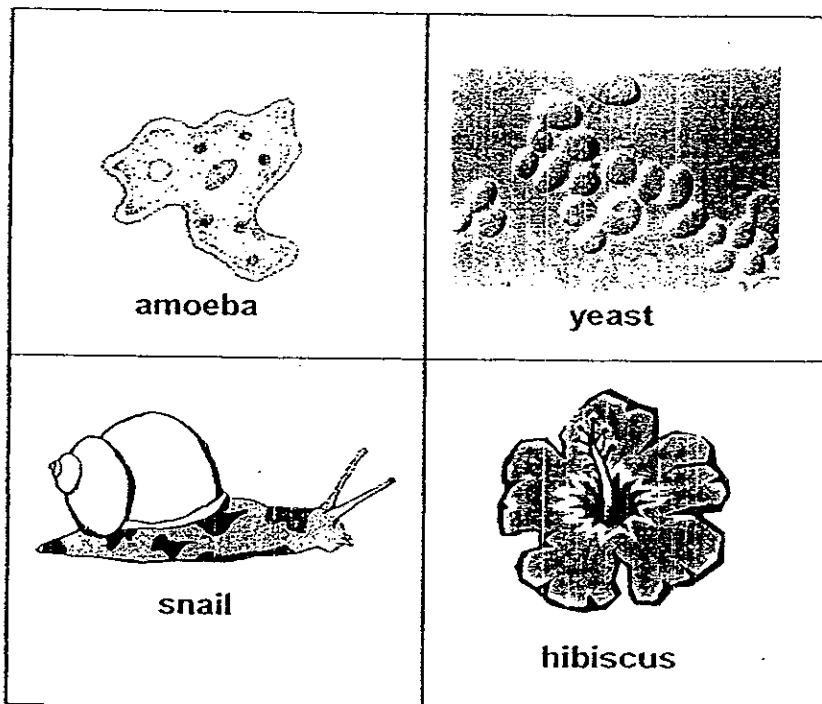
9.



The diagram above shows the cross-section of an onion. Identify the bud.

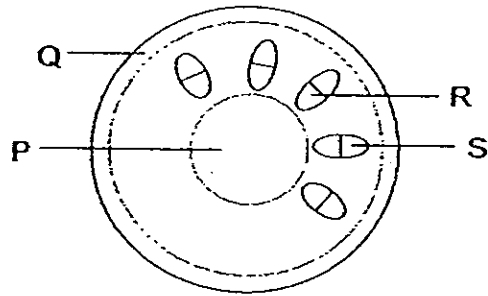
- (1) A
- (2) B
- (3) C
- (4) D

10. Which of the organisms below can reproduce asexually?



- (1) Amoebae only
- (2) amoebae and yeast only
- (3) amoebae, yeast and snail only
- (4) amoebae, yeast, snail and hibiscus

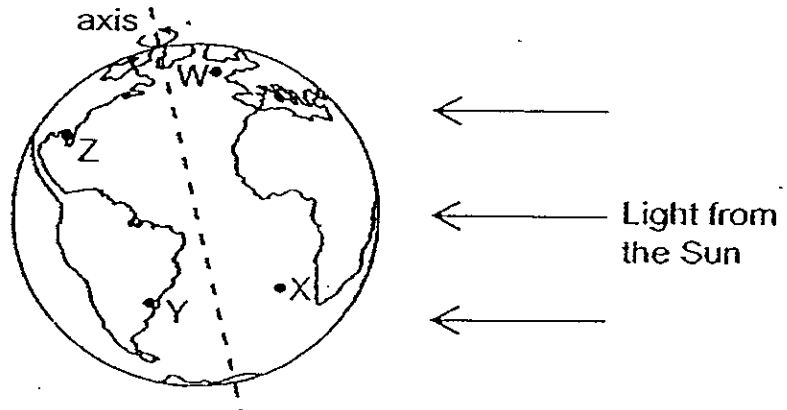
11.



The diagram above shows the cross-section of a sunflower stem. Identify the part that helps the plant transport water from the roots to the leaves.

- (1) P
- (2) Q
- (3) R
- (4) S

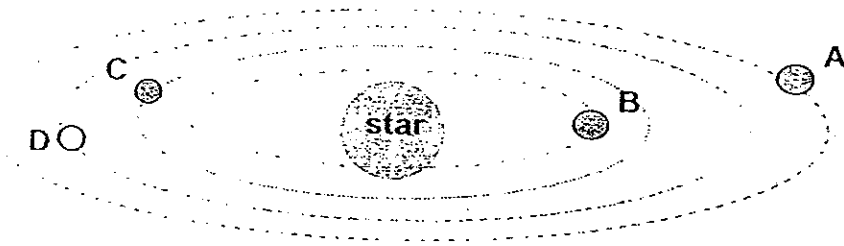
12. The diagram below shows a picture of the Earth. John is a scientist who is studying some polar bears and the Sun has just risen over the horizon.



Identify the place that John is at right now.

- (1) W
- (2) X
- (3) Y
- (4) Z

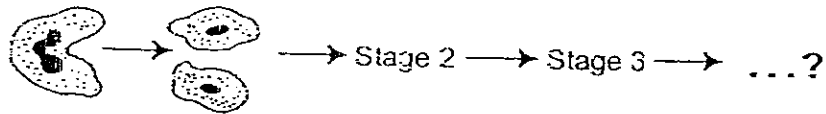
13. The diagram below shows some planets revolving around a star.



If planets A, B, C and D orbit round the star at the same speed, which one of them will take the longest time to complete one orbit?

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

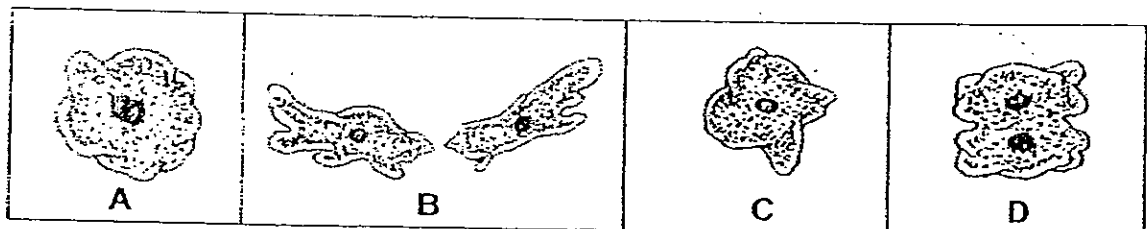
14. The diagram below shows a cell going through stages of division.



At which stage will there be 32 daughter cells?

- (1) Stage 4
- (2) Stage 5
- (3) Stage 6
- (4) Stage 7

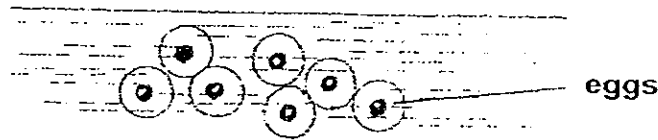
15. The diagram below shows the stages in the reproduction of the amoeba.



Arrange its stages of reproduction in the correct sequence.

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

16.



Frogs and toads lay many eggs each time.  
Which of the following are possible reasons?

- A To ensure the continuity of their kind
- B To ensure their species cover the Earth
- C Some of their young would be eaten.
- D To scare away predators

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

17. Study the table below carefully.  
Which of the following is incorrect?

	Animal	Lay eggs	Give birth	External Fertilisation	Internal Fertilisation
(1)	Penguin	✓		✓	
(2)	Horse		✓		✓
(3)	Salmon	✓		✓	
(4)	Crocodile	✓			✓

18. Desmond noticed that all his classmates were different. Some had curly hair while others had straight hair. Some had dark brown eyes while others had black eyes. Some were tall while others were short.  
We are all different because everyone inherits \_\_\_\_\_.

- A traits from our fathers
- B traits from our mothers
- C traits from our grandfathers
- D traits from our friends

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

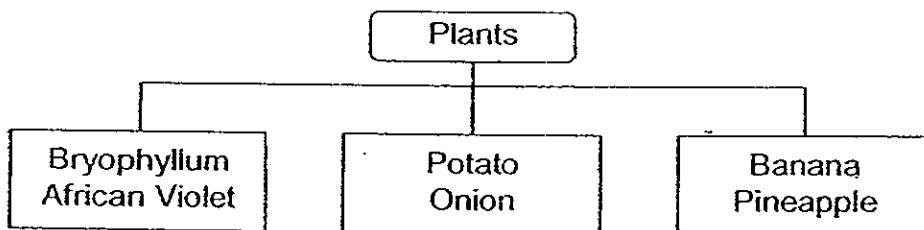


19. Tom prepared 3 pots and planted 3 lady's finger seeds into each pot. Each pot was exposed to different conditions as shown in the table below.

*Which of the following statements is correct?*

Pot	Conditions			
	Water	Oxygen	Light	Temperature ( $^{\circ}\text{C}$ )
A	Yes	Yes	No	30
B	No	Yes	Yes	29
C	Yes	No	Yes	5

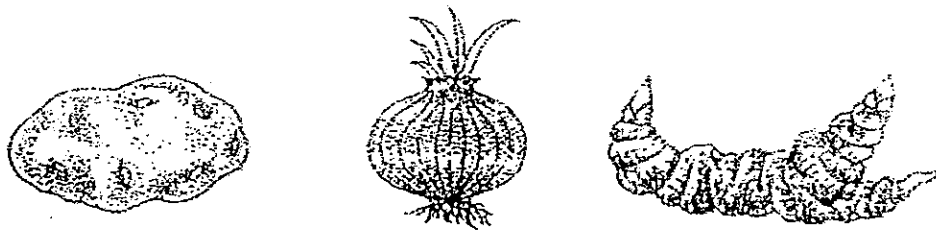
- (1) Only the seeds in pot A will germinate  
 (2) Only the seeds in pot B will germinate  
 (3) Only the seeds in pot C will germinate  
 (4) All the seeds in all the pots will germinate
20. Study the classification chart below carefully.



The plants in the chart are classified according to the \_\_\_\_\_.

- (1) shapes of their leaves  
 (2) types of fruits produced  
 (3) way the plants reproduce  
 (4) way the seeds are dispersed
21. Devi wanted to grow a new banana plant in her own garden. Which is the best method she should use?
- leaf*
- (1) Cut a banana ~~leaf~~ and plant it in her garden  
 (2) Pluck a banana flower and plant it in her garden  
 (3) Bury the skin of the banana fruit in the ground and water it.  
 (4) Remove a shoot from the side of an adult banana plant and plant it in her garden

22.



The diagram above shows the parts of different plants.  
In what ways are they similar?

- A They are fruits.
- B They are underground stems.
- C They help the plants reproduce
- D They make food for the plant.

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

23. When we engage ourselves in the vigorous activities below, we always breathe faster and our heart will beat quickly.



Which statements below explain why our heart beats so quickly?

- A Our muscles need more oxygen.
- B Our heart pumps faster to increase blood circulation.
- C The blood needs to transport more carbon dioxide back to the lungs.

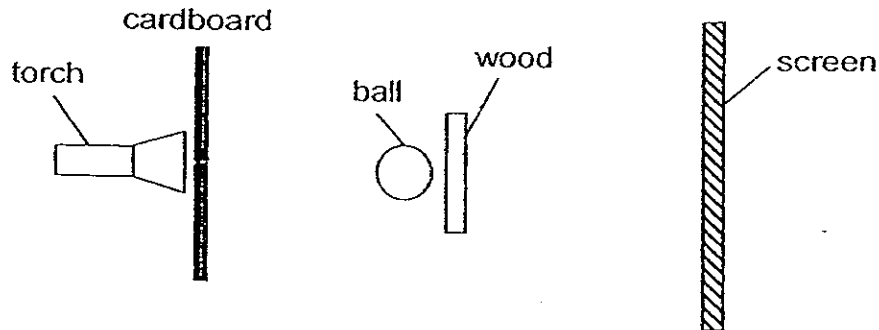
- (1) A only
- (2) A and B only
- (3) A and C only
- (4) A, B and C

24. Bob compared the human and plant transport systems. He put the information in a table as shown below.


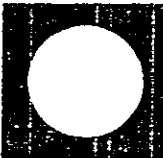
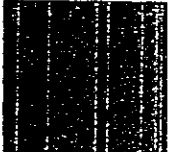

Human Transport System	Plant Transport System
The heart pumps the blood through the blood vessels	No organ is used to pump the materials through the tubes
Made up of the heart, blood and blood vessels	?

Which is the appropriate answer to be placed in the blank?

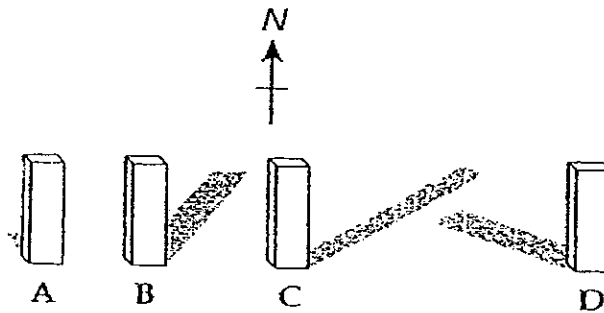
- (1) Made up of oxygen-carrying tubes only
  - (2) Made up of food-carrying tubes only
  - (3) Made up of water-carrying tubes only
  - (4) Made up of food-carrying tubes and water-carrying tubes
25. The diagram below shows a torch shining on a rubber ball and a square piece of wood. The diameter of the ball is 5cm and the length of each side of the square is 8cm. The ball is placed at the centre and in front of the square piece of wood.



How will the shadow look like?

- (1) 
- (2) 
- (3) 
- (4) 

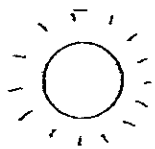
26. The diagram below shows the positions of the shadow cast by a stick at different times during the day.



Study the diagram above carefully and match the shadow to the correct time.

	9 a.m.	12 noon	2 p.m.	5 p.m.
(1)	C	B	A	D
(2)	A	D	B	C
(3)	D	A	B	C
(4)	A	D	C	B

27. Study the diagrams below carefully.



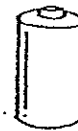
A  
Sun



B  
Lighted  
lamp



C  
Moon

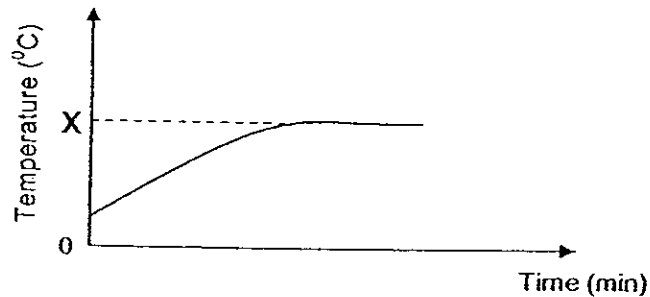


D  
Battery

Which of the objects above is/are source(s) of light?

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

28. Andy took out a bottle of milk from the refrigerator, placed it on the kitchen table and recorded its temperature over an hour. With the temperature reading he had, he drew the graph below.



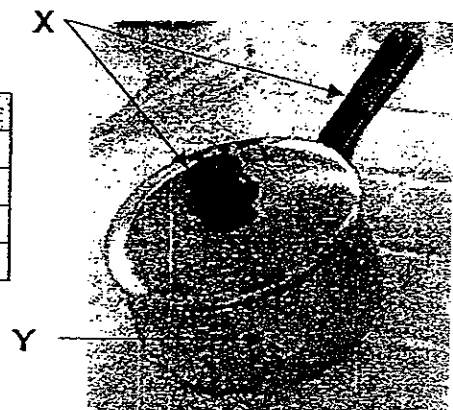
Which statement below about temperature X is correct?

1. ~~a.~~ It is the room temperature.  
 2. ~~b.~~ It is the melting point of the milk.  
 3. ~~c.~~ It is the boiling point of the milk.  
 4. ~~d.~~ It is the evaporating point of the milk.
29. After a game of basketball, Philip bought himself a bottle of soft drink. However, he found it hard to remove a screw cap from the bottle which was very tight.  
 What should he do to make it easier to remove the cap?
1. ~~e.~~ Immerse the whole bottle in cold water.  
 2. ~~f.~~ Dip the cap of the bottle in cold water for a short while.  
 3. ~~g.~~ Immerse the whole bottle in hot water.  
 4. ~~h.~~ Dip the cap of the bottle in hot water for a short while.

30. The diagram at the side shows a pot.

What should the part X and Y be made of?

	X	Y
1. <del>i.</del>	Plastic	Steel
2. <del>j.</del>	Wood	Plastic
3. <del>k.</del>	Plastic	Wood
4. <del>l.</del>	Copper	Steel





NAN HUA PRIMARY SCHOOL  
SEMESTRAL ASSESSMENT 1  
PRIMARY FIVE  
SCIENCE

MARKS	
40	

Name : \_\_\_\_\_ ( . )

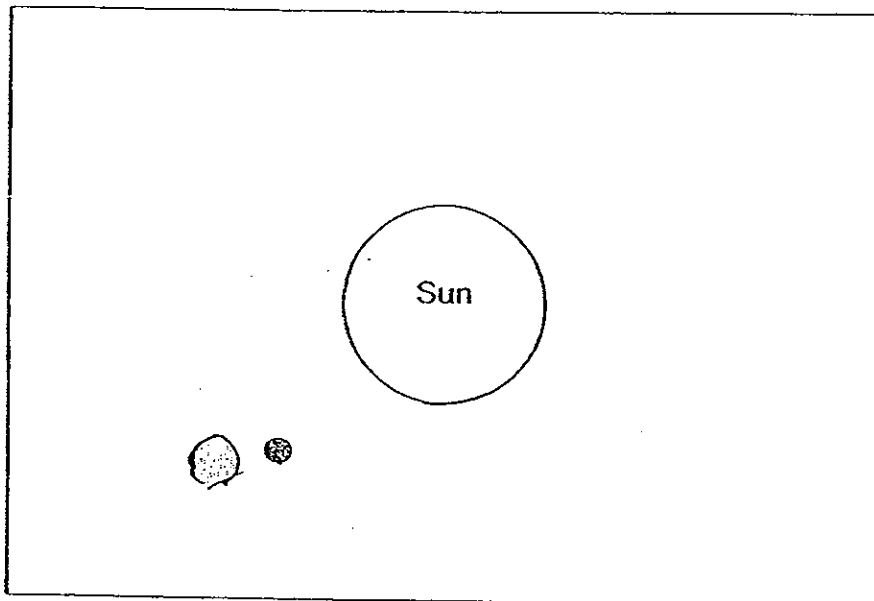
Class : Primary 5 / \_\_\_\_\_

**Section B: (40marks)**

Write your answers to question 31 to 46.

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

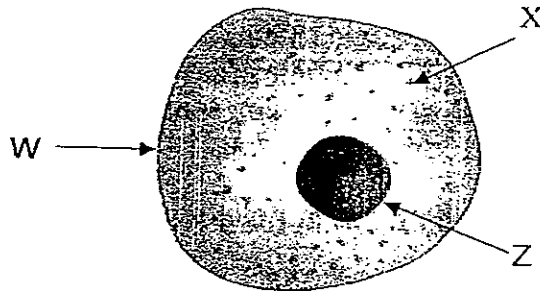
31. The diagram below shows the Sun, Earth and Moon.  
Draw the paths taken by the **Earth** and the **Moon** in space. [2]  
\*Use the key provided as guide.



Earth	
Moon	
Path taken by the Earth	
Path taken by the Moon	

Score	2
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32. The diagram below shows a picture of a cell.



(a) Is this an animal or plant cell? [1]

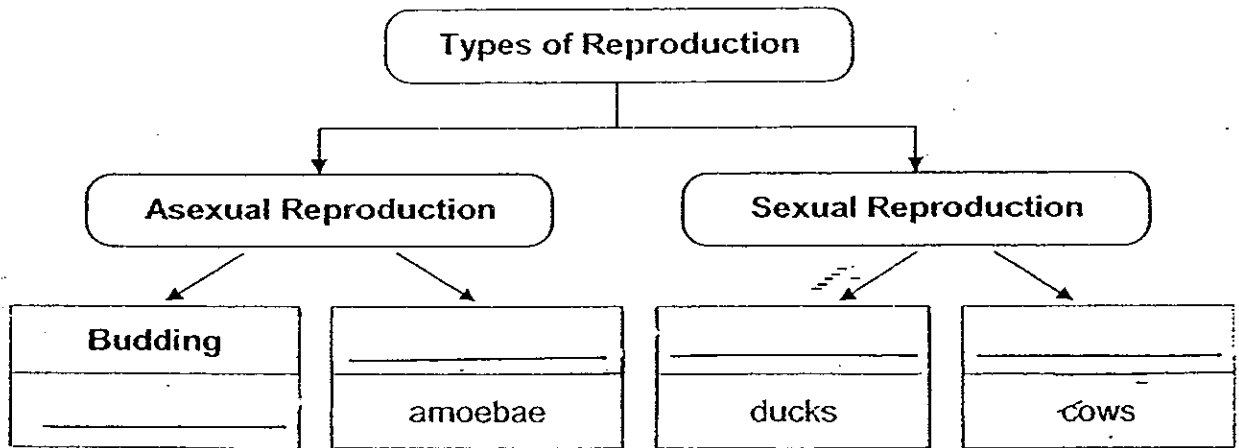
\_\_\_\_\_

(b) Complete the table below. [3]

Part	Name	Function
	Cell membrane	Controls the movement of materials in and out of the cell.
Z		
		A jelly-like substance that contains <i>cell</i> many cell parts and where new substances are formed.

Score	4
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33. Below is an incomplete classification chart about the types of reproduction.



(a) Complete the classification chart by filling in all the blanks. [2]

(b) What will eventually happen if a certain type of animal stops reproducing?  
[1]

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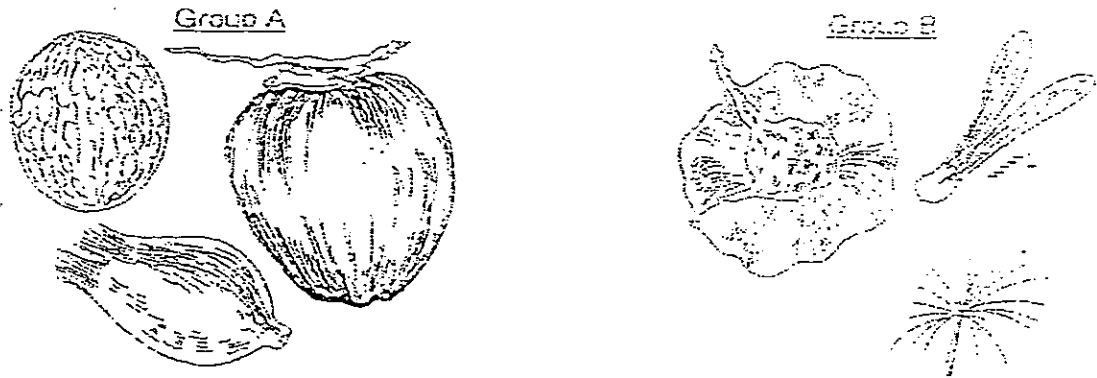


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Score	3
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34. A few groups of pupils went on a nature trip to different places and collected some fruits and seeds. They grouped them as shown in the diagram below. Study them carefully.



(a) How have the fruits been grouped? [1]

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(b) How are the fruits in Group A dispersed? [1]

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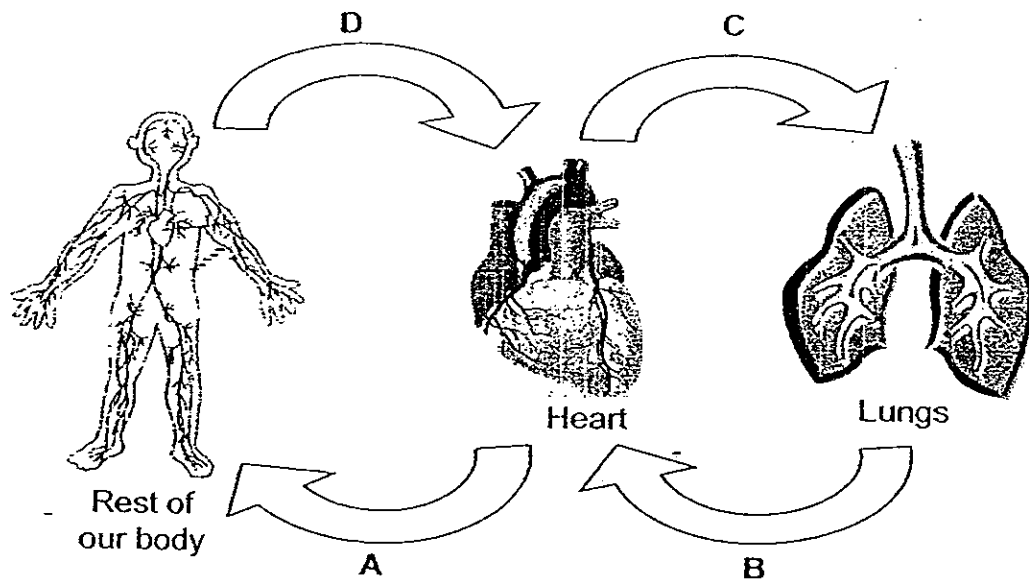
(c) Why is there a need for plants to disperse their seeds? [1]

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Score	3
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35. The diagram below illustrates how blood is circulated in our body.



- (a) Fill in the table below with A, B, C and D to show where the blood contains more or less oxygen. [1]

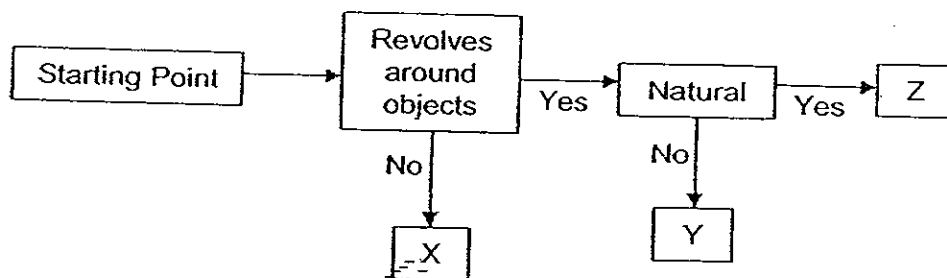
Less oxygen at	More oxygen at

- (b) Name the blood vessels that carry the oxygen rich blood. [1]

\_\_\_\_\_

Score	2
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36. Study the flow chart about the Solar System below.



(a) Which object (X, Y or Z) in the chart above represents a man-made satellite and which represents a natural satellite? [1]

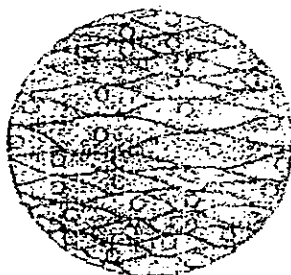
	Object
Man-made Satellite	
Natural Satellite	

(b) Give 2 reason why man put satellites into space? [1]

- (i) \_\_\_\_\_
- (ii) \_\_\_\_\_

Score	2
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37. Sheila learnt from her science class that some cell types can be cultured (grown) in plastic containers. She saw a magnified diagram of some of these cells as shown below.



- (a) What instrument did Sheila use to magnify the view of these cells? [1]

\_\_\_\_\_

- (b) Sheila thinks that these cells are possibly plant cells because they have a regular shape.

List 2 cell parts which Sheila should look out for to help her confirm that they are indeed plant cells. [1]

(i) \_\_\_\_\_

(ii) \_\_\_\_\_

Score	2
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38. The picture below shows Jean and her mother.



Both of them are made up of millions of cells.

Why do the cells in their body divide? [2]

(i)

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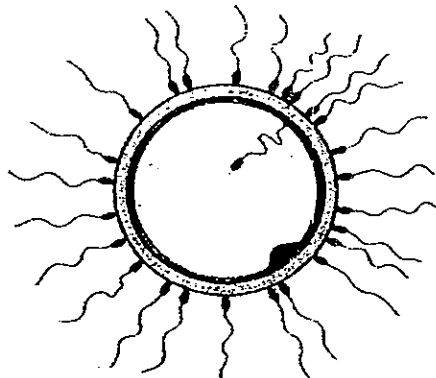
(ii)

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Score	
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39. The diagram below shows fertilization taking place.



(a) For most animals, life starts from a fertilised egg.  
What is a fertilised egg?

[1]

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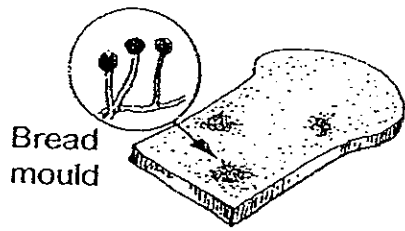
(b) Give a reason why you and your siblings look very much alike. [1]

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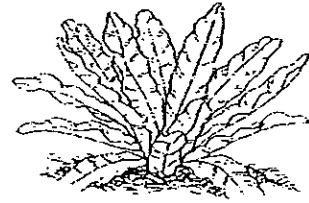
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Score	2
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40.



Bread  
mould



~~Birdnest fern~~  
Bird's nest fern

The diagrams above show a fern and bread mould.

- (a) Write down one similarity between the fern plant and the bread mould. [1]  
(Do not compare their size, shape and colour)

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- (b) Write down one difference between the fern plant and the bread mould. [1]  
(Do not compare their size, shape and colour)

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41. The diagrams below show the bamboo plant and the bird's nest fern. The bamboo plant reproduces from suckers whereas the bird's nest fern reproduces from spores.



Bamboo plant



Bird's nest fern

- (a) Which plant, the Bamboo plant or bird's nest fern, has a method of reproduction that helps to prevent overcrowding? [1]

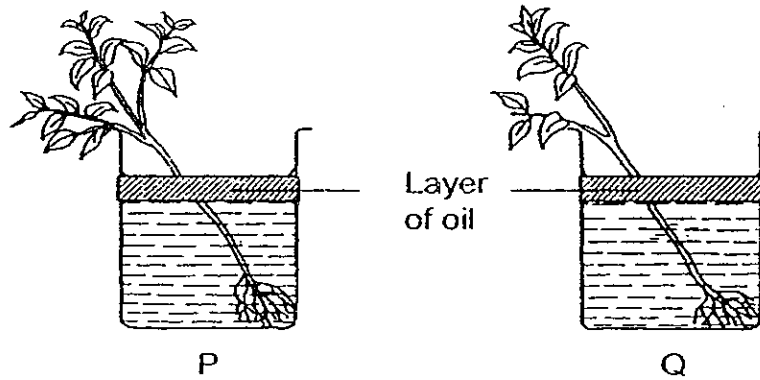
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- (b) Explain your your answer to (a). [1]

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42. Jenny put two healthy plants of the same kind in 2 beakers containing the same amount of water as shown below. She poured a layer of oil over the water in the beakers. Both beakers were then left in a classroom for 3 days.



Study the two setups carefully and answer the questions below.

- (a) What difference do you observe between the two setups? [1]

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- (b) Jenny recorded the amount of water left in each of the beakers after the 3 days. What was she trying to find out in this experiment? [1]

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- (c) What was the purpose of adding a layer of oil over the water? [1]

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43. The Sun is our most important source of energy. Without it, there would be no life on Earth.

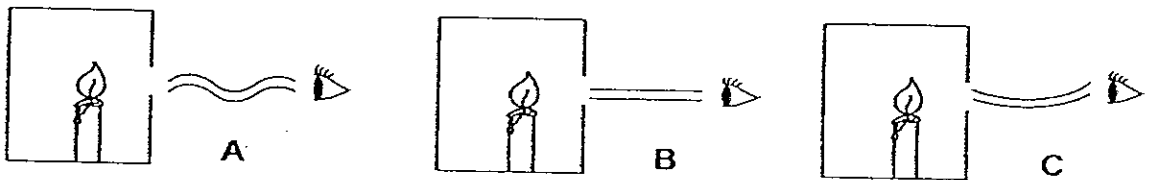
(a) Name the two major types of energy our Sun supplies to us. [1]

\_\_\_\_\_

(b) Describe how plants and animals use the energy from the Sun for food. [2]

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

44. The diagram below shows a lighted candle in a large box.



A student did an experiment with 3 tubes, A, B & C. He placed the tubes, one at a time, at the small hole of the box and looked through them.

(a) In the boxes below, indicate by putting a tick (✓) next to the tube through which the candle flame can be seen. [1]

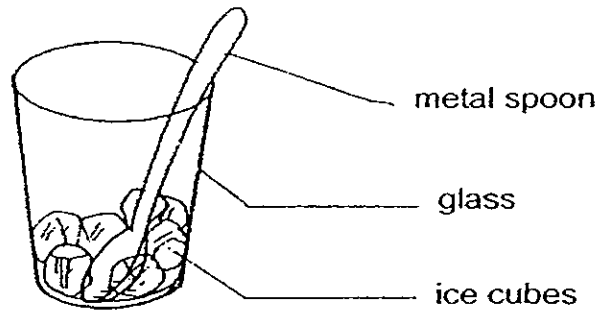
Tube A	<input type="checkbox"/>
Tube B	<input type="checkbox"/>
Tube C	<input type="checkbox"/>

(b) From this experiment, what can you infer about the property of light? [1]

\_\_\_\_\_

Score	<input type="checkbox"/>
	5

45. The diagram below shows a glass with some ice and a metal spoon in it.



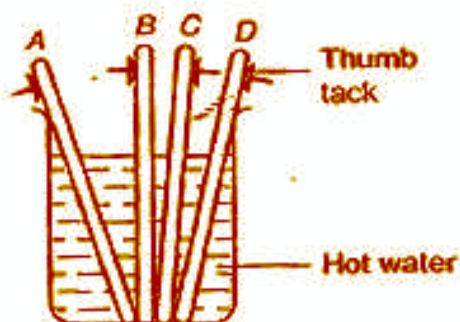
In a short while, the ice cubes will start to melt.

Fill in the boxes in the table below to indicate which objects "gained heat" or "lost heat". [3]

Object	"Gained Heat" or "Lost Heat"
Glass	
Metal Spoon	
Ice cubes	

Score	3
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46. Debbie set up an experiment as shown below. She had stuck thumbtacks to the ends of each stick with just enough wax to hold them onto the sticks. The sticks she used were each made of different materials – wood, glass, copper and aluminium. She then placed the sticks in a beaker of hot water.



- (a) The thumbtacks started to fall off one by one. Explain why the thumbtacks fell off each stick. [1]

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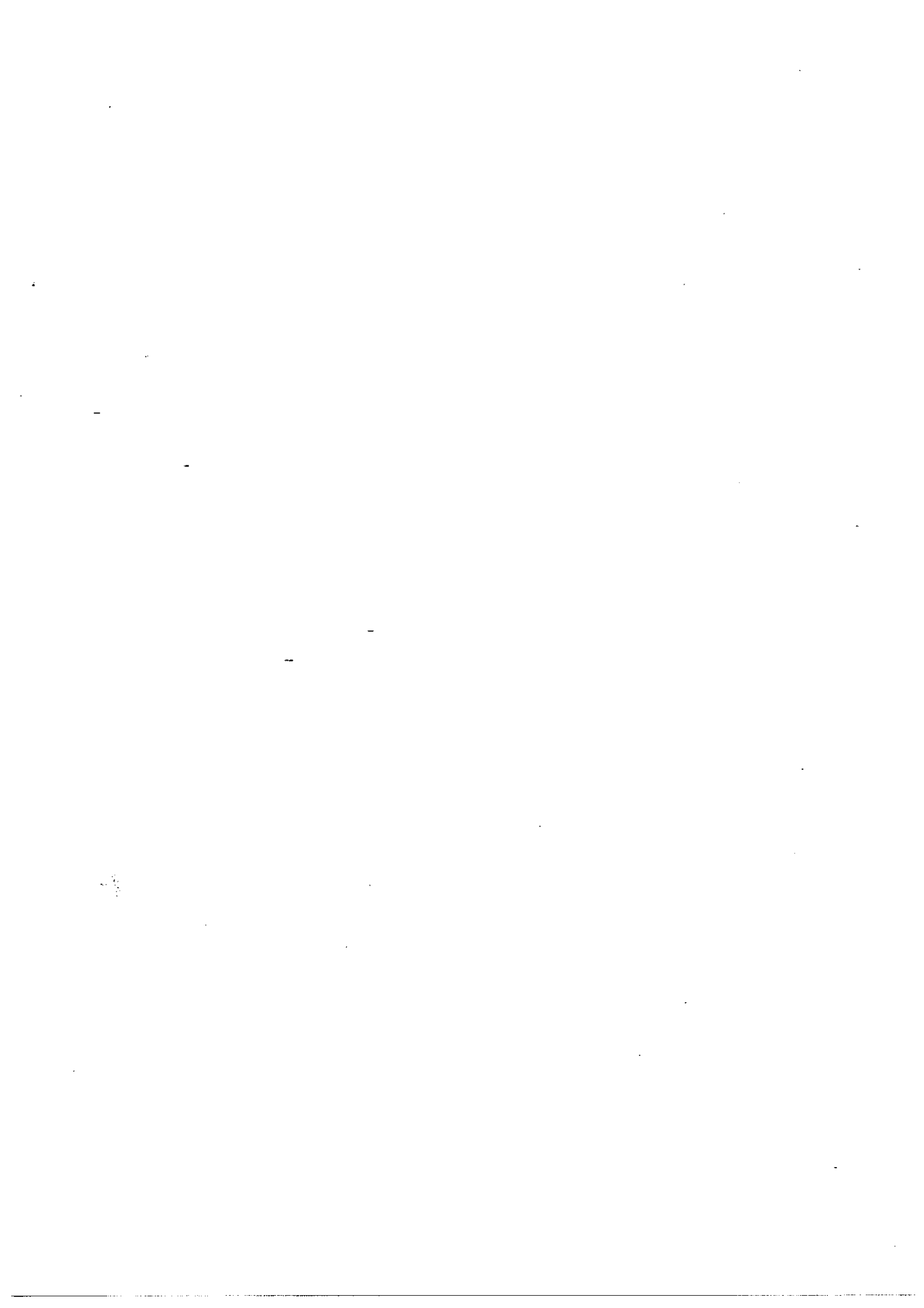
- (b) Indicate in the table below which are the last two thumbtacks to fall off their sticks by putting a tick (✓) against your choice in the column provided. [2]

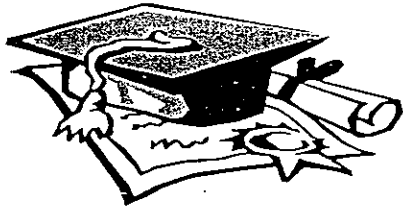
Stick		Tick (✓)
Rod	Material	
A	Copper	
B	Wood	
C	Aluminium	
D	Glass	

END OF PAPER

Setter: Mr Chua Gee Woung

Score	3
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# ANSWER SHEET

EXAM PAPER 2008

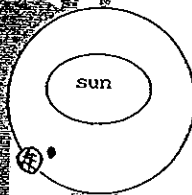
SCHOOL : NAN HUA PRIMARY SCHOOL

SUBJECT : PRIMARY 5 SCIENCE

TERM : SA 1

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17
1	4	1	2	2	3	4	4	3	2	3	1	1	2	3	2	1
Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30				
3	1	3	4	3	4	4	3	3	2	1	4	1				

31)



32)a) Animal cell.

b) W

Z: nucleus --- controls the activities in the cell.

X: cytoplasm.

33)a) Yeast, binary fission, lay eggs, give birth.

b) The animal will be extinct.

34)a) By the method of dispersal of seed.

b) By water.

c) It is to prevent over-crowding.

35)a)D and C  
b)Arteries

A and B

36)a)Y, Z

b)i)For weather forecasting. ii)For observing the Earth.

37)a)Microscope.

b)i)Chloroplasts. ii)cell wall.

38)i)To replace old and damaged cell.

ii)For growth.

39)a)It is when the nucleus of the sperm fuses with the nucleus of the ova.

b)We have the same parents who passed their traits to us through their genes.

40)a)Both reproduce by spores.

b)The fern plant has leaves and can make its own food but the bread mould cannot make its own food.

41)a)Bird's nest fern.

b)The bird's nest fern reproduce by spores which are small and light, easily carried over great distances.

42)a)Setup P has more leaves than setup Q.

b)She wanted to know which plant took in more water.

c)To avoid evaporation to take place.

43)a)Heat and light.

b)Plants need Sunlight to photosynthesis and animals use light to look for food.

44)a)Tube B

b)Light travels in a straight line.

45)Lost heat  
Lost heat  
Gained heat

46)a)The heat from the hot water conducted through the stick can  
sing the wax to melt.

b)B  
D