NAN HUA PRIMARY SCHOOL
CONTINUAL ASSESSMENT 1 2013
PRIMARY FIVE
SCIENCE

Name : _____( )

Class : Primary 5 / ____

Date : 27 February 2013

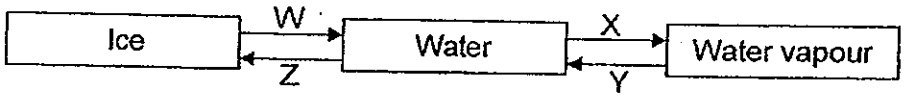
Duration : 1 hr 45 min

MARKS	
Sect A:	/ 60
Sect B:	/ 40
Total :	**/ 100**

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.

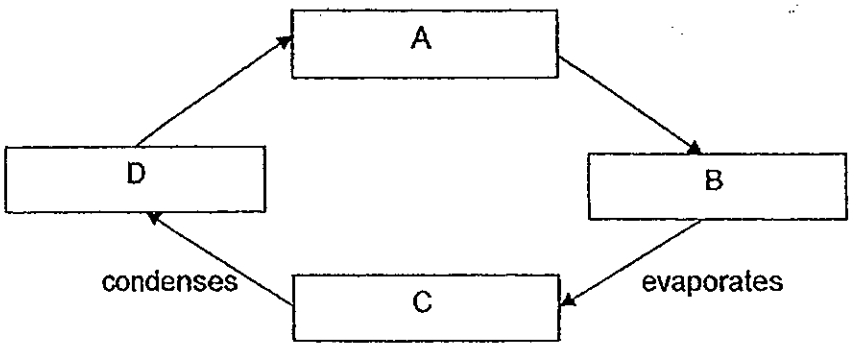
1. Study the flowchart below.



Name the processes represented by the arrows W, X, Y and Z.

	W	X	Y	Z
(1)	Evaporation	Freezing	Melting	Condensation
(2)	Melting	Evaporation	Condensation	Freezing
(3)	Condensation	Melting	Evaporation	Freezing
(4)	Melting	Condensation	Freezing	Evaporation

2. Study the diagram shown below.



Which one of the following can be correctly placed in the boxes?

	A	B	C	D
(1)	Water vapour	Water	Rain	Clouds
(2)	Rain	Clouds	Water	Water vapour
(3)	Water vapour	Clouds	Water	Rain
(4)	Rain	Water	Water vapour	Clouds

Distillation is a process where pure water is obtained from contaminated water through heating.

In what ways are the water cycle and the distillation process similar?

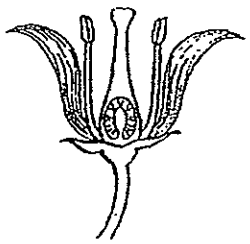
A Both are ways of purifying water.
B Steam is formed as the water is heated.
C Both processes involve a change in state.
D The water vapour condenses to form pure water.

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

4. Which of the following is the reason why reproduction is essential to all living things?

(1) Reproduction is to allow more living things to die.
(2) Reproduction is to ensure the continuity of the species.
(3) Reproduction is to ensure that the living things can grow older.
(4) Reproduction is to allow the number of living things to remain the same.

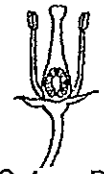
5. Mary conducted an experiment on Plant P in her garden.



Plant P

She removed certain parts of the flower as shown below.

Set-up A



Set-up B

Set-up C

Then she dusted pollen grains from a flower of Plant P over set-ups A, B and C. She observed the flowers over a few weeks.

Which of the set-up(s) did not produce any fruit?

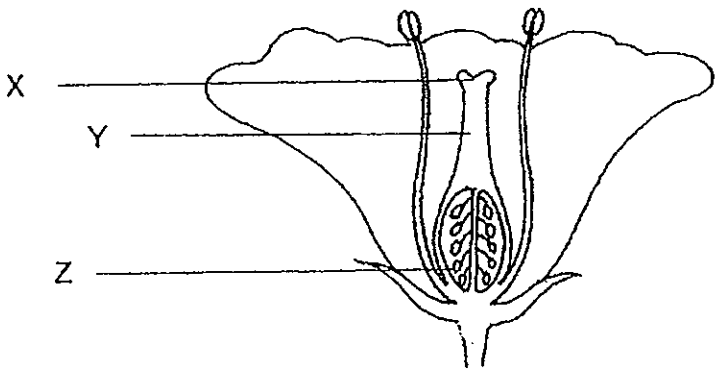
(1) B only
(2) C only
(3) A and B only
(4) A, B and C

6. Which of the following is common to both spores and seeds?

A Both are dispersed by wind.
B Both are kept in the spore bag.
C Both are formed from the ovules of flowers.
D Both enable the reproduction of flowering plants.

(1) D only
(2) A and D only
(3) B and C only
(4) None of the above.

7. Which of the following correctly labels parts X, Y and Z in the diagram below.



	X	Y	Z
(1)	Stigma	Style	Ovule
(2)	Stamen	Ovary	Pollen grain
(3)	Stigma	Filament	Ovule
(4)	Anther	Style	Pollen grain

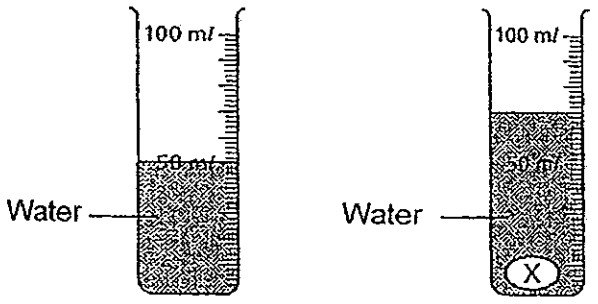
8. The fruits/seeds shown below are grouped according to their methods of dispersal.

Group A	Group B	Group C
Rubber Saga	Angsana Lalang	Pong pong Nipah

Which of the following sets of fruits has been classified **incorrectly**?

	Group A	Group B	Group C
(1)	Balsam	Shorea	Lotus
(2)	Rain tree	African tulip	Mangrove
(3)	Balsam	African tulip	Coconut
(4)	Mimosa	Shorea	Mangrove

9. An unknown object, X, is dropped into a measuring cylinder filled with 50ml of water. The water level rises to 70ml.

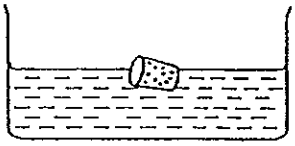


Based only on this observation, which of the following conclusions can you make?

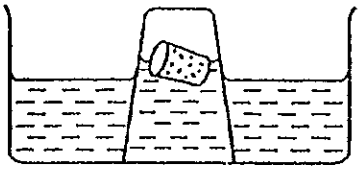
A X is flexible.
B X occupies space.
C X has a fixed mass.

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

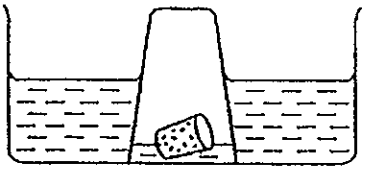
10. A piece of wooden cork is floating on a basin of water. Which one of the diagrams below shows what happens when an empty plastic cup is directly inverted over it?



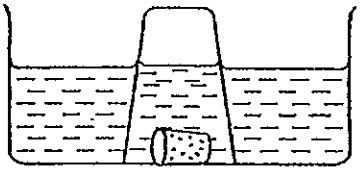
(1)



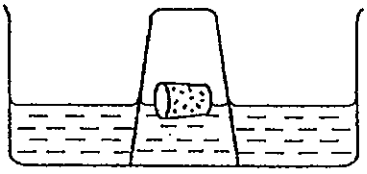
(2)



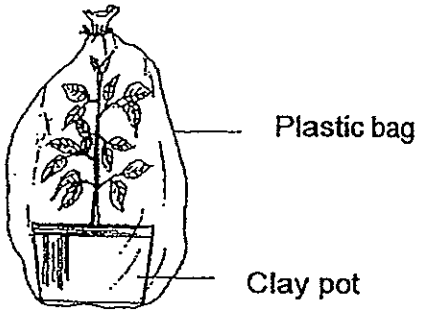
(3)



(4)



11. A class of pupils put a pot of plant in a plastic bag. They sealed the plastic bag tightly and placed the whole set-up under the Sun as shown below. After some time, the pupils found some droplets of water on the inside of the plastic bag.



The class agreed that the water droplets were due to condensation of water vapour but could not agree where the water vapour came from. Four pupils each gave an explanation below.

Ahmad:	Water vapour in the air present in the plastic bag
Betty:	Water vapour in the air present in the clay pot.
Charles:	Water vapour in the air outside the plastic bag.
Devi:	Water vapour given out by the leaves of the plant.

Who were correct?

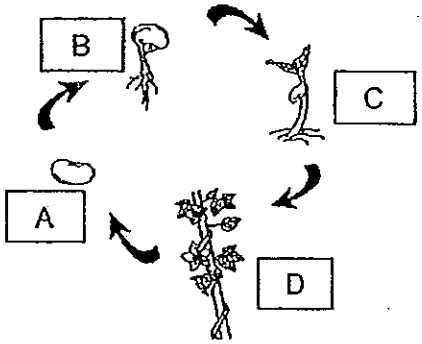
(1) Betty and Devi
(2) Ahmad and Devi
(3) Betty and Charles
(4) Ahmad and Charles

12. Which of the following processes or activities have resulted in water pollution in many countries?

A Desalination
B Releasing untreated sewage
C Oil spills from ships
D Littering and dumping of toxic wastes

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

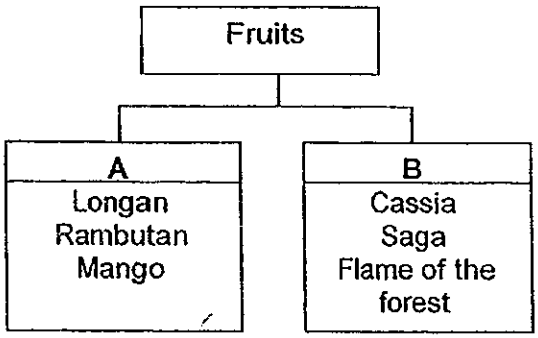
13. The diagram below shows a life cycle of a flowering plant.



At which stage, A, B, C or D, will the plant be able to start making its own food?

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

14. The classification table below shows how some fruits are grouped.



Identify the way how the fruits are grouped.

A Sweet and sour fruits
B Smooth and rough fruits
C Edible and inedible fruits
D One seed and many seeds fruits

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

15. Which of the following conditions encourage the growth of mould?

A Wind
B Water
C Sunlight
D Nutrients

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

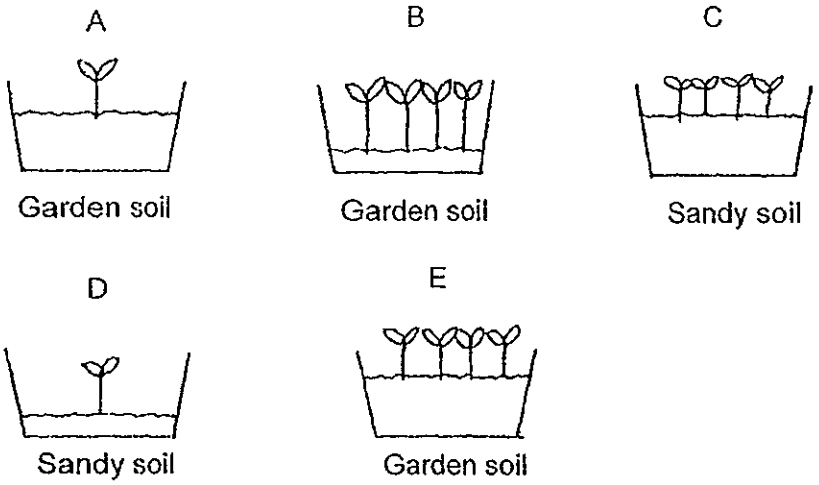
16. The table below records the characteristics of four flowers, A, B , C and D.

Flower	Petals		Smell
	Size	Colour	
A	Large	White	Scented
B	Small	White	Unscented
C	Large	Brightly coloured	Scented
D	Small	Brightly coloured	Unscented

Which flower is most likely to be visited by the **least** number of insects?

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

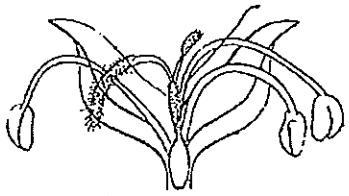
17. Some pupils wanted to find out how overcrowding can affect plant growth They prepared five pots of plants and placed them in the same part of the garden. They watered the plants with the same amount of water every day.



Which two pots of plants should they observe to make it a fair test?

(1) A and B
(2) A and E
(3) B and D
(4) C and D

18. The diagram below shows parts of a flower.

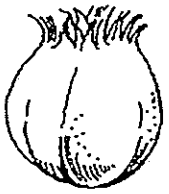


Which of the statements are true about the flower?

A The flower may be self-pollinated.
B Only the male part is present in the flower.
C The flower has both male and female parts.
D Pollination is likely to be carried out by wind.

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

19. Jeremy is asked to find out whether the fruit shown below is dispersed by water.

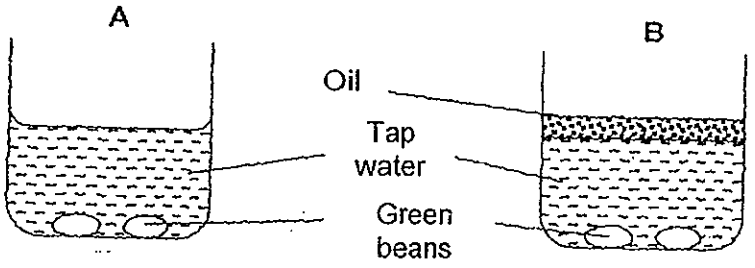


Which of the following must he do to find out?

A Weigh the fruit.
B Put the fruit into a basin of water.
C Count the number of seeds it has.
D Check whether it has a fibrous husk

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

20. Kenny had a set-up as shown below. He thinks that air is needed for the seeds to become seedlings. He wanted to prove that his hypothesis is correct.



Two days later, the seeds in both the beakers germinated. He repeated the experiment and got the same results. Which of the following explains why his experiments failed?

(1) There was too much oil in Beaker B.
(2) There was too much air in Beaker A.
(3) Both beakers contain dissolved air in the water.
(4) The oil provided air to the beans to germinate in Beaker B.

21. Arrange the following steps of seed development in order.

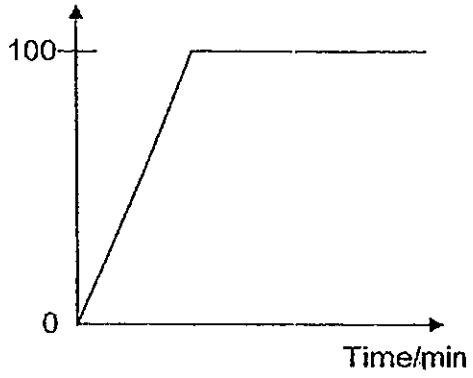
A The root grows.
B The shoot grows.
C Green leaves of the seedling make food in sunlight.
D Conditions are favourable for the seed to germinate.

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

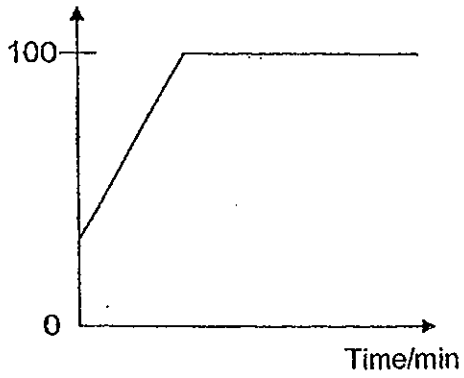
22. Peter heated 100ml of tap water in a beaker with a bunsen burner. He continued to heat the water till it reached boiling point. After 10 minutes, he turned off the bunsen burner and allowed the beaker of water to cool down to room temperature.

Which of the following graph shows the change in temperature correctly?

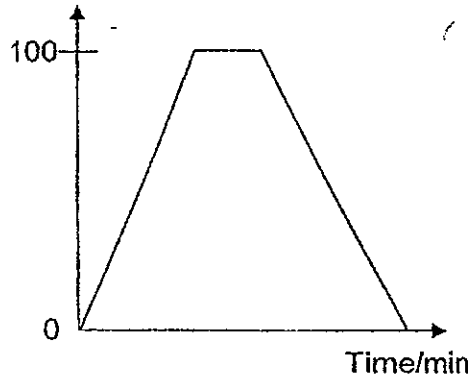
(1) Temperature/°C



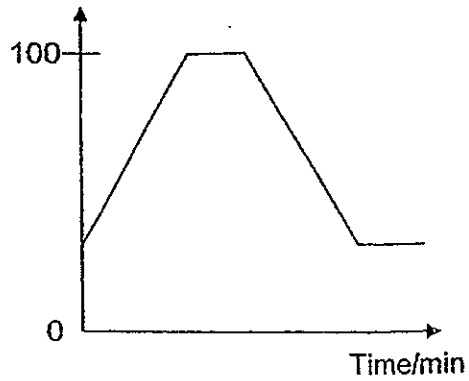
(2) Temperature/°C



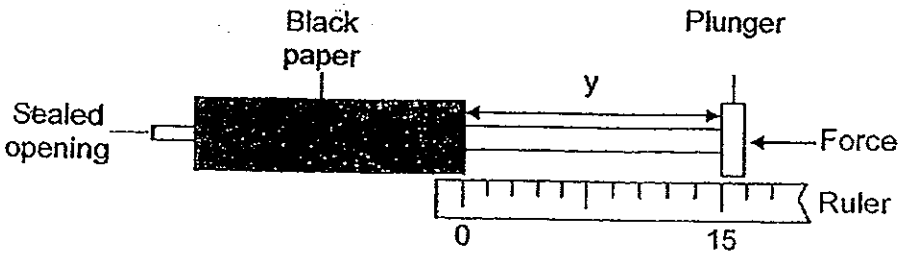
(3) Temperature/°C



(4) Temperature/°C



23. Bernard used two identical syringes. Each syringe was covered with a black paper and completely filled with either air or water.



She pushed each plunger as hard as she could. She then measure the distance y.

Which of the following shows the correct values of y?

	y (cm)	
	Syringe with air	**Syringe with water**
(1)	0	15
(2)	15	0
(3)	5	15
(4)	15	5

24. Mary wanted to study how the mass of a substance, W, is related to its volume. Which of the following steps should Mary do to ensure that the experiment is carried out correctly?

A Repeat the experiment using different substances
B Keep the temperature of the substance W the same during the experiment.
C Measure the mass and volume using different amounts of substance W.

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

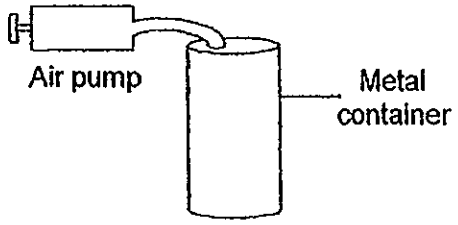
25. The table shows the melting and boiling points of two substances, P and Q.

Substance	Melting point (°C)	Boiling point (°C)
P	36	250
Q	105	178

Which one of the following shows the correct state(s) of P and Q at 100°C?

	P	Q
(1)	liquid	solid
(2)	liquid	liquid
(3)	solid	liquid
(4)	solid	solid

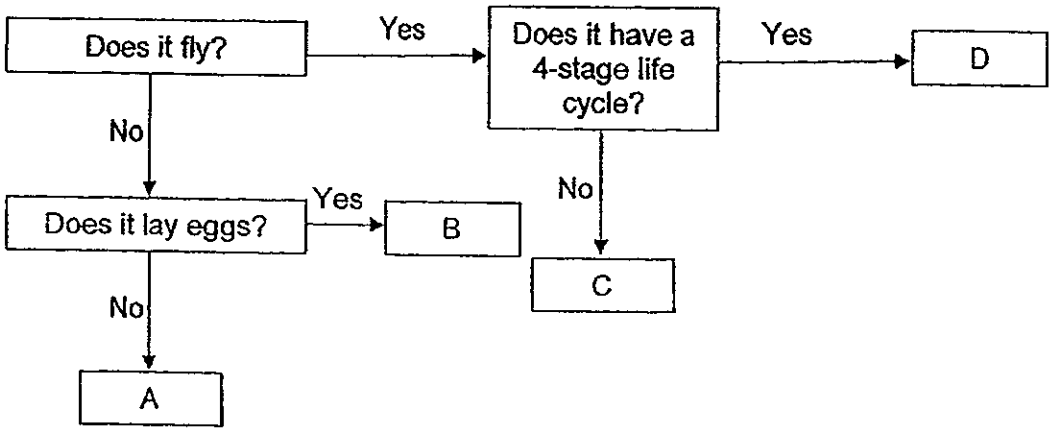
26. A metal container has a capacity of 4000 cm^3. It is half-filled with sand An air pump is attached to it as shown below.



Each time the piston is pushed in, 800 cm^3 of air is forced into the metal container. What will be the volume of air inside the metal container if the piston is pushed in thrice?

(1) 800 cm^3
(2) 2000 cm^3
(3) 2400 cm^3
(4) 4000 cm^3

27. Study the diagram below.



Which of the following correctly shows what A, B, C and D could be?

	A	B	C	D
(1)	Guppy	Penguin	Butterfly	Cockroach
(2)	Shark	Salmon	Frog	Housefly
(3)	Snake	Chicken	Mosquito	Human
(4)	Whale	Platypus	Cockroach	Mosquito

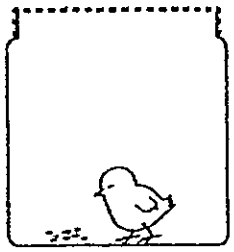
28. Compare the life cycle of a dog and the life cycle of a duck.

	Dog	Duck
A	The life starts as a fertilised egg.	The life starts as a fertilised egg.
B	The fertilised egg develops into a puppy inside the mother's body.	The egg is laid and incubated by the mother in order to develop into a duckling.
C	The developing puppy gets nutrients from the mother.	The developing duckling gets nutrients from the egg yolk.
D	The puppy may grow into an adult that can reproduce.	The duckling lays an egg each time.

Which of the following comparisons are **true**?

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

29. A chick was placed in the container with tiny holes on the lid. Some grains were given to the chick daily.



After 3 days, the chick died.

Which of the following statement(s) explain(s) why the chick died?

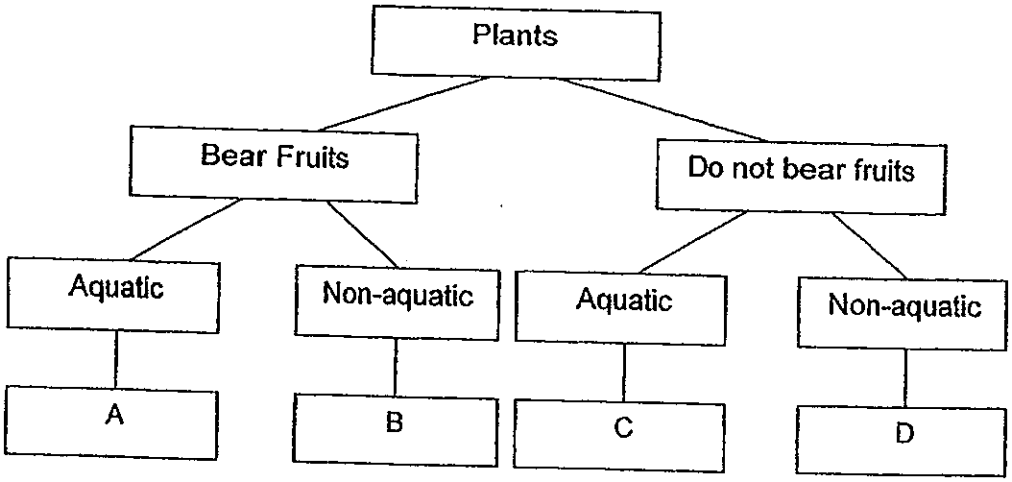
A The chick needed water to stay alive.
B The tiny holes allowed air to circulate in the container.
C There was not enough oxygen in the container to keep the chick alive.
D There was not enough sunlight in the container to keep the chick alive.

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

30. The following table provides information on plants R , S , T and U, based on two characteristics. A tick (√) shows the characteristics of the plants.

	R	S	T	U
Has flowers		√	√	
Grows on water		√		√

From the information above, where do plants S and T belong to in the classification table?



	S	T
(1)	A	B
(2)	D	C
(3)	D	B
(4)	A	C

End of Section A

NAN HUA PRIMARY SCHOOL
CONTINUAL ASSESSMENT 1 2013
PRIMARY FIVE
SCIENCE

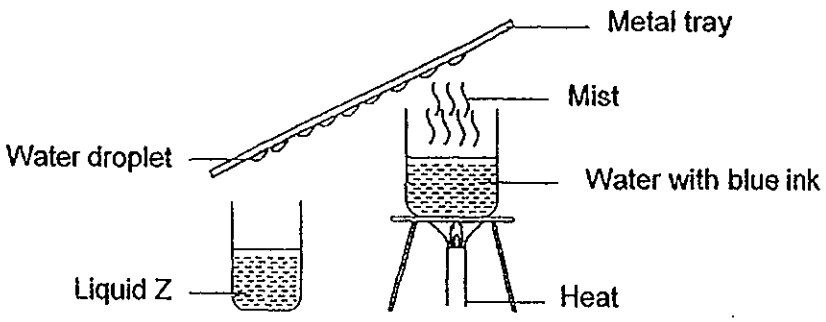
Name : _____( )

Class : Primary 5 / _____

MARKS
/ 40

Section B: (40marks)
Write your answers to question 31 to 44.
The number of marks available is shown in brackets [ ] at the end of each question or part question.

31. Harry set up the experiment as shown below.



(a) Explain why water droplets had formed on the metal tray. [2]

_____

_____

_____

(b) What is the colour of Liquid Z? [1]

_____

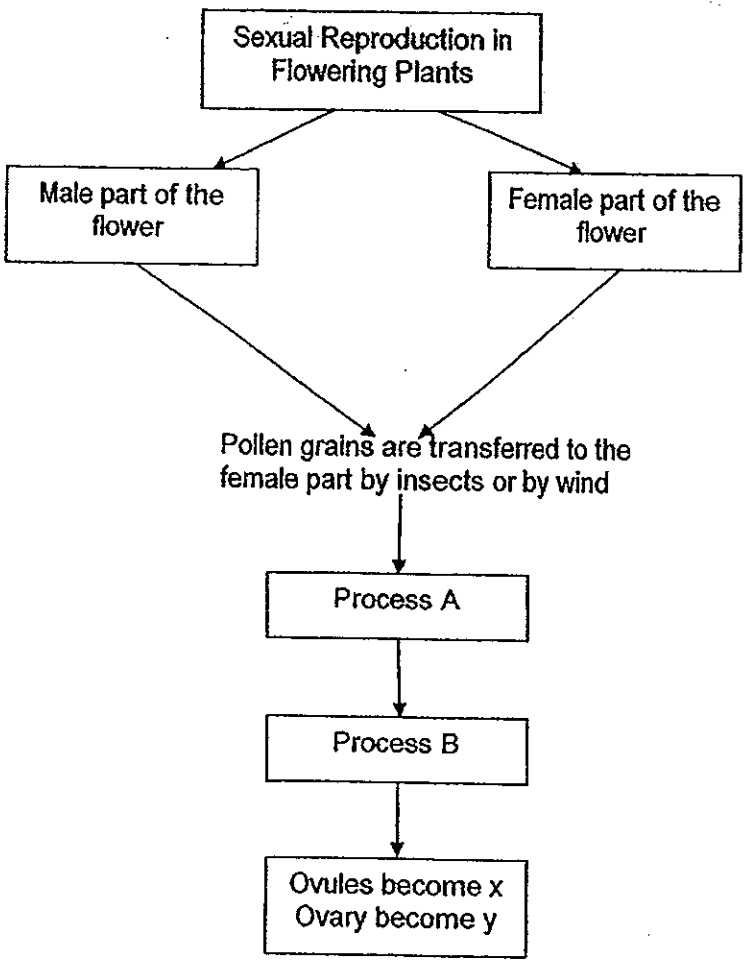
(c) After ten minutes, the amount of water droplets collected on the metal tray decreased. Explain what had happened. [1]

_____

_____

Score	/ 4

32. Study the flow chart shown below.



(a) Name the processes. [2]

(i) Process A: _____

(ii) Process B: _____

(b) Name the plant parts. [2]

(i) Plant part x: _____

(ii) Plant part y: _____

Score	/ 4

33. The picture shows a bird eating a papaya fruit.

(a) What attracts the bird to the fruit? [1]

_____

_____

(b) Explain how the bird helps to disperse the seeds. [2]

_____

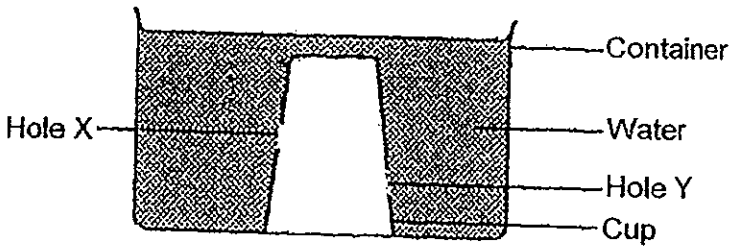
_____

_____

_____

Score	/ 3

34. A paper cup with two small holes is inverted and pushed into a container of water as shown below.



(a) In the diagram above, draw the water level found in the cup when the cup is completely placed at the bottom of the container of water. [1]

(b) Explain your answer in (a). [2]

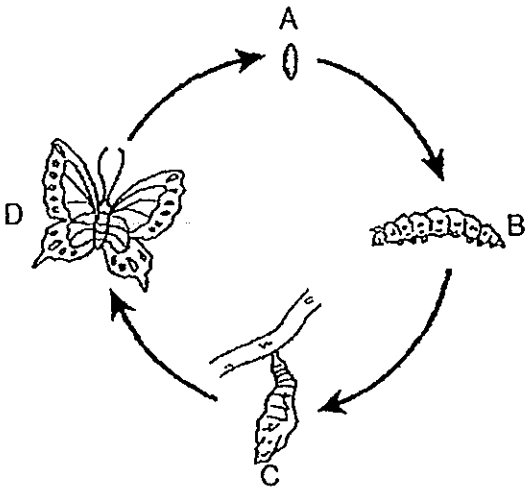
_____

_____

_____

Score	/ 3

35. The diagram below shows the life cycle of a butterfly.



An orchard farmer uses the butterfly to help him to grow new fruits.

At which stage (A, B, C or D) of the life cycle of the animal is helpful to the farmer. Explain your answer. [2]

_____

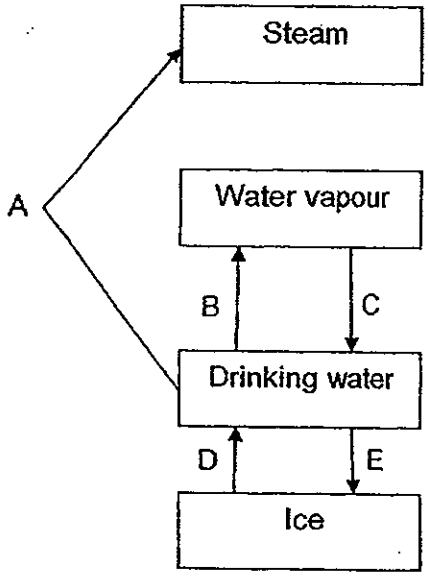
_____

_____

_____

Score	/ 2

36. Study the chart below.



(a) List the processes (A, B, C, D and/or E) that takes place when water gains heat. [1]

_____

(b) Name two differences between Process A and Process B. [2]

_____

_____

_____

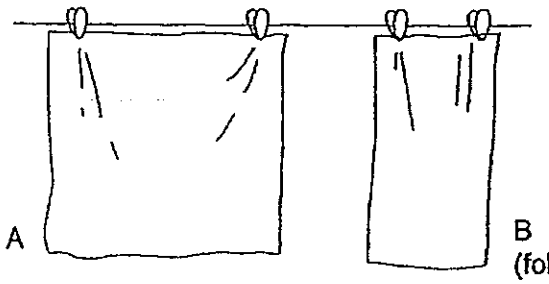
_____

_____

_____

Score	/3

37. On a hot and dry day, Carrisa obtained two plastic containers and added 100ml of water to each of them. She took two identical dry handkerchiefs and put one in each of the containers. Each of the handkerchiefs was soak with the water until there was no water left in the containers. She hung the handkerchiefs on the clothes-line as shown below and measure the time taken for the handkerchiefs to dry completely.



(a) What was the aim of Carrisa's experiment? [1]

_____

_____

(b) Which handkerchief would have taken a longer time to dry? Give a reason for your answer. [1]

_____

_____

Score	/ 2

38. Mary placed 20 water plants into four containers respectively. Each container had water from four different rivers. She counted the number of water plants left in the containers every 5 days and recorded her observations in the table below.

Water taken from river	Number of water plants			
	Day 0	Day 5	Day 10	Day 15
A	20	20	20	20
B	20	24	27	30
C	20	18	15	13
D	20	15	8	4

(a) From the table above, which river source is the most polluted? Explain your answer. [1]

_____

_____

(b) State two reasons how water is useful to plants. [2]

_____

_____

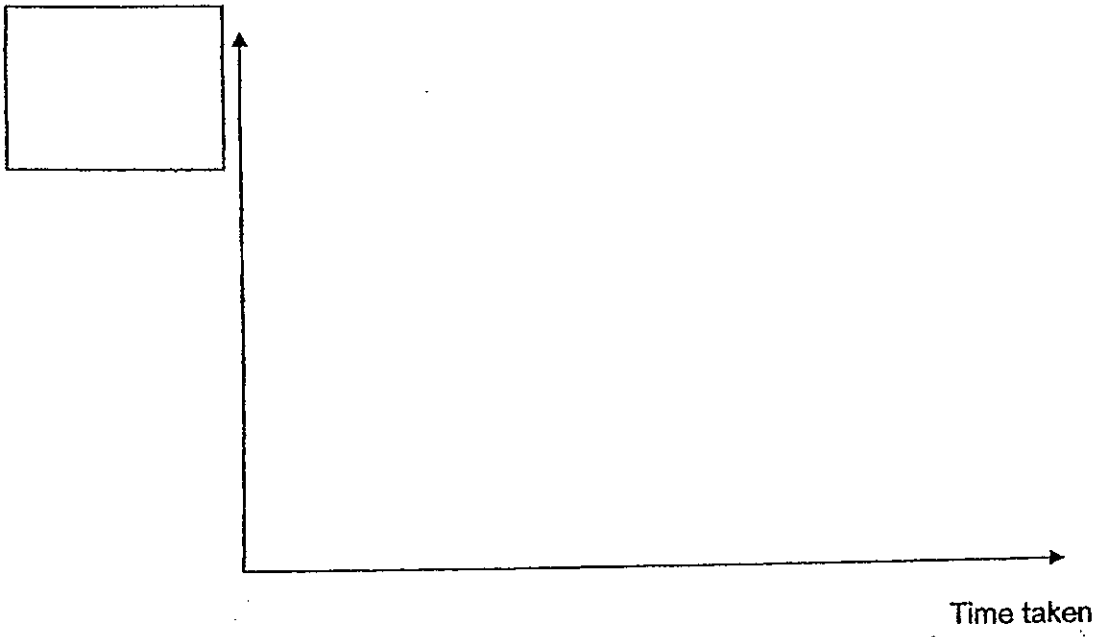
_____

_____

Score	3

39. The diagram below shows a shorea fruit.

Plot a graph to show the relationship between the size of its wing-like structure and the time taken for it to drop to the ground. Label the missing axis correctly. [2]



Score	/ 2

40. Ahmad read from a book that an African Violet plant can reproduce from seeds as well as from the leaves. He wanted to compare the growth of the new plants using the two different parts.

He prepared two similar pots with the same type and amount of soil. In Pot A, he placed an African Violet seed in it and in Pot B the leaf of an African Violet. He watered the pots with the same amount of water and recorded his observations in the table below.

	Pot A	Pot B
Day 1	Seed is planted in the soil.	Leaf is planted in the soil.
Day 6	Nothing	Leaflets appear out from the soil
Day 10	Shoot appears out from the soil	More leaflets appear and growing bigger
Day 14	First leaves appear in the seedling	Seedling has grown bigger with many leaves.

The African Violet plant can reproduce asexually by using plant parts and sexually by seeds.

State an advantage and disadvantage for the plant that reproduces sexually. [2]

Advantage:

_____

_____

_____

Disadvantage:

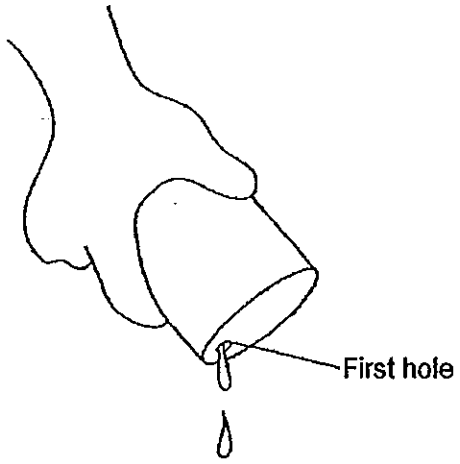
_____

_____

_____

Score	2

41. Ah Hock makes coffee in a coffee shop. He uses condensed milk to make his drinks. He punched a hole in the tin of condensed milk to pour the contents out as shown in the diagram below, but he found that the milk flowed very slowly. This hindered his ability to work quickly and he was constantly late in preparing his drinks.



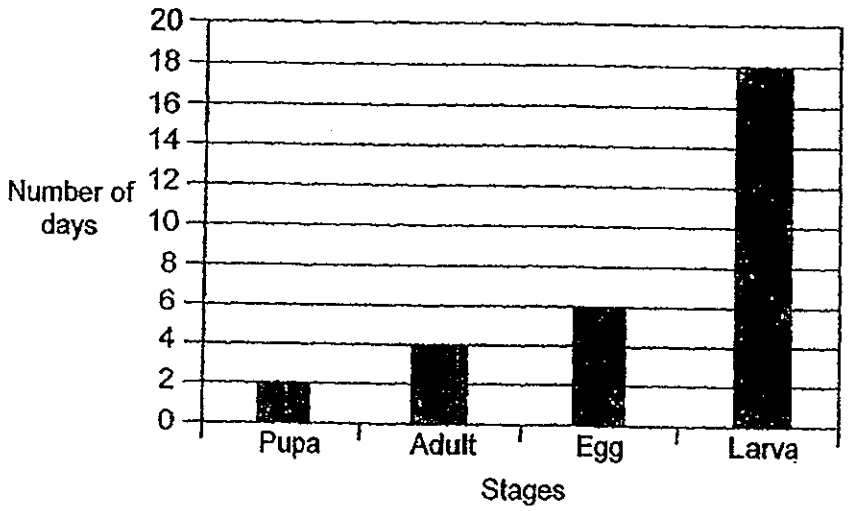
His boss suggested that he make a second hole in the tin to allow the milk to flow faster.

(a) Put an 'X' on the part of the tin that Ah Hock should make a second hole to allow the milk to flow faster. [1]

(b) Explain why the milk flow out faster when the second hole was made. [2]

Score	/ 3

42. Phoebe studied the life cycle of insect Z. She recorded the number of days for each stage of its life cycle. Her results are shown in the graph below. However, she did not present the stages of the life cycle in the correct order.



(a) Write down the stages of the life cycle in the correct order. [1]

Egg → ☐ → ☐ → ☐

(b) Based on Phoebe's results, how many days does it take for insect Z to become an adult after the egg has hatched? [1]

_____

(c) Insect Z has wings. It spends certain stages of its life cycle in water where it uses an air tube to breathe which differs from when it is an adult.

Name all the stages spent in water and give a reason for your answer. [2]

(i) Stages spent in water:

_____

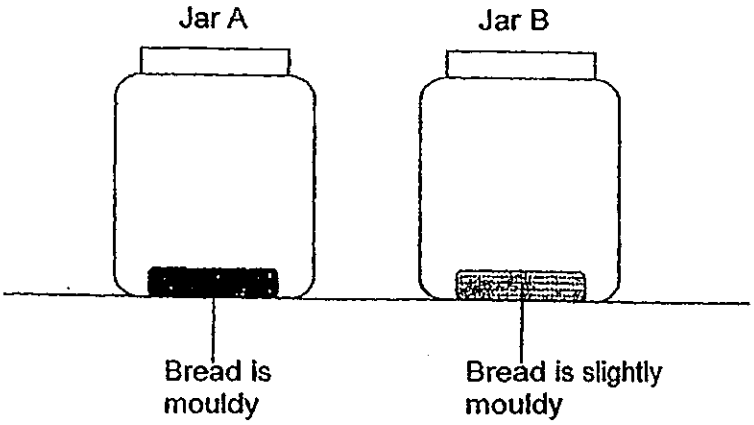
(ii) Reason:

_____

_____

Score	/ 4

43. Jeremiah left two pieces of bread in two identical jars, A and B. A few drops of water were added to the bread in Jar A only. He covered the jars to make them airtight. The following diagrams show the results of the experiment after three days.



(a) Jeremiah made the jars airtight. How does this make the experiment a fair test? [1]

_____

_____

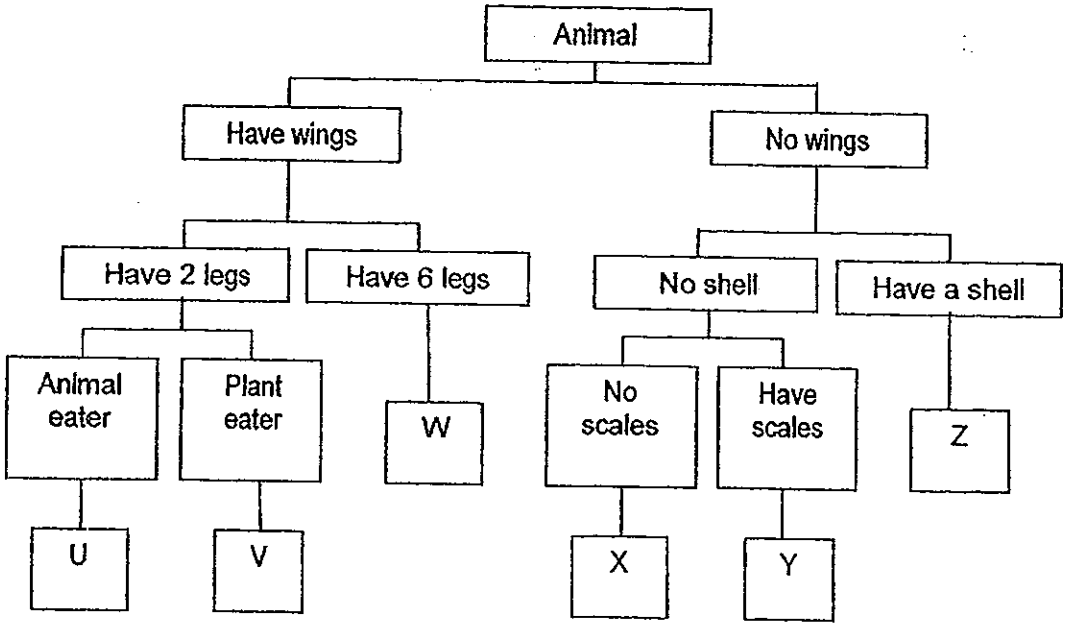
(b) A third piece of bread was heated with a bread toaster until it was dry. If this bread was put in another airtight jar after it was cooled, what would you expect to see after 3 days? Give a reason for your answer. [1]

_____

_____

Score	/ 2

44. Study the classification chart.



(a) Describe Animal Y. [1]

_____

_____

(b) Compare animals V and W. In what way are they similar and different? [2]

Similarity:

_____

_____

_____

Difference:

_____

_____

_____

End of Section B

Score	/ 3

ANSWER SHEET

EXAM PAPER 2013
SCHOOL : NAN HUA
SUBJECT : PRIMARY 5 SCIENCE

TERM : CA1

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

Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30
4	4	3	4	4	3	3	1	2	4	3	1	1

31)a)When the water gains from the Bunsen burner, the water evaporates into warm vapour. The warm water vapour condenses on the cooler metal tray into water droplets.

b)Liquid Z is colour less.

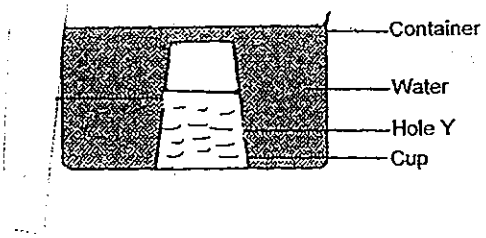
c)The metal tray gains heat from the warm water vapour,the metal tray becomes hotter, decreases the rate of condensation of the water vapour.

32)a)i)Pollination
ii)Fertilisation
b)i)Seeds
ii)Fruit

33)a)The fruit is sweet and fleshy.

b)When the birds eat fruit, the small seeds will be swallowed. As the seeds are indigestible, they will be passed out as droppings and land on the ground,far from the parent plant. When the conditions are suitable, these droppings will grow into new papaya plants.

34)a)



b)Air can escape through the holes, so water can enter the cup up to hole X. However, the air above hole X can not escape so water cannot occupy the space above hole X.

35)Stage D. The butterfly feeds on the nectar and helps the flowers to pollinate so that the flowers can be fertilised and new fruits can be produced.

36)a)A,B,D

b)1)Process A takes place at 100℃ but process B takes place at any temperature above 0℃.

2)Process A occurs through out the liquid but process B occurs only at the surface of the liquid.

37)a)The aim was to find out whether the exposed surface area affects the rate of evaporation.

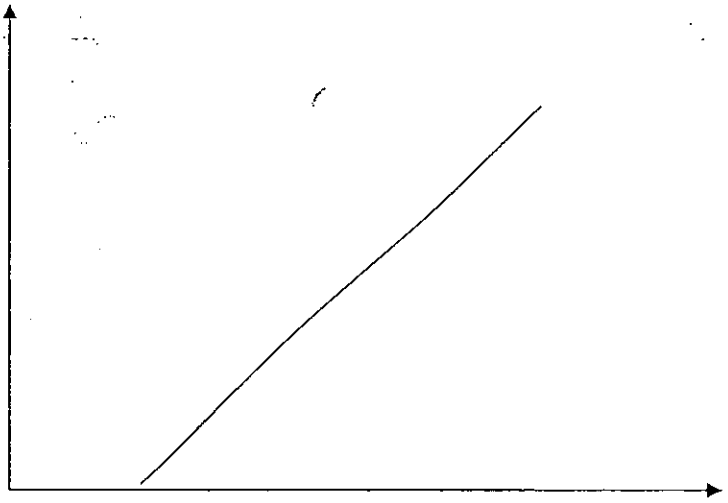
b)Handkerchief B. The smaller exposed surface area of the handkerchief which reduced the rate of evaporation of water.

38)a)River source D. It has the least number of surviving water plants after 15 days.

b)1)Water that is absorbed by plants help them to make food during photosynthesis.

2)Water helps the seed to germinate.

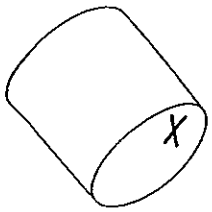
39)The size of wing-like structure



40)Advantage: The germinating plant do not have to compete with parent plant.

Disadvantage: It grows slower sexually the growing a sexually.

41)a)



b)When a second hole was made, air enters the tin through the second hole to occupy the space inside the tin previously occupied by the milk, pushing the milk one from the first hole faster.

42)a)Egg→larva→pupa→adult

b)20 days.

c)i)Egg, larva, pupa.

ii)The insect has no ability to survive out of water its organs are not fully developed.

43)a)This is to ensure that water vapour from the surrounding air cannot get into the jars to moisten the bread inside. In this way only the bread in jar A gets water.

b)There will be no mould found on the bread. There is an absence of water and spores cannot germinate without water.

44)a)Animal Y has no wings and no shell but it has scales.

b)Both of them have wings.

c)Animal V is 2-legged while Animal W is 6-legged.

NAN HUA PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 1 – 2013
PRIMARY 5

SCIENCE

BOOKLET A

30 Multiple Choice Questions (60 marks)

Total Time for Booklets A and B : 1 hour 45 minutes

INSTRUCTIONS TO CANDIDATES

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Shade your answers in the Optical Answer Sheet (OAS) provided.

Marks Obtained

Booklet A		/ 60
Booklet B		/ 40
Total		/100

Name: _____ ( ) Class: P 5 _____

Date : 14 May 2013 Parent's Signature: _____