



NAN HUA PRIMARY SCHOOL
CONTINUAL ASSESSMENT 1 2010
PRIMARY FIVE
SCIENCE

Name : _____ ()

Class : Primary 5 / _____

Date : 3 March 2010

Duration : 1 hr 45 min

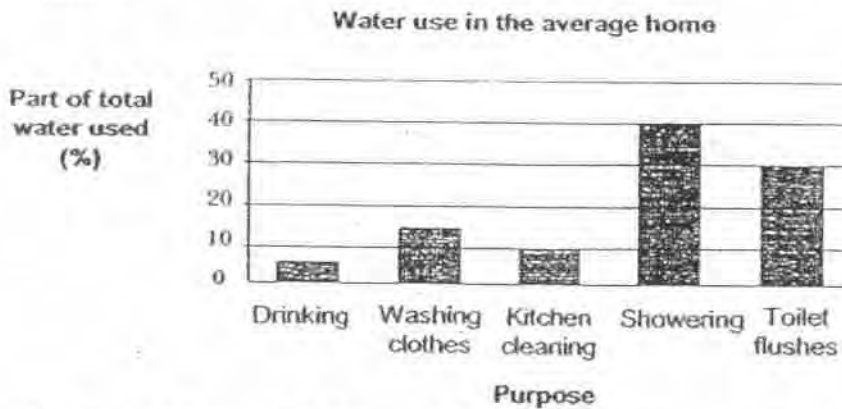
MARKS	
Sect A:	/ 60
Sect B:	/ 40
Total :	/ 100

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. The graph below shows the purpose for which people use water in their homes.



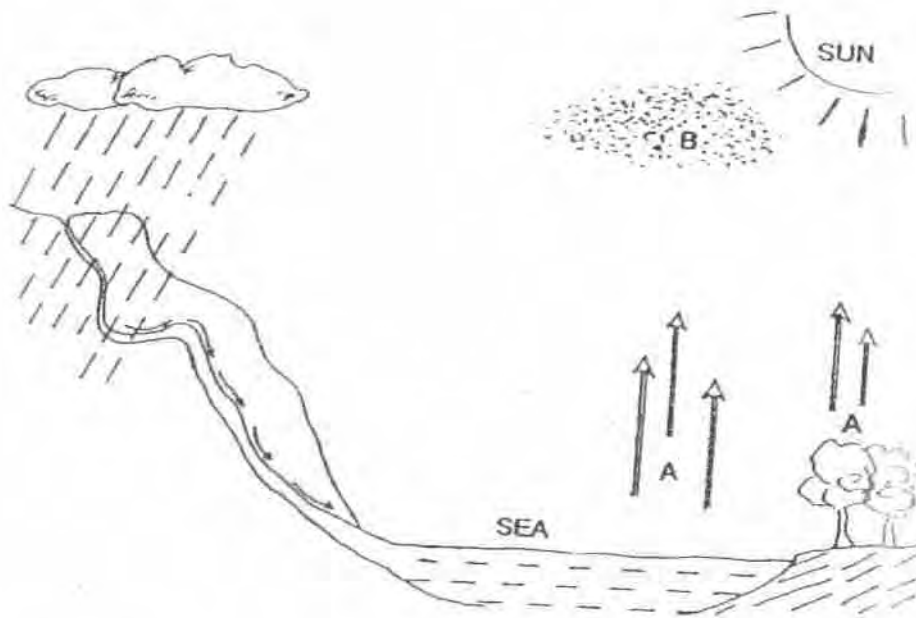
In times of low rainfall, people are asked to conserve water by using less. Which two actions are likely to save the most water?

	Action 1	Action 2
(1)	Halve the time in the shower	Drink less water
(2)	Halve the time in the shower	Use half flush toilets
(3)	Wash clothes in cold water	Use half flush toilets
(4)	Wash clothes in cold water	Leave the kitchen dirty

2. In Singapore, our government has introduced many measures to keep our rivers clean. Which one of the following is **not** one of the measures to control pollution of the rivers?

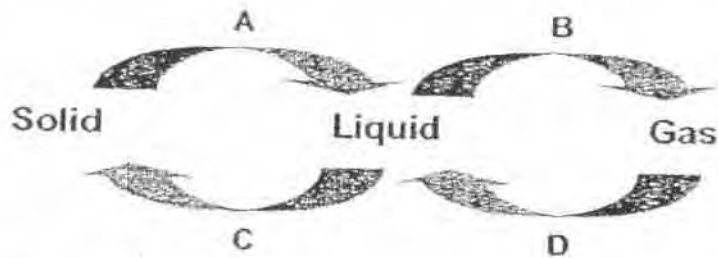
- (1) Releasing more fish into the rivers.
- (2) Not allowing factories to be built near rivers.
- (3) Constructing a good sewage system to treat waste water.
- (4) Providing more dustbins at parks situated along river banks.

3. The picture below shows the water cycle. Study it carefully and name the processes represented by A and B.



	A	B
(1)	Condensation	Evaporation
(2)	Evaporation	Respiration
(3)	Transpiration	Evaporation
(4)	Evaporation	Condensation

4. The diagram below shows the changes of state of water and its processes.



Which one of the following would most correctly represent the processes A, B, C and D?

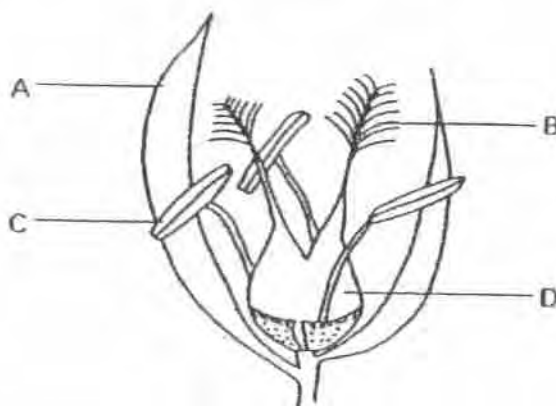
	A	B	C	D
(1)	Melting	Condensation	Evaporation	Freezing
(2)	Melting	Evaporation	Freezing	Condensation
(3)	Freezing	Evaporation	Melting	Condensation
(4)	Freezing	Condensation	Evaporation	Melting

5. Which one of the following factors helps to ensure there is no overcrowding for plants?
- (1) Self-pollination
 - (2) Less pollen production
 - (3) Wind dispersal of seeds
 - (4) Shorter seed germination period
6. Plants have different characteristics to help them disperse their seeds. Which of the following characteristics help plants to scatter their own kind?
- | | |
|-----------------|-----------------------|
| (A) tiny spores | (B) digestible seeds |
| (C) hairy seeds | (D) fruits with hooks |
- (1) A, B and D only
 - (2) A, B and C only
 - (3) A, C and D only
 - (4) A, B, C and D

7. Which one of the following statements about ferns is not true?

- (1) They are green plants.
- (2) They are non-flowering plants.
- (3) They are seed producing plants.
- (4) They have spores on the underside of their leaves.

8. The following diagram shows parts of a flower.



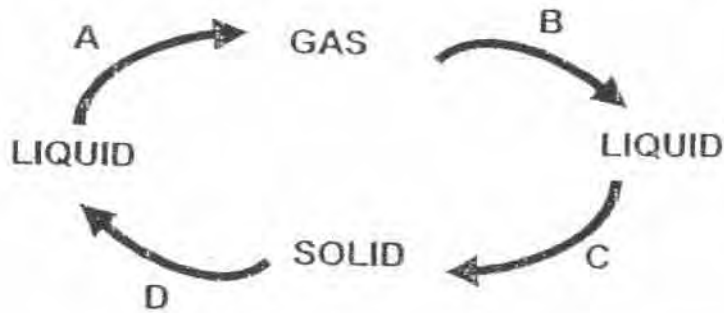
Which part A, B, C or D, will develop into a fruit?

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

9. Substance P has a definite volume but no definite shape. Substance Q has both a definite volume and a definite shape. Which of the following could be P and Q?

	P	Q
(1)	Oil	Nitrogen
(2)	Water	Ice
(3)	Water vapour	Ice
(4)	Oxygen	Water vapour

10. The diagram below shows the three states of a substance.



Heat is gained or lost by the substance during each change of state. Which one of the following describes correctly whether heat is gained or lost?

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

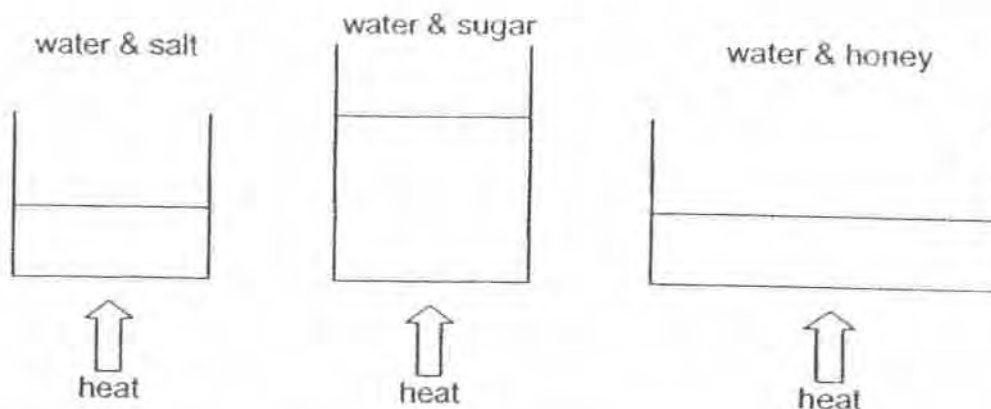
11. An experiment was carried out to find out how temperature affects the rate of evaporation.

Set-up	Amount of water (ml)	Exposed surface area of the container (cm ²)	Speed of wind (km/h)	Temperature (°C)
W	200	25	18	45
X	200	40	20	45
Y	200	25	18	70
Z	200	40	18	70

Which of the above 2 set-ups can be used to conduct a fair test?

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

12. Sue wanted to find out which liquid would boil the fastest. Her classmate, Jamie, pointed out the experiment was not a fair test.



Which of the following could be the reasons why Jamie said that the experiment was not a fair one?

- (A) The containers were of different sizes.
 - (B) The amount of water used was not the same.
 - (C) The amount of salt, sugar and honey used was the same.
- (1) A only
 - (2) C only
 - (3) A and B only
 - (4) A, B and C
13. Object M melts at 3°C and boils at 105°C . It is a solid at $X^{\circ}\text{C}$ and a gas at $Y^{\circ}\text{C}$. Which one of the following shows correctly what X and Y represent?

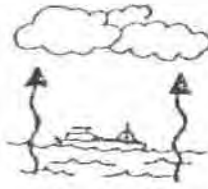
	X ($^{\circ}\text{C}$)	Y ($^{\circ}\text{C}$)
(1)	2	57
(2)	2	110
(3)	3	95
(4)	7	115

14. Look at the diagrams below. Arrange the letters in sequence to show the water cycle.



rain

A



clouds form

B



clouds move over land

C



Water evaporates

D



river flows to the sea

E

- (1) B, A, E, D, C
(2) C, A, B, D, E
(3) D, B, C, A, E
(4) A, B, C, D, E
15. The sentences below describe how sexual reproduction in plants take place.

- (A) Male cell fuses with female cell.
(B) Pollen grains are transferred to stigma.
(C) Anther releases pollen grain.
(D) Pollen tube grows towards ovule.
(E) Seed develops.

Which one of the following shows the correct sequence of events in the process of sexual reproduction.

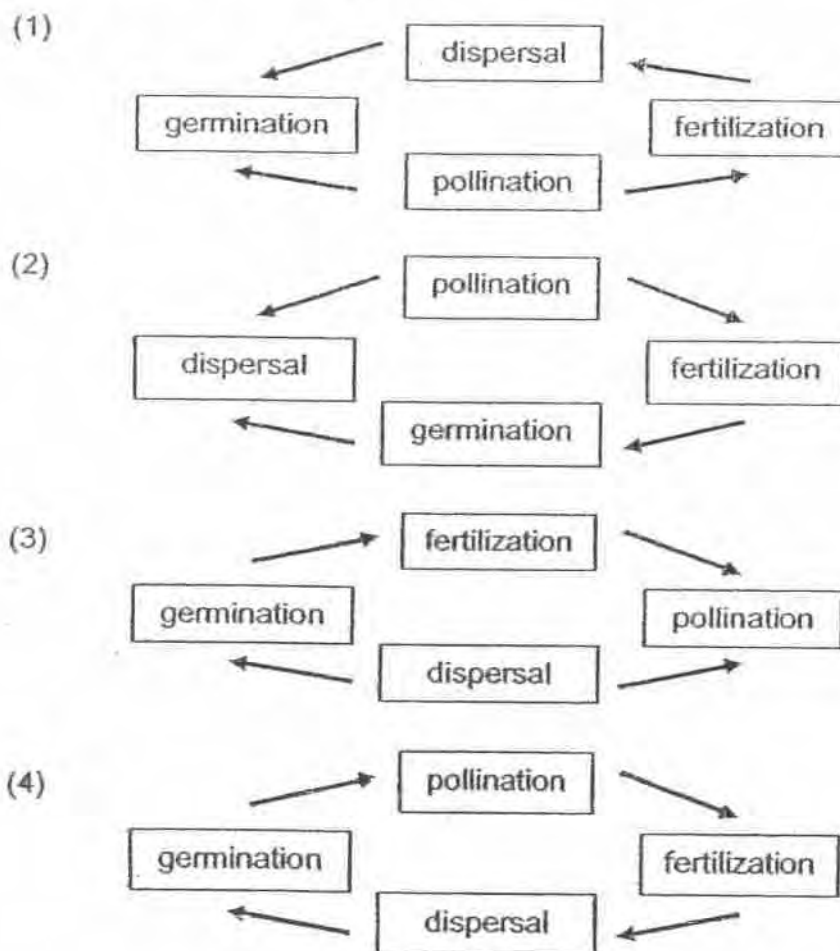
- (1) C → E → D → B → A
(2) B → C → E → A → D
(3) C → B → D → A → E
(4) B → D → C → A → E

16. Why is it necessary for seeds to be dispersed further away from their parent plants?

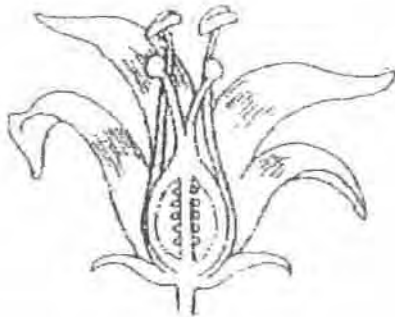
- (A) To fertilize the soil elsewhere.
- (B) To ensure the seedlings have enough space to grow.
- (C) To ensure that seedlings will have enough sunlight.
- (D) To make sure that the seedlings will grow up to look like their parent plants.

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

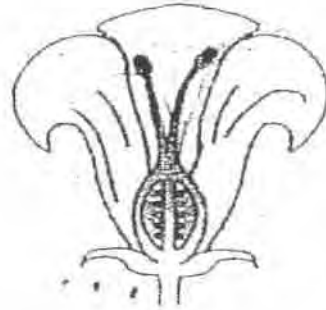
17. Which one of the following shows the correct sequence in the reproduction of flowering plants?



18. The diagram below shows the cross-sections of two flowers from different plants.



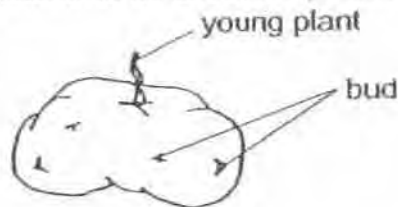
Flower X



Flower Y

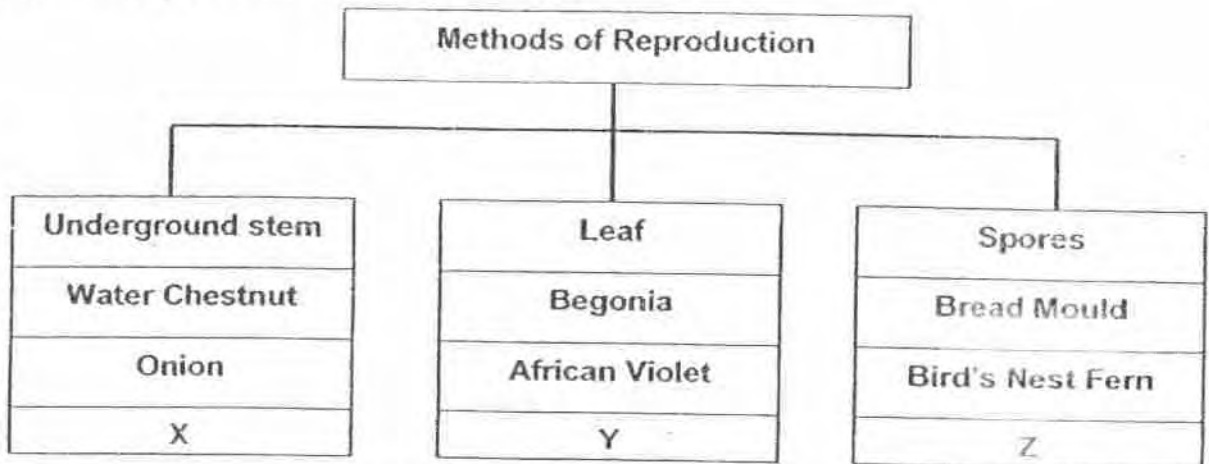
Which of the following statement(s) can be concluded from the above diagram?

- (A) Flower Y is likely to be pollinated by wind.
 - (B) Not all flowers have both male and female parts.
 - (C) Flower X can produce both male and female reproductive cells.
 - (D) After fertilization, Flower X can develop into a fruit but not Flower Y.
- (1) A and D only
 - (2) B and C only
 - (3) A, B and C only
 - (4) B, C and D only
19. Which of the following statements about the potato are correct?



- (A) It is an underground stem.
 - (B) It stores food in its roots.
 - (C) It stores food for the young plant.
 - (D) The buds can grow into new plants.
- (1) A and C only
 - (2) B and C only
 - (3) A, B and D only
 - (4) A, C and D only

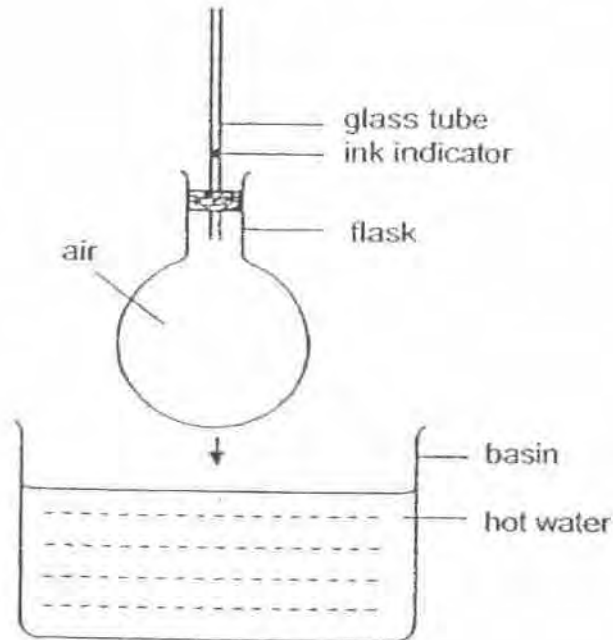
20. Study the classification table below.



Which one of the following correctly represents X, Y and Z?

	X	Y	Z
(1)	Moss	Bryophyllum	Ginger
(2)	Ginger	Moss	Bryophyllum
(3)	Bryophyllum	Ginger	Moss
(4)	Ginger	Bryophyllum	Moss

21. The diagram below shows a flask and a basin of hot water. Air is trapped in the flask by the ink indicator. When the flask is lowered into hot water, it is observed that the ink indicator falls first and then rises. This is because _____.



- (1) the flask expands and then contracts
(2) the flask expands before the air expands
(3) the air is compressed first and then expands
(4) the downward movement of the flask causes the indicator to fall before the air expands
22. Jones filled up a 50 cm^3 measuring cylinder with water. He filled up another 100 cm^3 measuring cylinder with small marbles. Next, he transferred both the water and the marbles into a 250 cm^3 measuring cylinder.

The volume occupied by the water and the marbles in the cylinder is likely to be _____.

- (1) 150 cm^3
(2) 250 cm^3
(3) more than 150 cm^3
(4) between 50 cm^3 and 150 cm^3

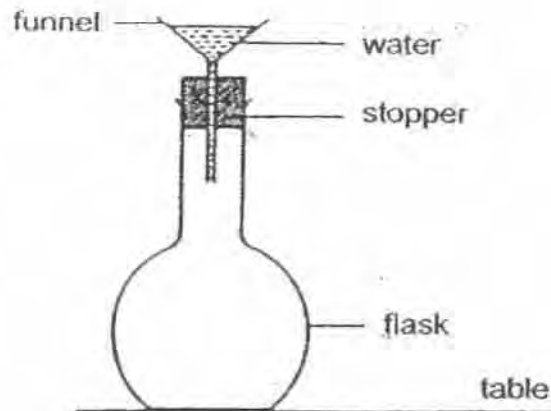
23. The table below shows the property of four matters P, Q, R and S.

Property	P	Q	R	S
Definite shape			√	
Definite volume	√	√	√	√
Conduct electricity	√			
Magnetic		√	√	

Which of the following represents 'mercury' at room temperature?

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

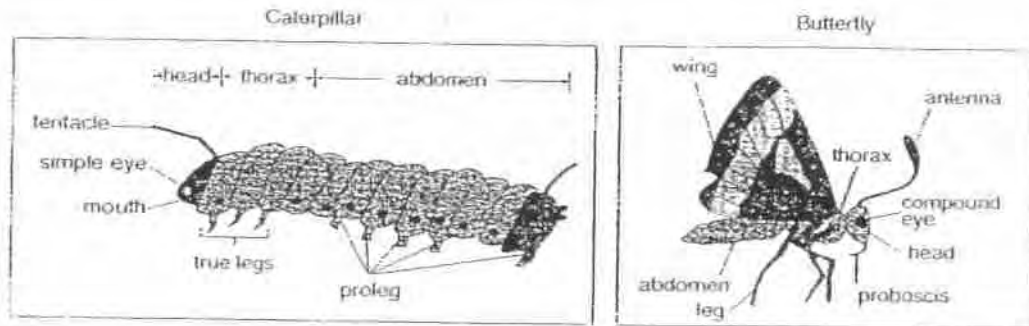
24. Sam's teacher set up the apparatus as shown in the diagram below. When she poured water into the funnel, a little water flowed in and stopped.



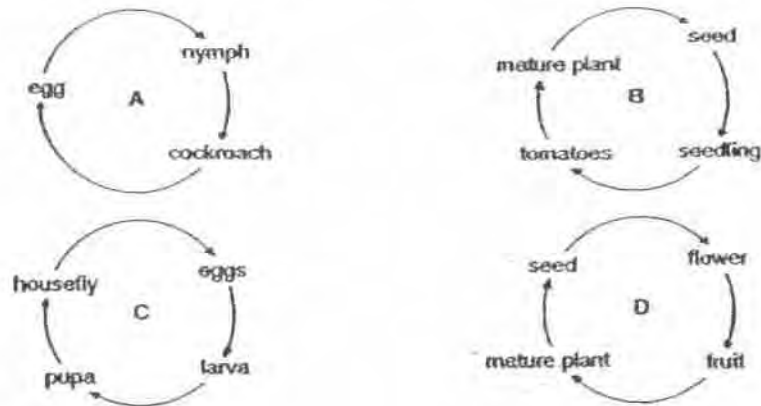
Sam prepared a similar set-up and poured water into the funnel. However, he found that water could flow into the flask easily. Which one of the following caused his result to be different from that of his teacher's?

- (1) The water was hot.
- (2) The stopper was loose.
- (3) He poured the water in quickly.
- (4) He did the experiment on a cooler day.

25. The drawings below show the body parts of one side of a caterpillar and a butterfly. The caterpillar changed into a butterfly. What did not change about the insect?



- (1) Type of eyes
 - (2) Type of mouth
 - (3) Number of prolegs
 - (4) Number of main body parts
26. Which of the life cycles shown below are correct?



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

27. Which of the following statements about the life cycle of a butterfly are correct?

- (A) There are 4 stages in the life cycle of a butterfly.
- (B) At the larva stage, the caterpillar's body shortens and hardens.
- (C) The change from larva to pupa to adult butterfly is called moulting.
- (D) As the caterpillar grows, it sheds the old skin so as to grow new skin.

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

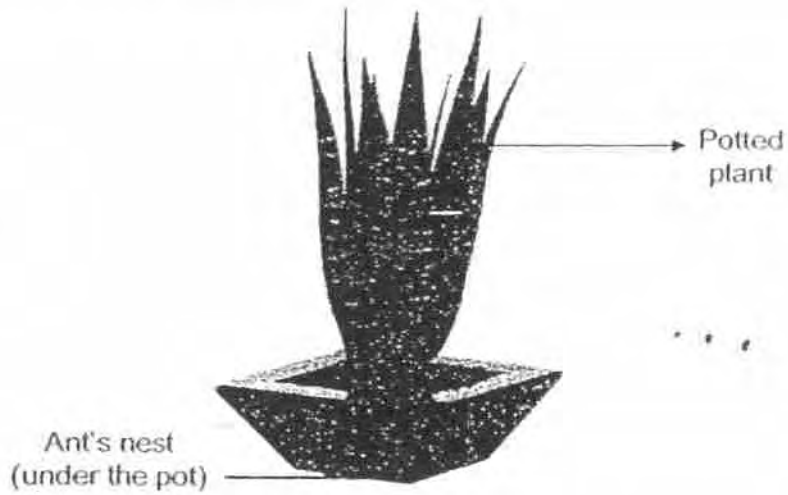
28.



The picture above shows some vegetables and weeds growing together. The vegetables have less of _____ because of the weeds.

- (A) air
 - (B) nutrients
 - (C) sunlight
 - (D) space
 - (E) water
-
- (1) C and E only
 - (2) B, D and E only
 - (3) A, B, D and E only
 - (4) A, B, C, D and E

29. Mr Tan placed a potted plant outside his classroom. After a few days, he found a nest of black ants under the pot.



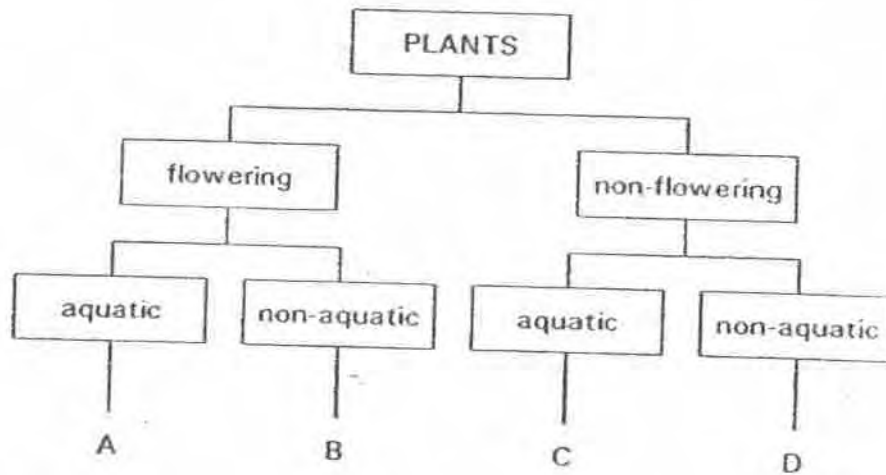
Which of the following statements best explain why the ants build their nest under the pot?

- (A) They want to protect their young.
 - (B) There is a lot of oxygen under the pot.
 - (C) The plant provides them with shade.
 - (D) The pot provides them with shelter.
-
- (1) A and D only
 - (2) C and D only
 - (3) A, C and D only
 - (4) B, C and D only

30. The following table gives information on 4 plants, W, X, Y and Z, based on 2 characteristics. A tick (✓) shows that the plant has the characteristic.

Characteristic	W	X	Y	Z
Bears fruit		✓		✓
Grows on land	✓			✓

From the information above, where do plants X and Y belong in the following classification table?



	Plant X	Plant Y
(1)	A	C
(2)	B	D
(3)	C	B
(4)	D	A



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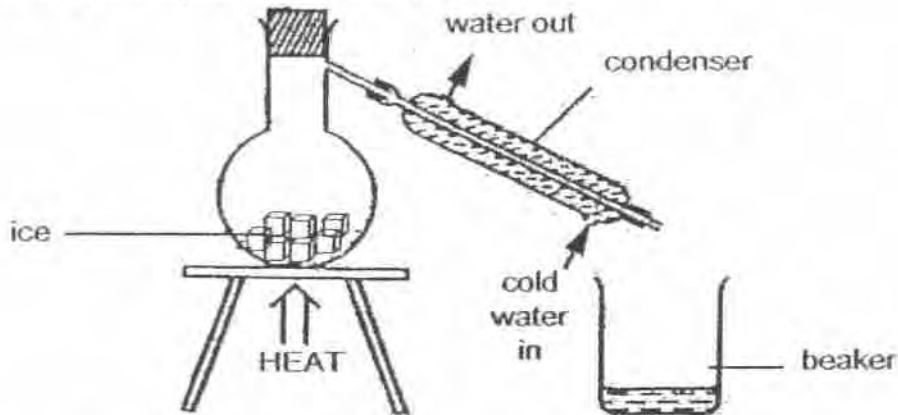
MARKS	
Sect B:	/ 40
Total :	/ 100

Section B: (40marks)

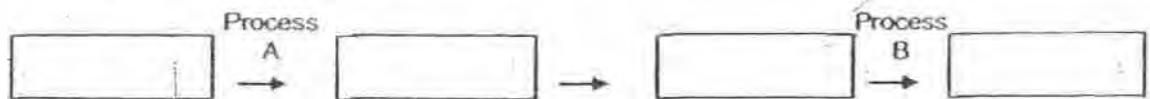
Write your answers to question 31 to 44.

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

31. Study the diagram below carefully.



a. Fill in the boxes below to show the changes of state that take place during this experiment. [1]



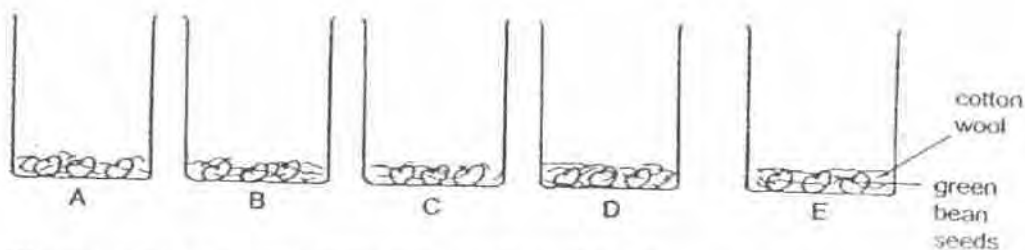
b. Name the processes for the changes that occur in Process A and Process B. [2]

Process A : _____

Process B : _____



32. Kim carried out an experiment to find out the conditions necessary for green bean seeds to germinate. She put some green bean seeds in each of the five containers as shown below.



She recorded the conditions and results in the following table.

Container	Sunlight	Water	Air	Temperature	Result
A	Yes	No	Yes	28°C	No growth
B	Yes	Yes	No	28°C	No growth
C	Yes	Yes	Yes	28°C	Small leaves grew
D	No	Yes	Yes	28°C	Small leaves grew
E	Yes	Yes	Yes	4°C	No growth

- a. What can we conclude from the results? [2]

- b. If the seedlings in containers C and D are allowed to grow in the same containers for another **three weeks**, what would happen to the seedlings in each of the containers? [1]



33. Three plants X, Y and Z were planted on a piece of land as shown in Diagram A.

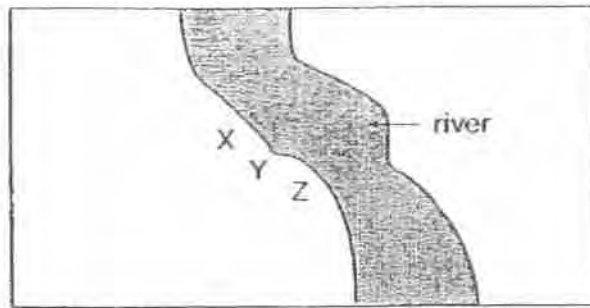


Diagram A

A few years later, many plants were growing on the same piece of land as shown in Diagram B

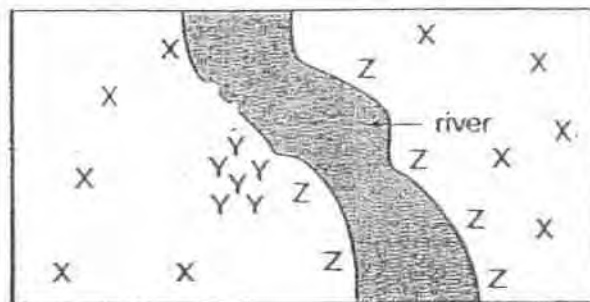
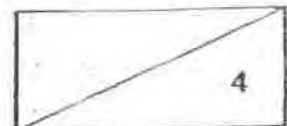


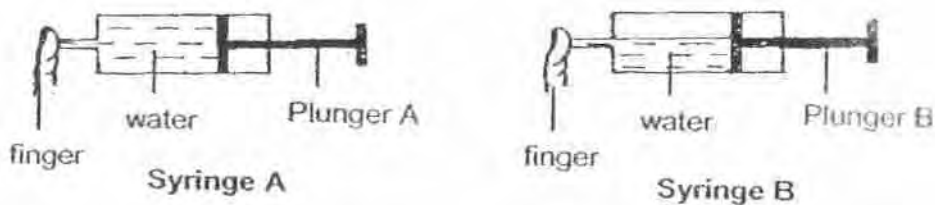
Diagram B

Some statements about the three plants were made. Tick the correct boxes in the table below. [4]

	Statement	True	False	Not possible to tell
(a)	All the three plants bear fruits and seeds.			
(b)	The seeds of Plant Y are most probably dispersed by splitting only.			
(c)	The fruit of Plant Z has a fibrous husk.			
(d)	The fruits of Plant X are dispersed by animals.			



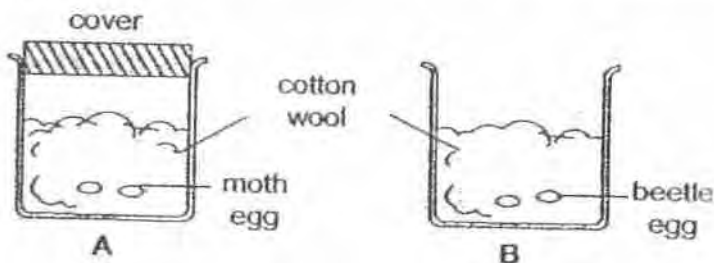
34. Study the diagram below carefully.



a. In which of the following syringes can the plunger be pushed in? [1]

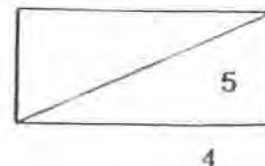
b. Give an explanation for your answer in (a). [2]

35. Abbie wanted to find out if the moth or the beetle egg has a longer life cycle. She carried out an experiment as shown below and waited for the eggs to hatch.



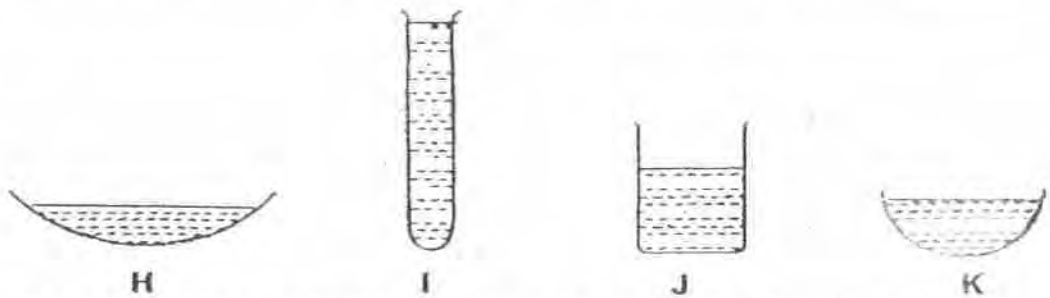
a. Her classmate said it was not a fair test. Why is this so? [1]

b. Name one variable that was kept constant in Abbie's experiment. [1]



36. When Miss Chan got down from the air-conditioned bus, her spectacles became misty. What is the cause of the mist on her spectacles? [2]

37. The diagram below shows 4 different containers H, I, J and K. Each container holds an equal amount of water (100 cm³). These containers were placed next to one another and left in the open to dry for 2 hours.

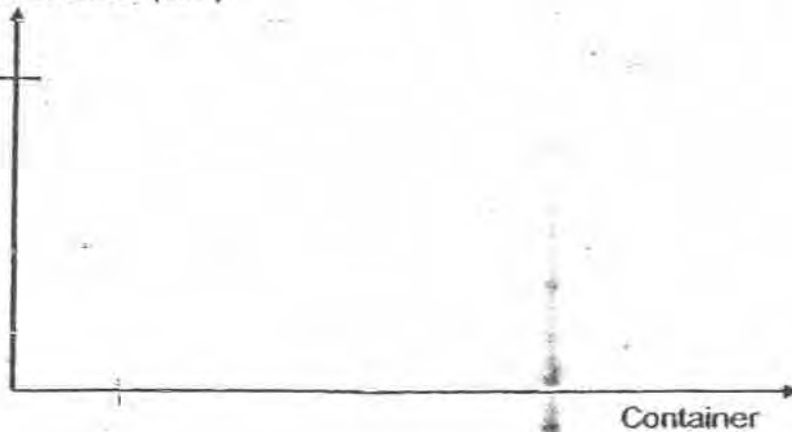


- a. After 2 hours, which container has the least amount of water left? Give a reason for your answer. [2]

- b. Draw a bar graph to show the descending order of the volume of water in all the containers after being left in the open for 2 hours. You must label the containers (H, I, J and K) in your graph clearly. [2]

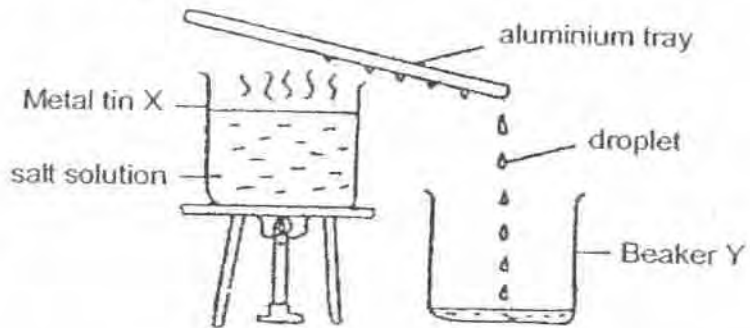
Volume of water (cm³)

100



5

38. Janet put some salt solution in Metal tin X. The salt solution was heated until it boiled. She then placed an aluminium tray above Metal tin X. The droplets formed on the aluminium tray were collected in Beaker Y as shown in the diagram below.



After 5 minutes, many droplets of liquid were collected in Beaker Y.

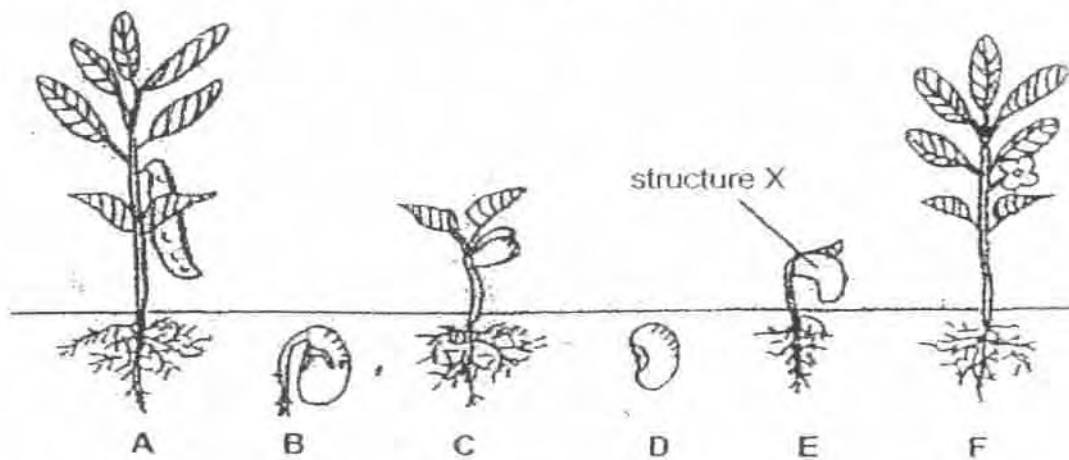
- a. What was the substance collected in Beaker Y? [1]

- b. At the end of 10 minutes, Janet noticed fewer water droplets forming on aluminium tray. Give a reason for her observation. [2]

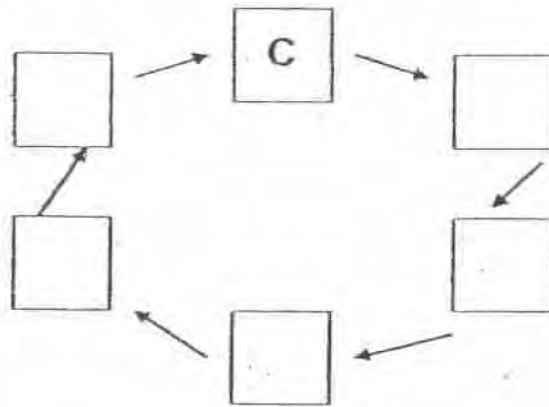
- c. The heating continued until Metal tin X became dry. What was the substance left in Metal tin X? [1]



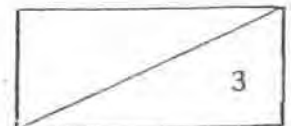
39. The diagram below shows the stages of growth of a bean plant.



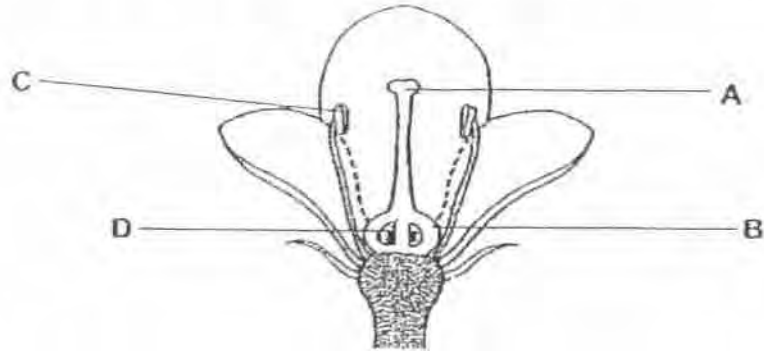
a. Arrange the stages in sequence by writing the correct letters in the boxes provided below. [2]



b. What is the function of structure X? [1]



40. The diagram below shows a cross-section view of a flower.



- a. Which letters, A, B, C, D, are the female parts of a flower? [1]
- _____
- b. If the parts labelled C are removed, can the flower still develop into a fruit? Explain why? [1]
- _____
- _____

41. Jack and Johnny were asked to classify the following fruits into 2 groups.

Mangrove	Coconut	Tomato	Mimosa
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The 2 boys presented their classification as shown below:

Jack's classification

Group P	Group Q
Mangrove	Mimosa
Coconut	Tomato

Johnny's classification

Group X	Group Y
Tomato	Mimosa
Coconut	Mangrove

Give headings for Jack's and Johnny's classification. [2]

- a. P : _____ : Q : _____
- b. X : _____ : Y : _____

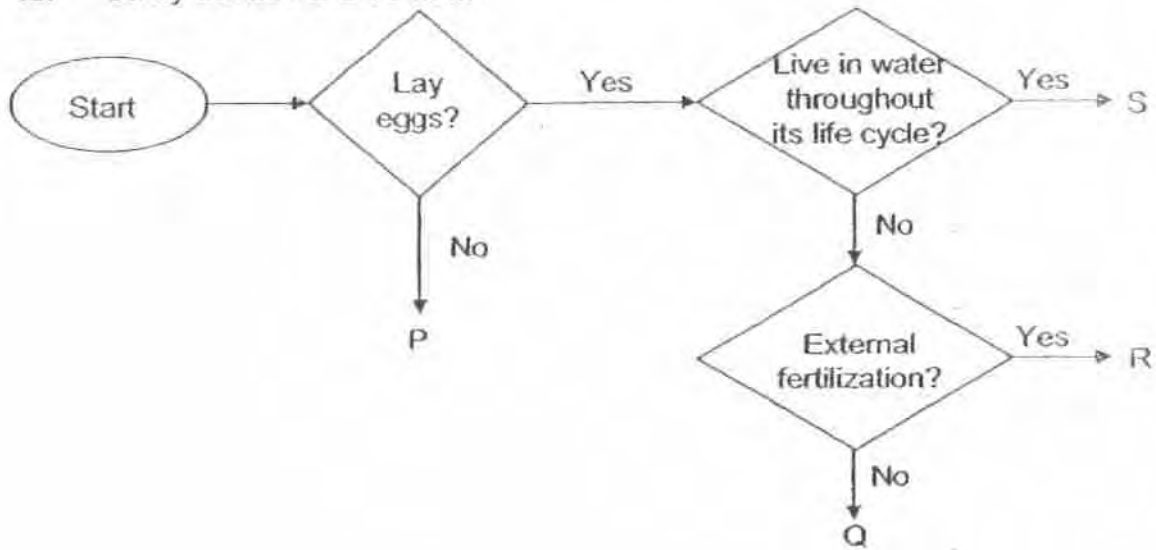


42. Tim found a dented ping pong ball at the Indoor Sports Hall.

a. What should he do to restore the ping pong ball to its original shape? [1]

b. Give an explanation for your answer in (a). [1]

43. Study the flowchart below.



a. Identify the exit points, P, Q, R and S for the following organisms. [1]

Mosquito : _____ Salmon : _____

b. State a similarity between the organisms R and S. [1]



44. Some children went to the zoo and they saw these animals :



ostrich



bull



butterfly



camel



sparrowhawk

a. Tick 2 boxes to show which two things the bull and the camel have in common. [1]

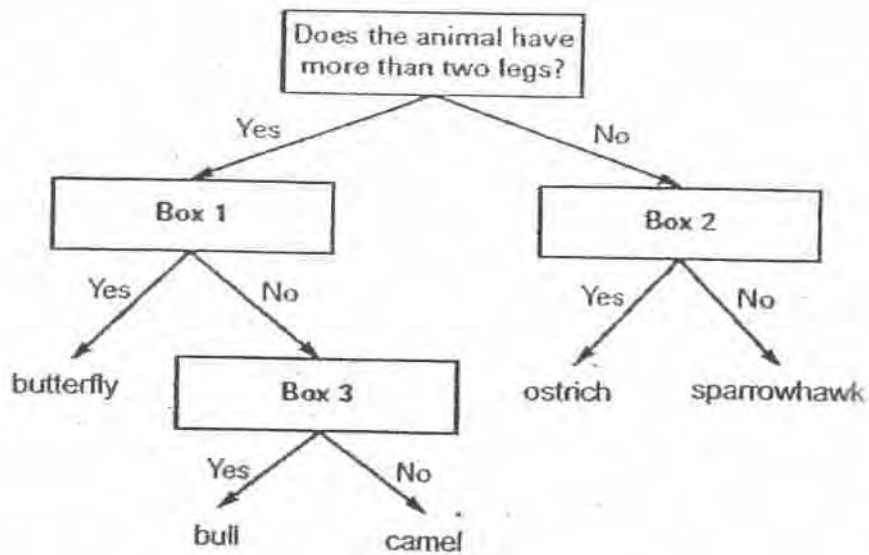
They both have horns.

They both have hair.

They both have a hump.

They both have four legs.

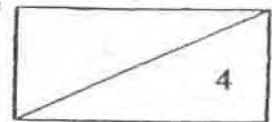
b. Shah and Gopal sort the animals in a dichotomous key below. A dichotomous key is a chart that classifies things by dividing one group into two smaller groups each time.



3 questions are missing from the boxes in the dichotomous key.
Circle 1, 2 or 3 next to each question below to show which box in the dichotomous key the question goes in. [3]

Question	The question goes in box ...		
Does it have a long neck?	1	2	3
Does it have horns?	1	2	3
Does it have antennae?	1	2	3

END OF PAPER
HAVE YOU CHECK YOUR ANSWERS?





ANSWER SHEET

EXAM PAPER 2010

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

TERM : CA1



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

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

31)a)Solid→Liquid→Gas→Liquid.

b)A: melting B: condensation

32)a)The bean seeds need air, water and warmth but not sunlight.

b)All the seedling will die.

33)a)Not b)T c)T d)Not

34)a)Syringe B.

b)Plunger B has both air and water. Air can be compressed, hence the plunger can be pushed in.

35)a)There is a cover in container A but not container B.

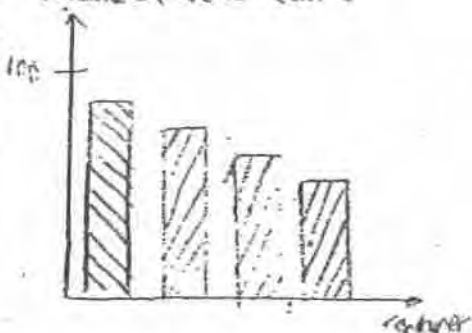
b)The type of cotton wool.

36)Water vapour from the surrounding air lose heat and condensed on the cooler surface of the spectacles to form water droplets.

37)a)Container H the amount of exposed surface of water is the largest so the rate of evaporation is the fastest.

b)

volume of water (cm³)



38)a) Clean water.

b) The aluminium tray had gained heat and as the surface became warmer, there is less condensation.

c) Salt.

39)a)

		C	
E			F
B			A
	D		

b) To provide the seedling with food.

40)a) A, B and D.

b) Yes. The stigma can still receive pollen from other flowers of the same species. After fertilisation, the ovary will develop into a fruit.

Yes. Pollen grains could have already landed on the stigma before the anthers were cut off.

41)a) P: dispersed by water. Q: dispersed by animals.

b) X: Edible Y: inedible.

42)a) He should put the dented ping pong ball in a pail of hot water.

b) The air in the ping pong ball expands when it is in hot water.

43)a) Q, S

b) They both lay eggs.

44)a) They both have hair.

They both have four legs.

b) 2, 3, 1