



AI TONG SCHOOL

2006

CONTINUAL ASSESSMENT (1)

SCIENCE

PRIMARY 6

DURATION : 1 hour 45 minutes

DATE: 8 March 2006

INSTRUCTIONS

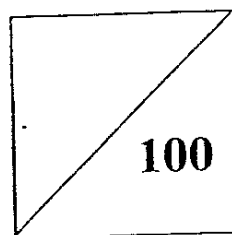
Do not open the booklet until you are told to do so.

Follow all instructions

Answer all questions.

Name : _____ ()

Marks :



Class : Primary _____

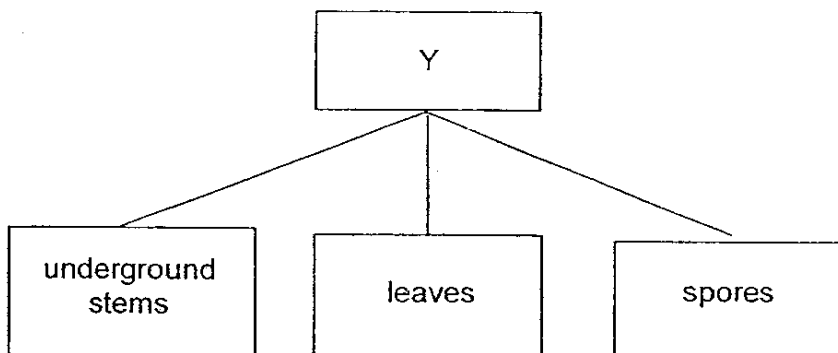
Parent's Signature : _____

Date : _____

Section A (30 x 2 marks)

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. A classification chart is shown below.



What can Y be?

- (1) How plants reproduce
- (2) How flowering plants reproduce
- (3) How non-flowering plants reproduce
- (4) How plants disperse their seeds

2. Jenny put six things into these two groups:

Group A	Group B
steel	rubber
mercury	plastic
copper	cork

Which of the following set of characteristics did she use to group them?

	Group A	Group B
(1)	can be compressed	cannot be compressed
(2)	has a definite shape	has no definite shape
(3)	conducts heat	does not conduct heat
(4)	magnetic substance	non-magnetic substance

3. The table below shows the properties of some materials.

Materials	Properties			
	Flexible	Waterproof	Durable	Hard
A		✓		✓
B	✓	✓		
C	✓		✓	
D			✓	✓

Which one of the materials is suitable for making raincoats?

- (1) A
 (2) B
 (3) C
 (4) D
4. There are 4 pairs of animals in the chart below.
 Which pair has been grouped correctly?

Animal eaters	Plant and animal eaters
hawk	zebra
deer	duck
caterpillar	crocodile
snake	pig

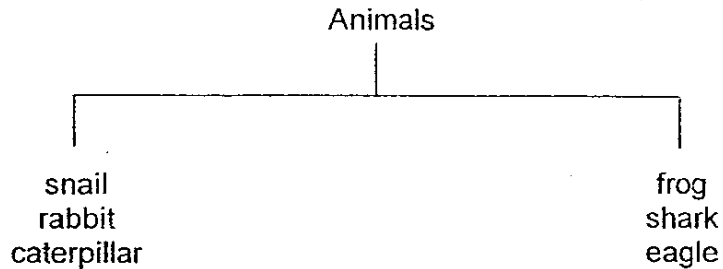
- (1) hawk and zebra
 (2) deer and duck
 (3) caterpillar and crocodile
 (4) snake and pig
5. Study the three pairs of items below:

Pair A: book – wood
 Pair B: chair – plastic
 Pair C: knife – steel

How are the two items in each pair related?

- (1) an object and its shape
 (2) an object and its use
 (3) an object and what it is made of
 (4) an object and how it is classified

6. Study the classification diagram below:



The animals are classified according to _____.

- (1) what they feed on
- (2) how they move
- (3) where they are found
- (4) what their outer body coverings are

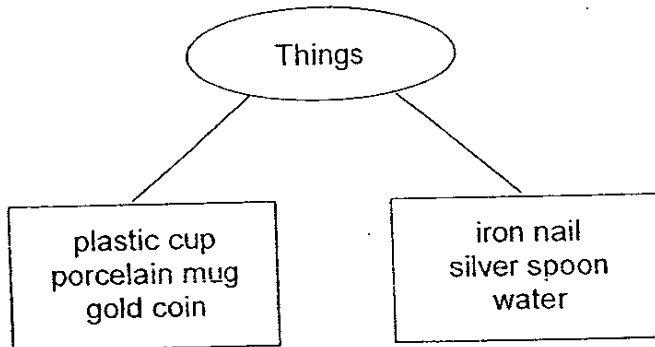
7. Which one of the following sentences correctly describes both organisms?

- (1) The housefly and the bee are pests.
- (2) The millipede and the centipede have the same number of legs.
- (3) The elephant and the ostrich have the same body covering.
- (4) The bat and the whale breathe through lungs.

8. Which one of the following statements about light and heat is correct?

- (1) Light can be seen but not heat.
- (2) Light can travel a long distance but not heat.
- (3) Heat is matter but not light.
- (4) Heat is a form of energy but not light.

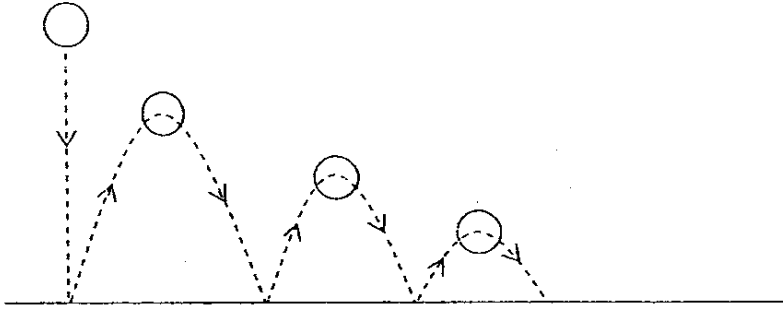
9. The following shows a classification of some items based on their electrical property.



Which item is wrongly classified?

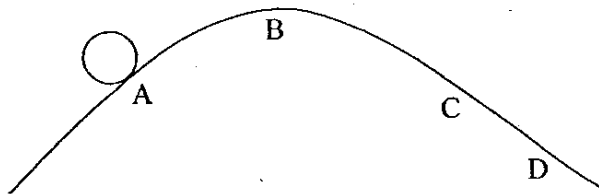
- (1) porcelain mug
 - (2) gold coin
 - (3) silver spoon
 - (4) water
10. Which of the following possesses potential energy?
- A A rock perched on a slope
 - B Air compressed in a pop-gun
 - C A stretched rubber band in a catapult
 - D A paper clip being attracted by a magnet
- (1) A and D only
 - (2) B and C only
 - (3) A, B and C only
 - (4) A, B, C and D
11. At breakfast, Mother toasted a slice of bread in the oven toaster. What energy change took place in the oven toaster?
- (1) Chemical energy → heat energy + light energy
 - (2) Electrical energy → heat energy + light energy
 - (3) Magnetic energy → heat energy + light energy
 - (4) Kinetic energy → heat energy + light energy

12. A ping pong ball was dropped from a height of 1 m from the ground. It bounced to a lower height each time it hit the ground as shown in the diagram below.



Which answer explains fully why the ball does not bounce back to the same height from which it was first dropped?

- (1) The 'dropping' height was too low.
 - (2) Gravity increased with each bounce.
 - (3) Its potential energy was changed into other forms of energy.
 - (4) All its potential energy was changed into sound energy.
13. The diagram shows a rubber ball rolling up and down a slope. At which point does the ball have the most kinetic energy?



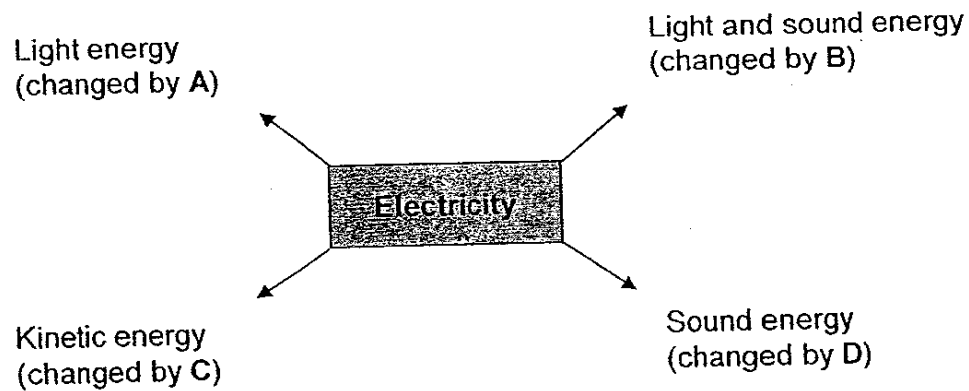
- (1) A
- (2) B
- (3) C
- (4) D

14. Which of the following actions can help to conserve resources?

- A Recycle aluminium cans.
- B Use more disposable materials.
- C Using running water to power generators.
- D Take public transport instead of driving.

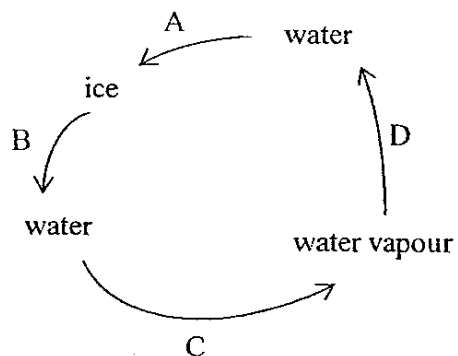
- (1) A and B only
- (2) C and D only
- (3) A, C and D only
- (4) A, B, C and D

15. Electrical appliances can change electricity to other forms of useful energy. In the chart below, match the letters to the correct appliances.



	A	B	C	D
(1)	DVD player	Jukebox	Cake mixer	Electric blender
(2)	Radio	Video pod	Lift	Loudhailer
(3)	Alarm clock	Film projector	Rice cooker	Tape recorder
(4)	Electric lamp	Television	Blender	MP3 player

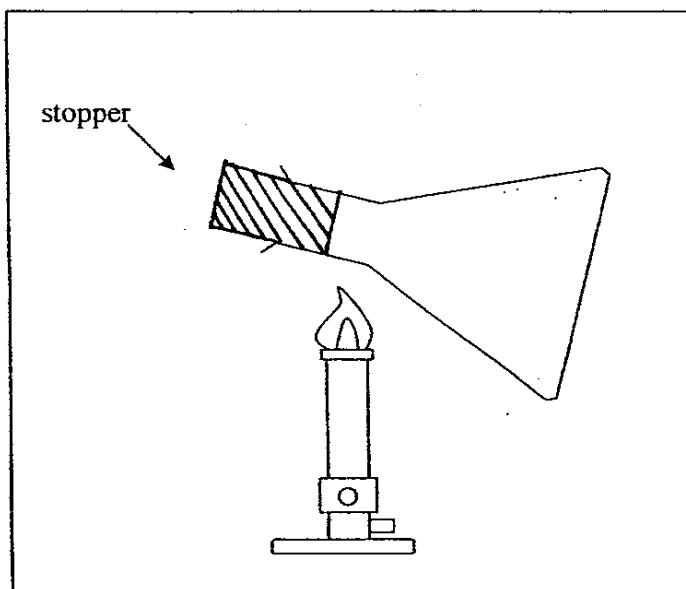
16. The diagram below shows the changes of state water goes through.



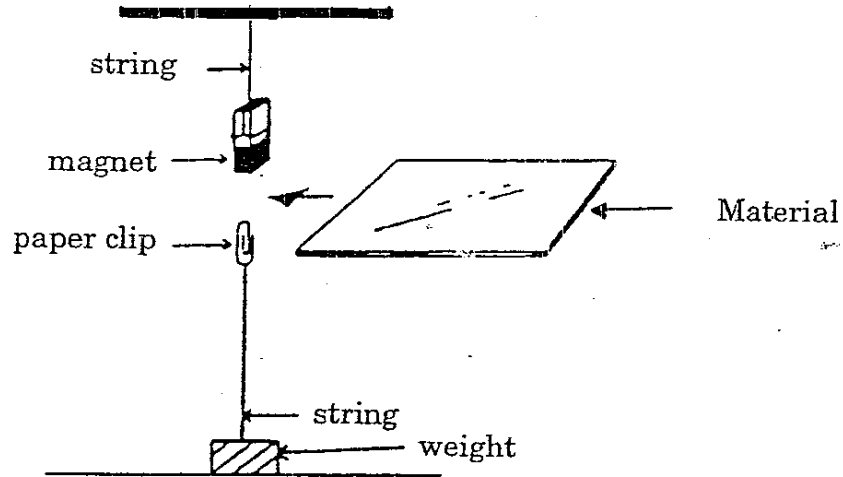
Which arrow represents condensation?

- (1) Arrow A
 - (2) Arrow B
 - (3) Arrow C
 - (4) Arrow D.
17. Jerry heated an empty conical flask as shown in the diagram. After a while the stopper popped out as shown in the figure below. This happened because the

- (1) flask expanded.
- (2) hot air rose
- (3) air in the flask was expanded
- (4) air in the flask was compressed.



18. Muthu sets up an experiment as shown below.



He wanted to find out if magnetic force can pass through the following types of materials. He records his results as follows.

Material	Did the paper clip drop?	Did the magnetic force pass through the material?
cardboard	No	Yes
Plastic	No	Yes
Iron	Yes	No
Copper	?	?

Which one of the following is likely to be his observation for copper?

	Did the paper clip drop?	Did the magnetic force pass through the material?
(1)	Yes	No
(2)	No	No
(3)	Yes	Yes
(4)	No	Yes

19. Mary wrote so much that after some time, her pencil became blunt. Which of the following best explains why the pencil became blunt?

- (1) Friction produces heat.
- (2) Friction goes against motion.
- (3) Friction increases over a rough surface.
- (4) Friction wears off rubbing surfaces.

20. Which of the following organisms does not reproduce from spores?

- (1) mushroom
- (2) bird's nest fern
- (3) bread mould
- (4) pepper

21. Daryl conducted an experiment on 4 different types of surfaces to find out the force needed to move a 200g load over them. The diagrams below show his results.



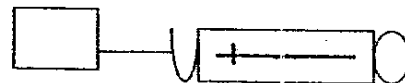
Surface A



Surface B



Surface C

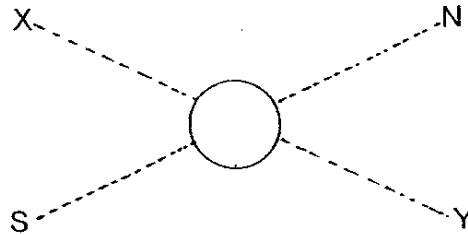


Surface D

Arrange the four surfaces in order from the one that produces the least friction to the one with the most friction.

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

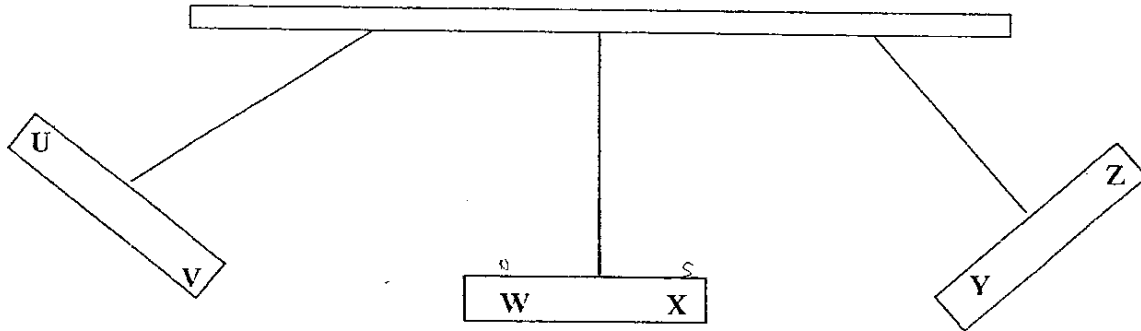
22. In the diagram below, Aaron applied a force to a ball so that it is heading towards direction X. The dotted lines represent the possible paths the ball can take.



What must be done to change the direction of the ball such that it will head towards Y ?

- (1) Apply an equal force towards direction Y.
- (2) Apply a stronger force towards direction Y.
- (3) Apply a weaker force towards direction N.
- (4) Apply a stronger force towards direction S.

23. The diagram shows 3 magnets that repel one another when suspended from a height.

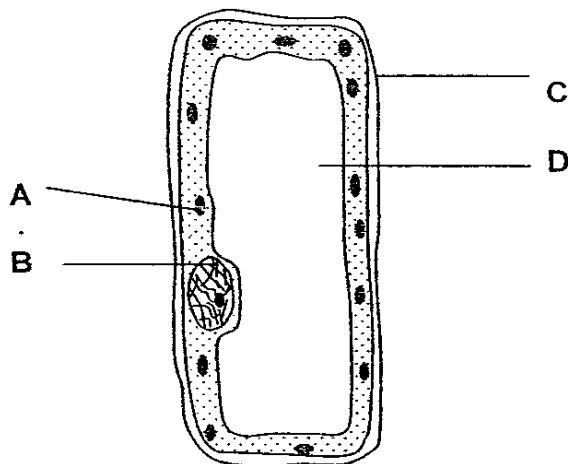


Which of the following correctly shows the possible poles of U, W and Z?

	U	W	Z
A	North	North	South
B	North	South	South
C	South	South	North
D	South	North	North

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

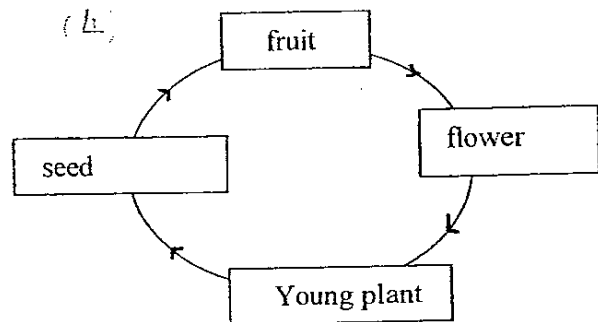
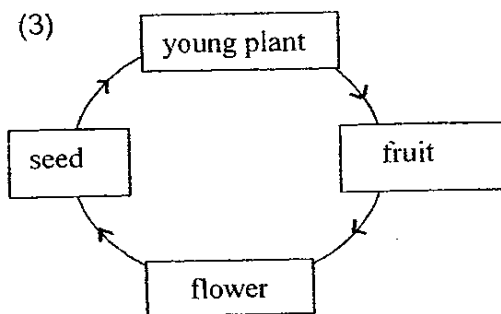
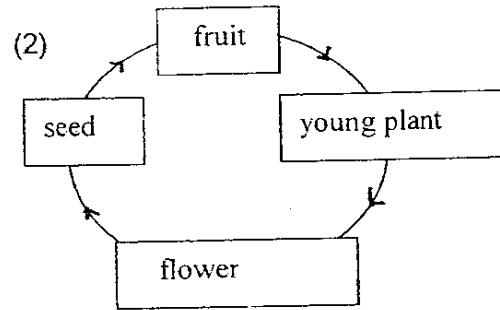
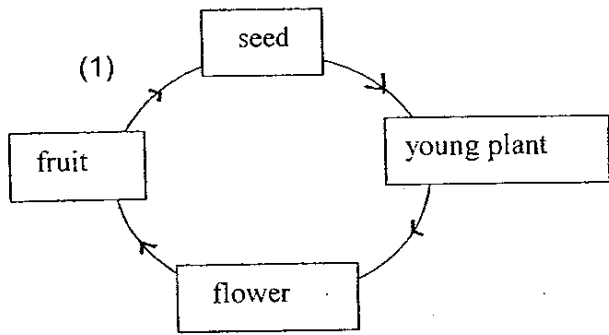
24. Which part of a plant cell is able to carry out photosynthesis?



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

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25. Which one of the following figures shows the stages of development of the cucumber plant?



26. A group of pupils carried out an experiment on balsam plants. They wanted to find out how balsam plants grow under certain conditions. This is how they carried out the experiment.

Step 1 : They filled 2 similar pots with equal amounts of garden soil.

Step 2 : They placed 4 seeds in the first pot and 30 seeds in the second pot.

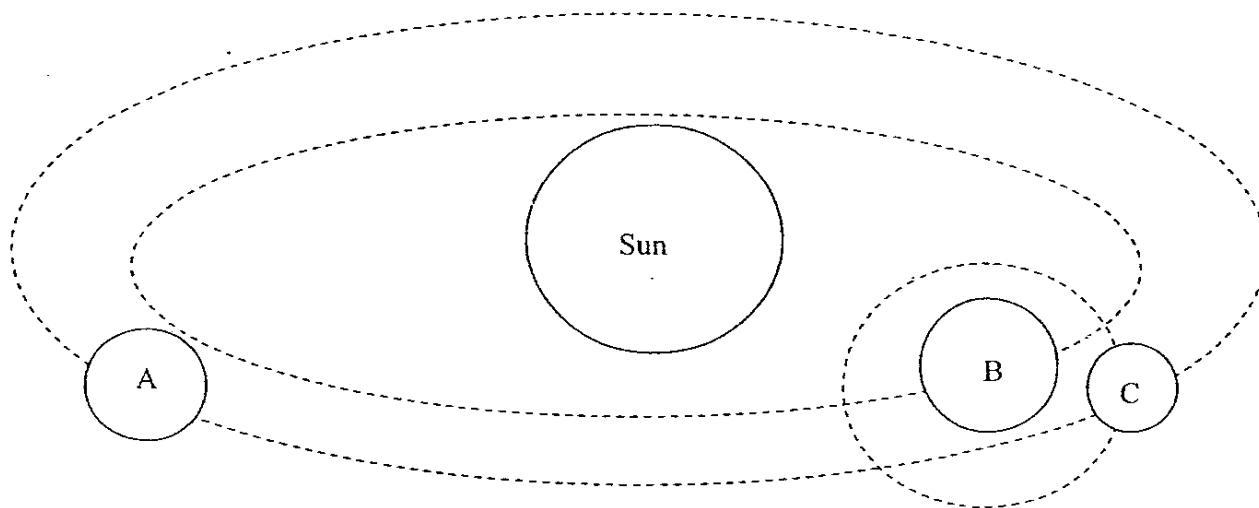
Step 3 : Next they placed both pots in the Science Garden.

Step 4 : They watered both pots daily with the same amount of water.

What do you think the pupils were trying to test?

- (1) Sunlight is necessary for photosynthesis.
- (2) Overcrowding can affect plant growth.
- (3) Water is necessary for healthy plant growth
- (4) Balsam plants grow well in garden soil.

27. The diagram below shows part of the solar system.

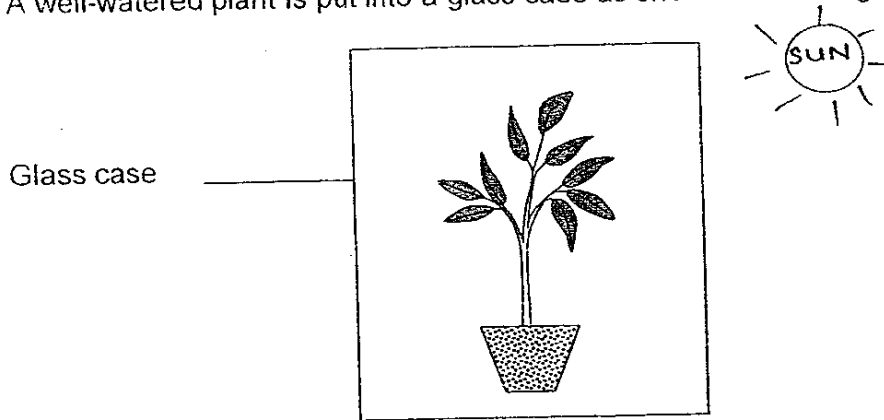


Which of the following statements is true?

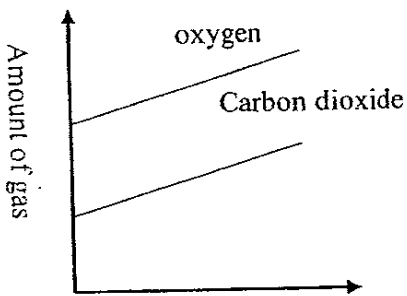
- (1) A is the moon.
- (2) B is hotter than A.
- (3) B is the satellite of C.
- (4) B and C are planets.

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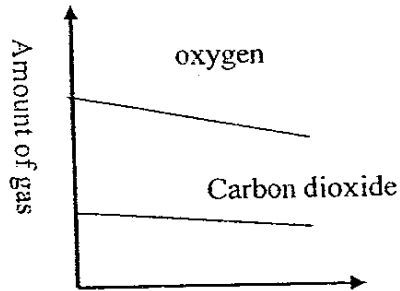
28. A well-watered plant is put into a glass case as shown in the diagram.



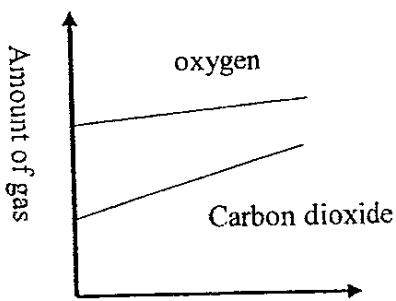
Which of the following graphs correctly shows the changes in the amount of oxygen and carbon dioxide in the glass case during the day?



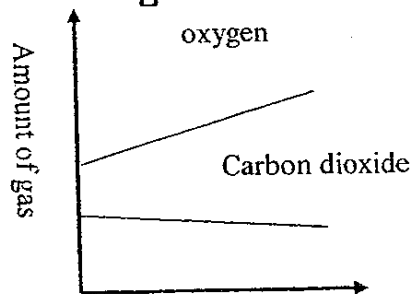
A



B



C



D

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

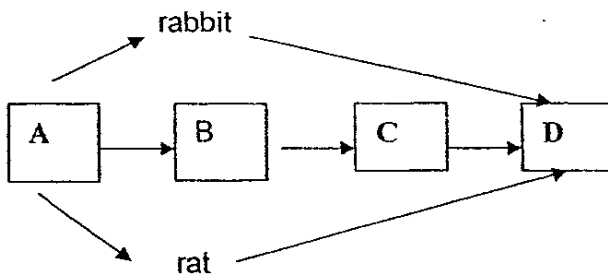
29. Melvin was asked to write a few sentences about the insect shown below. He made the following statements. Which of his statements are true?



- A Its young is called a nymph.
- B Its young feeds on blood.
- C It lays its eggs in water
- D It is at the most harmful stage of its life.

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

30. In the food web below, A, B, C and D represent 4 living things. Which organisms are likely to be represented by the letters A, B, C, D?



	A	B	C	D
(1)	plant	hen	eagle	snake
(2)	plant	hen	snake	eagle
(3)	plant	eagle	snake	hen
(4)	plant	snake	hen	eagle

Name: _____ ()
 Class: Pr 6 _____

Section B: (40 marks)

Read the question carefully and write your answers in the spaces provided.

31. The table below shows how some organisms can be classified. Use the information in the table to answer the questions.

Food producers		Food consumers	
Live in water	Live on land	Live in water	Live on land
water lettuce elodea lotus	rose pong pong bamboo	swordtail tadpole water snail	lizard rat dog

- (a) How are the bamboo and the rat similar? [1]

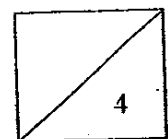
- (b) How is the lotus different from the water snail? [1]

32. The table below shows the classification of some animals.

Group A	Group B	Group C
python crocodile lizard	hen pigeon kiwi	monkey elephant lion

- (a) What characteristic is used to group the animals in the table above? [1]

- (b) Besides the characteristic stated in (a), name another characteristic of the animals in Group C only. [1]



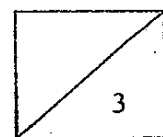
33. Gopal obtained 6 types of plants.

flame of the forest	coconut	angsana
shorea	saga	lotus

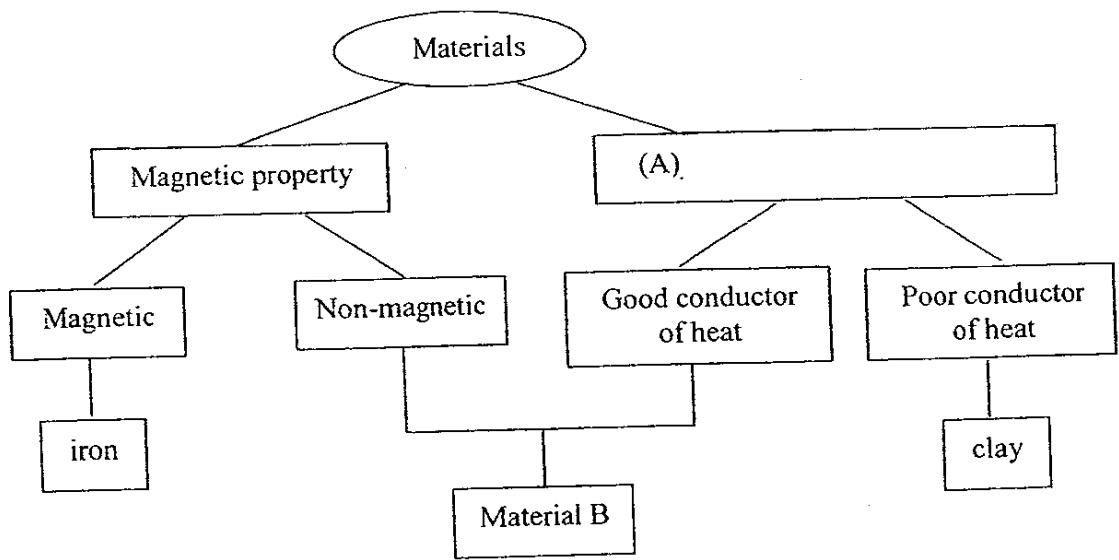
He classified the plants according to the way their fruits or seeds are dispersed.

- (a) Write suitable headings for B and C. [2]
- (b) Complete the classification table to show how Gopal classified the rest of the plants. [1]

Methods of Dispersal		
(A) By wind	(B) _____	(C) _____
shorea _____	flame of the forest saga	coconut _____



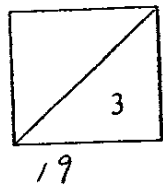
34. Study the classification chart below carefully and fill in the blanks with suitable words.



(a) What can A be? [1]

(b) From the chart above, what can you say about Material B? [1]

(c) Give an example of Material B. [1]



35. Classify the following materials into three groups A, B and C. [3]

mirror	tracing paper	spectacles lenses
wood	aluminium foil	frosted glass

Degree of transparency to light		
Group A	Group B	Group C

36. Some machines are useful because they can change one form of energy to another.

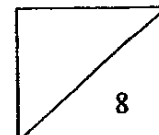
State the energy changes that take place in the table below. [3]

Machine	Energy change
Hair dryer	
Air gun	
Solar calculator	

37. State two advantages of using solar energy and hydro-electric power instead of petroleum to produce electricity.

a) _____ [1]

b) _____ [1]

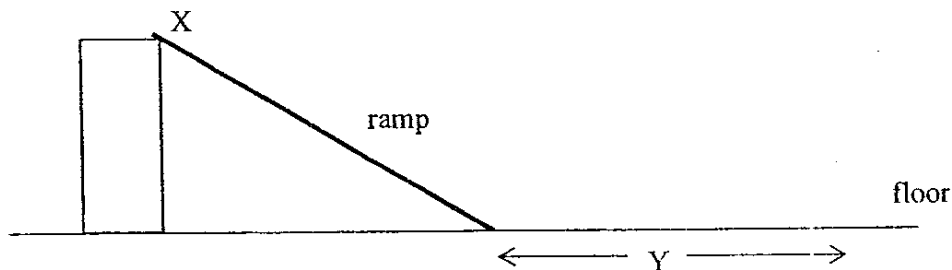


38. When Ali plays soccer, he does a lot of running. He must be energetic to do this.

(a) Where does he get the energy from? [1]

(b) State the energy conversion that takes place in his body during a soccer game. [1]

39. In the experiment shown below, a toy car, represented by X, was allowed to slide down from the top of a ramp. Y represented the distance travelled by the toy car along the floor before it came to rest.

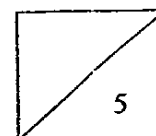


The table showed the results obtained.

Height of ramp (cm)	Distance moved by car (cm)
10	70
20	140
30	210
40	280

a) What was the pattern between the height of the ramp and the distance the car could travel along the floor? [2]

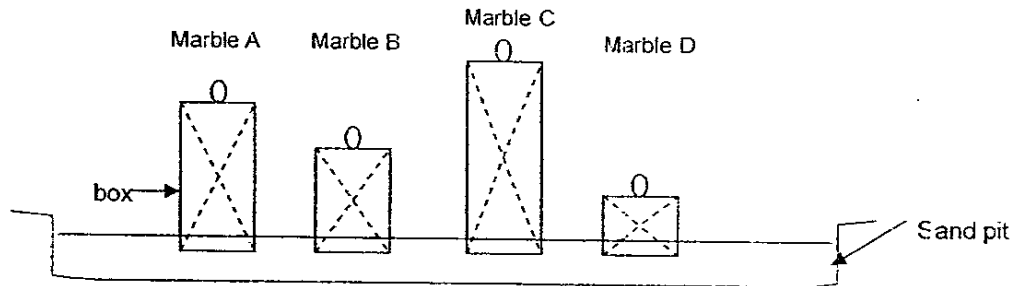
b) Which variable was changed in the experiment? [1]



40. State the effects of the forces when the actions in the table take place. [2]

Action	Effects of force
Pressing a ball of plasticine	
Catching a ball.	
Spinning a stationary globe.	
Kicking a moving ball in the same direction	

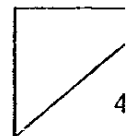
41. Alvin conducted an experiment to find the relationship between the height a marble is dropped from and the force exerted. He placed 4 identical marbles of equal mass on top of four boxes of different heights. The marbles were then rolled down with the same amount of force.



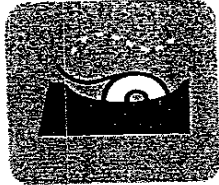
a) Which marble made the deepest depression in the sand pit? [1/2]

b) Which marble exerted the least force in the sand pit? [1/2]

c) State the relationship between the height of the marble and the force it exerted. [1]



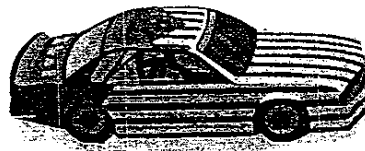
42. You are given the following items.



Scotch tape



2 bar magnets



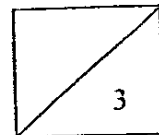
A toy car

(a) Explain how you would make the car move forward without touching it, using all the items above. The procedure should involve only 2 steps.

Step 1: _____ [1]

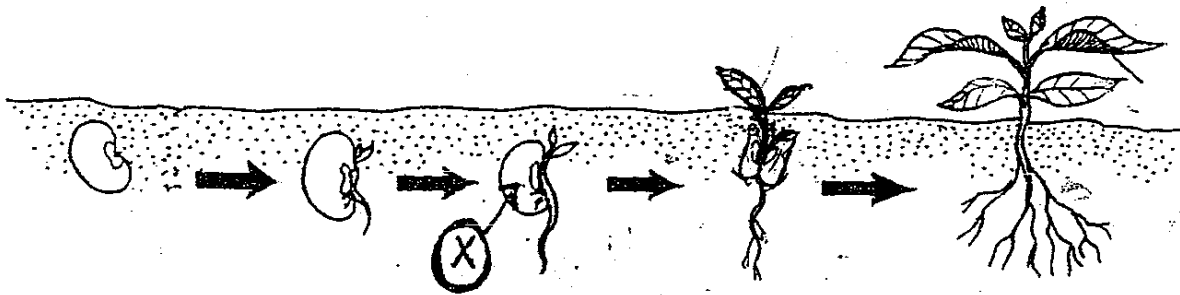
Step 2: _____ [1]

(b) Explain why the car was able to move forward. [1]



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43. The pictures below show the different stages in the growth of a bean plant. Study the pictures carefully and answer the questions that follow.



Stage A

Stage B

Stage C

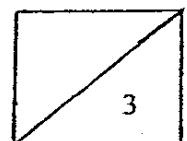
Stage D

Stage E

a) What do you think will happen if part X is removed at stage C? [1]

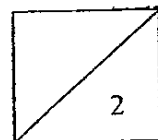
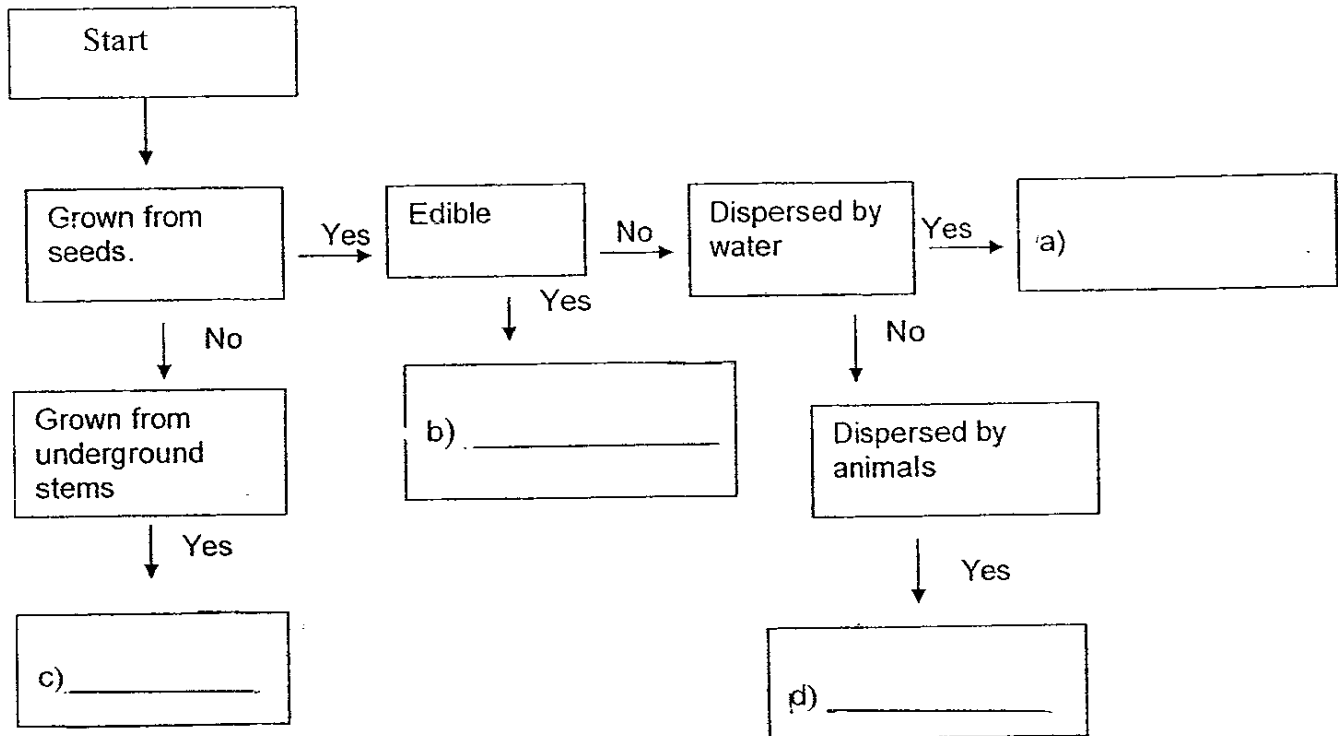
b) Explain your answer in (a) [1]

c) At which stage is the seedling able to make its own food? [1]



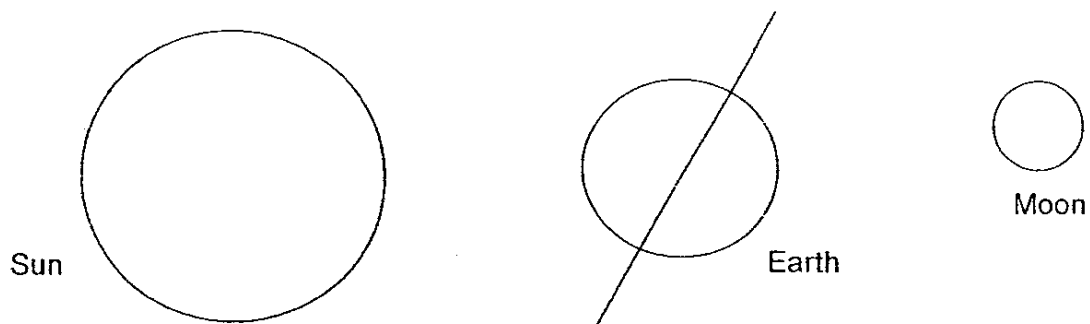
44. Study the chart below. Write the name of a suitable plant in boxes (a), (b), (c) and (d).

[2]



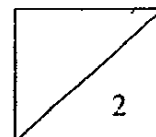
25

45. The diagram below shows the positions of the earth and the sun.



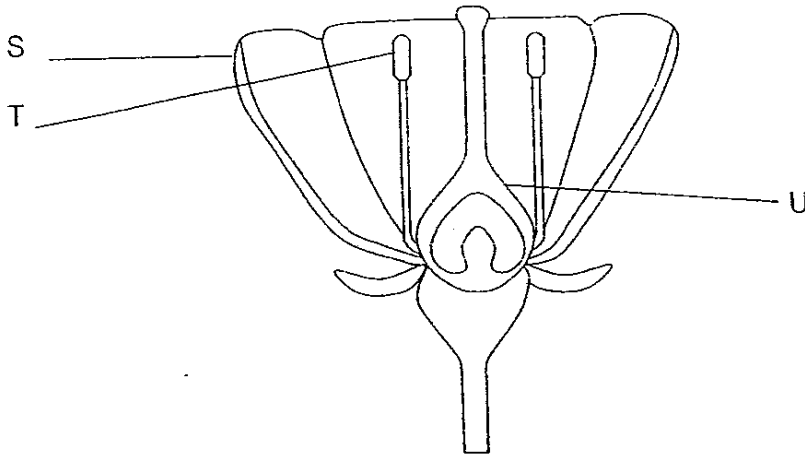
(a) Put a cross (X) in the diagram to show the position of the new moon. [1]

(b) Explain why we can see the moon in the sky at night although it does not give out light. [1]



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46. The diagram shows the cross-section of a flower.



(a) Name the parts labeled :

[1]

T : _____

U : _____

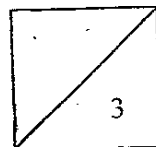
(b) What is the function of the part S?

[1]

(c) Why does the flower need the function named in (b) ?

[1]

End of Paper



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Ai Tong Primary School
Primary 6 Science CA1 Exams (2006)

(ANSWER KEY)

SECTION A : (60 MARKS)

Qn no.	Ans
1	1
2	3
3	2
4	4
5	3
6	1
7	4
8	1
9	2
10	3

Qn no.	Ans
11	2
12	3
13	4
14	3
15	4
16	4
17	3
18	4
19	4
20	4

Qn no.	Ans
21	2
22	2
23	3
24	1
25	1
26	2
27	2
28	4
29	4
30	2

SECTION B (40 MARKS)

Qn No.	Answers
31a	Both of them live on land.
31b	Lotus produces food while water snail finds food.

32a	Their outer coverings.
32b	They gave birth to their young alive.

33a	B : By splitting C: By water
33b	Angsana, lotus

Qn No.	Answers
34a	Thermal property
34b	It is non-magnetic and a good conductor of heat.
34c	Silver, copper, mercury, gold, aluminum.

35	Group A : spectacles lenses.
	Group B : tracing paper, frosted glass.
	Group C : wood, mirror, aluminum foil

36	Electrical energy → Kinetic energy + sound energy + heat energy.
	Potential energy → Kinetic energy + sound energy.
	Light energy → electrical energy.

37a	Do not cost money.
37b	Unlimited usage.

38a	From the food he eat.
38b	Chemical energy → Kinetic energy → sound energy + heat energy

39a	When then height of the ramp increased by 10cm. The distance moved by the car increased by 70cm.
39b	The height of the ramp.

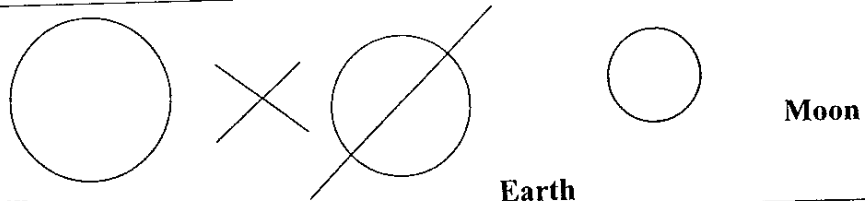
40	Change its shape
	Stop moving
	Start moving
	Move faster

41a	Marble C
41b	Marble D
41c	The higher the marble is the greater is the force exerted.

Qn No.	Answers
42a	Step 1 : tape a bar mage tot the top of the car with the north pole facing forward. Step 2 : Bring the second mage tot the car with the south pole facing the first magnet
42b	The car was able to more forward because the unlike poles of the 2 magnets attracts each other and caused the car to move forward.

43a	The plant will die.
43b	The seedling is unable to make food at this stage and has to depend on the seed leaves for food to grow.
43c	Stage D

44a	Pong pong
44b	Tomato
44c	Potato
44d	Love grass

45a	
45b	It reflects light from the sun so we can see the moon in the night although it does not give out light.

46a	T : Anther U : ovary
46b	To attract insects such as butterflies and bees.
46c	To ensure that pollination takes place.