



NAN HUA PRIMARY SCHOOL
CONTINUAL ASSESSMENT 1 2016
PRIMARY FIVE
SCIENCE

Name : _____ ()

Class : Primary 5 / _____

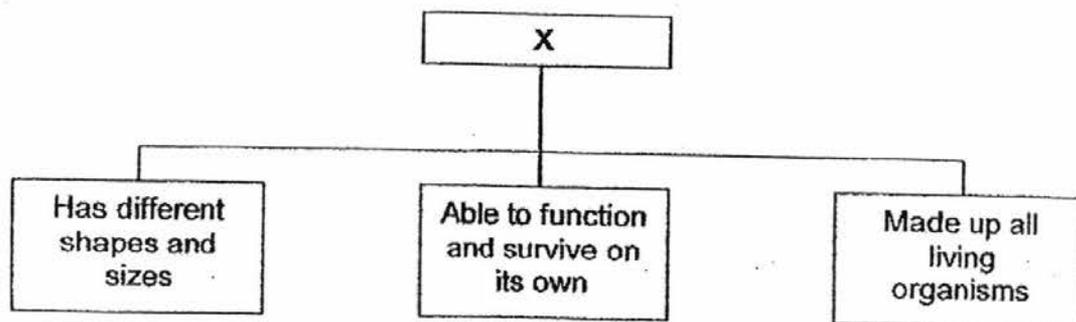
Date : 26 February 2016

MARKS	
Sect A:	/ 56
Sect B:	/ 44
Total :	/ 100

Section A: (28 x 2 marks = 56 marks)

For each question from 1 to 28, 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.

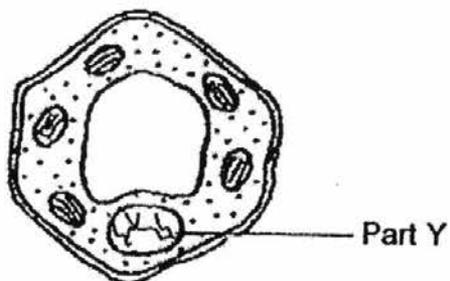
1. The chart below provides some information on X.



What is X?

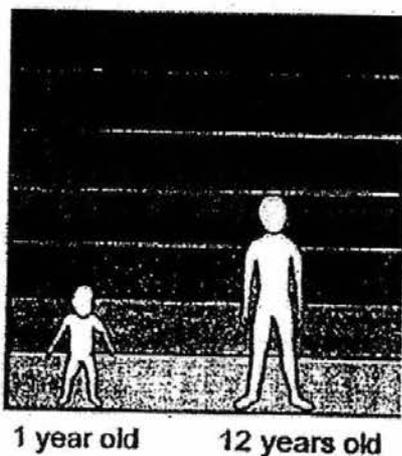
- (1) Cell
- (2) Plant
- (3) Spores
- (4) Human

2. The diagram shows a plant cell.



Which one of the following statements about part Y is correct?

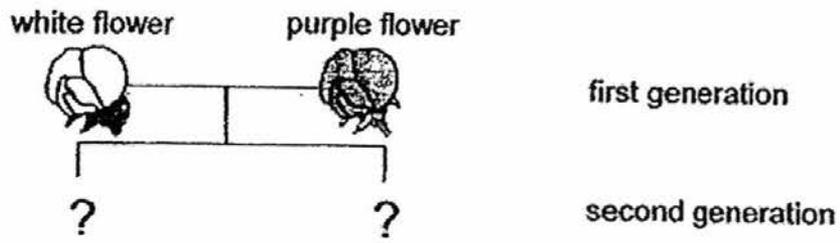
- (1) Part Y protects the cell.
 - (2) Part Y contains all the parts of the cell.
 - (3) Part Y is found in plant cells but not in animal cells.
 - (4) Part Y is responsible for the reproduction of the cell.
3. The diagram below shows the physical growth of a boy.



What has/have caused the growth in the boy?

- A Cells increased in size.
 - B Cells increased in numbers.
 - C Cells dying and replacing themselves.
- (1) C only
 - (2) B only
 - (3) A and B only
 - (4) A, B and C

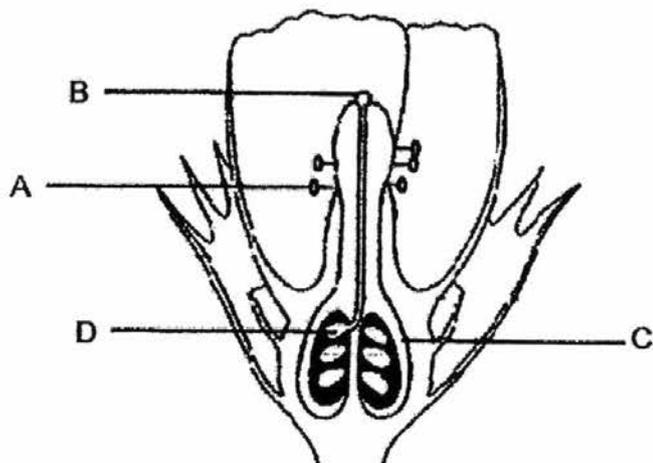
4. The reproduction of the same type of plants with flowers of different colours is carried out.



Which one of the following is most likely the colour of the second generation flowers?

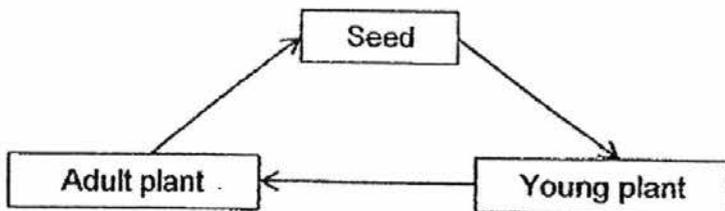
- (1)
-
- white flower ————— purple flower
- blue flower blue flower
- (2)
-
- white flower ————— purple flower
- red flower red flower
- (3)
-
- white flower ————— purple flower
- grey flower grey flower
- (4)
-
- white flower ————— purple flower
- purple flower purple flower

5. The diagram shows a cross-section of a flower.



Based on the diagram, in which of the labelled parts will the male reproductive cell be released from to fuse with the egg cell?

- (1) A
 - (2) B
 - (3) C
 - (4) D
6. The diagram below shows the development of Plant X.

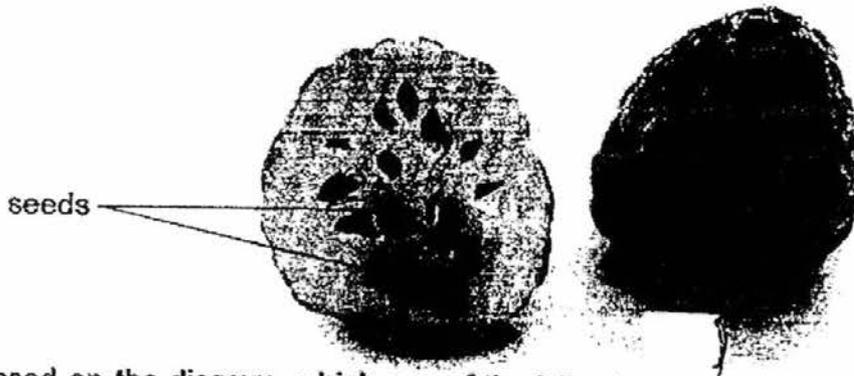


Which of the following statements about Plant X are definitely correct?

- A Plant X is a flowering plant.
- B Germination has occurred for Plant X.
- C Seeds of Plant X are dispersed by explosive action.

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

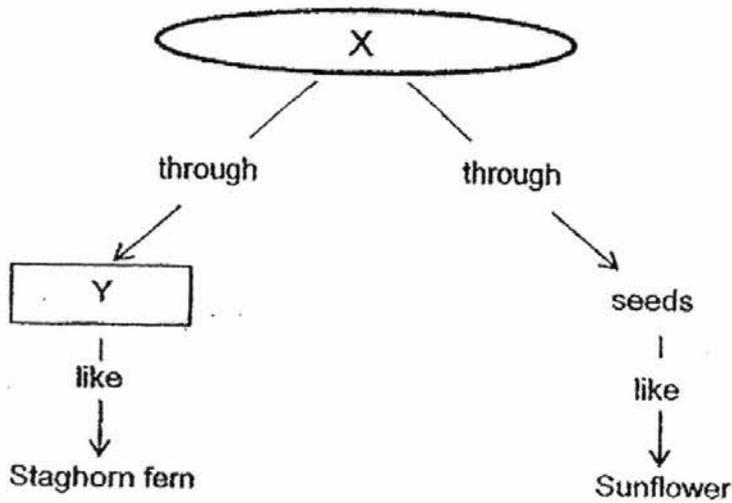
7. The diagram below shows the cross-section of a fruit.



Based on the diagram, which one of the following statements is definitely true about the flower from which this fruit has developed from?

- (1) The flower has many ovaries.
- (2) The flower has more than one ovule.
- (3) The flower has more than one stigma.
- (4) The flower has brightly-coloured petals.

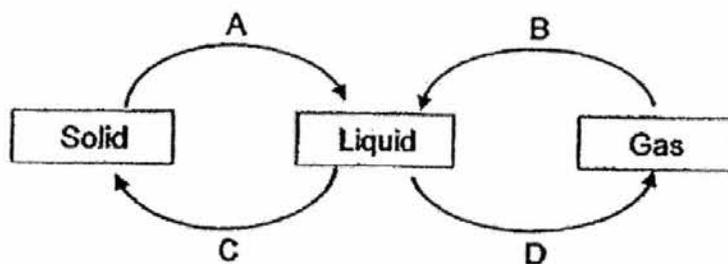
8. Study the chart below.



Which of the following can X and Y be?

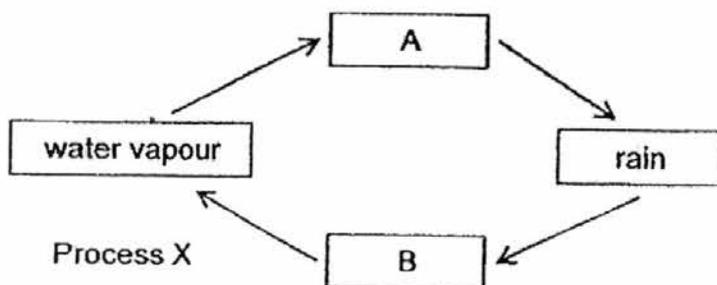
	X	Y
(1)	Plants dispersal	spores
(2)	Plants dispersal	seeds
(3)	Plants reproduction	spores
(4)	Plants reproduction	seeds

9. The diagram below shows processes A, B, C and D when water changes state.



Which one of the following correctly classifies the processes that require heat to be gained by the water?

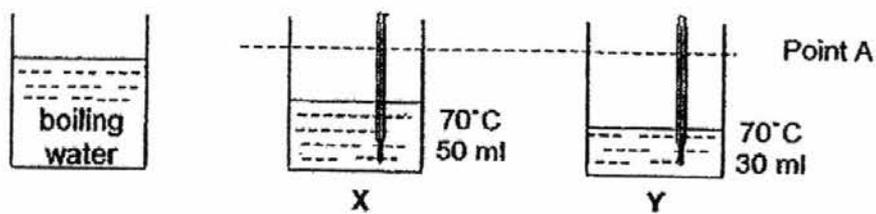
- (1) A and B only
 - (2) A and D only
 - (3) C and B only
 - (4) C and D only
10. The diagram below shows the water cycle.



Which one of the following correctly represents A, B and Process X?

	A	B	Process X
(1)	cloud	sea water	condensation
(2)	sea water	cloud	condensation
(3)	cloud	sea water	evaporation
(4)	sea water	cloud	evaporation

11. The diagram below shows three beakers of water.



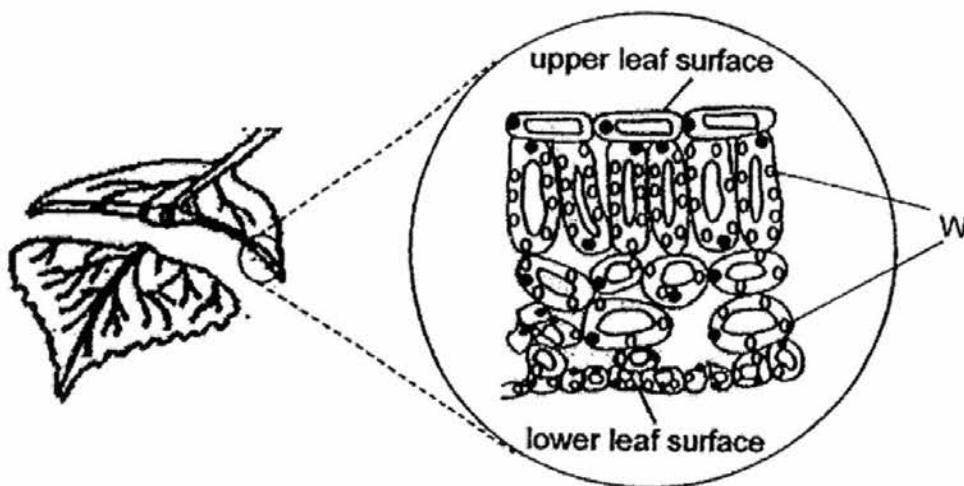
Boiling water is poured into beaker X and Y until Point A.

Which of the following statements are correct almost immediately after boiling water is poured into beakers X and Y?

- A The water in beakers X and Y has the same temperature.
- B The water in beakers X and Y has the same amount of heat.
- C The water in beaker X has less heat than the water in beaker Y.
- D The water in beaker X has a lower temperature than the water in beaker Y.

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

12. Study the diagram below which shows a leaf and the cross-section through the leaf.



The number of part W is not the same on the upper and underside of the leaf.

Which of the following statement(s) is/are true with the different number of part W distributed throughout the leaf?

- A The upper leaf surface will trap more light than the lower leaf surface.
 - B The upper leaf surface will be darker green than on the lower leaf surface.
 - C The upper leaf surface will swell and wilt faster than the lower leaf surface.
- (1) A only
 - (2) A and B only
 - (3) B and C only
 - (4) A, B and C

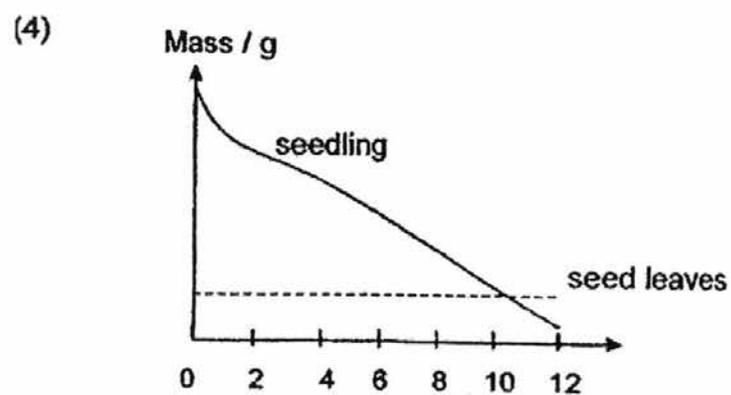
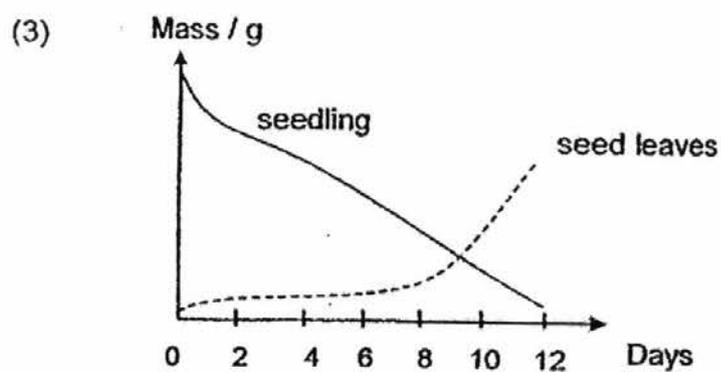
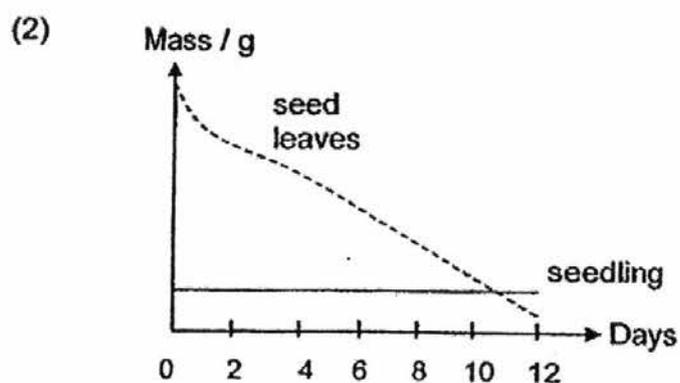
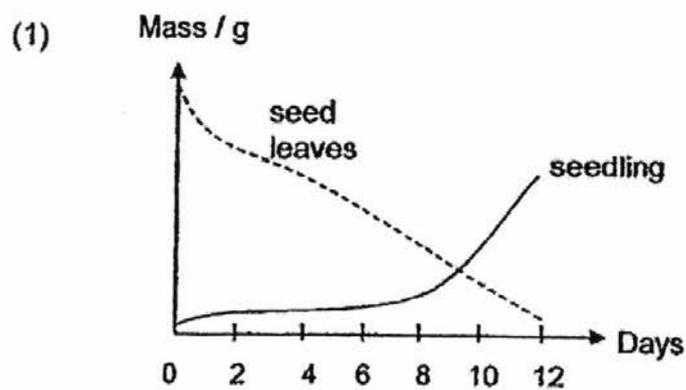
13. Ali was given 3 cells, A, B and C, from different parts of a plant and an animal. He observed the cells under the microscope and recorded his observations in the table below. A tick (✓) indicates that the part is present in the cell.

	Cell A	Cell B	Cell C
Nucleus	✓	✓	✓
Cell Wall		✓	✓
Cytoplasm	✓	✓	✓
Chloroplast			✓
Cell membrane	✓	✓	✓

Which one of the following classifications is correct?

	Animal cell	Plant cell
(1)	A and B	C
(2)	C	A and B
(3)	A	B and C
(4)	B and C	A

14. Which one of the graphs below shows the mass of the growing seedling and the mass of the seed leaves?



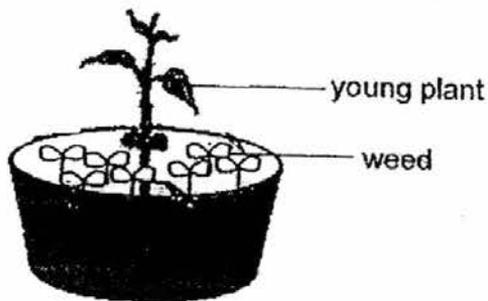
15. Plant Y produces fruits that sometimes get caught in an animal's mouth. The animal may die of starvation because it is not possible to get the fruits out of the mouth.

Which of the following statement(s) about the fruit is/are most likely to be true?

- A The fruits are big in size.
- B The fruits most likely have hooks.
- C The seeds in the fruits are most likely dispersed by wind.
- D The seeds in the fruits are most likely dispersed by animals.

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

16. The diagram shows a young plant surrounded by weeds.

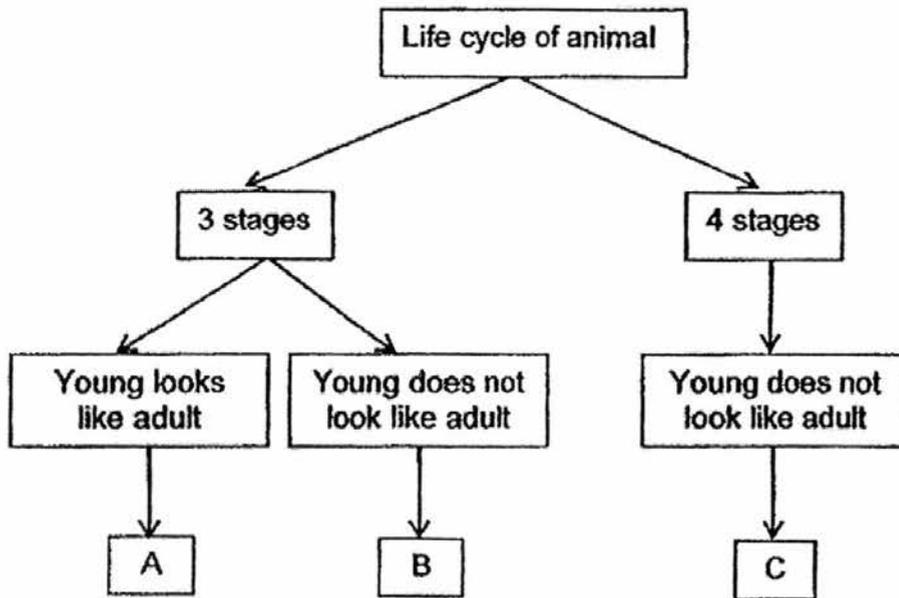


Which of the following do the young plant need to compete with the weeds?

- A Food
- B Water
- C Space
- D Nutrients

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

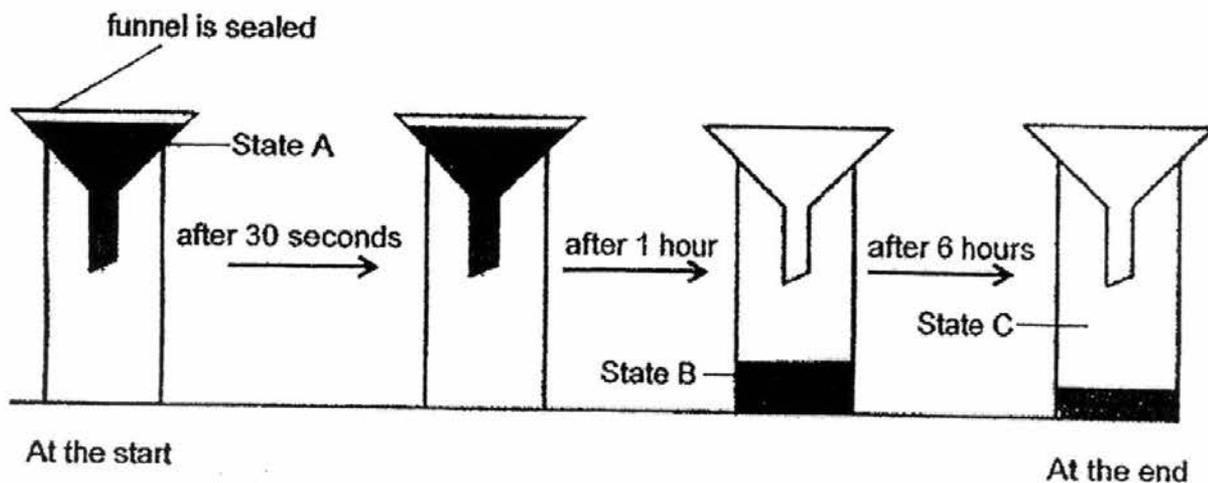
17. Study the diagram below.



Which one of the following correctly represents A, B and C?

	A	B	C
(1)	grasshopper	frog	beetle
(2)	beetle	grasshopper	frog
(3)	beetle	frog	grasshopper
(4)	frog	beetle	grasshopper

18. Wei Meng had a set-up that contained Substance X in a particular state at the beginning. He placed the set-up near a window and observed the change in state of substance X as shown the diagram below.



Based on the observations, which of the following statements are correct?

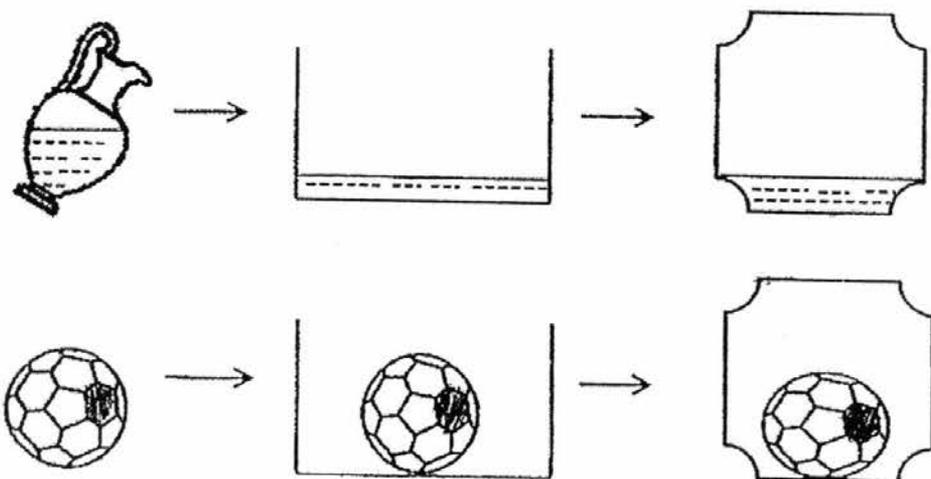
- A Substance X in states A and B has mass, but does not have mass in state C.
- B Substance X in state A has a definite shape, but does not have definite shape in states B and C.
- C Substance X in state C can be compressed, but cannot be compressed in states A and B.

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

19. Ann is trying to conduct an investigation. Which one of the following shows the correct sequence of steps for conducting an investigation?

(1)	<table border="1"><thead><tr><th>Steps</th><th>Action to be taken</th></tr></thead><tbody><tr><td>1.</td><td>State an aim</td></tr><tr><td>2.</td><td>Conduct experiment</td></tr><tr><td>3.</td><td>Make a conclusion</td></tr><tr><td>4.</td><td>Analyze data</td></tr></tbody></table>	Steps	Action to be taken	1.	State an aim	2.	Conduct experiment	3.	Make a conclusion	4.	Analyze data
Steps	Action to be taken										
1.	State an aim										
2.	Conduct experiment										
3.	Make a conclusion										
4.	Analyze data										
(2)	<table border="1"><thead><tr><th>Steps</th><th>Action to be taken</th></tr></thead><tbody><tr><td>1.</td><td>Make a conclusion</td></tr><tr><td>2.</td><td>Conduct an experiment</td></tr><tr><td>3.</td><td>State an aim</td></tr><tr><td>4.</td><td>Analyze data</td></tr></tbody></table>	Steps	Action to be taken	1.	Make a conclusion	2.	Conduct an experiment	3.	State an aim	4.	Analyze data
Steps	Action to be taken										
1.	Make a conclusion										
2.	Conduct an experiment										
3.	State an aim										
4.	Analyze data										
(3)	<table border="1"><thead><tr><th>Steps</th><th>Action to be taken</th></tr></thead><tbody><tr><td>1.</td><td>Make a conclusion</td></tr><tr><td>2.</td><td>State an aim</td></tr><tr><td>3.</td><td>Analyze data</td></tr><tr><td>4.</td><td>Conduct an experiment</td></tr></tbody></table>	Steps	Action to be taken	1.	Make a conclusion	2.	State an aim	3.	Analyze data	4.	Conduct an experiment
Steps	Action to be taken										
1.	Make a conclusion										
2.	State an aim										
3.	Analyze data										
4.	Conduct an experiment										
(4)	<table border="1"><thead><tr><th>Steps</th><th>Action to be taken</th></tr></thead><tbody><tr><td>1.</td><td>State an aim</td></tr><tr><td>2.</td><td>Conduct an experiment</td></tr><tr><td>3.</td><td>Analyze data</td></tr><tr><td>4.</td><td>Make a conclusion</td></tr></tbody></table>	Steps	Action to be taken	1.	State an aim	2.	Conduct an experiment	3.	Analyze data	4.	Make a conclusion
Steps	Action to be taken										
1.	State an aim										
2.	Conduct an experiment										
3.	Analyze data										
4.	Make a conclusion										

20. Sandy put some water and a ball into two containers of different shapes.

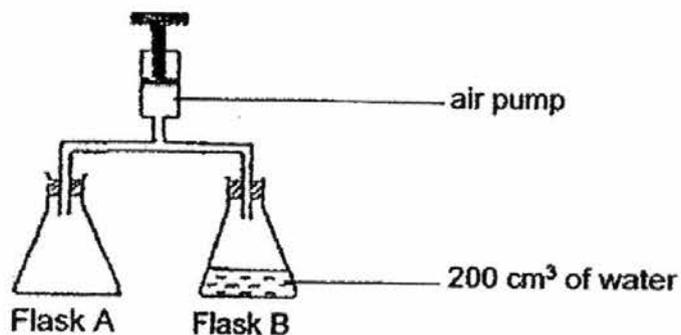


Based on the diagrams, what observation(s) can be made about the ball and the water?

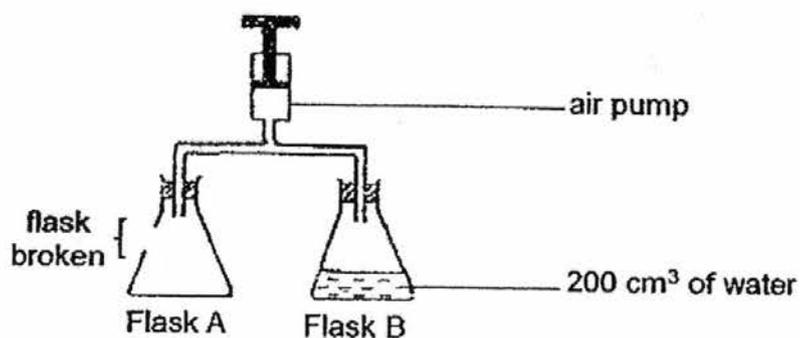
- A The ball has more mass than the water.
- B The ball has a definite shape but the water does not have a definite shape.
- C The ball has a definite volume but the water does not have a definite volume.

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

21. Two 400 cm^3 conical flasks A and B are joined to an air pump as shown in the diagram below.



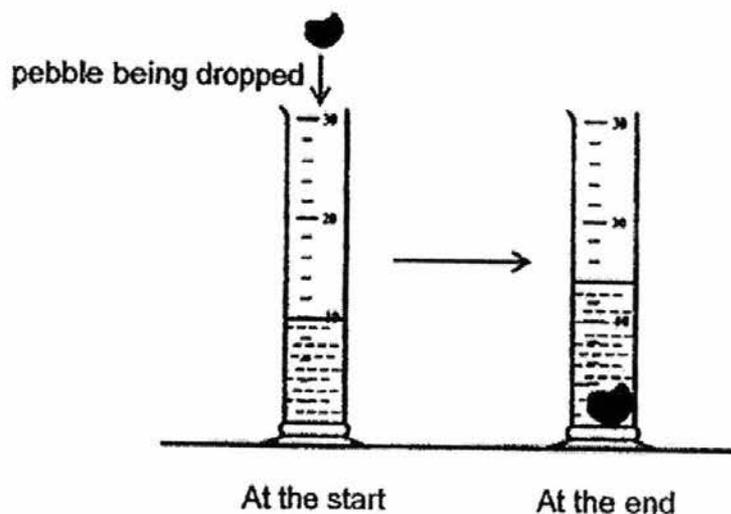
The handle of the air pump is pushed down twice, pushing in 50 cm^3 of air with each pumping action.



If a hole is made at the side of Flask A, what is the volume of air in each flask at the end of the experiment?

	Flask A (cm^3)	Flask B (cm^3)
(1)	700	200
(2)	500	400
(3)	400	400
(4)	400	200

22. An activity is being carried out.



Which of the following statement(s) is/are true of the above activity?

- A The activity is to find the mass of the pebble.
- B The activity is to find the shape of the pebble.
- C The activity is to find the volume of the pebble.

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

23. The diagram below shows the safety vest for road construction workers.



A manufacturer wants to make a safety vest to ensure that the workers are easily seen by drivers especially at night and that the workers will not feel tired wearing the vest for long hours. Information on the materials are collected.

The table below shows the amount of light that is reflected off materials P, Q, R and S. It also shows the mass of each material of equal size.

Which material P, Q, R or S is best suited to make the vests?

	Material	Amount of light reflected when a torch is shone on it (lux)	Mass of the material (g)
(1)	P	450	150
(2)	Q	150	150
(3)	R	450	500
(4)	S	0	50

24. Siew Fang used an umbrella to shade herself from the Sun.

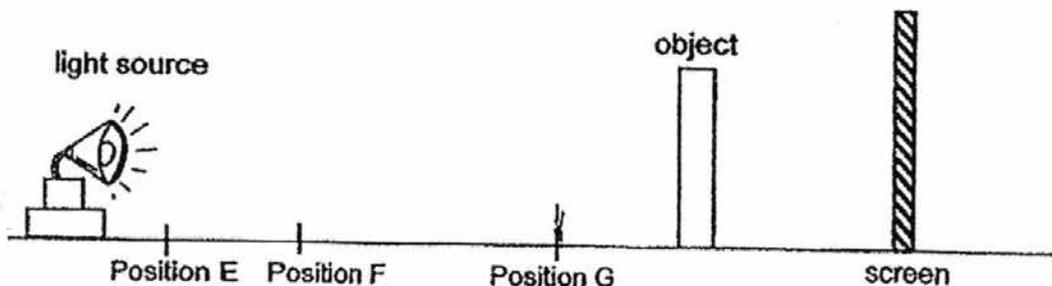


Which of the following statement(s) is/are correct?

- A The shade is the shadow of Siew Fang.
- B The shade is the shadow of the umbrella.
- C The material of the umbrella is opaque.
- D The material of the umbrella is transparent.

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

25. Hui Min conducted an experiment to find out how the distance between an object and a light source affects the height of the shadow.

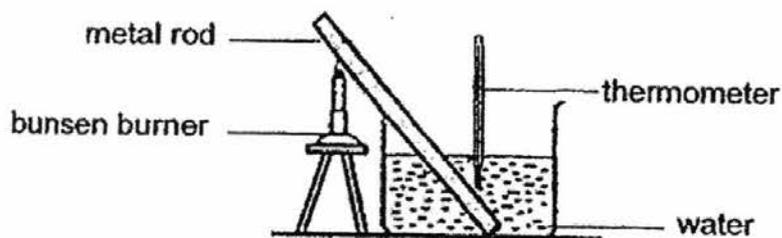


She placed the light source at different positions, E, F and G, and measured the respective heights of the shadow cast on the screen.

Which one of the following most likely shows the height of the shadow formed?

Height of shadow formed (cm)			
	Position E	Position F	Position G
(1)	20	15	5
(2)	5	15	20
(3)	20	19	18
(4)	18	19	20

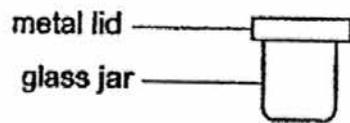
26. Study the experimental set-up below.



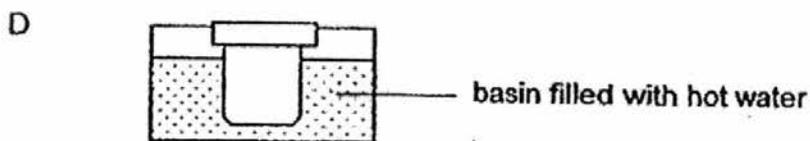
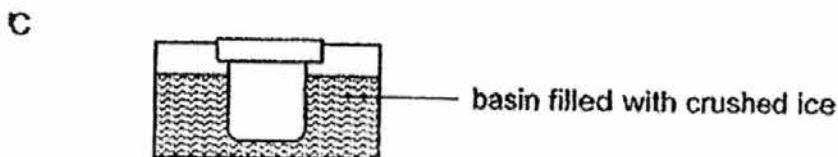
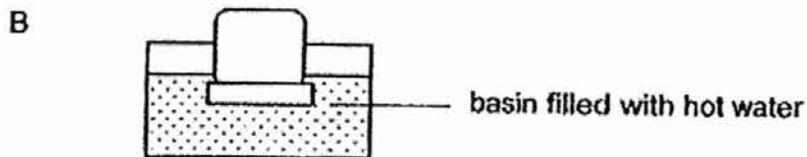
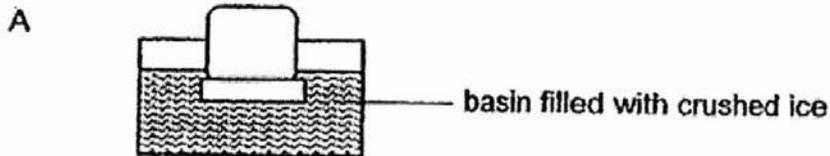
How does the heat flow?

- (1) Bunsen burner → rod → thermometer → water
- (2) Bunsen burner → rod → water → thermometer
- (3) Water → rod → bunsen burner → thermometer
- (4) Thermometer → water → rod → bunsen burner

27. Mrs Lee could not open the metal lid of a jar.



In the diagrams below, which method(s) will make it easier for her to open the jar?



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

28. Four cups are filled with equal amount of water at 90°C . Each cup is of the same shape and size but is made of different materials. The four cups are left at the same place and the time taken for the water in the cup to reach the room temperature is recorded.

Material the cup is made of	Time taken for water to reach room temperature (min)
A	10
B	20
C	60
D	80

Based on the results shown above, which material is best for making a cup to keep cold drinks cool for the longest time?

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

End of Section A



NAN HUA PRIMARY SCHOOL
CONTINUAL ASSESSMENT 1 2016
PRIMARY FIVE
SCIENCE

MARKS
44

Name : _____ ()

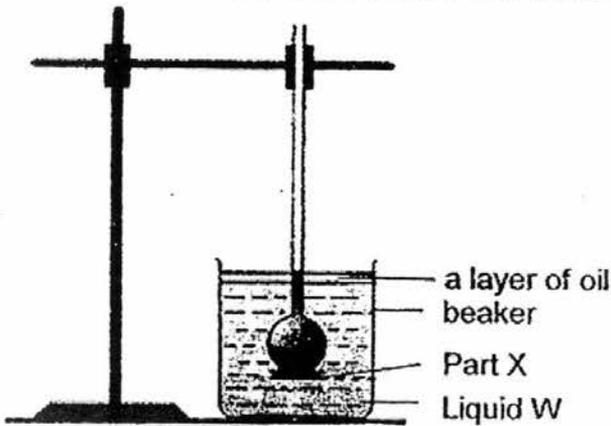
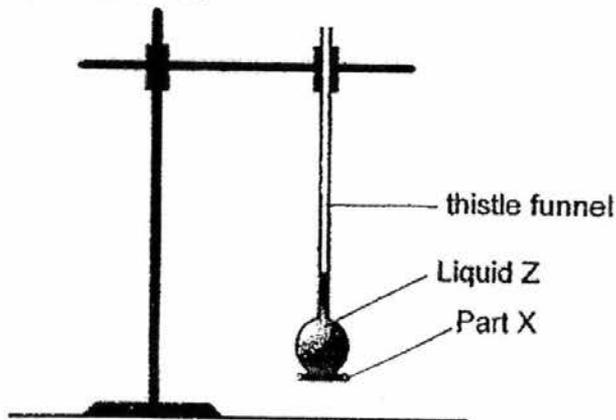
Class : Primary 5 / _____

Section B: (44 marks)

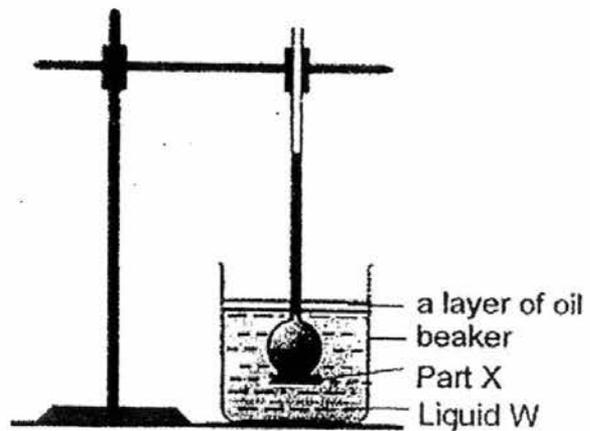
Write your answers to questions 29 to 40.

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

29. An experiment is set up with Part X showing the function of a specific cell part. Liquid Z did not drip out of the thistle funnel at all.



At the start of the experiment



At the end of the experiment

(Go on to the next page)

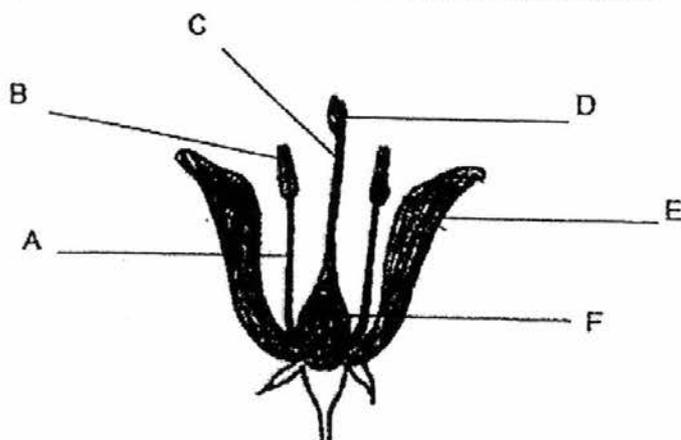
- (a) At the end of the experiment, why did the water level of Liquid W in the beaker drop? Explain your answer. [2]

- (b) Which part of the cell does part X represent? [1]

- (c) Why is the layer of oil added to the set-up? [1]

Score	4
-------	---

30. The diagram below shows the cross-section of a flower.



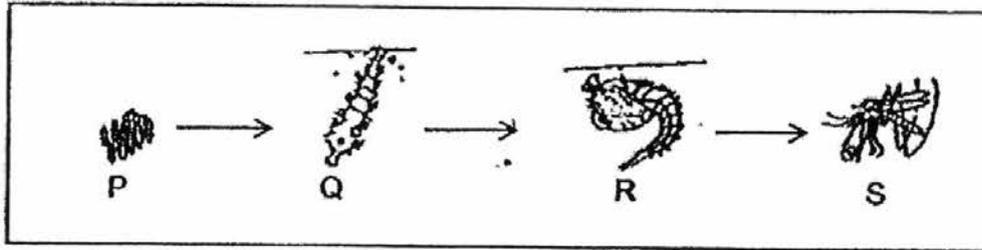
(a) Name the labelled part that is needed to attract insects to the flowers. [1]

(b) Explain how the flower and the insect rely on each other [2]

(c) Which labelled part(s) will drop off after the fruit is formed? [1]

Score	4
-------	---

31. Shanthi drew a diagram on the life cycle of a mosquito. However, it was not correctly drawn as it did not show cycle of life.

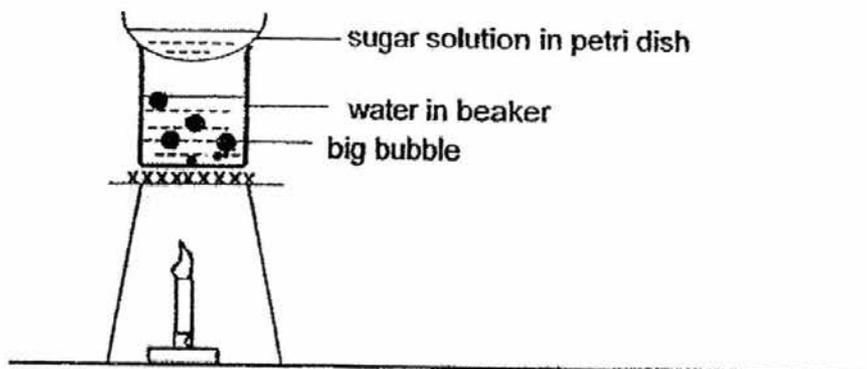


- (a) Construct the correct life cycle of the mosquito using the stages, P, Q, R and S, in the box below. [2]

- (b) In the life cycle of the mosquito, how many stages are spent in water? [1]

Score	3
-------	---

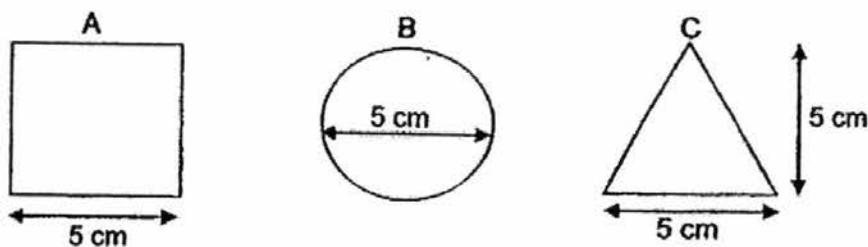
32. A sugar solution, formed by mixing sugar in water, is given to Cindy. She has to get sugar crystals from the solution. She set up an experiment as shown below.



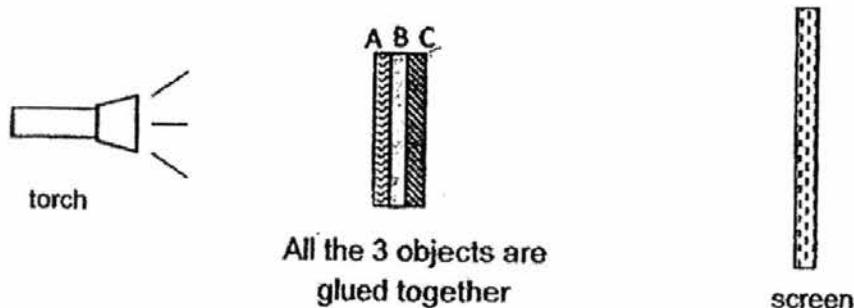
Describe in details how the beaker of water helps Cindy to get the sugar crystals?
[3]

Score	3
-------	---

33. The diagram below shows 3 objects, A, B and C, of different materials.



An experiment is conducted to find out how the materials will affect the shadow formed. Light is shown on A, B and C to see what shadow will be formed.



The shadow formed is shown below.

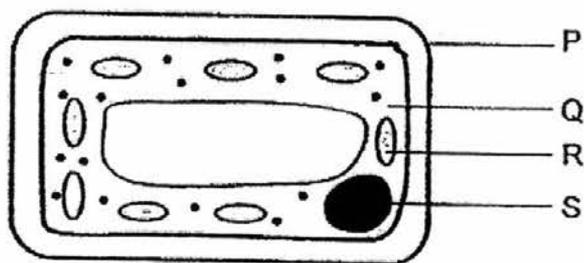


- (a) Based on the experiment, put a tick to indicate which statement about the material for each of the objects is true, false or not possible to tell. [2]

	Statement	True	False	Not possible to tell
(i)	Object A could be made of clear glass.			
(ii)	Object B is transparent.			
(iii)	Object C is opaque.			
(iv)	Object B is definitely made of wood.			

- (b) Based on this experiment, state the property of the material that allows the lighter part of the shadow to be formed. [1]

34. The diagram shows a plant cell.



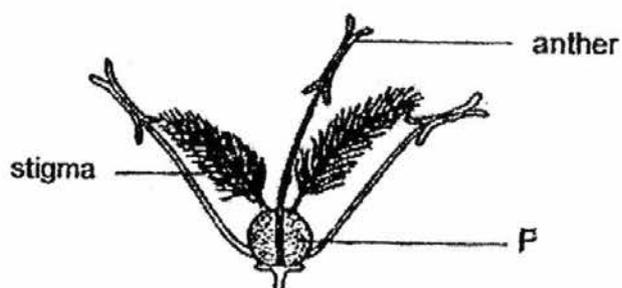
(a) Which two parts are also found in animal cells? [2]

(b) Which part(s) is/are definitely found in all plant cells but not in the animal cells? [1]

(c) State the function of the part(s) mentioned in part (b). [1]

Score	4	4
-------	---	---

35. The diagram below shows a wind pollinated flower.



(a) Name part P [1]

(b) State the main function of P [1]

(c) How does the position of the anther above the stigma helps in pollination? [1]

(d) Name the process that comes immediately after pollination. [1]

Score	4
-------	---

36. The diagram below shows seeds being stored by some types of bird especially during winter. Winter is the coldest season of the year, the temperature can dropped below 0°C .

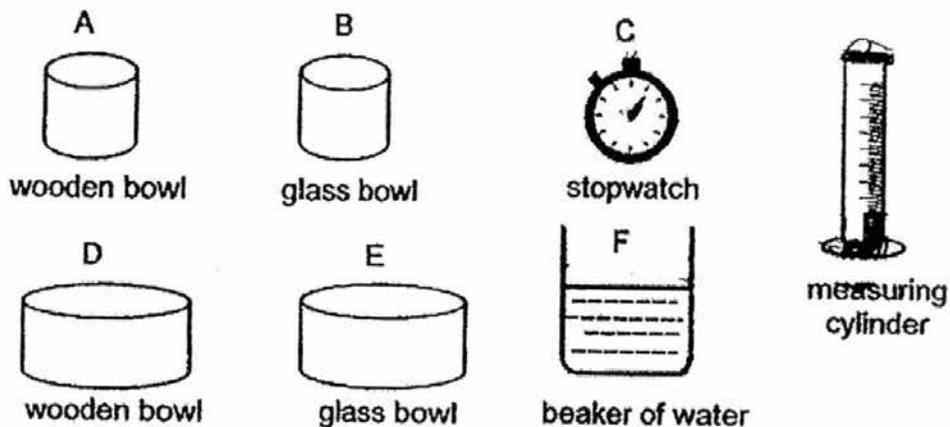


- (a) Give a reason why it is necessary for the birds to dig out the stored seeds from underground for survival. [1]

- (b) Some of the stored seeds not dug out are left in the ground until winter is over. In spring time, when the temperature increases, young plants are found at the spot where the seeds are stored. Explain what had happened. [2]

Score	3
-------	---

37. An experiment is carried out to find out how the exposed surface area will affect the rate of evaporation of water. Below are the only laboratory apparatus that are provided.



- (a) Besides the measuring cylinder, which of the following apparatus should be used? [1]

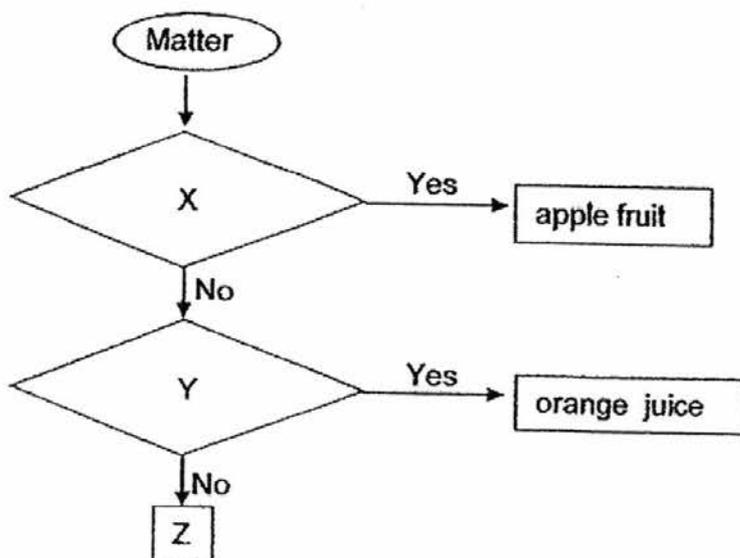
- (b) State 2 constant variables. [1]

- (c) What data should be collected for the experiment? [1]

- (d) What conclusion can most likely be drawn from the experiment? [1]

- (e) What is the purpose of using the measuring cylinder at the end of the experiment? [1]

38. Apple fruit, orange juice and Z are examples of matter in different states. The flow chart of the three states of matter is shown below.



- (a) X and Y are questions on the properties of matter. What could questions X and Y be? [2]

X: _____

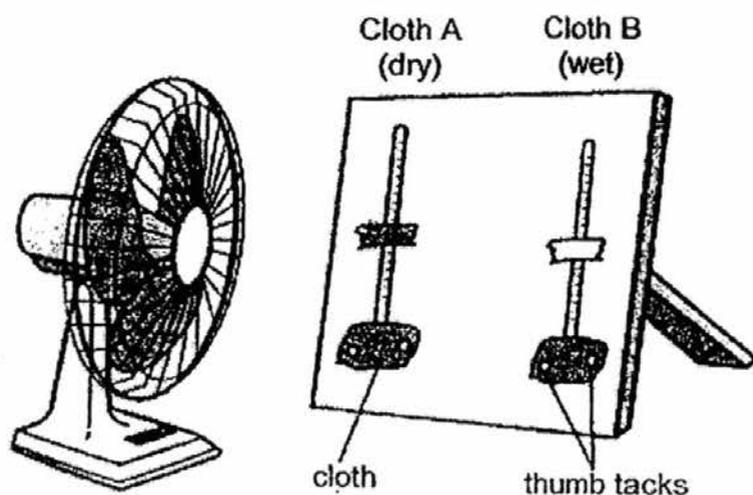
Y: _____

- (b) State an example that can represent Z. [1]

Score	3
-------	---

39. An experiment was conducted to find out if the temperature of an object will drop with water surrounding it.

The set-up for the experiment is shown below. Cloth A was dry while cloth B was wet. An electric fan was placed in front of the thermometers. The fan was turned on and the temperature readings on each thermometer were recorded at fixed duration.



Temperature ($^{\circ}\text{C}$)				
Cloth	1 st reading	2 nd reading	3 rd reading	Average
A	29	30	30	29.5
B	28	26	26	26.6

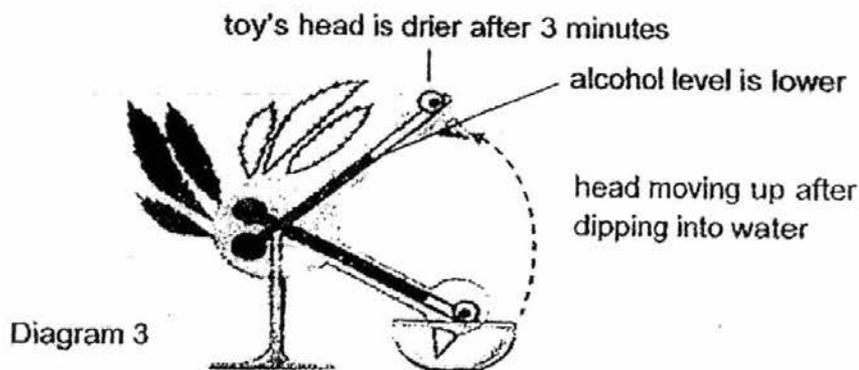
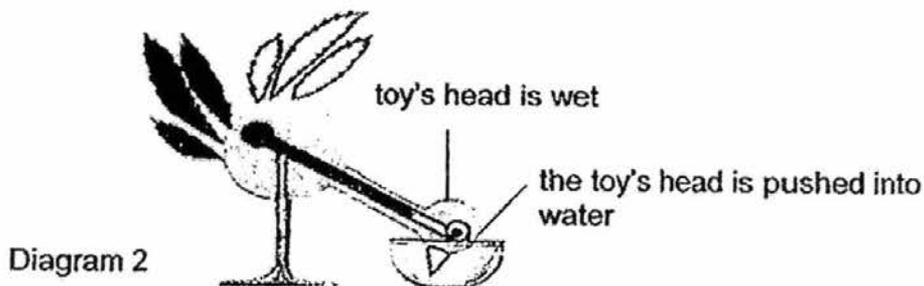
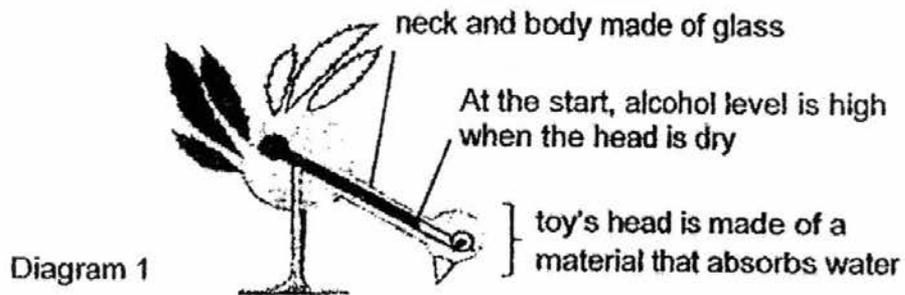
- (a) What is the purpose of turning on the fan? [1]

- (b) Why is there a need to take three readings for each cloth? [1]

(Go on to the next page)

Score	/
-------	---

The diagram below shows a toy bird dipping into water.

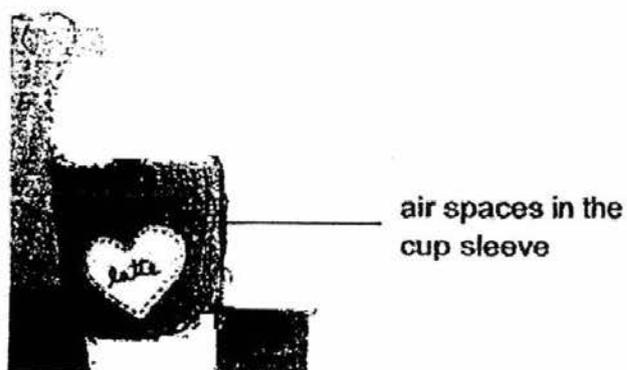


(c) Name the process that causes the temperature reading to drop for cloth B. [1]

(d) Explain how the alcohol level becomes lower after 3 minutes. [2]

Score	3
-------	---

40. The woollen cup sleeve is used for hot drinks as shown below.



(a) Explain how air spaces throughout the cup sleeve help to keep drinks warm? [2]

(b) How does the cup sleeve made it easier for the hand to hold the hot drinks? [1]

End of paper

EXAM PAPER 2016 (P5)

SCHOOL : NAN HUA

SUBJECT : SCIENCE

TERM : CA1

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

29)a)Part X allows the thistle funnel to let liquid W pass through and do not let both liquid get out.

b)Cell membrane.

c)To prevent the evaporation of liquid W.

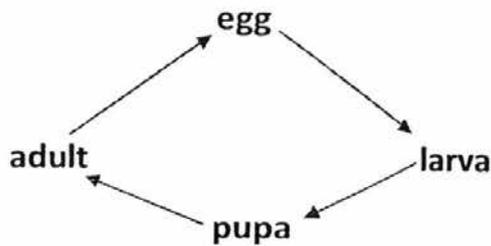
30)a)Petals.

b)The insects come and collect nectar from one flower and touches the pollen grains from the anther.

When the insects collect nectar from another flower, the pollen grains on the leg sticks onto the stigma, creating the pollination stage.

c)Part B, C, D, E and A.

31)a)



b)3 stages are spent in water.

32)The water in the beaker will boil. The steam loses heat to the cooler underside of the petri dish. The water in the sugar solution will gain heat from the petri dish and evaporate.

33)a)i)T ii)F iii)F iv)Not

b)Object C is translucent and allows little light to pass through.

34)a)Part S and Part Q.

b)Part P.

c)Not all plant cells has part R as not all plant cells make food for the plant but all plant cells has parts P as they have a regular shape.

35)a)Ovary.

b)Part P produce the egg. Or Part P contains ovules. Or Part P produces ovules.

c)The wind can easily blow the pollen grains to the stigma.

When there is no wind the pollen grain can drop on the stigma.

36)a)To have food for survival during the winter as to live.

b)When winter is over, the seed has water, air and warmth for germination and the suitable temperature for growth.

37)a)Wooden bowl A, wooden bowl D, stop watch a beaker of water.

b)The amount of water poured and the seconds counted.

c)Amount of water left on the bowl.

37)d)The greater the exposed surface area, the greater the rate of evaporation of water.

e)To measure the amount of water left in each wooden bowl.

38)a)X: Does it have definite shape.

Y: Does it have a definite volume.

b)Oxygen.

39)a)To evaporate the water faster.

a)To provide wind for the water to evaporate.

b)To get a more reliable answer and average answer.

c)Evaporation.

d)The alcohol loses heat to the water and contracts from the water which gains heat.

40)a)Air is a poor conductor of heat the hot drinks will lose heat slower to the surrounding.

b)The cup sleeve is a poor conductor of heat and do not gain heat easily.