

**SINGAPORE CHINESE GIRLS' SCHOOL
FIRST SEMESTRAL ASSESSMENT 2015**

SCIENCE

PRIMARY FOUR

NAME:

DATE:

CLASS:

BOOKLET A

25 questions

50 marks

Total time for Booklets A & B: 1 h 25 mins

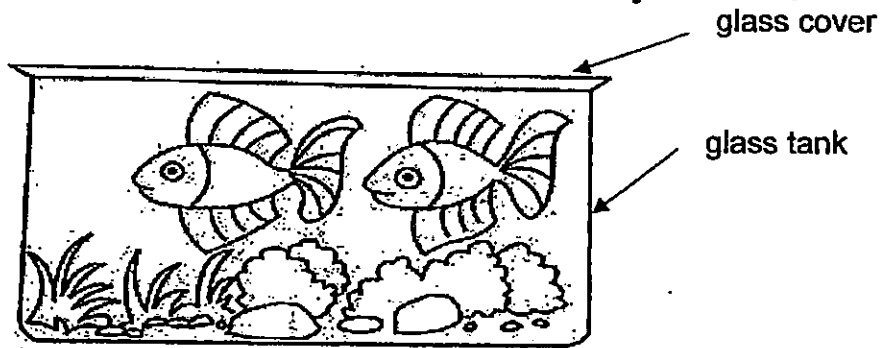
DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

FOLLOW ALL INSTRUCTIONS CAREFULLY.

Part I (25 x 2 marks)

For each question from 1 to 25, 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.

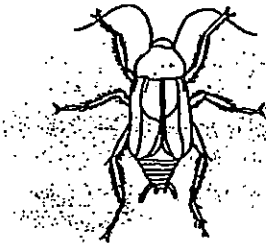
1. Jasmine went on a holiday. When she returned 2 weeks later, she was shocked to see that both her fish had died. What would be the most likely reason that her fish had died?



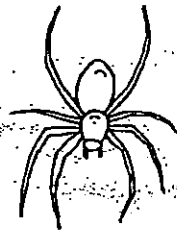
The fish did not have enough _____.

- 1) air
2) water
3) light
4) warmth

2. Look carefully at the diagrams below. Which of the following is not an insect?



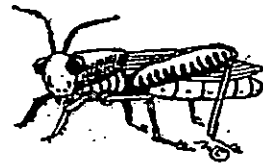
(1)



(2)

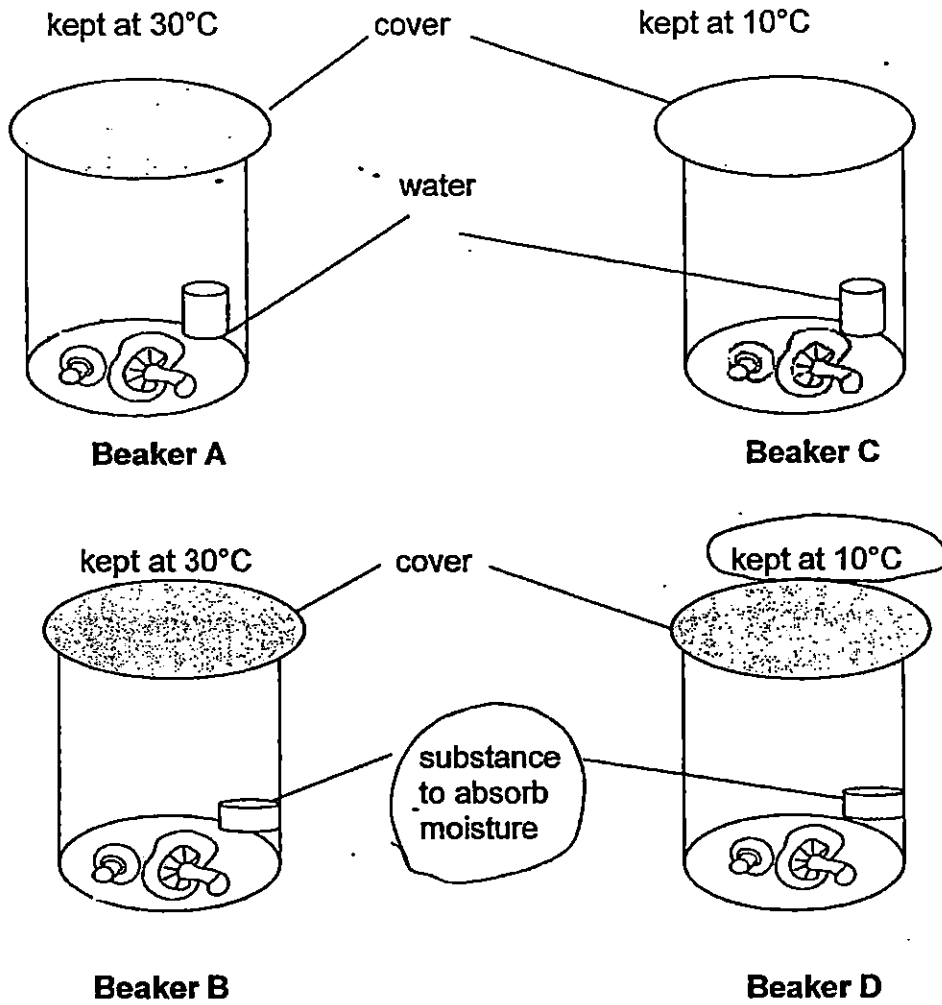


(3)



(4)

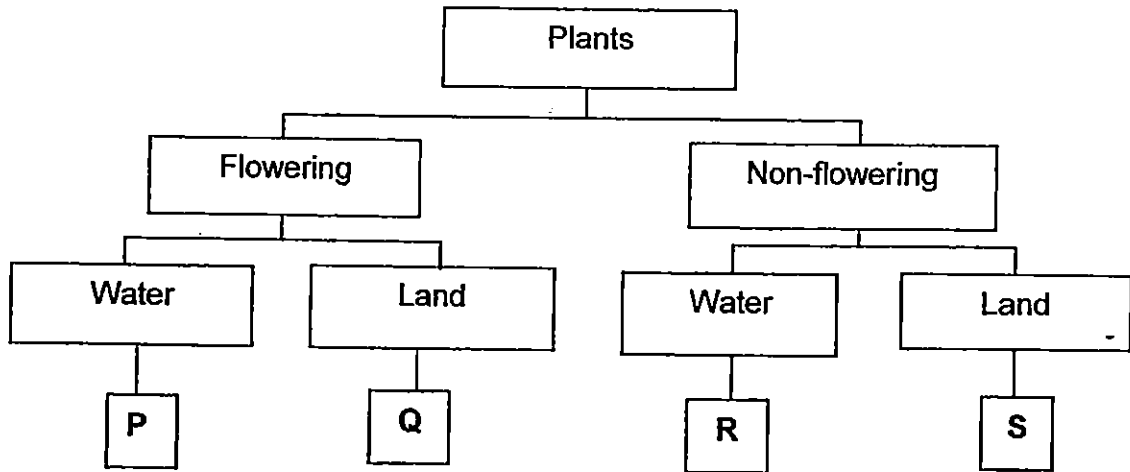
3. Lily conducted an experiment to find out how to keep mushrooms fresh. 2 mushrooms were placed into each jar and kept in different conditions as shown below.



After one week, Lily noticed that only the mushrooms in Beaker D were still fresh. This shows that in order to keep mushrooms fresh as long as possible, they should be kept _____.

- 1) dry at 10°C
- 2) dry at 30°C
- 3) moist at 10°C
- 4) moist at 30°C

4. Study the classification table below.



Which of the following shows correctly what P,Q,R and S represent?

	Water Plants	Land Plants
1)	P and R	Q and S
2)	P and Q	R and S
3)	Q and S	P and R
4)	Q and R	P and S

5. Which of the following materials and their properties are paired correctly?

	Materials	Property
A	Ceramic	Sinks in water
B	Fabric	Not flexible
C	Metal	Absorbs water
D	Plastic	Waterproof

- 1) A and B only
- 2) A and D only

- 3) B and C only
- 4) C and D only

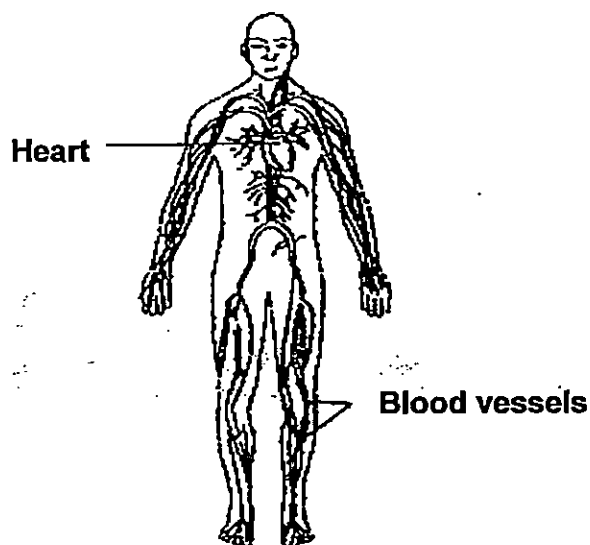
6. The table below shows a comparison between what happens in our small and large intestines.

	Small intestine	Large intestine
A	Food is completely digested.	Food is being digested.
B	It passes food to the large intestine into the blood for further digestion.	Undigested food is absorbed into the blood. X
C	Digested food is absorbed into the blood.	Food is not absorbed into the blood.

Which of these comparisons A, B or C between the small intestine and the large intestine is/are correct?

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

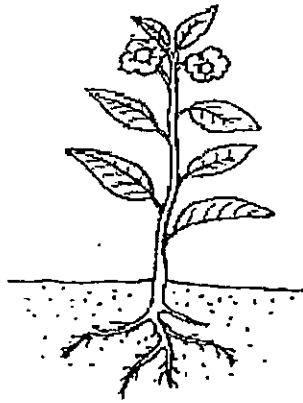
7. The diagram below shows one of the systems in our human body.



The function of the above system is to _____.

- 1) digest our food
- 2) help different parts of the body move
- 3) carry digested food, water and oxygen to all parts of the body.
- 4) take in oxygen into the body and removes carbon dioxide from the body

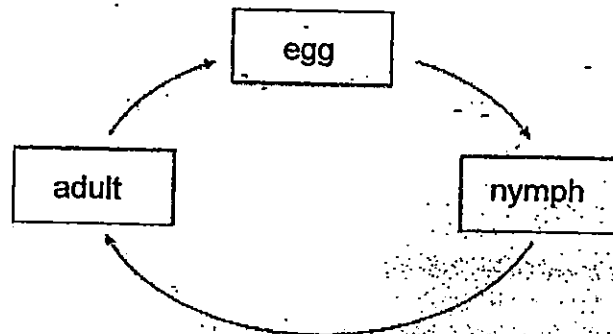
8.



The picture above shows a balsam plant. Which of the following matches the plant part to its function correctly?

	Plant Part	Function
1)	Roots	Carries water to all parts of the plant
2)	Stems	Hold the plant firmly to the ground
3)	Flowers	Hold the plants upright
4)	Leaves	Makes food for the plant

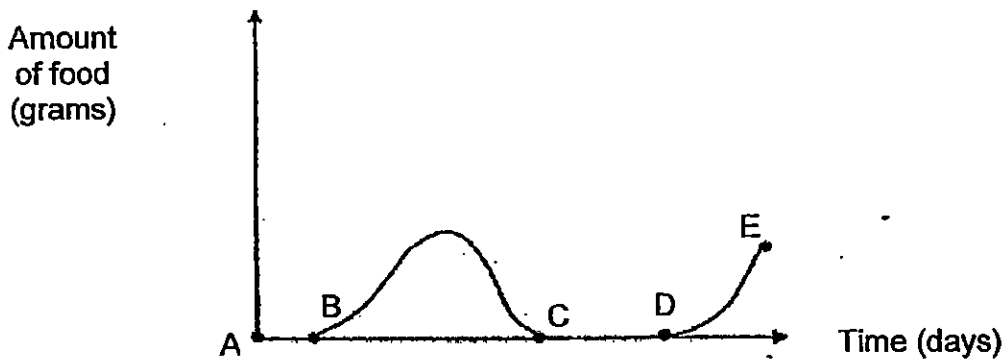
9. The diagram below shows the life cycle of an animal.



Which animal does not have the life cycle as shown above?

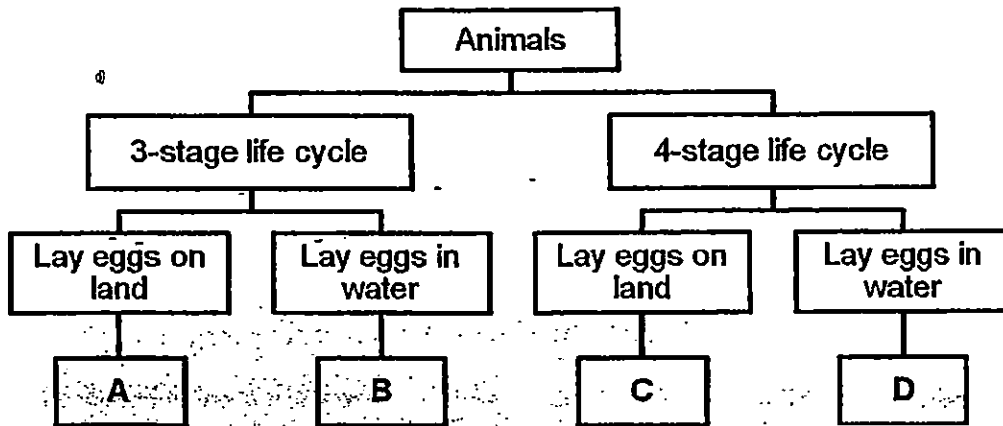
- 1) butterfly
- 2) dragonfly
- 3) cockroach
- 4) grasshopper

10. The graph belows shows the amount of food consumed by a butterfly at different stages of its life cycle. Which part of the graph shows the butterfly at its pupa stage?



- 1) A to C 3) C to D
2) B to C 4) D to E

11. Study the diagram below.



In which group does the mosquito belong to?

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

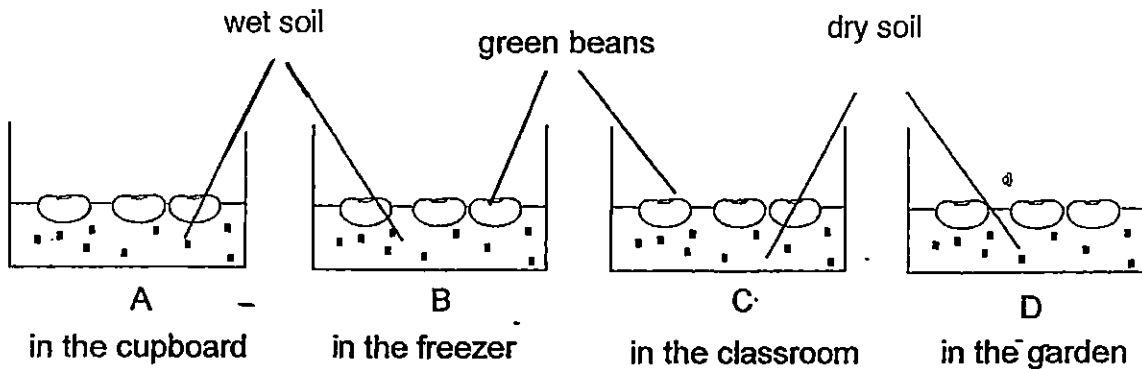
12. The table below gives information about the life cycles of 4 animals, S, T, U and V.

Description	S	T	U	V
The young looks like the adult.	Yes	No	No	Yes
It has a 4-stage life cycle.	No	No	Yes	No
The young goes through a process known as moulting.	Yes	No	Yes	No

Which animal, S, T, U or V most likely represents a cockroach?

- 1) S
- 2) T
- 3) U
- 4) V

13. Jason carried out an experiment as shown below. He planted 3 green beans in each of the set-ups and placed them at different locations

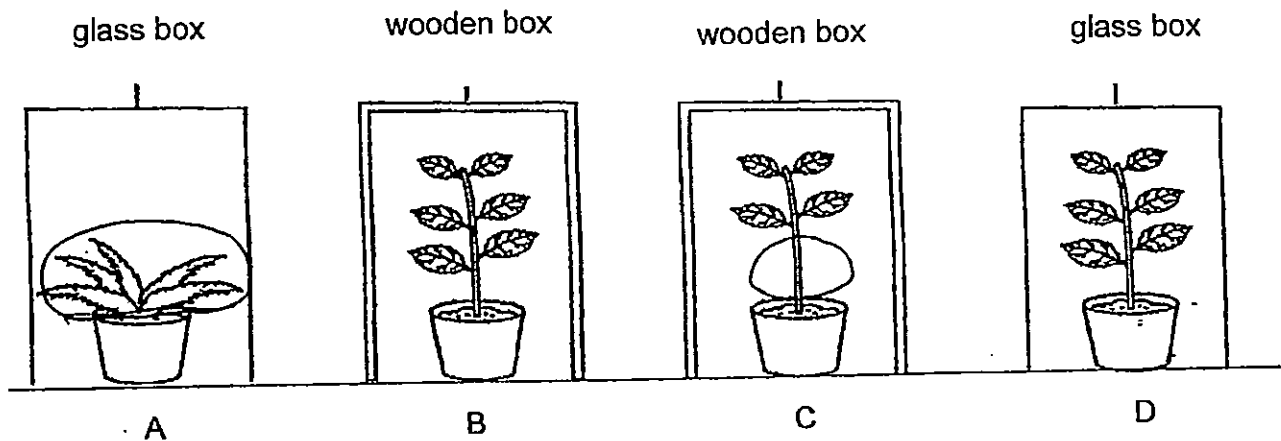


In which set-up(s) will the green beans germinate?

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

14. Susan wanted to find out if light affects how fast plants grow. She set up an experiment as shown below.

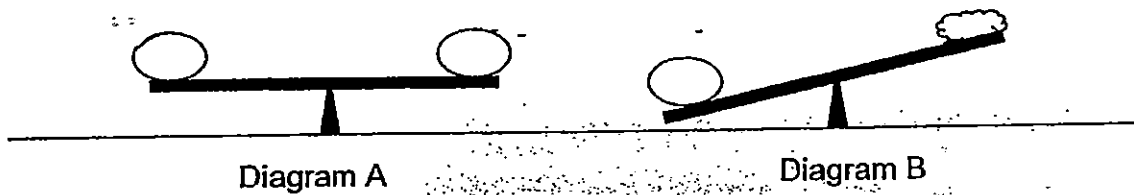
Which 2 set-ups should she choose in order to conduct a fair test?



- 1) A and B
- 2) B and C

- 3) B and D
- 4) C and D

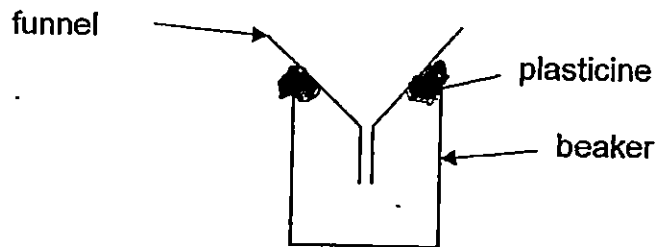
15. Mei Ling tied 2 similar balloons to a balance as shown in Diagram A. She then pierced one of the balloons with a needle and the result can be seen in Diagram B.



The result shown in Diagram B shows that air _____.

- 1) has mass
- 2) can be compressed
- 3) has no definite shape
- 4) has a definite volume

16. Carey poured some water into a beaker through a funnel fitted tightly to the beaker using plasticine. She observed that the water flowed into the beaker slowly and then stopped.



Why did the water stop flowing into the beaker after a while?

- 1) The funnel was too big for the beaker.
- 2) The air in the beaker was compressed.
- 3) The plasticine stopped the water from flowing in.
- 4) Air in the beaker cannot escape and it occupies space.

17. The table shows the properties of 3 substances A, B and C.

Properties	Substance		
	A	B	C
Has mass?	Yes	Yes	Yes
Has definite shape?	Yes	No	No
Has definite volume?	Yes	Yes	No

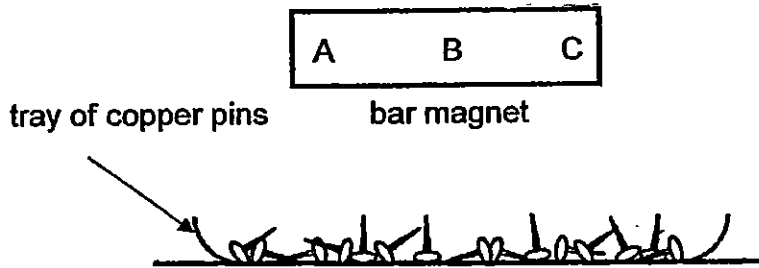
Which of the following shows correctly what A, B and C represent?

	A	B	C
1)	solid	liquid	Gas
2)	gas	liquid	Solid
3)	solid	gas	Liquid
4)	liquid	gas	Solid

18. At the school carnival, Kathy saw a clown twisting a long balloon into the shape of a flower. He was able to do this because air _____.

- 1) has mass
- 2) occupies space
- 3) has no definite shape
- 4) has a definite volume

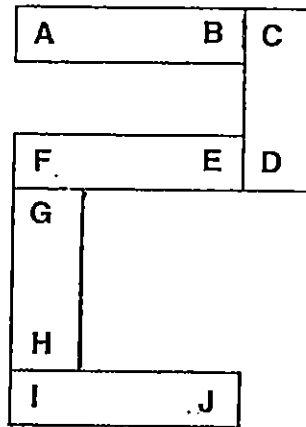
19. Kelly brought a bar magnet near a tray of copper pins as shown below.



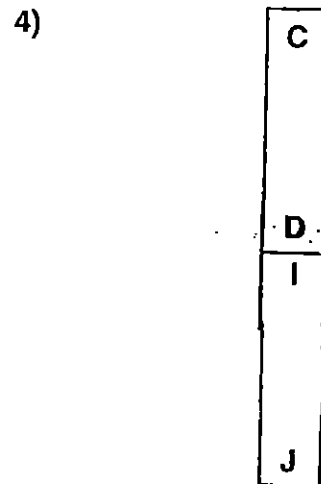
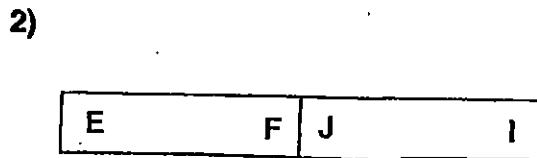
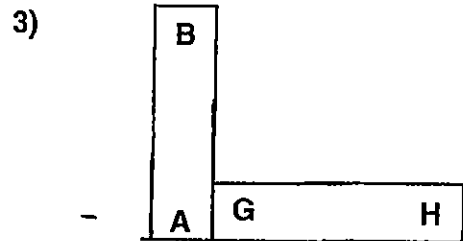
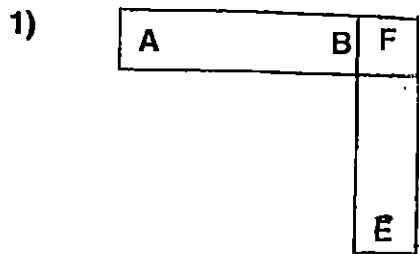
Which of the following correctly shows the number of copper pins on different parts of the bar magnet when the magnet is lowered into the tray and then lifted up?

	A	B	C
1)	10	5	10
2)	5	0	5
3)	5	5	5
4)	0	0	0

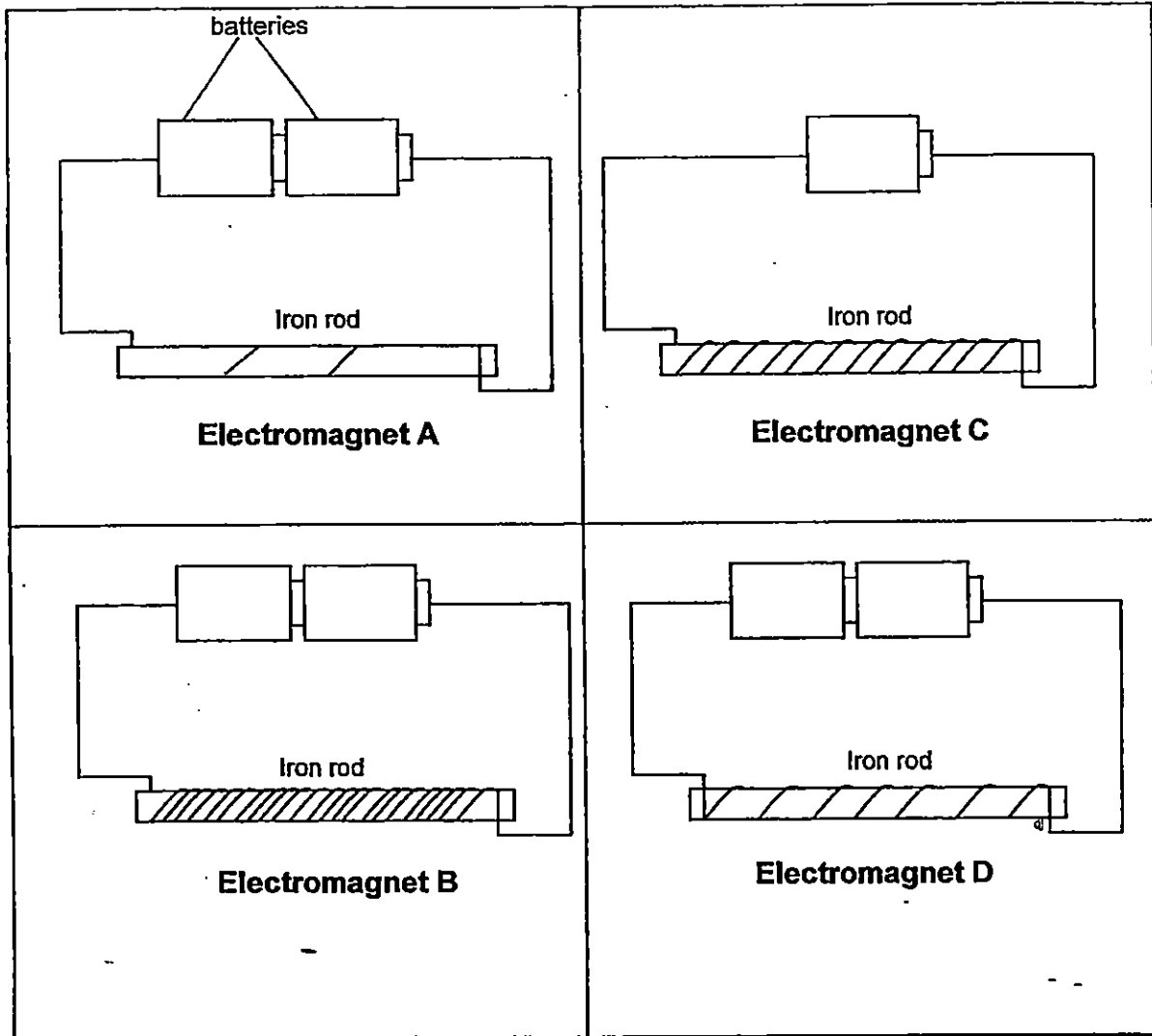
20. Five bar magnets with their ends marked A to J can be arranged as shown below.



Which one of the following diagrams shows a possible arrangement of 2 magnets from the above arrangement?



21. 4 electromagnets are shown below.

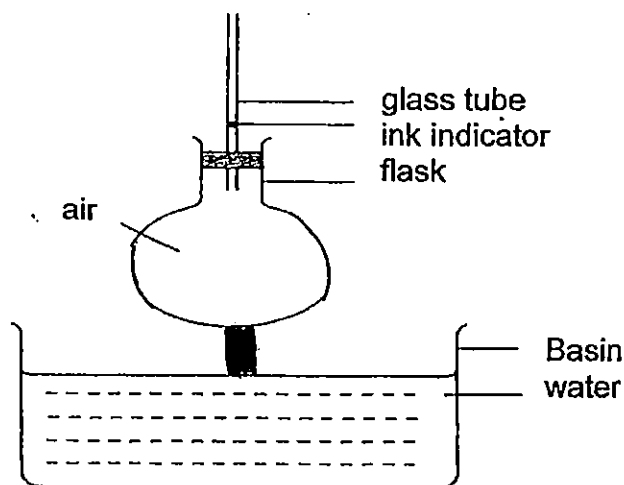


Which is the strongest electromagnet?

- 1) A
- 2) B

- 3) C
- 4) D

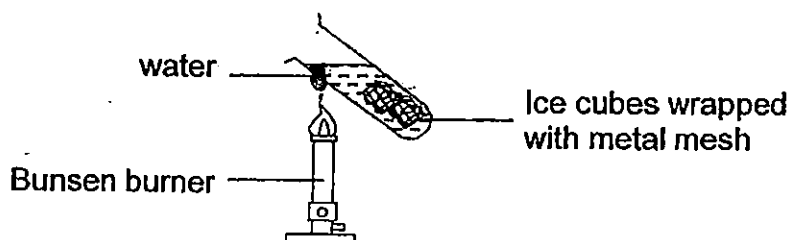
22. Gemma placed a flask into a basin of hot water as shown below.



Why do you think the ink indicator moved up in the glass tube when the flask was placed in the hot water?

- 1) The air in the flask expanded.
- 2) The air in the flask contracted.
- 3) The ink indicator in the glass tube expanded.
- 4) The ink indicator in the glass tube contracted.

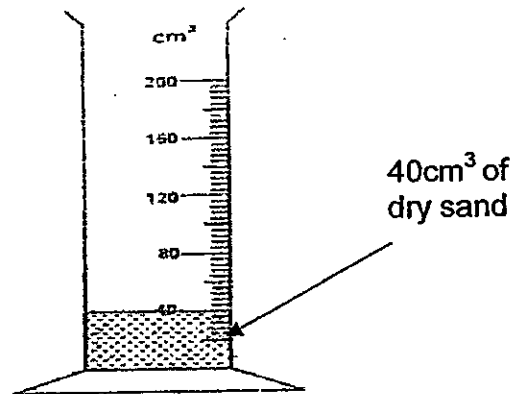
23. Miss Wong conducted an experiment as shown below.



After a few minutes, the ice cubes have not melted completely. What can you conclude from the above experiment?

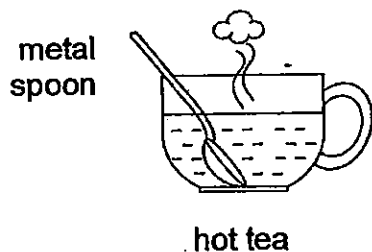
- 1) Metal is a poor conductor of heat.
- 2) Water is a poor conductor of heat.
- 3) Metal is a good conductor of heat.
- 4) Water is a good conductor of heat.

24. 40cm^3 of dry sand was poured into a measuring cylinder as shown in the diagram below. Then 30cm^3 of water is poured into the measuring cylinder.



What is the most likely new volume of the sand and water mixture?

- 1) 30cm^3
 - 2) 60cm^3
 - 3) 70cm^3
 - 4) 90cm^3
25. Polly placed a metal spoon in a cup of hot tea.



After a while, the spoon became hotter because the _____.

- 1) cup lost heat to the hot tea.
- 2) spoon lost heat to the hot tea.
- 3) spoon gained heat from the hot tea.
- 4) spoon gained heat from the surrounding.

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FIRST SEMESTRAL ASSESSMENT 2015

SCIENCE

PRIMARY FOUR

NAME: _____

DATE: _____

CLASS: _____

Booklet A		50
Booklet B		30
Total		80

Parent's Signature _____

BOOKLET B

10 questions

30 marks

Total time for Booklets A & B: 1 h 25 mins

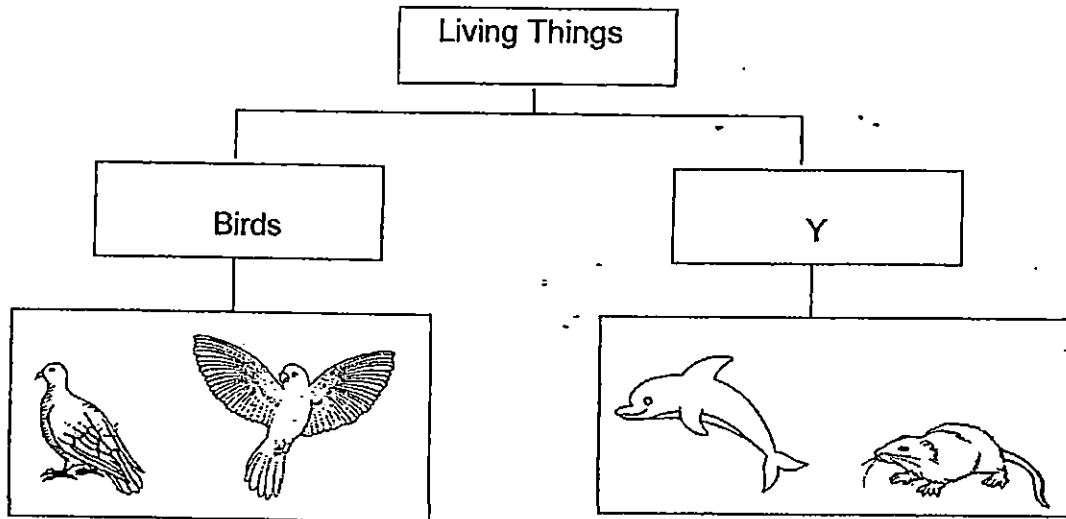
DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

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Part II (30 marks)

Answer all the following questions.

26. Janet grouped some living things in a classification chart as shown below.



a) What does 'Y' represent? (1m)

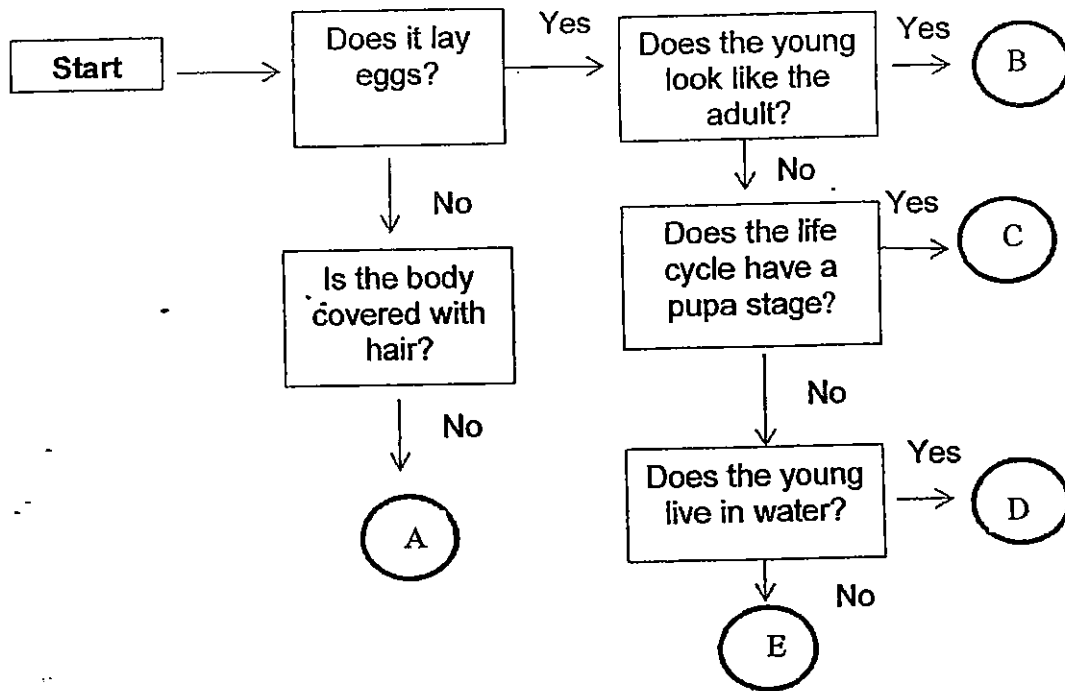
Y: _____

b) State 2 differences between the characteristics of Birds and the animals in Group Y. (2m)

i) _____

ii) _____

27. In the flow chart below, A, B, C and D represent 4 different animals.

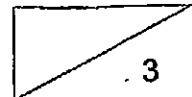


a) Identify the letter that best represents each of the following animals. (2m)

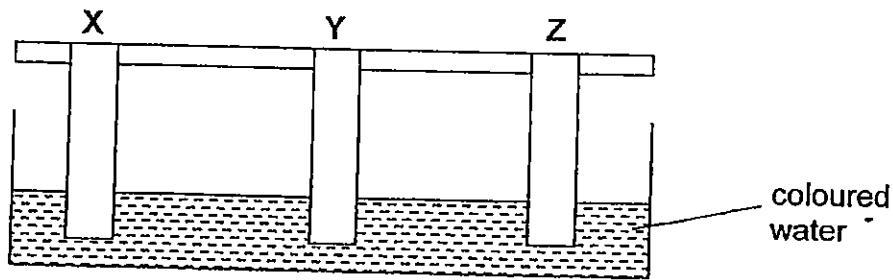
Chicken : _____

Frog : _____

b) Based on the information from the flow chart above, state all the characteristics of Animal A. (1m)



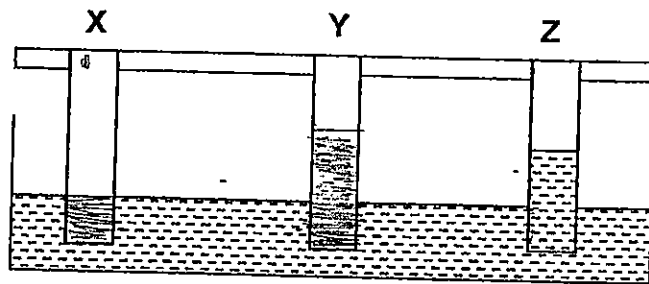
28. Joel set up an experiment as shown below to find out how much water the 3 pieces of fabric, X, Y and Z can absorb.



The highest point water travelled on each fabric is shown in the table below.

	X	Y	Z
Highest point water travelled to	5 cm	15 cm	10 cm

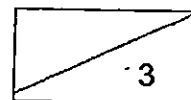
a) Shade how the experimental set-ups X and Y would look like at the end of the experiment. Fabric Z has been done for you. (1m)



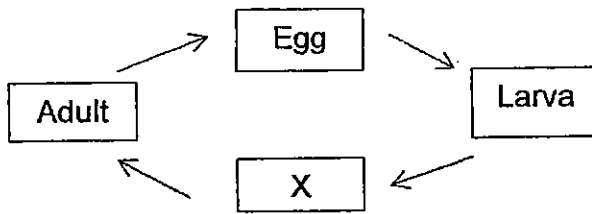
Which material, X, Y or Z would you choose to dry your dishes?

bi) Material _____ (1m)

bii) Explain your answer in (bi) (1m)



29. The diagram below shows the life cycle of a mealworm beetle.



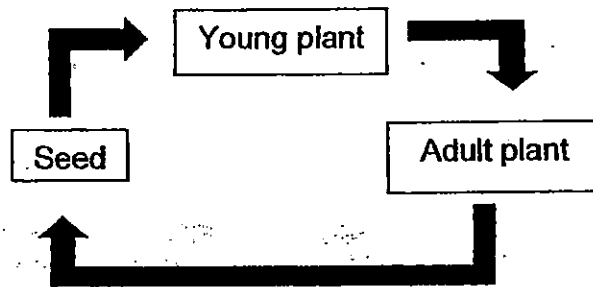
a) Name the stage marked "X". (1m)

X:

b) Write (T) for True or (F) for False in the boxes provided below. (2 m)

	Statements	T or F
i)	The mealworm beetle moults at the larva stage.	
ii)	The mealworm beetle looks the same at the larva stage and 'X' stage.	

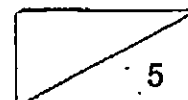
30. The life cycle of a flowering plant is shown below.



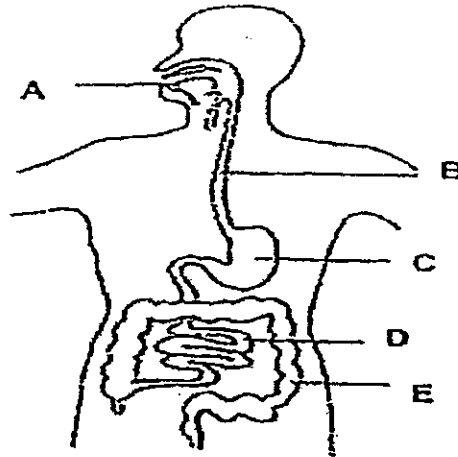
Fill in the blanks using the helping words given below. (2m)

air	light	food	fertiliser
-----	-------	------	------------

A green bean seed needs _____, warmth and water to germinate into a young plant. Once it has grown green leaves, the leaves will make _____ for the plant.



31. The diagram below shows the human digestive system.



(a) Name the organs of the digestive system. (2m)

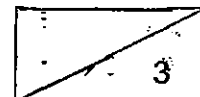
A: _____

B: _____

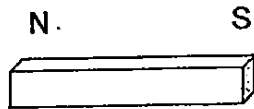
C: _____

D: _____

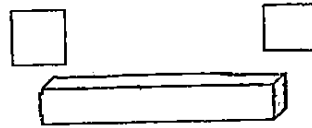
(b) At which part A, B, C, D or E is excess water being absorbed by the body? (1m)



32. Karen placed 2 magnets as shown below.
a) When the 2 magnets were brought together, they attracted each other. Fill in the "N" and "S" poles in the boxes provided below for Magnet Y. (1m)



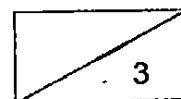
Magnet X



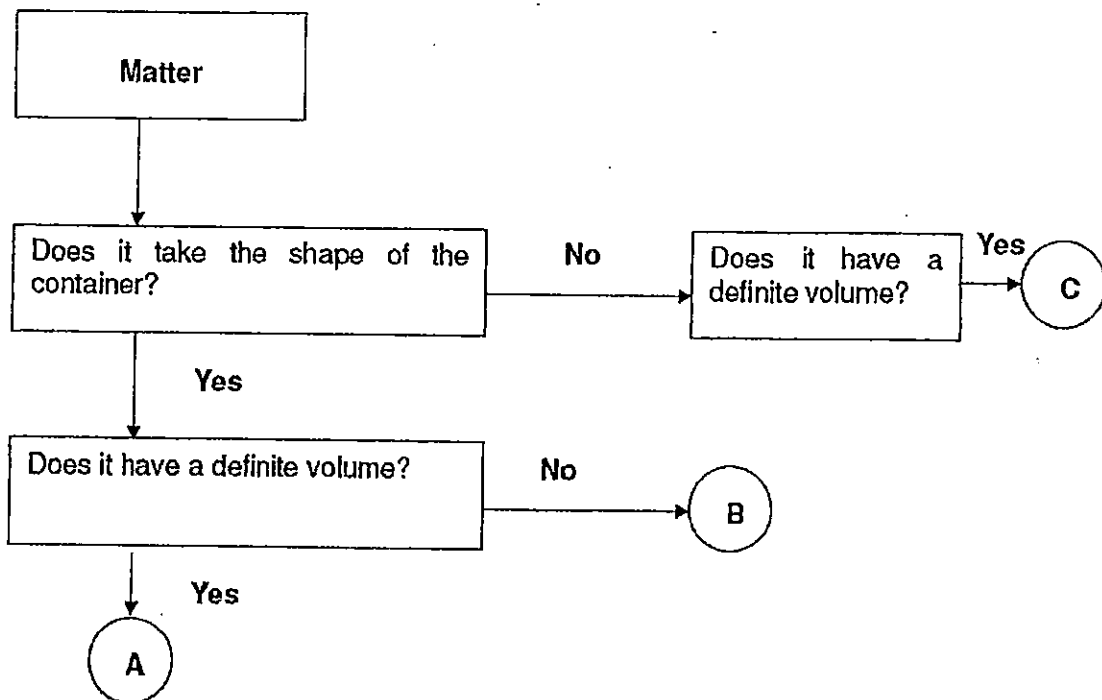
Magnet Y

- b) She then heated Magnet Y for an hour and placed it at the same position. Which of the following is likely to happen? Put a tick (✓) in the right column. (2m)

		will attract	will repel	neither attract nor repel
i)	When a silver nail is placed near Magnet Y			
ii)	When Magnet X's North pole is facing Magnet Y			
iii)	When a steel paper clip is placed near Magnet Y			
iv)	When Magnet X's South pole is facing Magnet Y			



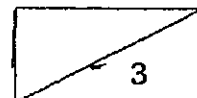
33. The flow chart below shows the properties of Objects A, B and C. Look at the chart and answer the questions below.



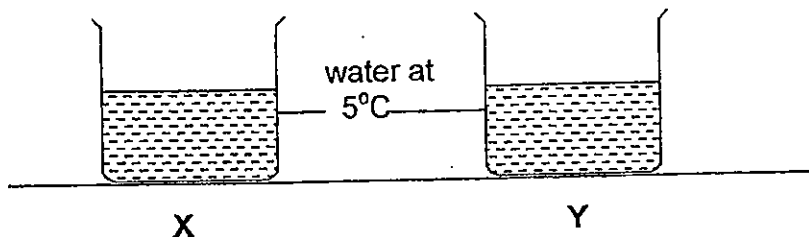
- a) Write down two properties of Object A. (1m)

- b) Write down one difference between Object A and Object B. (1m)

- c) How is Object C similar to Object A? (1m)



34. Susan filled Containers X and Y, each made of a different materials, with the same amount of water at 5°C at the same time.



Both containers were left in a classroom at 30°C. The temperature of the water in both containers was measured every five minutes. The table below shows the changes in the temperature of water in container X and Y over a period of 20 minutes.

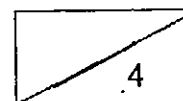
Temperature	Time (mins)				
	0	5	10	15	20
Water in Container X	5°C	6°C	8°C	11°C	13°C
Water in Container Y	5°C	9°C	13°C	?	22°C

- (a) Predict the temperature of the water in container Y at the 15th minute. (1m)

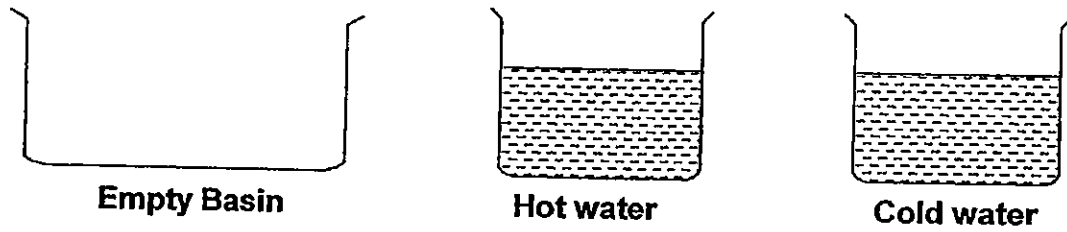
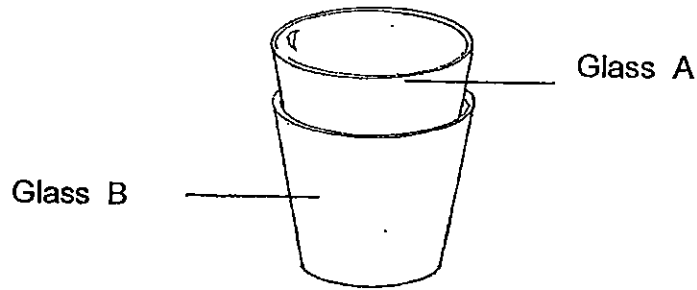
- (b) Susan made some ice lemon tea for a picnic. Which container, X or Y would keep her tea cold for a longer period of time? (1m)

Container _____

- (c) Which container, X or Y, would be more suitable for Susan to use as a lunchbox to keep her food warm? Explain your answer. (2m)



35. John found 2 glasses stacked together in his kitchen. He wanted to separate the glasses but he could not.



a) Using the items above, describe how John can separate Glass A from Glass B. (1m)

Step 1: Put Glass A and Glass B (as shown in the diagram) into the empty basin.

Step 2: Pour _____

Step 3: Pour _____

b) Explain how John was able to separate the 2 glasses. (2m)

END





EXAM PAPER 2015
 LEVEL : PRIMARY 4
 SCHOOL : SINGAPORE CHINESE GIRLS SCHOOL
 SUBJECT : SCIENCE
 TERM : SA1

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

Q26. Y: Mammals

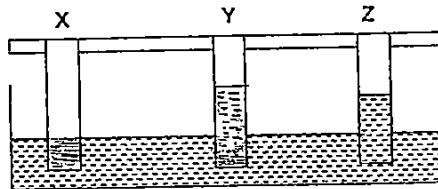
Q26bi) The birds lay eggs while the animals in Group Y do not.

Q26ii) The birds have feathers while the animals in Group Y do not.

Q27a. Chicken : B Frog: D

Q27b) It does not lay eggs and the body is not covered with hair.

Q28a. SEE PICTURE



Q28bi) Material X

Q28bii) Material Y absorbed the most amount of water.

Q29a. X: Pupa

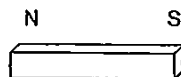
Q29bi) True Q29bii) False

Q30. A green bean seed needs **air**, warmth and water to germinate into a young plant. Once it has grown green leaves will make **food** for the plant.

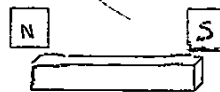
Q31a. A: Mouth, B: Gullet, C: Stomach, D: Small intestine

Q31b. Part E

Q32a. SEE PICTURE



Magnet X



Magnet Y

Q32bi) neither attract nor repel
Q32bii) will attract
Q32biii) neither attract nor repel
Q32b9v) will attract

Q33a. It takes the shape of the container and has a definite volume.
Q33b. Object A has a definite volume while object B does not.
Q33c. They both have a definite volume.

Q34a. 17°C
Q34b. Container X
Q34c. Container X. It is a poorer conductor of heat than Y, so it will conduct heat from the food to the surroundings slower.

Q35a. Step 2 : Pour cold water into glass A.
Q35a. Step 3: Pour hot water into the empty basin.
Q35b. The cold water contracted Glass A and the hot water expanded Glass B.

THE END