NANYANG PRIMARY SCHOOL

PRIMARY 3 SCIENCE

SEMESTRAL ASSESSMENT 2
2014

BOOKLET A

Date : 29 October 2014
Duration : 1 h 45 min

Name : _____ ( )

Class: Primary 3 ( )

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FOLLOW ALL INSTRUCTIONS CAREFULLY.

Booklet A consists of 18 printed pages including this cover page.

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Section A (30 x 2 marks = 60 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 provided.**

1. Which one of the following descriptions is an example of living things responding to changes in their environment?

A A baby crawls towards a ringing bell.
B A girl closes the window on a windy day.
C A flock of birds flies away when a cat moves nearer.

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

2. The organisms below had been classified according to their body covering. Which examples had been classified **wrongly**?

Group A	Group B	Group C
turtle	eagle	frog
shark	ostrich	cow
snake	penguin	giraffe
crocodile	orang-utan	elephant

(1) snake and cow
(2) shark and eagle
(3) turtle and ostrich
(4) orang-utan and frog

3. Plants can be found in many places. Which of these are possible places for plants to grow?

A on the side of a wall
B on the roof of houses
C on the surface of a rock
D on the stem of another plant

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

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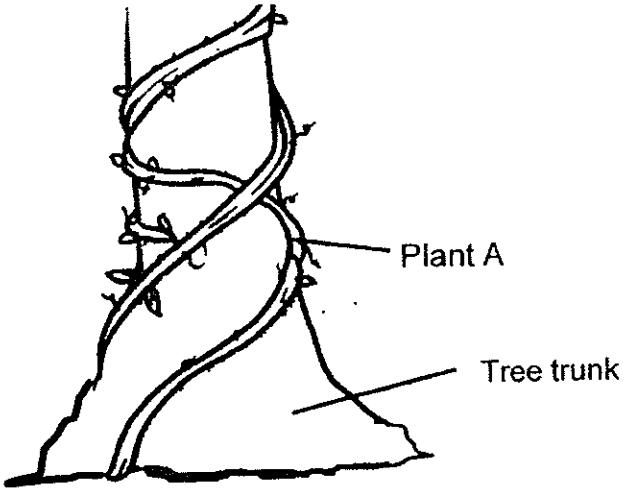
4. During a trip to the botanic gardens, Samuel was asked to look out for a type of plant. Before the trip, his teacher had given him some descriptions about the plant.

Based only on what Samuel could see, which of the following descriptions given by his teacher would help him to identify the plant?

A It grows on land.
B Its fruits are edible.
C Its leaves are oval-shaped.
D Its flowers are purple and fragrant.
E It has weak stems that climb up a support.

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

5. Adeline and her friends found plant A growing around a tree trunk as shown below.



Her friends made the following statements:

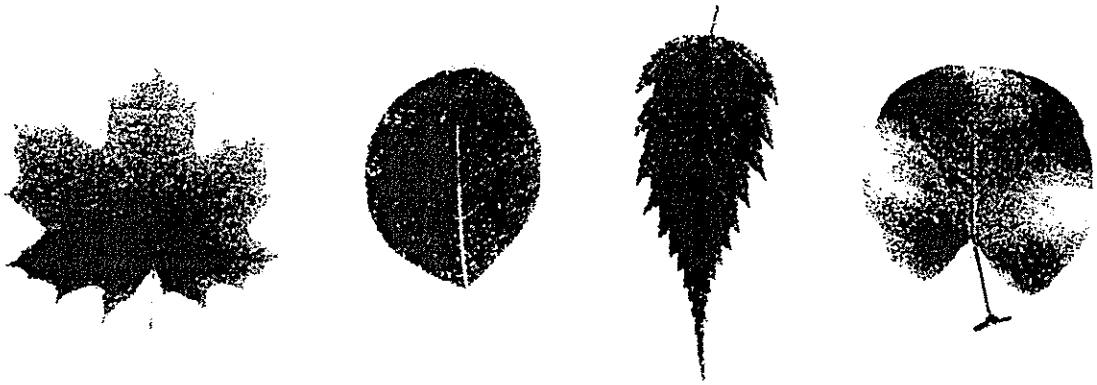
Ali Plant A makes food for the tree.
Ben Plant A absorbs food from the tree.
Caixin Plant A supports the tree trunk to stay upright.
Damon Plant A climbs up the tree trunk for support to get sunlight.

Which one of her friends had made the **correct** statement?

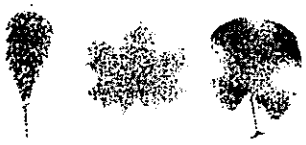
(1) Ali
(2) Ben
(3) Caixin
(4) Damon

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6. Study the leaves shown below.



Clare found these leaves and decided to classify them into 2 groups. Which is the best way to group the leaves?

	Group X	Group Y
(1)		
(2)		
(3)		
(4)		

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7. Yoyo found an animal during her walk in a park. She described the animal as follows:

- It has four legs.
- It does not have any outer body covering.
- It can move on land and swim in the water.

Which group best fits her description of the animal?

(1) Birds
(2) Fish
(3) Mammals
(4) Amphibians

8. Kim bought only 2 animals of the same type as pets and fed them with the same food daily in a tank. She observed the changes that took place for a few months and recorded her observations below.

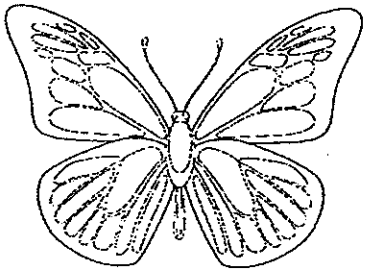
	Number of animals	Total amount of food eaten monthly
After the first month	2	2kg
After the second month	5	2kg
After the third month	5	2kg
After the fourth month	5	5kg

Based on her observations, which one of the following statements is **true**?

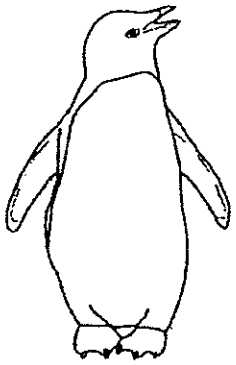
(1) The pets did not reproduce.
(2) The pets can make their own food.
(3) The pets ate less food in the last month.
(4) The pets produced milk to feed their young.

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9. Study the diagrams given below.



Insect



Bird

Leela made the following statements about the insect and the bird.

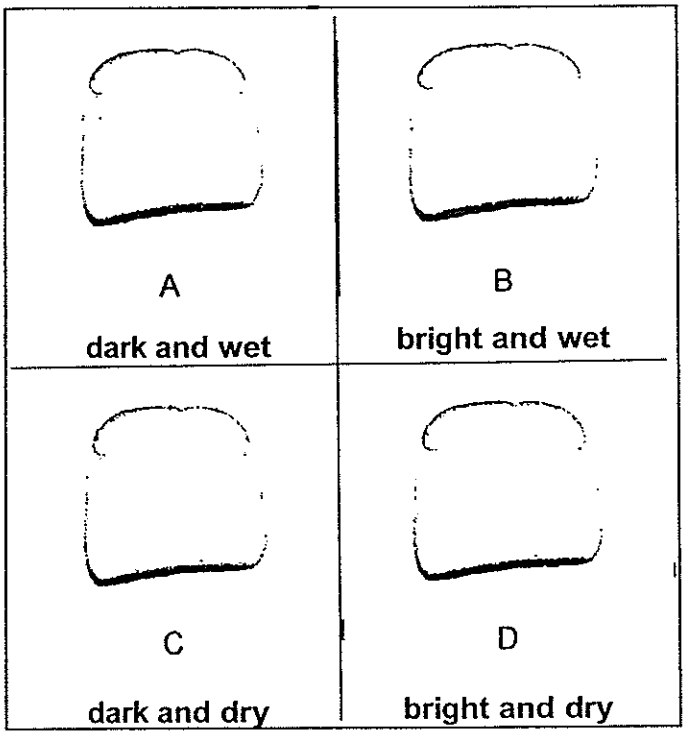
A Both breathe through gills.
B Both have hair on their bodies.
C Both reproduce by laying eggs.
D Both have two pairs of wings each.

Which statement(s) about the insect and the bird is/are correct?

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

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10. Maggie left 4 slices of bread in 4 different locations as shown below. Each location had different conditions.



After one week, she observed the amount of mould that had grown on each bread.

In which location could she most likely find the heavily moulded bread?

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

11. Study the statements about plant parts and their functions.

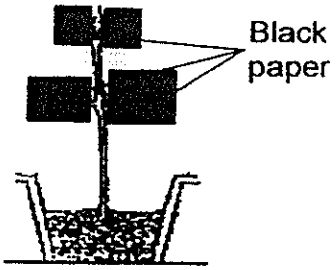
A Leaves make food for plants.
B Stems hold plant firmly to the ground.
C Leaves help plants to take in and give out gases to the surrounding.
D Stems help to support the plant by trapping light energy to make food.

Which of the statements is/are **true**?

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

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12. James placed plant B in the sun and watered it daily. He covered all of its leaves with black paper.

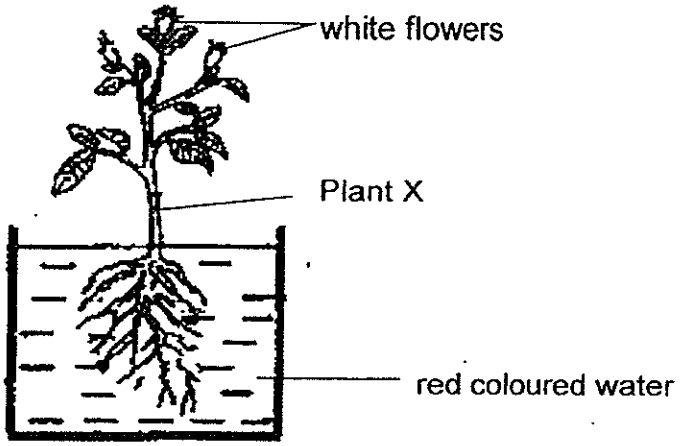


plant B

Which of the following could most likely be observed when he removed the black paper after a few days?

(1) Plant B has died.
(2) Plant B bore flowers.
(3) Plant B continued to grow healthily.
(4) Plant B stopped growing and remained the same.

13. Ahmad set up an experiment as shown in the diagram below. He placed plant X with white flowers in a beaker of red coloured water. After a week, he observed that the flowers turned red in colour.

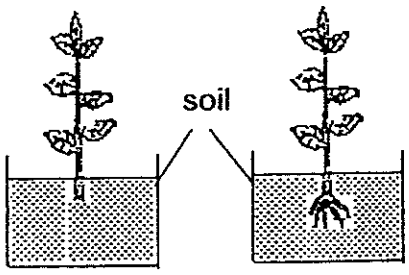


Which one of the following is a possible explanation for his observation?

(1) The flowers were left under the sun for too long.
(2) The flowers became red because the plant is dying.
(3) The roots took in water and transported it to other parts of the plants.
(4) The leaves took in water and transported it to other parts of the plants.

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14. The two plants shown below were placed in identical pots of soil for 4 weeks.



Plant X
with no roots

Plant Y
with roots

Venetta tried to remove the plants from the soil after a few weeks. She observed that plant X could be removed more easily from the soil as compared to plant Y.

Based on her observation, what can she conclude about the function of the roots?

(1) The roots store food.
(2) The roots absorb food and minerals.
(3) The roots hold the plant firmly to the soil.
(4) The roots transport water to the rest of the plant.

15. Four children shared information with one another about the respiratory system.

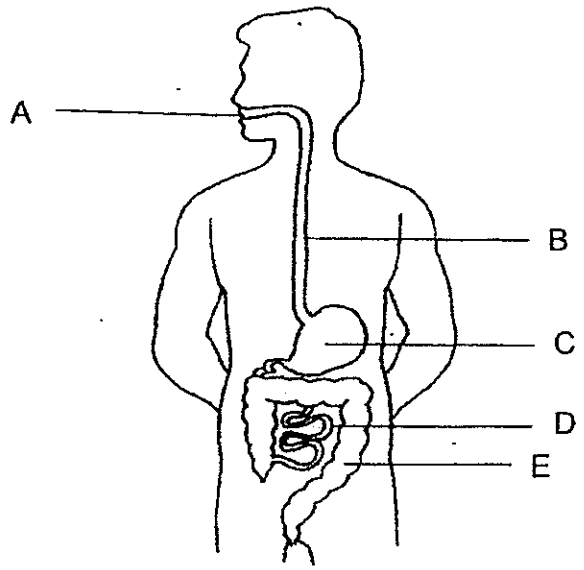
Li Wei: It gives the body shape.
Pete: It removes air from the body.
Ali: It helps different parts of the body to move.
May: It breaks down food into simple substances.

Which of the children had made the **correct** statement?

(1) Ali
(2) May
(3) Pete
(4) Li Wei

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Study the diagram below and answer questions 16 and 17



16. What are the functions of parts B and E?

	B	E
(1)	It pushes food down to the stomach.	It crushes food and mixes it with digestive juices.
(2)	It helps to grind and chew food into smaller pieces.	It absorbs digested food into the bloodstream.
(3)	It helps to grind and chew food into smaller pieces.	It mixes food with saliva and breaks it into smaller pieces.
(4)	It pushes food down to the stomach.	It absorbs water from undigested food.

17. At which part of the body does digestion start and at which part is it completed?

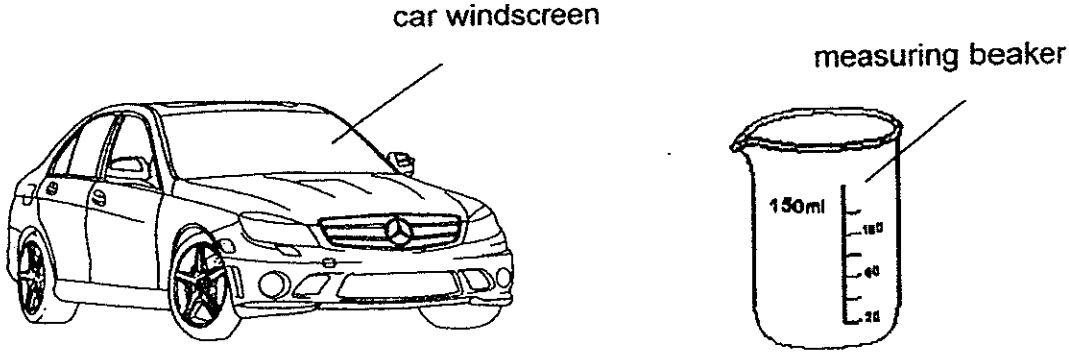
	Start	Complete
(1)	A	D
(2)	A	E
(3)	C	D
(4)	C	E

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18. Which of the following statements is **true** about the organ systems in our body?

(1) The respiratory system consists of the nose only.
(2) Our organ systems stop working when we are sleeping.
(3) The human body has only the muscular and digestive systems.
(4) All the organ systems in our body work together to help us function properly.

19. The two objects labelled below are made of clear glass.



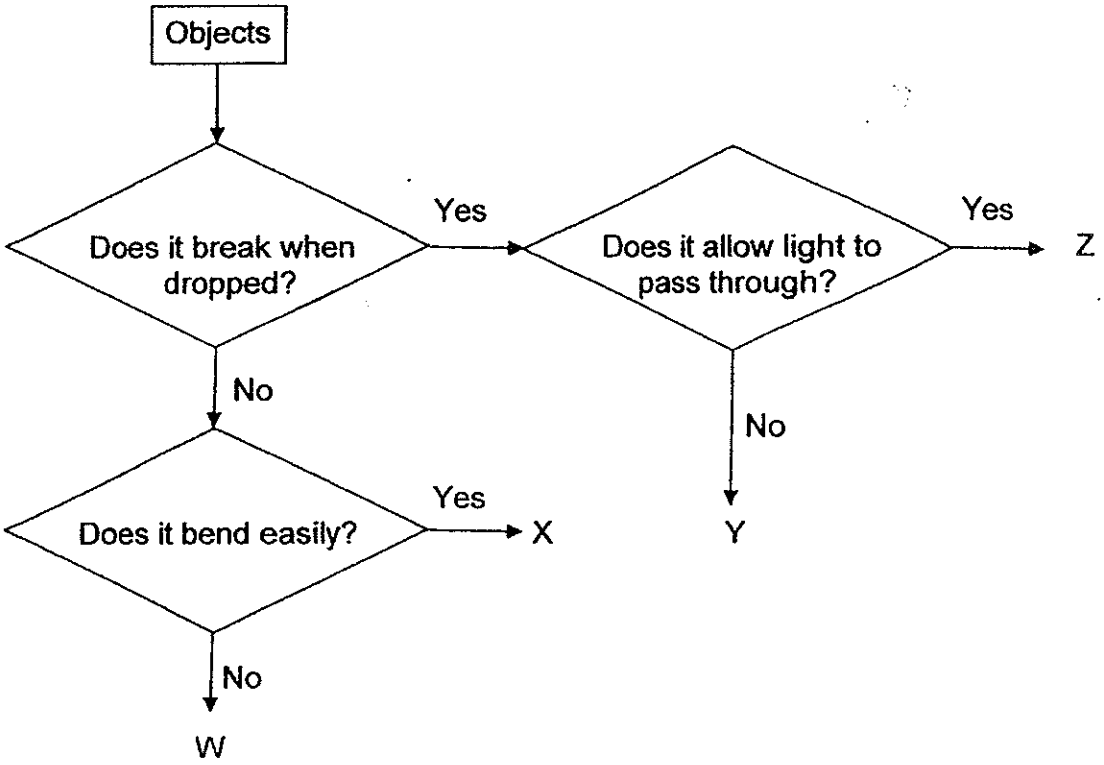
Which of the following properties are common in **both** objects?

A Flexible
B Waterproof
C Allows light to pass through

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

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20. Study the flow chart below.



Which of the following could W, X, Y and Z most likely be?

	W	X	Y	Z
(1)	iron rod	rubber band	ceramic tile	spectacle lens
(2)	lock	raincoat	car tyre	fish tank
(3)	iron rod	water hose	cardboard	spectacle lens
(4)	eraser	raincoat	cardboard	toilet roll

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Study the table below to answer questions 21 and 22.

Group A	Group B
styrofoam ball	metal coin
wooden toothpick	leather belt

21. How have the objects in groups A and B been classified?

(1) Objects in group A are flexible but objects in group B are not flexible.
(2) Objects in group A float on water but objects in group B sink in water.
(3) Objects in group A does not absorb water but objects in group B absorb water.
(4) Objects in group A do not break easily when dropped but objects in group B break easily when dropped.

22. Which one of the four objects comes from plants?

(1) metal coin
(2) leather belt
(3) styrofoam ball
(4) wooden toothpick

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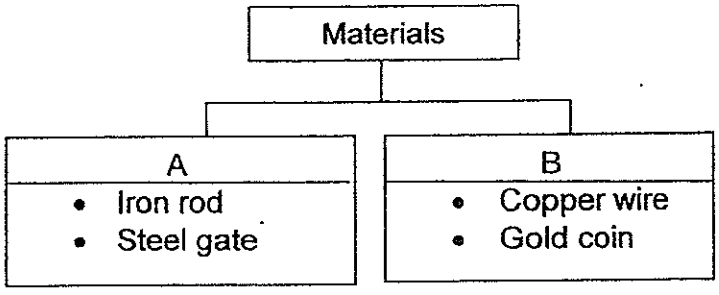
23. The table below shows the properties of materials H, I, J and K.

Properties	Material			
	H	I	J	K
Light	Yes	No	No	Yes
Flexible	Yes	No	No	Yes
Able to keep things warm	No	Yes	No	Yes
Allows light to pass through	Yes	No	No	No

Mrs Lee needs to choose a suitable material to make a sweater for her grandchild. He needs to wear it when he feels cold while camping. Which material should she choose?

(1) Material H
(2) Material I
(3) Material J
(4) Material K

24. The chart below shows how four objects have been classified into two different groups.



Which one of the following is the best heading to represent A and B?

	A	B
(1)	Metal	Non-metal
(2)	Flexible	Non- flexible
(3)	Magnetic	Non-magnetic
(4)	Waterproof	Non-waterproof

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25. Amin has two bars, S and T, as shown below.

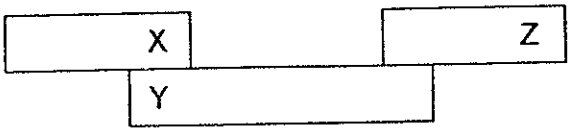


As he moved Bar S towards Bar T, Bar T did not move away from Bar S.

Which one of the following conclusion can be made from the above observation?

(1) Bar S is a magnet while Bar T is not a magnet.
(2) Bar S has a stronger magnetic force than Bar T.
(3) Bar S and T are magnets and their like poles are facing each other.
(4) Bar S and T are magnets and their unlike poles are facing each other.

26. Maya placed three bar magnets in the following arrangement. The magnets did not repel each other.

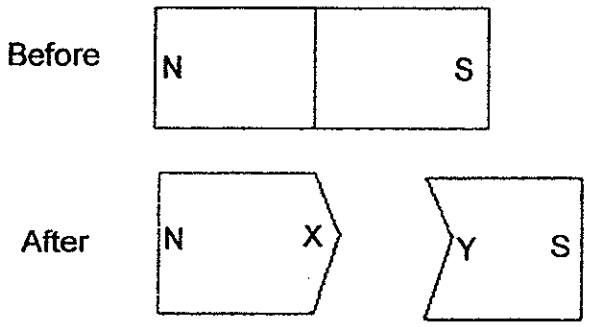


Which one of the following shows the correct poles to represent X, Y and Z?

	X	Y	Z
(1)	South	North	North
(2)	North	South	North
(3)	North	North	South
(4)	South	South	South

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27. Noah accidentally dropped his magnet and it broke into two pieces as shown below.



His friends made the following predictions.

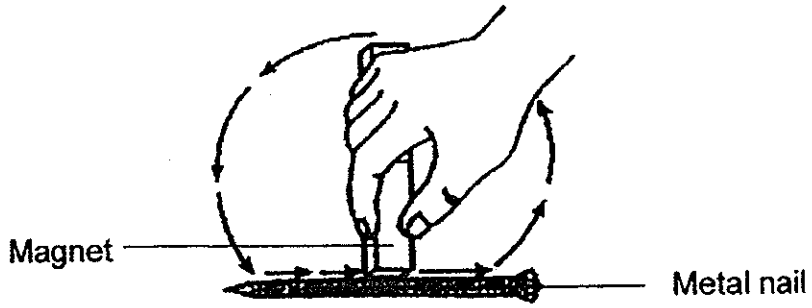
Ali	The magnet cannot be used anymore.
Bala	The magnet can be used but part X and Y do not have any poles.
Caili	Part X would be the south pole while Part Y would be the north pole.
David	Part X would be the north pole while Part Y would be the south pole.

Which friend had made the correct prediction?

(1) Ali
(2) Bala
(3) Caili
(4) David

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28. Aldo stroked a metal nail repeatedly for a minute using a magnet as shown in the diagram below.

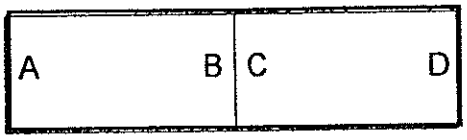


He realised that the metal nail did not become magnetised.

What could be the possible reason why the metal nail was not magnetised?

(1) He did not stroke hard enough.
(2) The metal nail is made of copper.
(3) He used the wrong pole to stroke the metal nail.
(4) He did not stroke the metal nail in 2 different directions.

29. Jia Ying used a magnet to attract some metal paperclips. A, B, C and D represent parts of the magnet.



He recorded the number of clips attracted to different parts of the magnet in the table below.

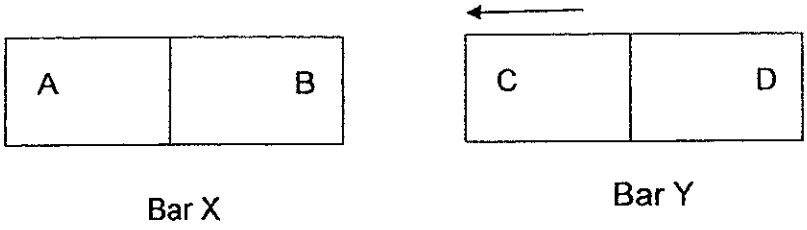
Parts	Number of paper clips.
A	12
B	3
C	1
D	?

What is the most likely number of paper clips attracted to part D?

(1) 1
(2) 3
(3) 11
(4) 30

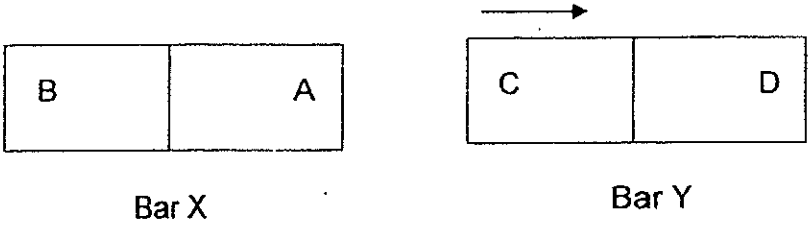
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30. Mandy had two metal bars, bar X and bar Y. In the first experiment, she moved bar X towards Bar Y and observed that bar Y moved towards bar X.



1st experiment

In the second experiment, she moved it towards bar Y. Bar Y then flipped Bar X around and was observed to move away from bar X.



2nd experiment

Which one of the following is **true** about the two metal bars?

(1) Both metal bars are magnets.
(2) Both metal bars are not magnets.
(3) Bar X is not a magnet while bar Y is a magnet.
(4) Bar Y is not a magnet while bar X is a magnet.

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NANYANG PRIMARY SCHOOL

PRIMARY 3 SCIENCE

SEMESTRAL ASSESSMENT 2
2014

BOOKLET B

Date : 29 October 2014

Duration : 1 h 45 min

Name : _____ **( )**

Class: Primary 3 ( )

Marks Scored:

Booklet A:		**60**
Booklet B :		**40**
Total :		**100**

Any query on marks awarded should be raised by 7 Nov 2014.
We seek your understanding in this matter as any delay in the confirmation of marks will lead to delays in the generation of results.

Parent's signature: .....

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Booklet B consists of 15 printed pages including this cover page.

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Section B (40 marks)
Write your answers to questions 31 to 44 in the spaces provided.

31. Anna put some plants, animal X and animal Y into a tank covered with a wire mesh and observed them over 5 days. She provided the organisms with water every day. She noticed that animal X only fed on plants while animal Y fed on animal X. The chart below shows the number of organisms still alive at the end of each day.

	Number of organisms still alive in the tank		
Day	Plants	Animal X	Animal Y
1	30	15	1
2	25	10	1
3	20	5	1
4	18	0	1
5	18	0	?

(a) Based on her results, why did the number of plants stop decreasing after day 4? [1]

_____

_____

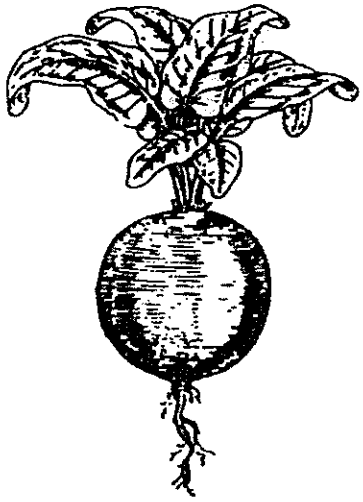
(b) What might happen to animal Y after Day 5? Give a reason to support your answer. [1]

_____

_____

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32. Belle studied the organism below and concluded that is not a plant because she could not find any flower on it.



Organism X

(a) She was told that her conclusion is incorrect. Give a reason, based on the diagram, to explain why she is incorrect. [1]

_____

_____

(b) How do plants get their food? [1]

_____

(c) Her friend said that the organism is a type of non-flowering plant. What must they do before making this conclusion? [1]

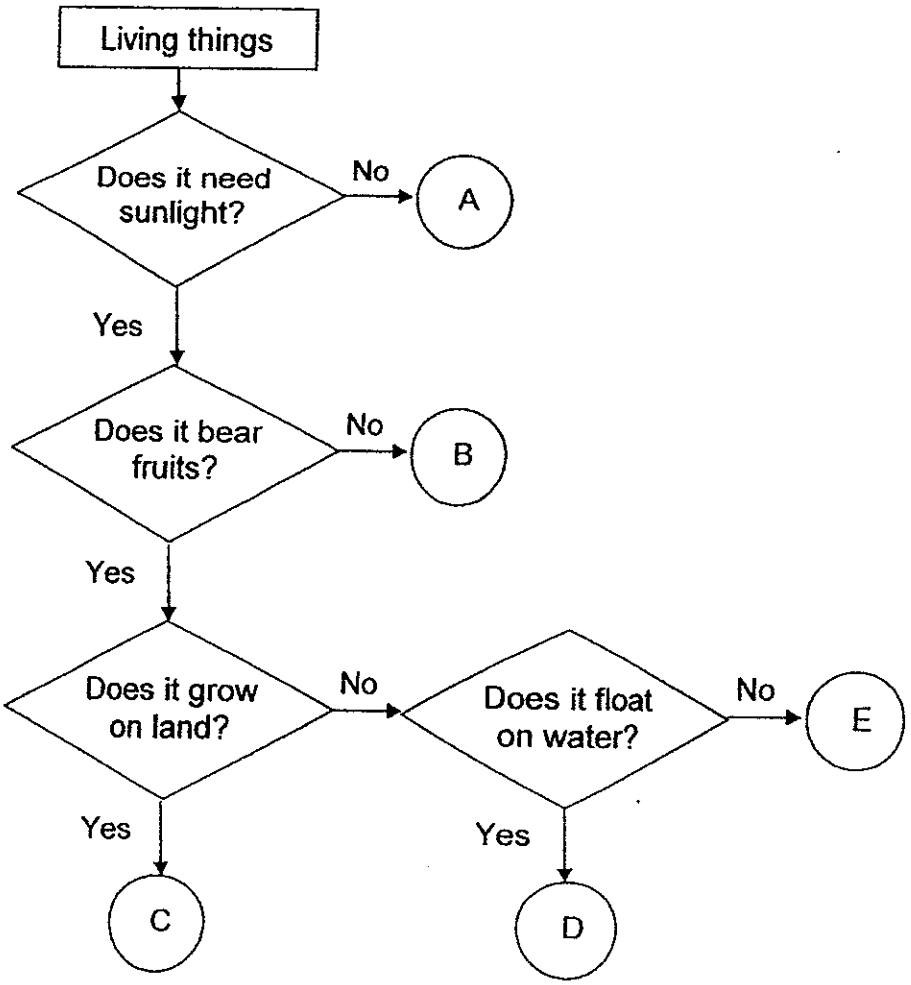
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33. Study the flowchart below.



(a) Based on the flowchart, state **all** the characteristics of organism E. [2]

_____

_____

_____

(b) Which organism A, B, C, D or E can represent a moss? [1]

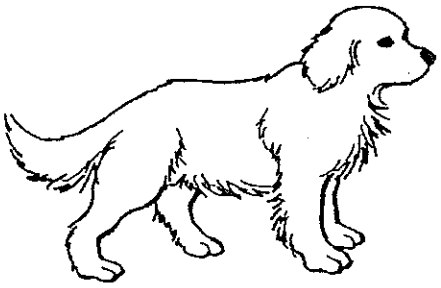
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(c) Give an example of organism C. [1]

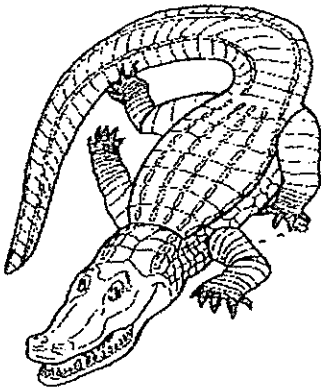
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34. Study and answer the questions below.



Animal A



Animal B

(a) **Based only on the characteristics shown in the diagrams.** state a similarity between the two animals. [1]

_____

_____

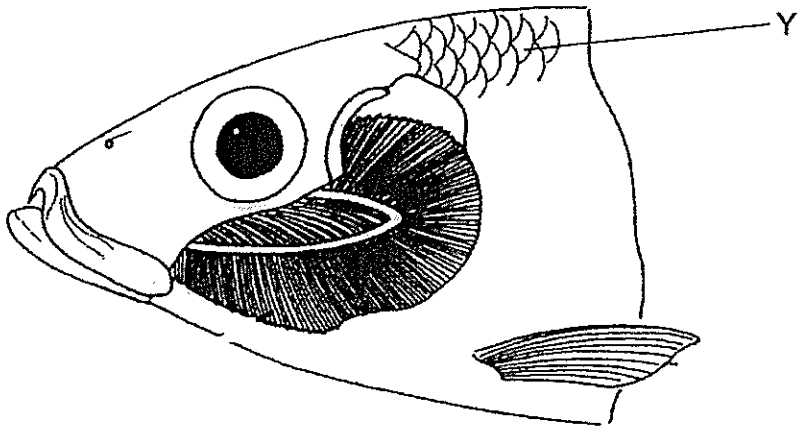
(b) State **two** characteristics of the animals that belong in the same group as Animal B. [1]

_____

_____

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35. Study the diagram below.



(a) i) In the diagram, **identify and label** the part of the fish that helps it to move in water. [1]

ii) In the diagram, **identify and label** the part of the fish that help it breathe in water. [1]

iii) Name another group of animals that also have the part labelled Y as their outer body covering. [1]

_____

iv) A frog can also swim and breathe in water. Based on a characteristic of a fish, explain why the frog cannot be classified in the same group. [1]

_____

_____

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36. Mrs Meena left a bowl of uncooked meat on the kitchen table. A day later, she found that the meat had turned sticky and smelled bad. She then threw the meat away.

(a) Which organism had most likely caused the meat to turn sticky and smelly?

[1]

_____

(b) Her daughter, Juni, said that the meat still looked the same and should not be thrown away. Explain why Juni could not see the organisms stated in part (a). [1]

_____

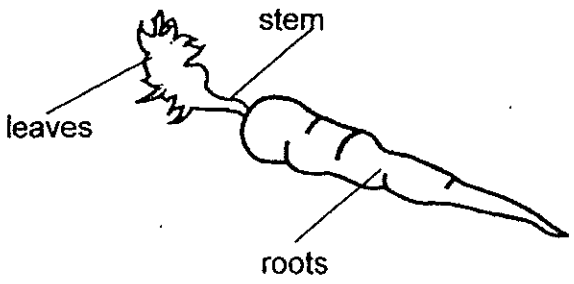
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37. May Ling placed plant A in a pot of soil. It was watered daily and left under the sun.

After a few weeks, she observed that the plant was **growing well**. She pulled the plant out of the soil and noticed that the root of the plant was **bigger than before**.



Plant A

Based on the information given above, what can she conclude about the function of the root? [2]

(i) _____

_____

_____

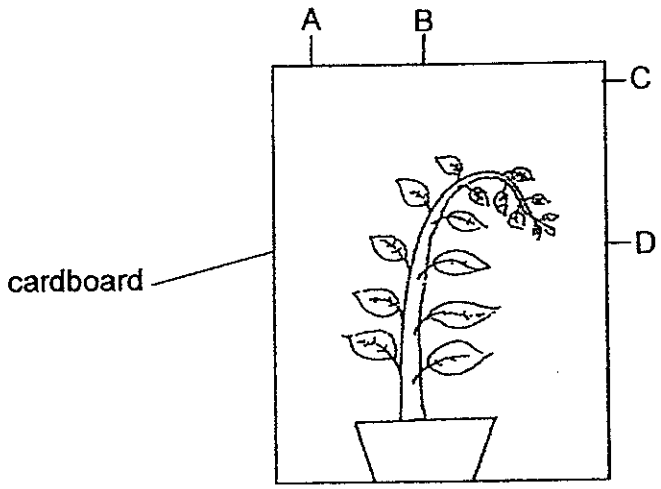
(ii) _____

_____

_____

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38. Sanjiv placed a plant in a cardboard box which had a hole in it. After a week, he realized that the plant had grown sideways as shown in the diagram below.



(a) Based on how the plant was growing, at which part, A, B, C or D, could the hole most likely be found? [1]

_____

(b) State 2 things that Sanjiv should do to the box so that the plant would grow upright instead. [2]

_____

_____

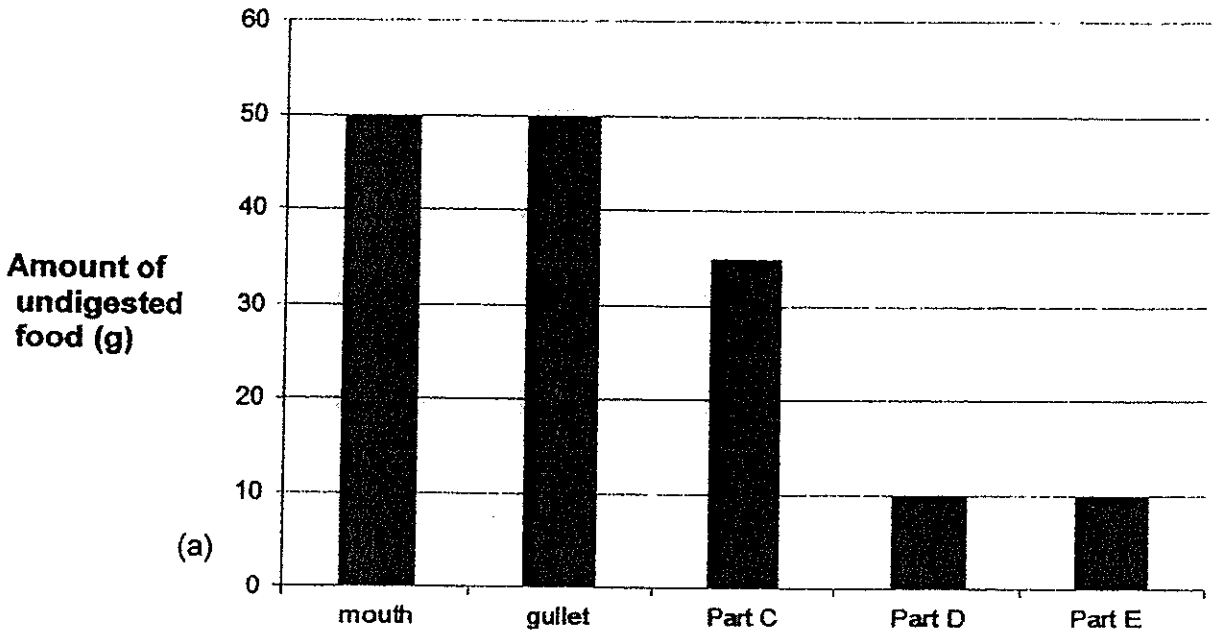
(c) Based on the experiment above, what is the function of the stem? [1]

_____

_____

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39. The graph below shows the amount of undigested food as it **leaves** each part of the human digestive system.



(a)

(a) Identify parts C and E of the digestive system. [2]

Part C: _____

Part E: _____

(b) What happens to the digested food in part D? [1]

_____

_____

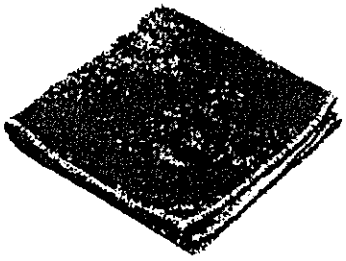
(c) State what is found in part C that reduced the amount of undigested food that enters it. [1]

_____

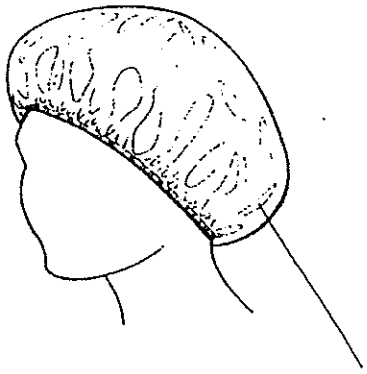
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40. The diagram below shows a cloth and a shower cap.

The cloth can be used to clean wet surfaces to keep them dry. The shower cap can be used to keep our hair dry while taking a shower.



cloth



shower cap

Based on the information given, state **one** similarity and **one** difference in the properties of the two objects. Do not compare size, shape and colour.

[2]

Similarity:

_____

_____

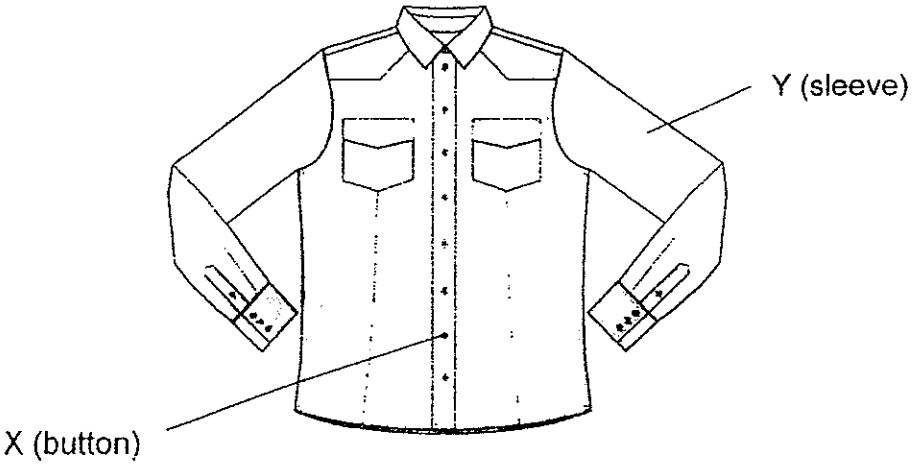
Difference:

_____

_____

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41. The diagram below shows a picture of a shirt.



(a) Identify suitable materials that can be used to make parts X and Y. [1]

X: _____

Y: _____

(b) Based on the properties and the function of the object, state a reason why the materials chosen in (a) are suitable for making the shirt. [2]

X: _____

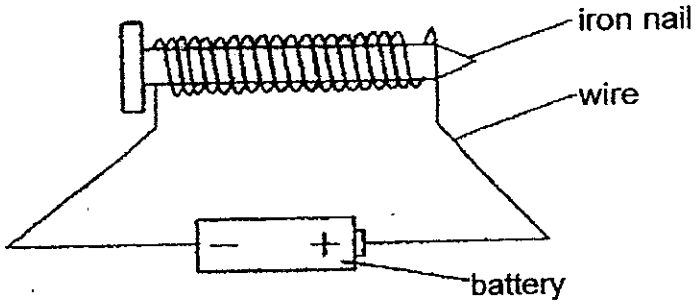
_____

Y: _____

_____

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42. Ally wanted to make her own electromagnet. She set up the apparatus as shown in the diagram below.

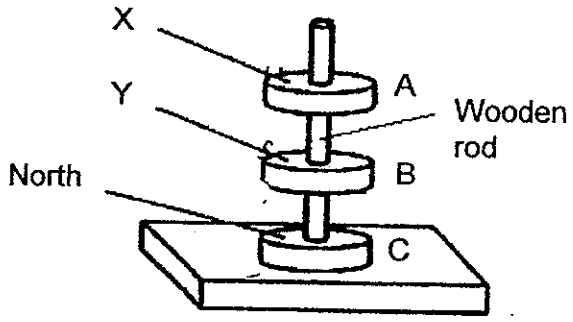


(a) Unfortunately, she realized that the electromagnet could not attract any steel paperclip. If she had set up the circuit correctly, give a possible reason why her set-up did not work. [1]

(b) Ally was given an electromagnet that worked. However, she wanted to make the electromagnet stronger. What are the **two** changes she could do to make the electromagnet stronger? [1]

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43. Munna carried out an experiment using three ring magnets, A, B and C, and a wooden rod as shown below.



She realised that the magnets were 'floating' directly above each other.

(a) Explain how the magnets were able to float above each other. [1]

_____

_____

(b) X and Y represents two poles of magnets A and B. Identify the poles represented by X and Y. [1]

X: _____ Y: _____

(c) Munna changed the set-up by flipping magnet A only. What would she observe about magnets A, B and C? [2]

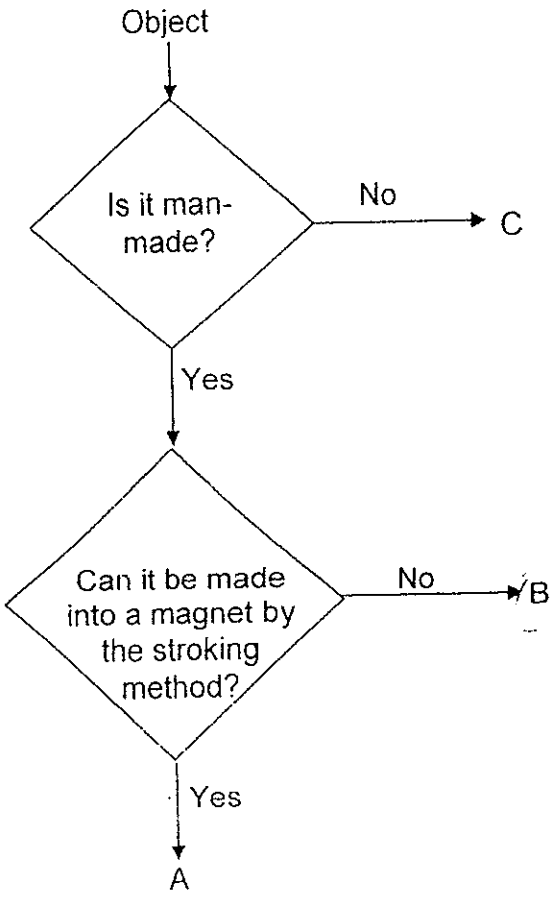
_____

_____

_____

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44. Study the flow chart below.



(a) State the characteristics of object B. [1]

_____

_____

(b) Seri has been given the following objects.

- Iron rod
- Plastic cup
- Lodestone

Which object correctly represent A, B and C?
Fill in your answer in the boxes below. [1]

A	B	C

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EXAM PAPER 2014
LEVEL : PRIMARY 3
SCHOOL : NANYANG
SUBJECT : SCIENCE
TERM : SA2

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
4	4	4	3	4	2	4	4	1	1
Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20
2	1	3	3	3	4	1	4	3	1
Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30
2	4	4	3	1	2	3	2	3	1

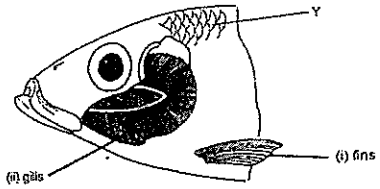
Q31 (a) Animal C had died as animal Y ate animal X.
(b) Animal Y would die after Day 5 as animal Y fed on animal X and animal X had died.

Q32 (a) Organism X has leaves, stem and roots like a plant.
(b) Plants make their own food
(c) They must see if there is fruits in organism X.

Q33 (a) Organism E needs sunlight, bears fruits, grows in water and sinks in water.
(b) B
(c) Sunflower

Q34 (a) Both have a tail.
(b) Reptiles lay eggs and have dry skin with scales.

Q35 (a) (i) and (ii)



(iii) Reptiles
(iv) Frog does not have scales and does not have gills to breathe.

Q36 (a) mould
(b) Mould can only be seen under a microscope thus Juni could not see the mould with her naked eyes.

Q37 (i)The roots stores excess food for the plant.
(ii)The roots absorbs minerals and water and is transported to all parts of the plant and the leaves

Q38 (a) D
(b) Cover the hole at D and make a hole on the top part of the box at position B.
(c) The stem holds the plant upright and helps the leaves to reach out for sunlight to make food,

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Q39 (a) Part C : stomach
Part E : Large intestine

(b) The blood absorbs the digested food and it is carried to all parts of the body by the blood.

(c) More digestive juices is found in part C that reduced the amount of undigested food that enters it.

Q40 Similarity: Both are flexible
Difference: The cloth is absorbent but the shower cap is waterproof.

Q41 (a) X: Plastic
Y: Fabric

(b) X is strong so that it does not break easily.
Y is light so that the person who wears it will not feel heavy.

Q42 (a) She should put more batteries.

(b) She should would more coils of wire around the iron nail and put more batteries.

Q43 (a) Like poles of the magnets are facing each other, therefore they repel.

(b) X: N
Y: S

(c) Magnet A will be attracted to magnet B while magnet B and C continued to repel.

Q44 (a) Object B is man-made and cannot be made into a magnet by the stroking method.

(b) A: Iron rod
B: Plastic cup
C: Lodestone

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