Semestral Assessment 2 – 2016
Science
Primary 3

Name : _____ ( ) Date : 27 October 2016

Class : Pri. 3 ( )

Science Teacher : _____ Time : 1 h 20 min

Section A (24 × 2 marks)

For questions 1 to 24, choose the most suitable answer and shade its number (1, 2, 3 or 4) on the Optical Answer Sheet (OAS) provided.

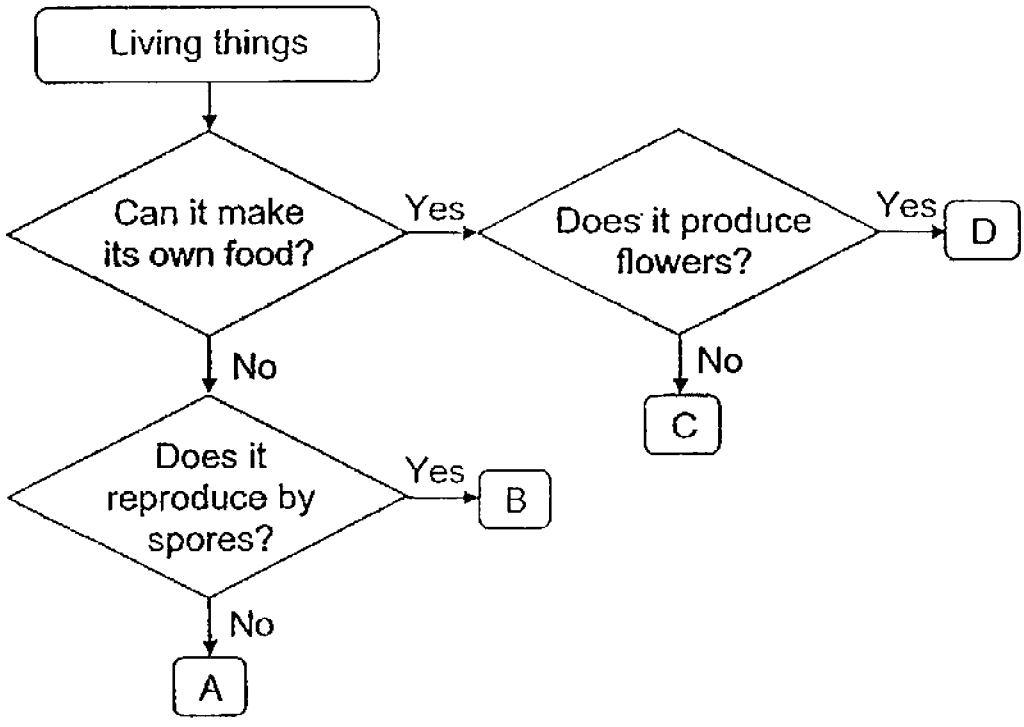
1. The table below shows the shapes and edges of different types of leaves.

leaf	shape	edge
	heart	toothed
	oval	entire

Which of the following matches the characteristics of the leaf shown below?

	shape	edge
(1)	heart	entire
(2)	heart	toothed
(3)	oval	entire
(4)	oval	toothed

2. Study the following flowchart.



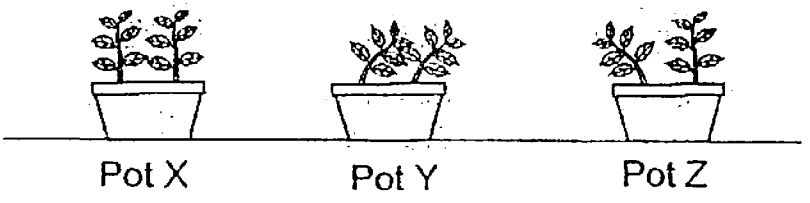
Which of the following is likely to be moss?

(1) A (2) B

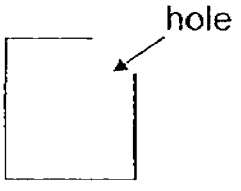
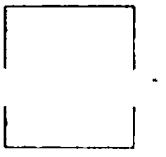
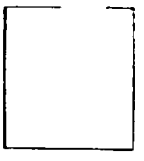
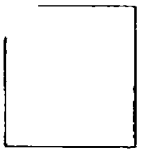
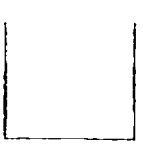
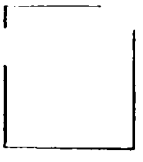
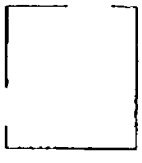
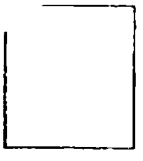
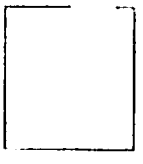
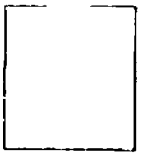
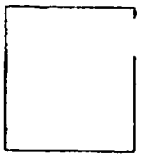
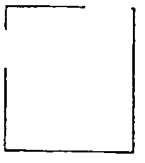
(3) C (4) D

3. Three similar pots of plants were placed along a corridor. Each pot was placed in a black box. Each box had one or two holes made in it.

The following diagrams show what the plants looked like after some time.



Which of the following correctly shows the boxes in which each pot of plant was placed in?

	Pot X	Pot Y	Pot Z
(1)			
(2)			
(3)			
(4)			

4. Which of the following statements about amphibians is true?

(1) Amphibians have moist skin.
(2) Amphibians live on land only.
(3) Amphibians do not have lungs.
(4) Amphibians have scales as their body covering.

5. Mary read about animal X in a magazine. She concluded that it is a mammal.

Which of the following characteristics allow her to conclude that animal X is a mammal?

A : It lives on land.
B : It has four legs.
C : It has hair on its body.
D : It produces milk for its young to feed on.

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

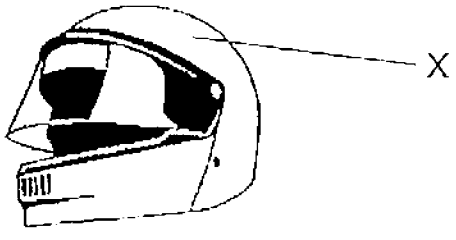
6. The table below shows the properties of materials A, B and C. A tick (✓) shows that the material has the property.

Properties	Materials		
	A	B	C
It bends easily.		✓	✓
It is waterproof.	✓	✓	
It allows most light to pass through.	✓		

Which of the following best represents Material A, B and C?

	A	B	C
(1)	glass	rubber	fabric
(2)	glass	fabric	rubber
(3)	rubber	glass	fabric
(4)	rubber	fabric	glass

7. Which of the following properties of a material should be considered in making part X of the object shown below?



A : It must be strong.

B : It must be flexible.

C : It must be waterproof.

D : It must allow most light to pass through.

(1) A and C only

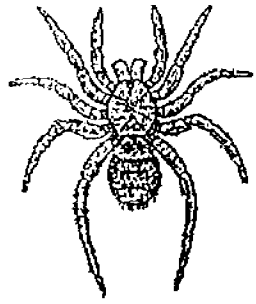
(2) A and D only

(3) B and C only

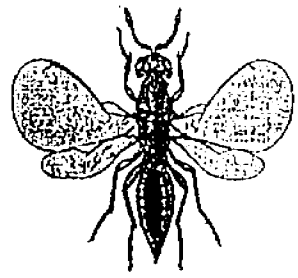
(4) C and D only

8. Which of the following animals is not an insect?

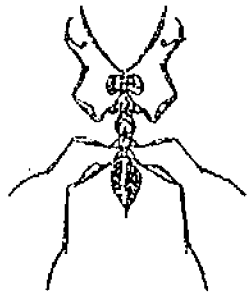
(1)



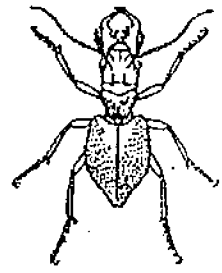
(2)



(3)

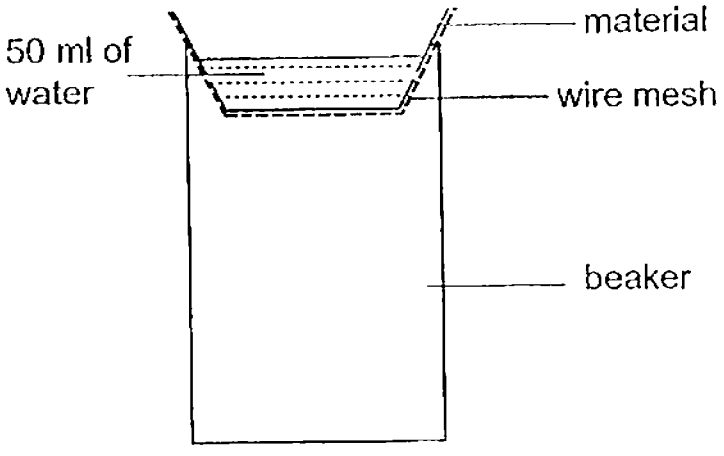


(4)



9. Muthu had four different pieces of materials, A, B, C and D of similar size and thickness. He wanted to find out which material is most suitable to be made into a raincoat.

He set up his experiment using the apparatus as shown in the diagram below and poured 50 ml of water on each material.



After five minutes, he recorded his readings in the table below.

Material	Amount of water in the beaker (ml)	Amount of water left on the material (ml)
A	0	50
B	0	0
C	15	10
D	40	0

Which material, A, B, C or D, is most suitable to be made into a raincoat?

(1) A (2) B

(3) C (4) D

10. The table below shows the characteristics of X, Y and Z.

Things	Able to reproduce?	Able to move on its own?	Able to make its own food?
X	Yes	Yes	No
Y	No	Yes	No
Z	Yes	No	Yes

Which of the following statements is true about X, Y and Z?

(1) Only X is a living thing.
(2) Only Y is a living thing.
(3) Only X and Z are living things.
(4) All X, Y and Z are living things.

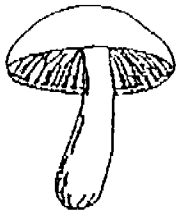
11. Four pupils made the following statements about fish and reptiles.

Ron : All fish and reptiles have shells.
Siti : Most of the fish and reptiles reproduce by laying eggs.
Tim : Fish and reptiles have gills to help them breathe underwater.
Uma : Fish and reptiles have dry skin that is usually covered with scales.

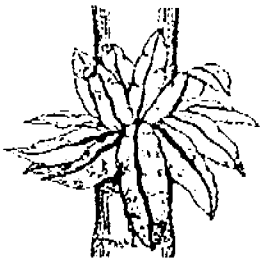
Who is correct?

(1) Ron
(2) Siti
(3) Tim
(4) Uma

12. Caroline found two living things in the garden, as shown below.



mushroom



bird's nest fern

She made the following statements about the two living things.

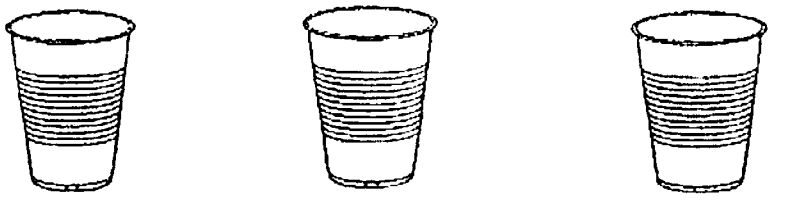
A : They reproduce by spores.
B : They are non-flowering plants.
C : They make use of sunlight to make their own food.

Which of the above statements are false?

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

13. Tim poured the same amount of milk into three similar cups.

He placed the cups at three different places for two days as shown below.

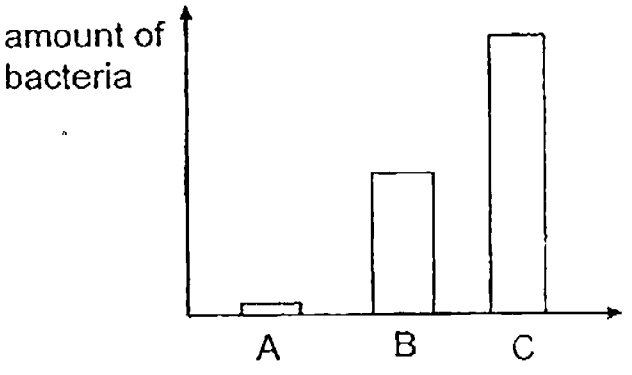


A
in refrigerator

B
in air-conditioned room

C
at room temperature

After two days, he measured the amount of bacteria in each cup of milk using a microscope and plotted the graph as shown below.

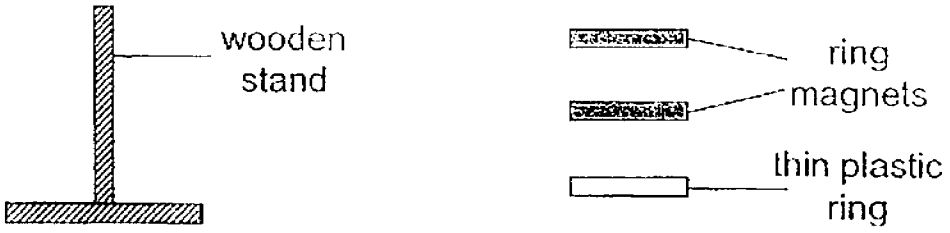


Based on his results, what can Tim conclude?

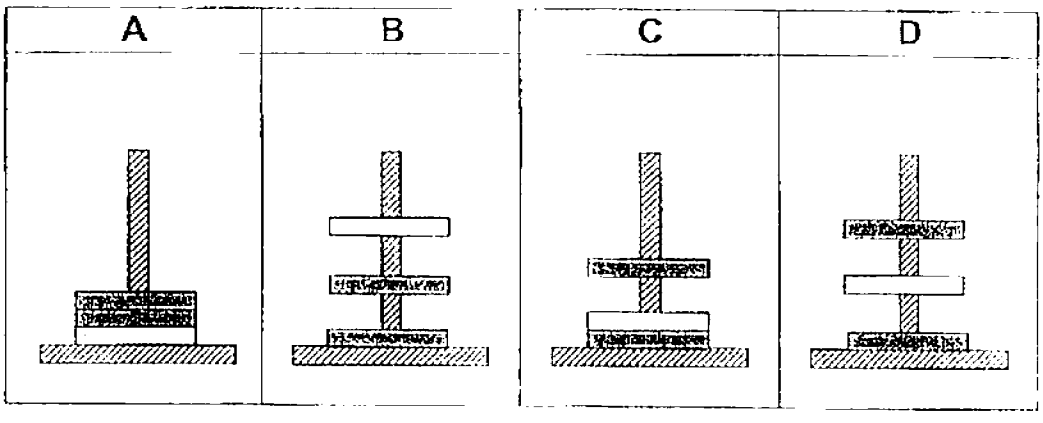
(1) Bacteria need milk to grow well.
(2) Bacteria cannot grow in low temperature.
(3) Bacteria grow faster in warm temperature.
(4) Bacteria come in different shapes and sizes.

14. Devi had two ring magnets and a thin plastic ring.

She slotted them through the wooden stand as shown in the diagram below.



Which of the following observations could Devi possibly make?



(1) A only

(2) A and C only

(3) B and D only

(4) A, B, C and D

15. Ali has four magnets as shown below.

 magnet W

 magnet X

 magnet Y

 magnet Z

He placed each magnet 8 cm from a pile of iron pins and observed the number of iron pins attracted. He then recorded the results in the table below.

Magnet	**W**	**X**	**Y**	**Z**
Number of iron pins attracted	19	9	15	12

Based on his results, what can Ali conclude?

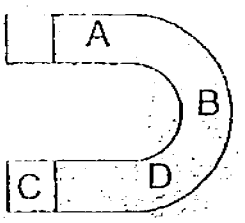
(1) Magnet X is the strongest.

(2) The longer the magnet, the stronger its magnetic strength.

(3) Magnet Y is stronger than magnet Z but weaker than magnet W.

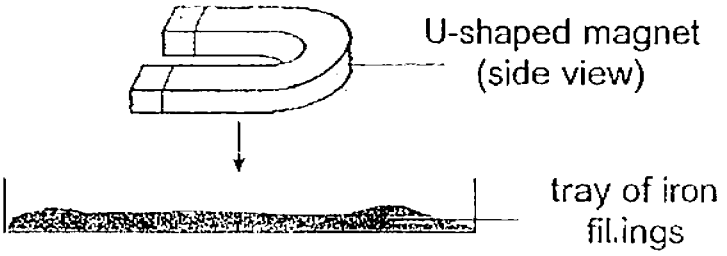
(4) Magnet Z is stronger than magnet Y but weaker than magnet W.

16. Ravi carried out an experiment to test the magnetic strength of the different parts of a U-shaped magnet.

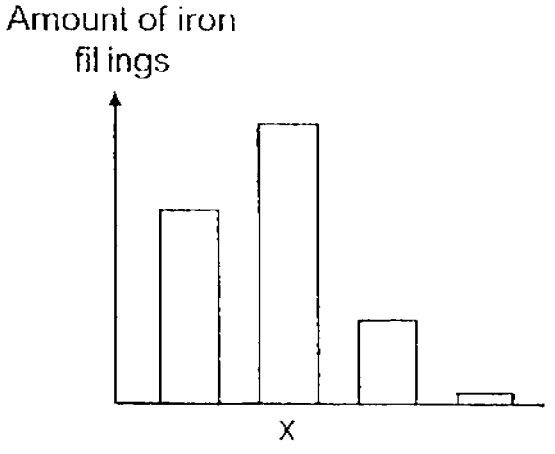


U-shaped magnet
(bottom view)

He placed the U-shaped magnet into a tray of iron fil ings as shown below.



He then recorded the amount of iron fil ings attracted to each part and plotted a bar graph based on his results as shown below.



Which part A, B, C or D does "x" represent?

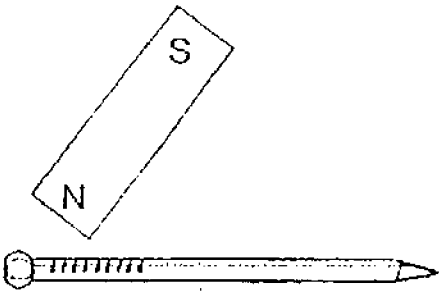
(1) A

(2) B

(3) C

(4) D

17. Hema used the stroking method to make a magnet as shown below.



However, the nail did not attract any iron filings. Which of the following could be the reason for her observation?

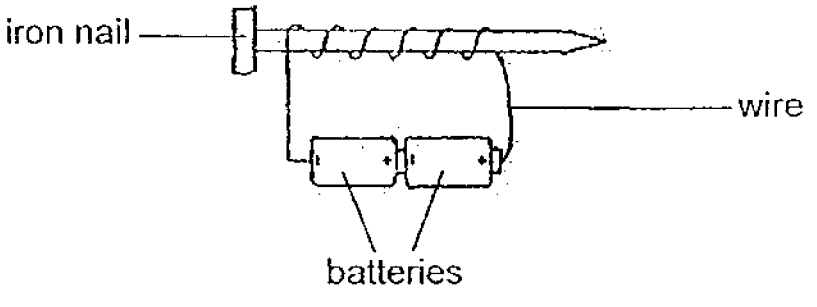
(1) The nail was made of steel.

(2) She stroked the nail back and forth.

(3) The magnet she used was too strong.

(4) She used the same pole of the magnet to stroke the nail.

18. Tom used the electrical method to make a magnet. He coiled the wire six times around an iron nail as shown below.



He noticed that the magnet attracted three paper clips.

Which of the following would happen if he coiled the wire 15 times around the iron nail?

(1) No paper clips would be attracted.

(2) More paper clips would be attracted.

(3) Three paper clips would be attracted.

(4) Fewer paper clips would be attracted.

19. Study the table below.

System	Function
skeletal	gives the body shape
respiratory	removes air from our body
muscular	protects the organs in our body
circulatory	carries useful substances to all parts of our body

Which system is matched with the wrong function?

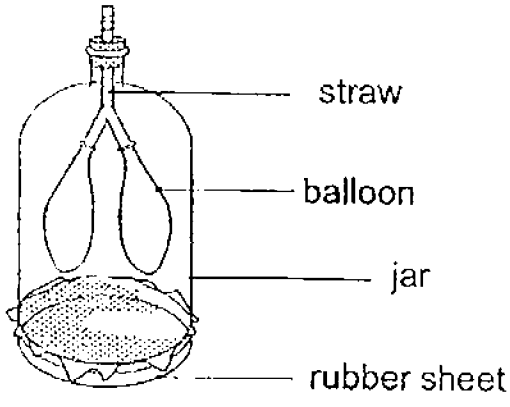
(1) Skeletal

(2) Respiratory

(3) Muscular

(4) Circulatory

20. The model below represents a body system.



Which body system does it represent?

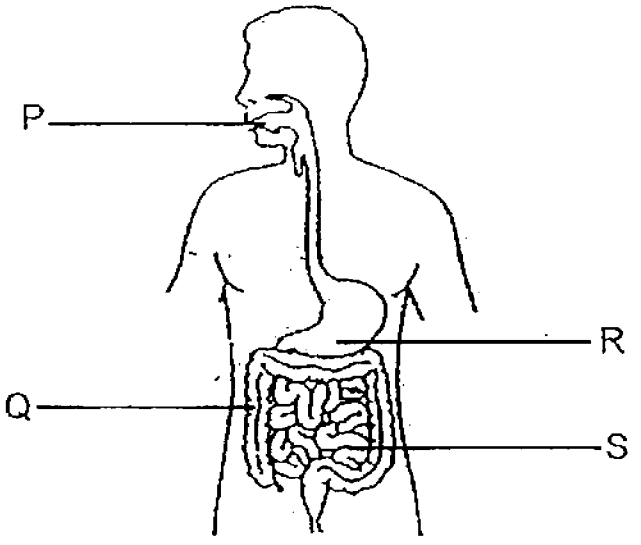
(1) Muscular

(2) Digestive

(3) Circulatory

(4) Respiratory

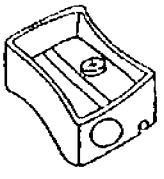
21. At which part, labelled P, Q, R and S, is food completely digested?



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

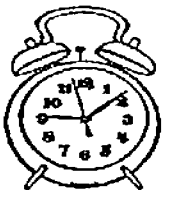
22. Which of the following is **not** a system?

(1)



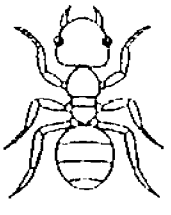
sharpener

(2)



clock

(3)

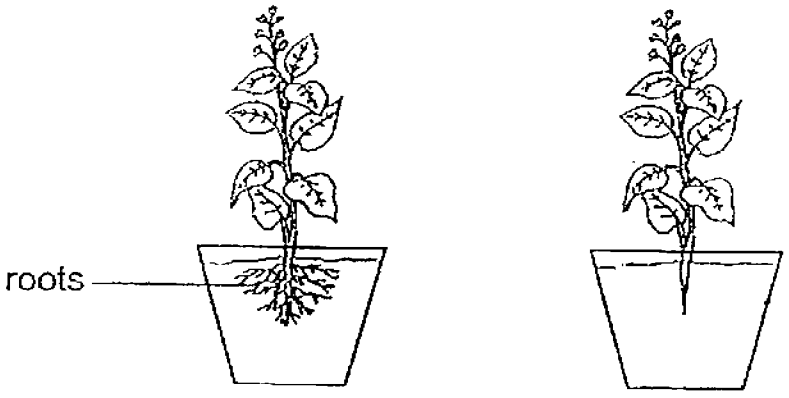


ant

(4)

plastic fork

23. Mary has two identical plants as shown below.

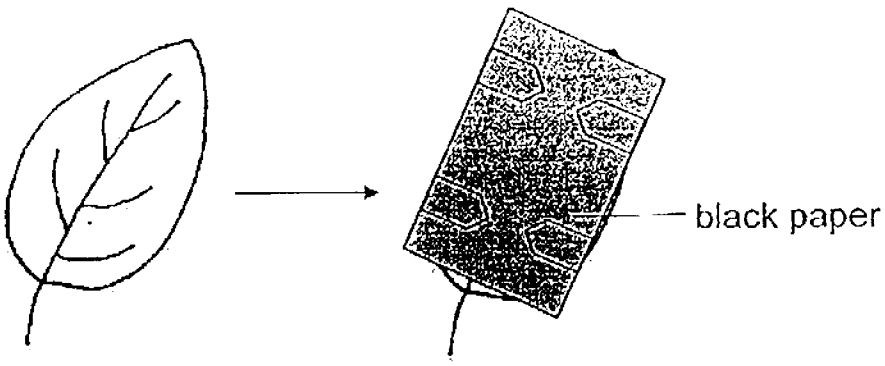


She tried to pull the plants out. She observed that she had to use more strength to pull plant R out as compared to plant S.

Which statement best explains her observation?

(1) The roots hold the plant firmly to the soil.
(2) The roots transport water to the rest of the plants.
(3) The stem transports water to the rest of the plants.
(4) The stem of plant R is stronger than the stem of plant S.

24. The diagram below shows a leaf from a plant covered in black paper.



top and bottom surfaces of leaf covered with black paper

What happens to the plant if all the leaves of the plant are covered this way?

(1) It will not be able to bear fruits.

(2) It will not be able to make food.

(3) It will not be able to stand upright.

(4) It will not be able to absorb water and minerals.

End of Section A

Semestral Assessment 2 – 2016
Science
Primary 3

Name : _____ ( )

Class : Pri. 3 ( )

Date : 27 October 2016

Time : 1 h 20 min

Science Teacher : _____

Parent's signature: _____

Section A	48
Section B	32
Total	80

Section B (32 marks)
For questions 25 to 35, write your answers in the spaces provided.

25. Study the two groups of fruits below.

group G	group H
 	 

a) Give the headings for group G and group H. [2]

group G: _____

group H: _____

b) Suggest another way to group the fruits. [1]

_____

SCORE	

26. The following table gives information on five animals, P, Q, R, S and T, based on three characteristics. A tick (✓) shows that the animal has the characteristic.

Characteristic	P	Q	R	S	T
Can fly		✓	✓	✓	
Lays eggs	✓	✓		✓	✓
Has feathers	✓			✓	

a) Based on the information given in the table, state **two** characteristics of animal T. [1]

_____

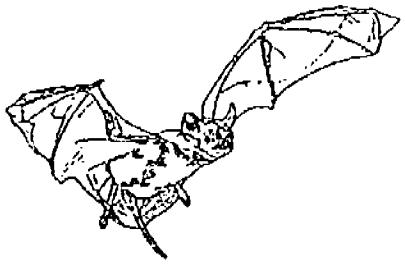
_____

b) Which of the animals, P, Q, R, S or T, are birds?
Give a reason for your answer. [2]

_____

_____

c) The diagram below shows a bat.



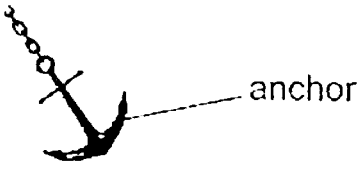
Match the bat to the correct letter (P, Q, R, S or T) in the table.

It is animal _____. [1]

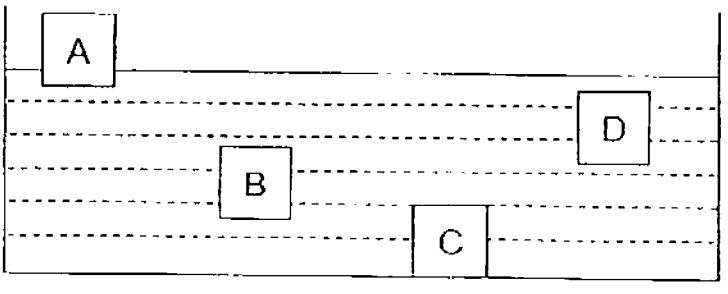
SCORE	

27. Jill conducted an experiment on four different types of material to be used for making an anchor for a toy boat.

An anchor is an object that is sunk into the water to stop the boat from drifting away. The diagram below shows an anchor.



She placed the materials into a container filled with water as shown below.



a) Name the property that Jill tested in her experiment. [1]

_____

_____

b) Which of the following materials, A, B, C or D, is the most suitable for making an anchor for the toy boat?
Give a reason for your answer. [1]

_____

_____

SCORE	

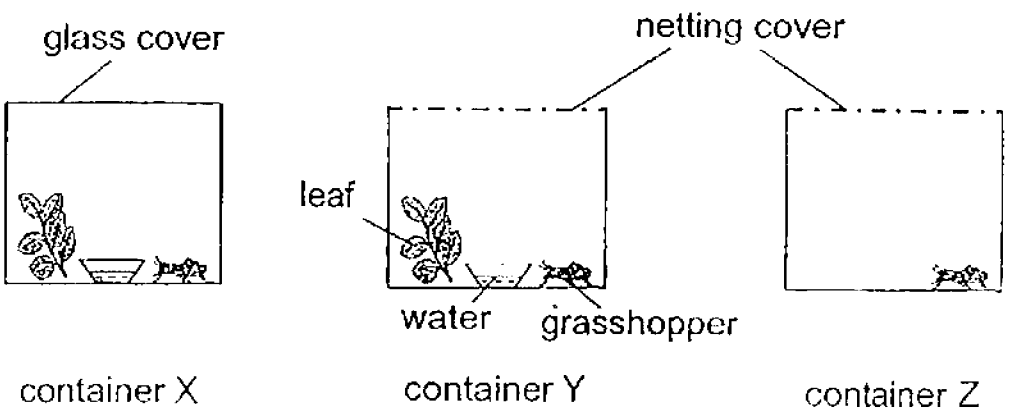
28. Aminah saw a grasshopper in the field and tried to catch it with her bare hands. The grasshopper hopped away when she went near it.

a) From her observation, name a characteristic of living things that the grasshopper shows. [1]

_____

_____

After some time, Aminah caught three grasshoppers of similar sizes and placed each grasshopper into similar containers, X, Y and Z as shown below.



b) In which container, X, Y or Z, would the grasshopper be able to stay alive for the longest time? Explain why. [2]

_____

_____

_____

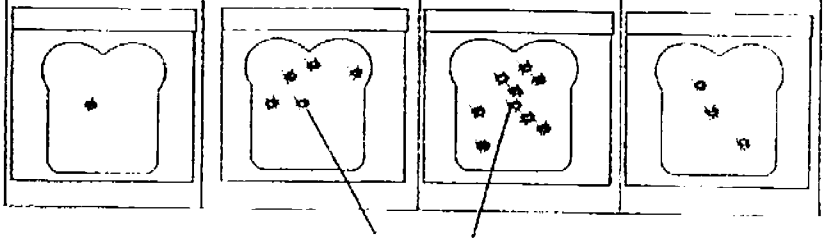
_____

SCORE	

29. Lucy took four similar slices of bread and sprinkled different amount of water on each slice. She then placed each slice into a sealed bag and placed them on the kitchen table.

After one week, she recorded her observations as shown in the table below.

	Bag			
	A	B	C	D
Amount of water sprinkled on the bread (ml)	0	10	20	5
Amount of bread mould observed after one week	1 patch	5 patches	9 patches	3 patches



patches of bread mould

a) How did the amount of water sprinkled on the bread slice affect the amount of mould growth? [1]

_____

_____

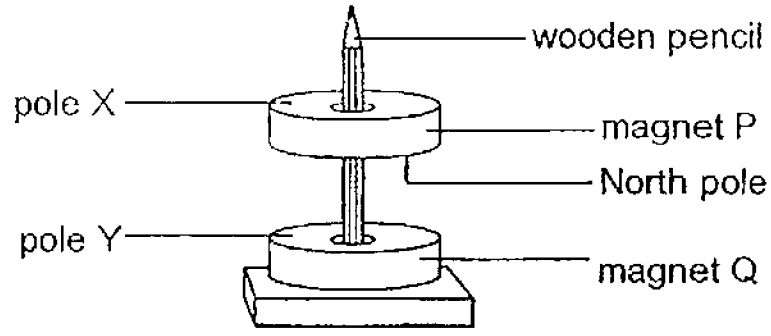
b) Other than water, state the other two conditions needed for bread mould to grow. [1]

_____

_____

SCORE	

30. Kevina placed two identical ring magnets P and Q through a wooden pencil. She observed that the ring magnets stayed apart when they were placed on top of one another as shown below.

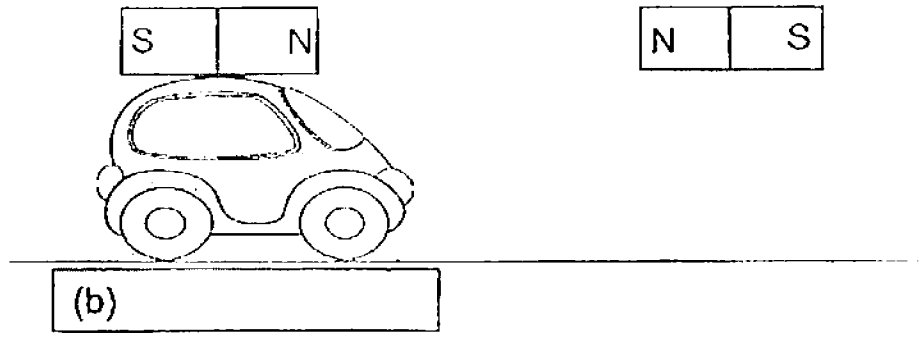


a) Identify the poles X and Y. [1]

X: _____

Y: _____

Kevina attached a bar magnet above a toy car. She tried to move the toy car by bringing another bar magnet close to it as shown below.



Draw an arrow (⟶ or ⟵) in the box above to show the direction in which the car would move when Kevina brought the magnet close to the car as shown above. [1]

c) Give a reason for your answer in part (b). [1]

_____

_____

(question continues on the next page)

SCORE	

Kevina made some changes to her set-up and observed the effect of each change.

Put a tick (✓) in the appropriate box to indicate what would happen to the toy car when the following changes were made to the set-up.

[2]

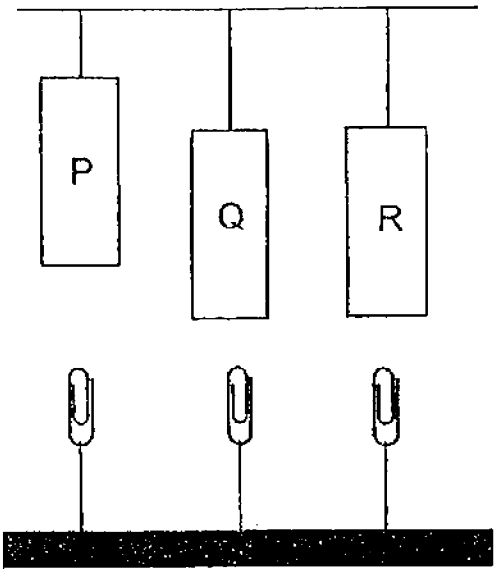
d)

Changes made	Toy car will remain at the same position.	Toy car will move towards the magnet.	Toy car will move away from the magnet.
Kevina turned the magnet that she was holding such that the south-pole was facing the North pole of the magnet on the toy car.			
Kevina replaced the magnet on the toy car with a copper rod.			

SCORE	

31. Wei Han has a bar magnet. She used the stroking method to turn three similar iron bars P, Q and R into magnets.

She then set up an experiment using the three iron bars to test their strength. The diagram below shows the greatest distance each iron bar, P, Q and R, can attract the paper clips from.



a) Which iron bar has become the strongest magnet? [1]

_____

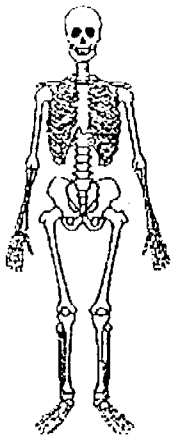
b) Suggest a reason how the iron bar mentioned in part (a) became a stronger magnet than the other two iron bars. [1]

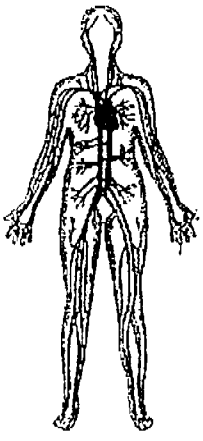
_____

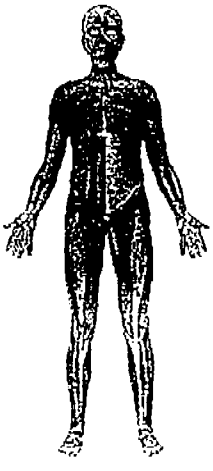
_____

SCORE	

32. Match the body systems to its correct function. [3]



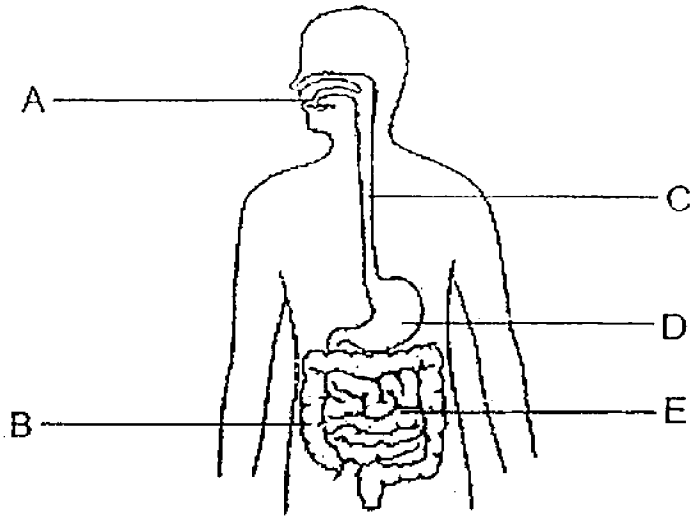




- carries waste materials away from different parts of the body
- takes air into the body
- helps different parts of the body to move.
- protects the organs in the body
- breaks down food into simple substances

SCORE	

33. The diagram below shows the human digestive system.



a) State the part(s) where digestive juices are released. [1]

_____

b) State the part where water is absorbed into the body. [1]

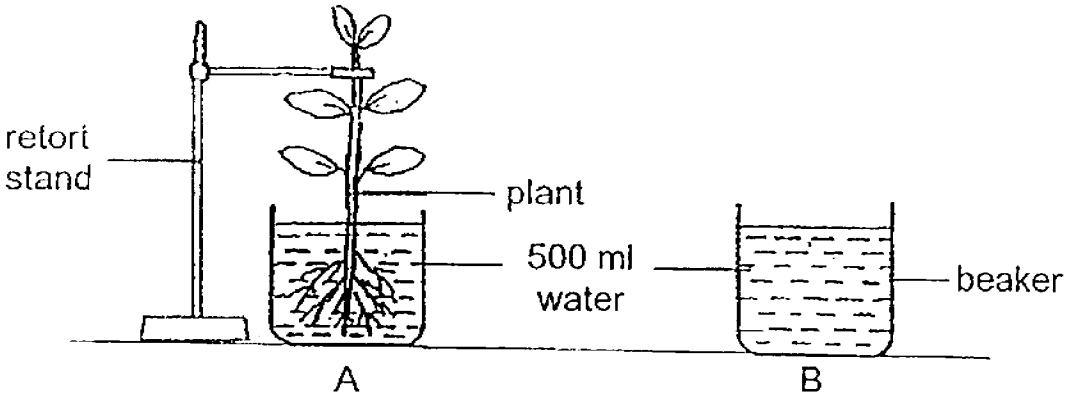
_____

c) In the blanks below, indicate the order of the events, by writing numbers 1 to 5, when Mina ate a sandwich.
Number '1' has been indicated below. [2]

Order	Event
	Food is mixed with more digestive juices and digestion continues.
	Partially digested food travels down the gullet.
	Water is absorbed and the solid waste is passed out of the body.
	Digestion of food is completed and digested food passes through the walls of the digestive system and into the blood.
1	Mina took a bite of the sandwich. Her teeth chewed her food into smaller pieces.

SCORE	

34. Sam poured 500 ml of water into two identical beakers, A and B. He placed a plant in beaker A as shown below.



He left both set-ups in a room for a few days.

a) Circle the correct answer below.

After one week, the amount of water in beaker A will be

(*less than* / *more than* / *the same as*) the amount of water in beaker B. [1]

b) Give a reason for your answer in part (a). [1]

_____

_____

SCORE	

35. Aini observed two plants in her garden as shown below.

plant A

plant B

a) What is the difference between the stems of plant A and B? [1]

_____

_____

b) Based on your answer in part (a), how does coiling around a wooden pole help plant B? [1]

_____

_____

End of Section B

Set by : Mrs Yogeshwari Manikandan and Mdm Ong Bok Hoon
Vetted by: P3 Science teachers

SCORE	

EXAM PAPER 2016 (P3)

SCHOOL : PEI CHUN

SUBJECT : SCIENCE

TERM : SA2

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

25)a)G: one seed H: many seed

b)Texture of skin

26)a)T cannot fly and it can lay eggs.

b)P and S are birds, because only birds have feathers and they have feathers.

c)R.

27)a)Ability to float or sink in water.

b)C. It was the only material that sank to the bottom of the water. / It sank the deepest.

28)a)Living thing respond to changes around them.

b)In container Y. Only the grasshopper in container Y has enough air, food and water to stay alive for the longest time.

29)a)When the amount of water sprinkled on the bread slice increases, the amount of mould growth increases.

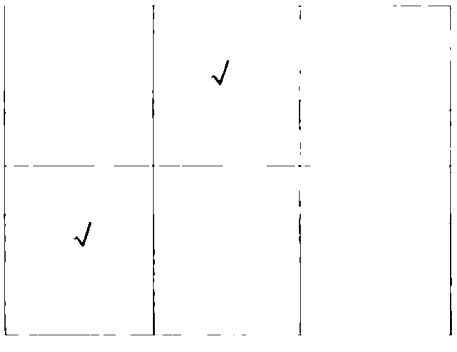
b)Air and warmth.

30)a)X: South Y: North

b) ←——

c)Like poles of the bar magnet above the toy car and the bar magnet Kevina was holding were facing each other, so they repelled.

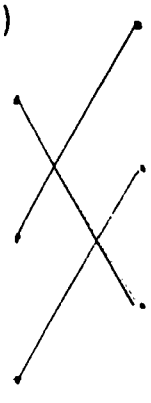
d)



31)a)P is the strongest.

b)It was stroked the most number of times/ more times than the rest

32)



33)a)A, D and E.

b)B.

c)3, 2, 5, 4, 1

34)a)les than

b)The roots of the plant in beaker A have absorbed/ taken is some water.

35)a)Plant A's stem is strong ,but plant B's stem is weak.

b)Plant B's stem is able climb higher to support the leaves to get more sunlight to make food.