METHODIST GIRLS' SCHOOL

Founded in 1887

MID-YEAR EXAMINATION 2018
PRIMARY 5
SCIENCE

BOOKLET A1

Total Time for Booklets A and B: 1 hour 45 minutes

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
Shade your answers in the Optical Answer Sheet (OAS) provided.

Name: _____ ( )

Class: Primary 5._____

Date : 8 May 2018

This booklet consists of 9 printed pages including this page.

For each question from 1 to 14, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval on the Optical Answer Sheet (OAS). [28 marks]

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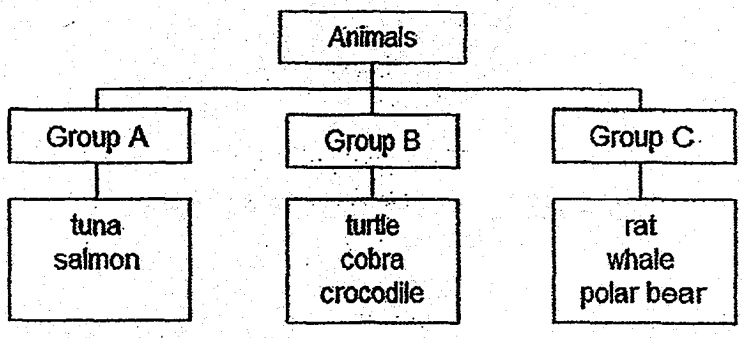
1 Study the following classification chart.



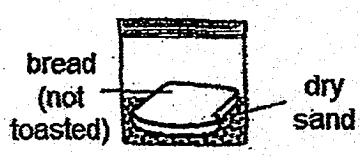
Which of the following statements are correct?

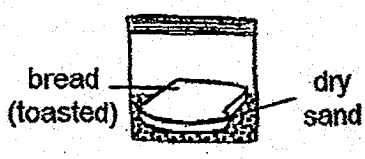
A Only the animals in Group B breathe through lungs.
B Only the animals in Group C give birth to their young alive.
C Only the animals in Group A will try to get away from their predators.
D Animals in Group A and B share at least one common characteristic.

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

2 An experiment was carried out to see how fast bread mould will grow under different conditions. The plastic bags are all sealed.

In which set-up would the bread turn mouldy in the shortest time?

(1)


(2)


(3)


(4)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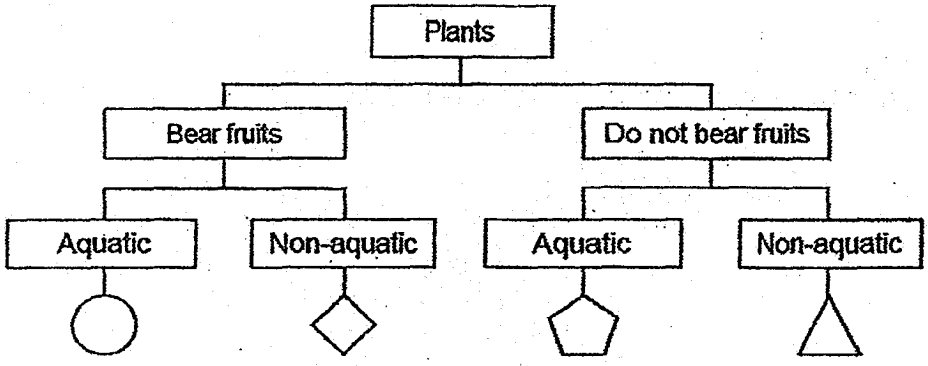
3 Which of the following statements about bacteria are true?

A All bacteria are organisms.
B All bacteria have chloroplasts.
C All bacteria can move by themselves.
D All bacteria are harmful and cause illness.

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

4 The table below shows information of three plants, A, B and C, based on two characteristics. A tick (✓) shows that the plant has the characteristic.

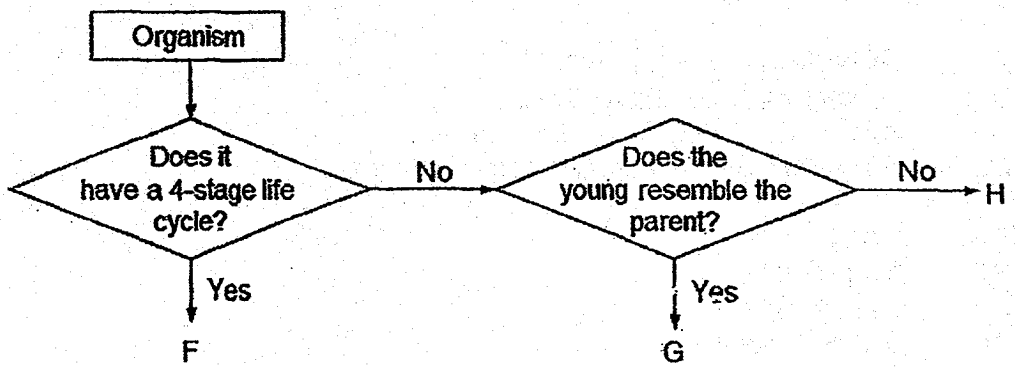
Characteristics \ Plants	A	B	C
Has flowers		✓	
Grows on land			✓



From the information given above, which of the following represent Plants A, B and C in the classification chart?

	Plant A	Plant B	Plant C
(1)	△	◇	○
(2)	◇	△	⬠
(3)	○	⬠	◇
(4)	⬠	○	△

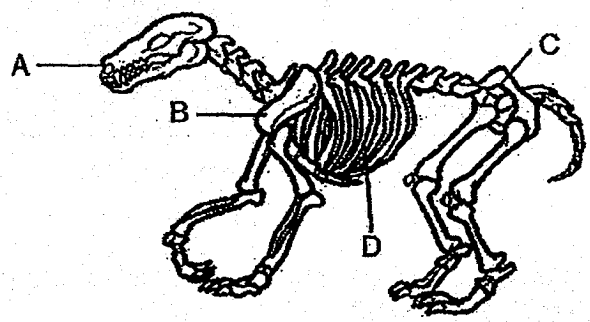
5 Study the following flow chart.



Which of the following represent organisms F, G and H correctly?

	F	G	H
(1)	moth	frog	housefly
(2)	butterfly	chicken	frog
(3)	dog	toad	butterfly
(4)	grasshopper	dog	mosquito

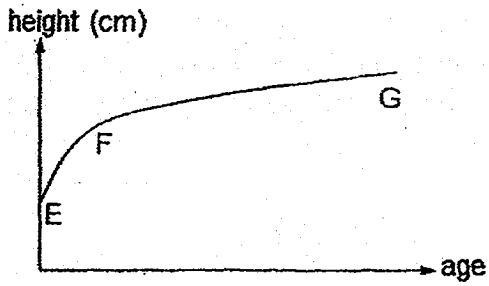
6 The diagram below shows the skeletal structure of a cat.



When a cat breathes, it takes in air into its lungs. Which part of the skeletal structure protect these organs?

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

7 The graph below shows the height of a person changing over a period of time.



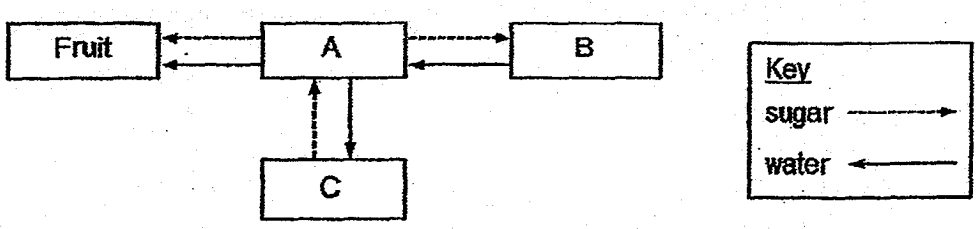
After studying the graph, the students made the following statements.

Arjun: There is an increase in height from E to F as the size of the cells in the body grow larger.
Beng: There is an increase in height from E to F as the number of the cells in the body increases.
Zukri: There is not much change in height from F to G because there is no cell division.

Whose statement(s) is/are correct?

(1) Arjun only
(2) Beng only
(3) Arjun and Zukri only
(4) Beng and Zukri only

8 The diagram below shows how sugar and water are transported to and from different parts of a plant.



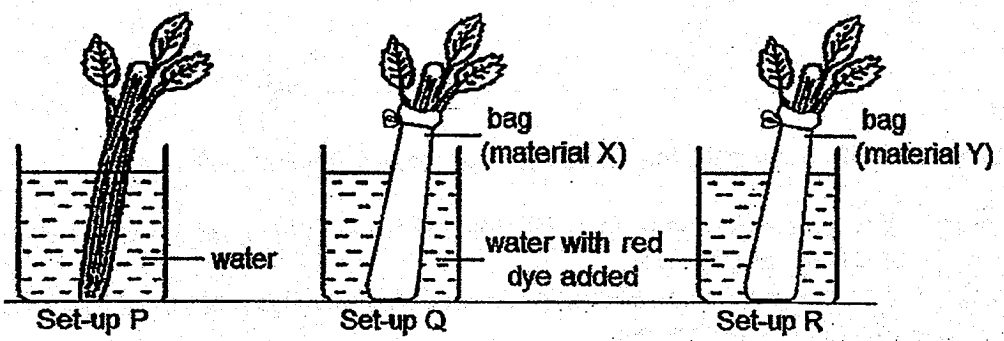
Which of the following show the parts of the plant represented by A, B and C?

	A	B	C
(1)	leaves	stems	roots
(2)	stems	roots	leaves
(3)	roots	stems	leaves
(4)	roots	leaves	stems

(Go on to the next page)

9 An experiment was set up in the laboratory as shown below. Three identical celery stalks were used in an experiment.

The celery stalk in Set-up P was placed in tap water. The bases of the celery stalks in Set-ups Q and R were placed in bags, made from materials X and Y respectively, before placing them into the beakers of water with red dye added.



After five days, the following observations were made.

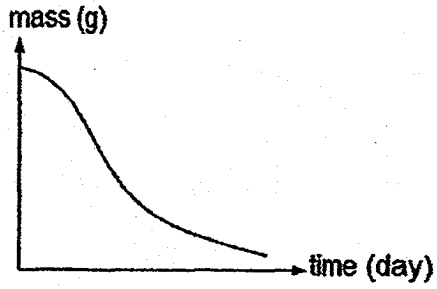
Set-up	P	Q	R
Observation	Leaves were green and did not wilt	Leaves were yellowish and wilted	Leaves did not wilt. Their edges were red.

Which of the following statements are correctly inferred from the observations?

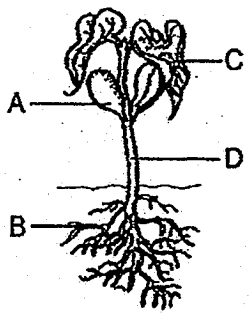
A Water could pass through material X.
B Water could pass through material Y.
C The food-carrying tubes of the celery could transport water to the leaves.
D The water-carrying tubes of the celery could transport red dye to the leaves.

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

10 The graph below shows the mass of a part of the plant as its seedling develops.

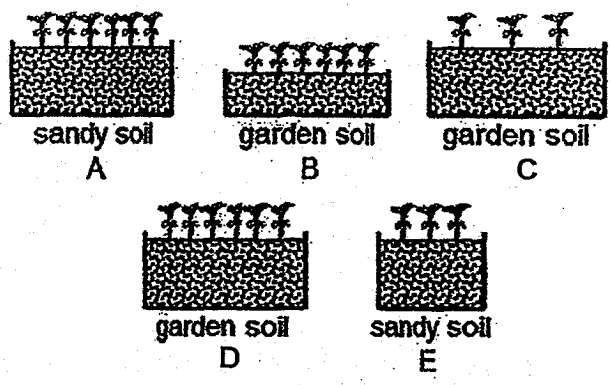


Which part of the plant, A, B, C or D, does the graph show?



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

11 Tim wanted to find out if overcrowding would affect the growth of seedlings.



He placed seeds of the same type in five pots of soil and placed them in a sunny part of a garden. He watered the seeds daily with the same amount of water. After a week, the seeds developed into seedlings.

Which two pots of seedlings should Tim observe to make a fair comparison?

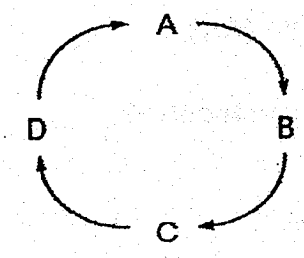
(1) A and B
(2) A and C
(3) B and C
(4) C and D

12 A, B, C and D are processes occurring in the life cycle of a plant.

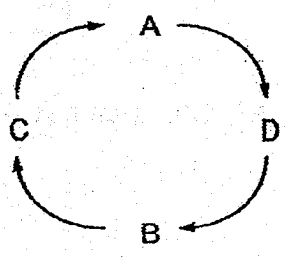
A Dispersal
B Pollination
C Fertilisation
D Germination

Which of the following shows the correct order of the processes?

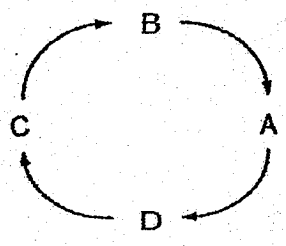
(1)



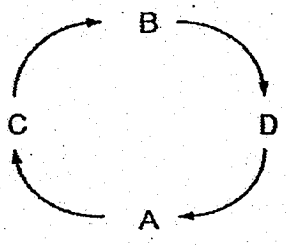
(2)



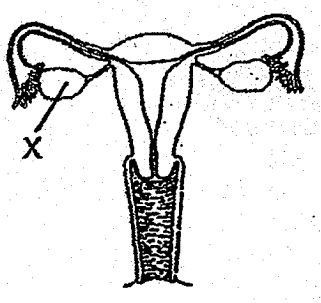
(3)

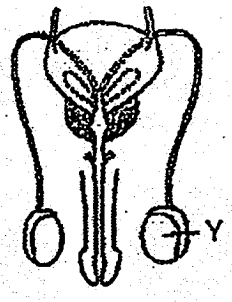


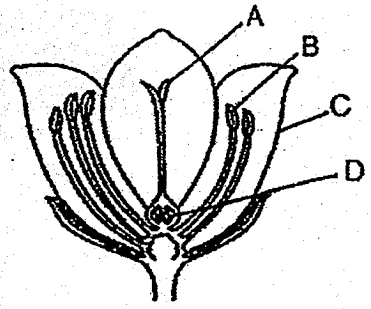
(4)



13 The diagram below shows the reproductive parts of human and plants.





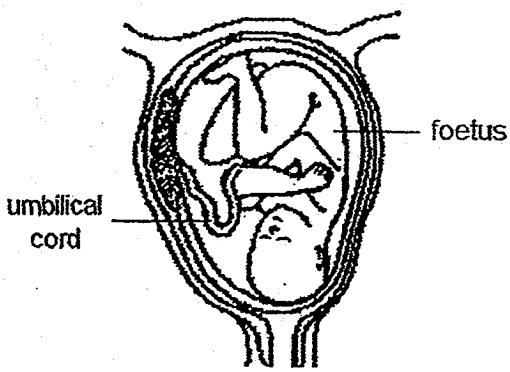


Which of the following represents the parts of the flower which have the same function as X and Y respectively?

	X	Y
(1)	A	C
(2)	D	B
(3)	C	D
(4)	B	A

(Go on to the next page)

14 The diagram below shows a developing foetus in its mother's womb.



Which of the following substances are transported from the foetus to its mother through the umbilical cord?

A blood
B carbon dioxide
C nutrients
D oxygen

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

End of Booklet A1

METHODIST GIRLS' SCHOOL

Founded in 1887

MID-YEAR EXAMINATION 2018
PRIMARY 5
SCIENCE

BOOKLET A2

Total Time for Booklets A and B: 1 hour 45 minutes

INSTRUCTIONS TO CANDIDATES

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Shade your answers in the Optical Answer Sheet (OAS) provided.

Name: _____ ( )

Class: Primary 5._____

Date : 8 May 2018

This booklet consists of 10 printed pages including this page.

For each question from 15 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 on the Optical Answer Sheet (OAS).

[28 marks]

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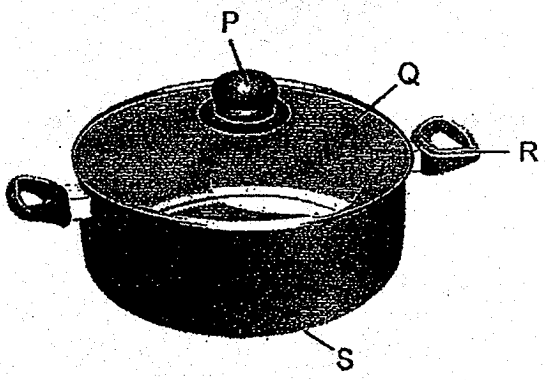
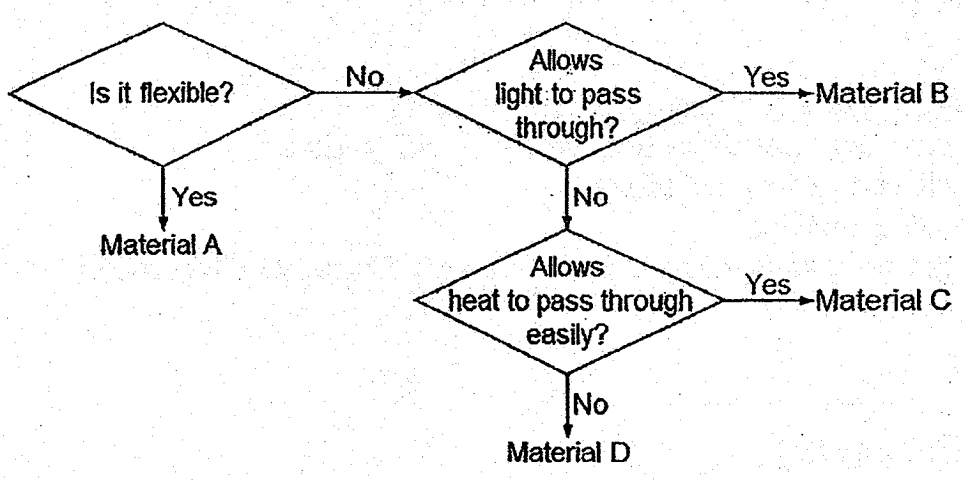
15 The diagram below shows a pot with parts P, Q, R and S. Without opening the cover, the user is able to see the interior of the pot.



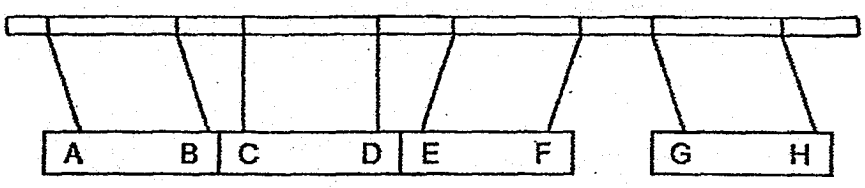
The flow chart below shows the properties of four materials A, B, C and D.



Which of the following shows the most suitable material to be used for each part of the pot?

	Part P	Part Q	Part R	Part S
(1)	A	C	D	B
(2)	B	D	A	C
(3)	D	B	D	C
(4)	D	B	A	C

16 The diagram below shows the interaction of four magnets hanging from strings tied to a horizontal pole.

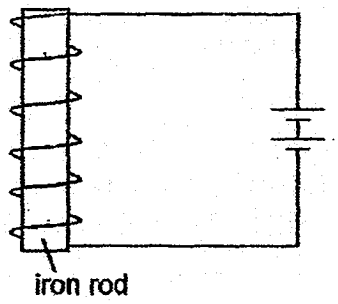


Which one of the following statements is **incorrect**?

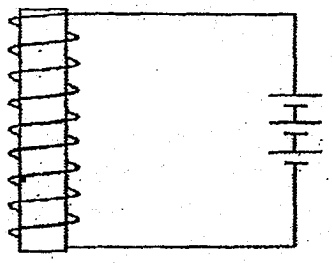
(1) C will repel H
(2) B and D are like poles
(3) G will be attracted to A
(4) A and H are unlike poles

17 The iron rods used in each of the following set-ups are identical. Which set-up will attract the most number of iron nails?

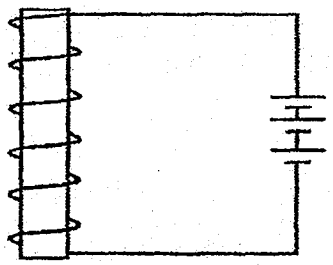
(1)



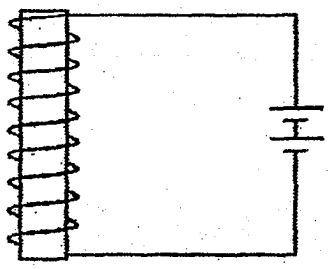
(2)



(3)

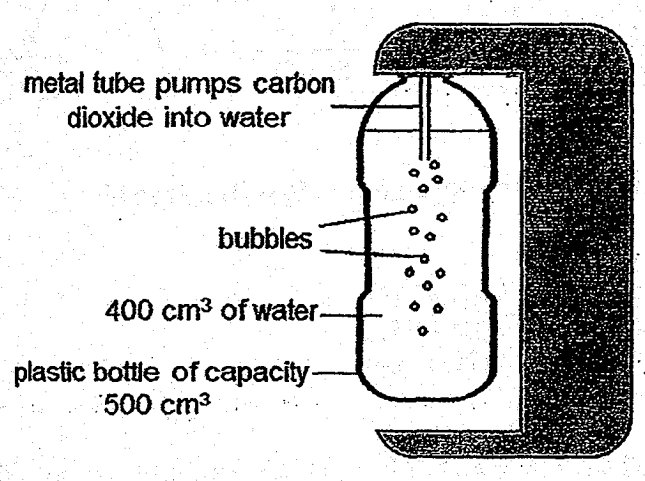


(4)



18 Alan has a soda-making-machine at home. To make a bottle of soda, he filled a container of capacity 500 cm^3 with 400 cm^3 of water and placed it into the machine.

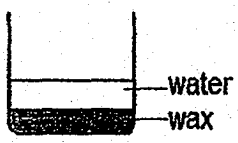
Alan then switched on the machine. The metal tube will pump 300 cm^3 of air into the bottle of water. Bubbles were seen in the water.



What is the volume of air in the bottle?

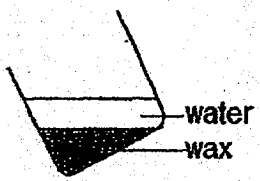
(1) 100 cm^3
(2) 200 cm^3
(3) 300 cm^3
(4) 400 cm^3

19 Anne melted some wax, which has a melting point of 37 °C, in a beaker. It was then left to cool at room temperature. The next day, she added cold water at 20 °C into the same beaker. She recorded her observation in the following diagram.

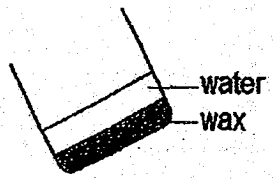


She then tilted the beaker slightly. Which one of the following diagrams correctly shows the content in the beaker when the beaker is tilted?

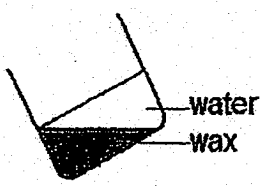
(1)



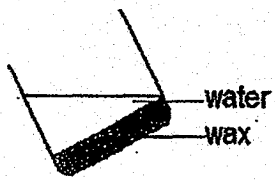
(2)



(3)



(4)



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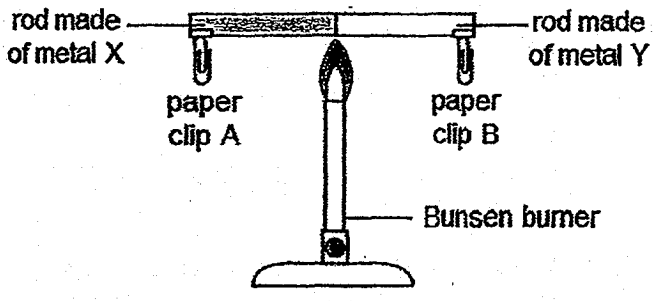
20 Nila set up an experiment to find out which metal, X or Y, could conduct heat better.

She attached identical paper clips, A and B, at both ends of a rod made of metal X and Y respectively with candle wax. She heated the rod in the middle with a Bunsen burner as shown in the diagram below.



She conducted the experiment three times and recorded the time taken for each paper clip to drop. The results are as shown in the table below.

	Time taken for the pin to drop (second)		
Pin	1st reading	2nd reading	3rd reading
A	77	75	76
B	57	60	58

Based on the results, which of the following statements are true?

A Metal X gains heat faster than Metal Y.
B Metal Y gains heat faster than Metal X.
C Metal X is a better conductor of heat than Metal Y.
D Metal X is a poorer conductor of heat than Metal Y.

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

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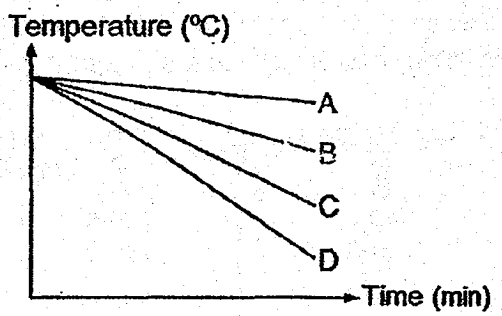
21 Melvin poured an equal amount of hot water of the same temperature into containers A, B, C and D. The temperature of hot water in each container is measured over a period of time. The graph below shows the results.

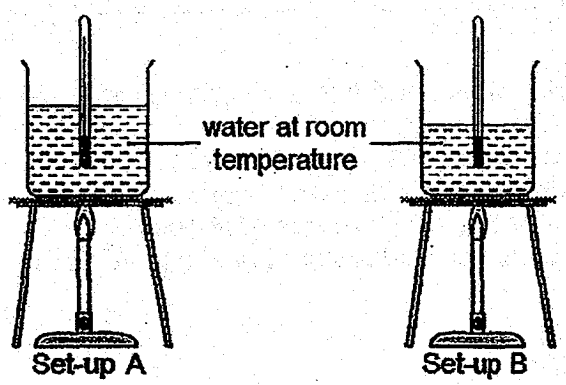


If Melvin is going on a picnic, and he wants to keep his ice cream cold for a longer period of time, which container should he used?

(1) A (2) B

(3) C (4) D

22 The diagram below shows two experimental set-ups.

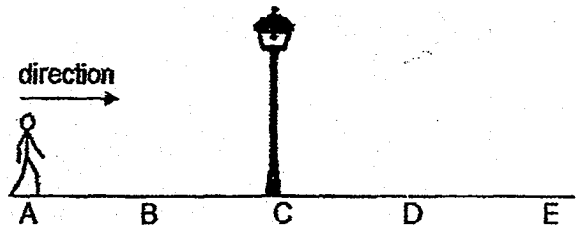


Both beakers are heated until the water is boiling. Which of the following statements are true?

A The water in Set-up A is hotter than that in Set-up B.
B The water in Set-up A has more heat energy than that in Set-up B.
C The water in both set-ups contains the same amount of heat energy.
D The water in the set-ups will reach room temperature at different time after the Bunsen burners are removed at the same time.

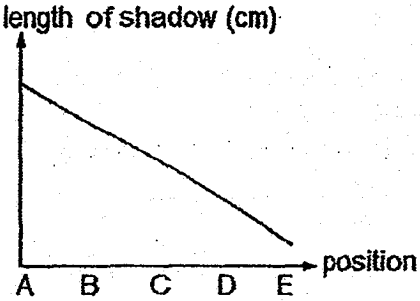
(1) A and D only
(2) B and C only
(3) B and D only
(4) C and D only

23 Muthu walked past a lit street lamp from position A to E on a dark night as shown in the diagram below.

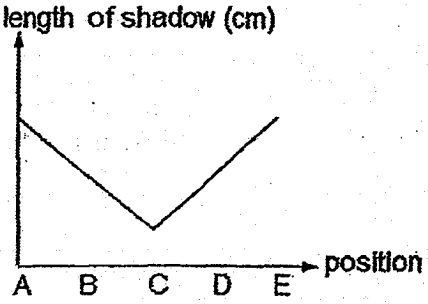


Which one of the following graphs shows the length of his shadow when he walked past the lit street from position A to E?

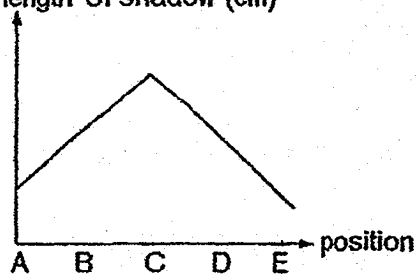
(1)



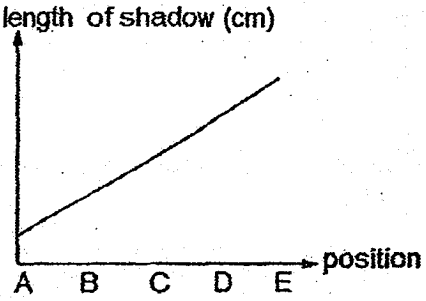
(2)



(3)



(4)



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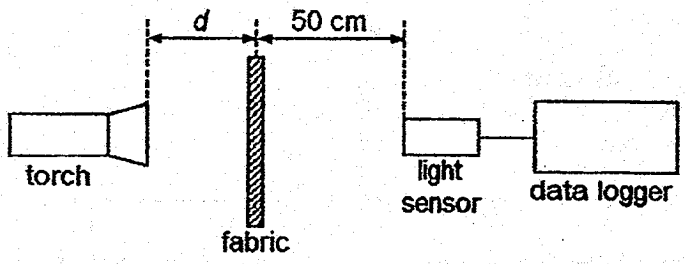
24 Ah Meng wanted to make curtains to reduce the amount of light entering his bedroom. He conducted an experiment on 4 types of fabric, A, B, C and D.



The results are as shown. Which fabric should he choose to make curtains for his bedroom?

	Fabric	d, distance between the fabric and light source (cm)	Distance between the fabric and light detector (cm)	Amount of light detected (lux)
(1)	A	65	50	500
(2)	B	30	50	500
(3)	C	15	50	500
(4)	D	50	50	500

25 The table below shows the melting point and boiling point of two substances, X and Y.

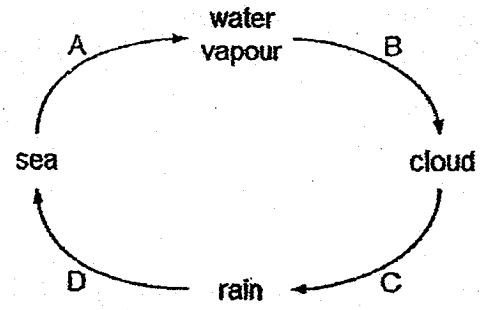
Substance	Melting point (°C)	Boiling point (°C)
X	36	570
Y	15	400

Which of the following shows the correct state of substances X and Y at 27°C and 413°C respectively?

	State of substance X at		State of substance Y at	
	27°C	413°C	27°C	413°C
(1)	liquid	gas	solid	gas
(2)	liquid	gas	solid	liquid
(3)	solid	gas	solid	liquid
(4)	solid	liquid	liquid	gas

(Go on to the next page)

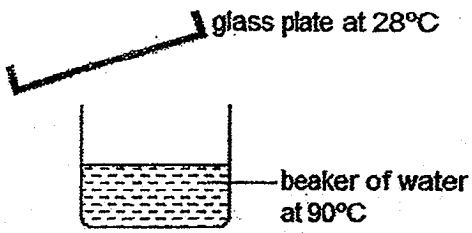
26 The diagram below shows the water cycle.



Which of the stages A, B, C and D involve a change of state?

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

27 The diagram below shows a set-up in which water changes from one state to another.

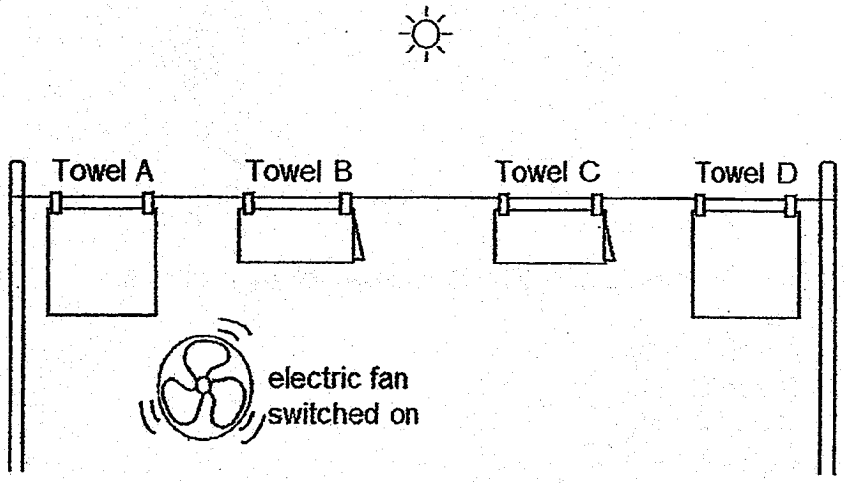


Which of the following will most likely result in an increase in the amount of water droplets formed on the glass plate?

A Add ice into the beaker
B Heat up the glass plate
C Put ice on top of the glass plate
D Add boiling water into the beaker

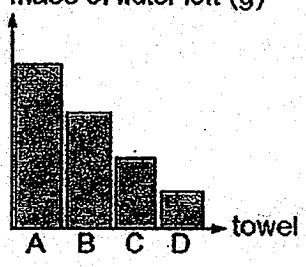
(1) A and B only
(2) A and C only
(3) B and D only
(4) C and D only

28 Four identical towels, A, B, C and D, were soaked in the same amount of water for 10 minutes. They were then hung up under the sun, as shown below. An electric fan was switched on and directed at towels A and B only.

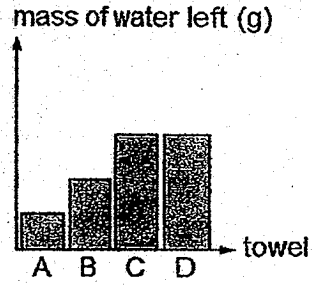


After an hour, the towels were weighed and the mass of water in each towel was calculated. Which one of the following graphs shows the mass of water left in the towels A, B, C and D?

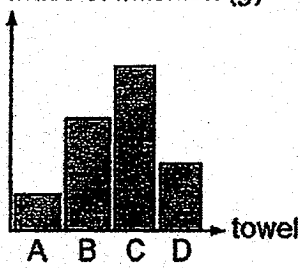
(1)



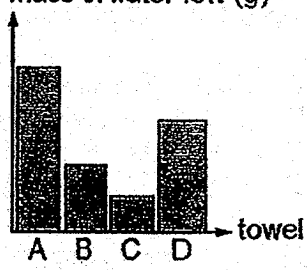
(2)



(3)



(4)



METHODIST GIRLS' SCHOOL

Founded in 1887

MID-YEAR EXAMINATION 2018
PRIMARY 5
SCIENCE

BOOKLET B1

Total Time for Booklets A and B: 1 hour 45 minutes

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.

Name:_____ ( )

Class: Primary 5._____

Date : 8 May 2018

Booklet A1 & A2	56
Booklet B1	22
Booklet B2	22
Total	100
Parent's Signature	

This booklet consists of 9 printed pages including this page.

For questions 29 to 34, write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part question.

[22 marks]

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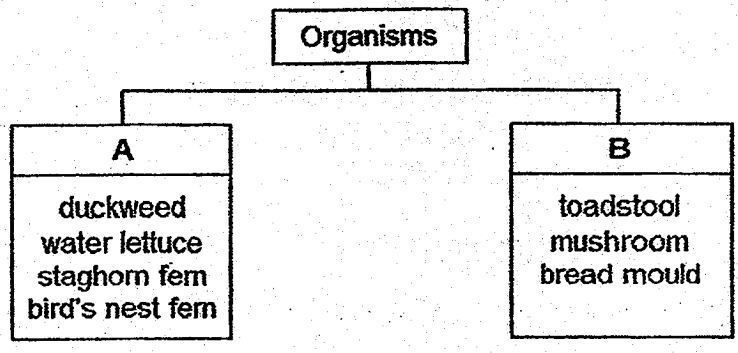
29 Naomi found some organisms and classified them into two groups as shown below.



(a) Which **group of organisms** do A and B represent? [1]

Group A: _____

Group B: _____

(b) Naomi classified moss in the same group as bread mould. Is she correct? Explain your answer based on the way the organisms obtain nutrients. [1]

_____

_____

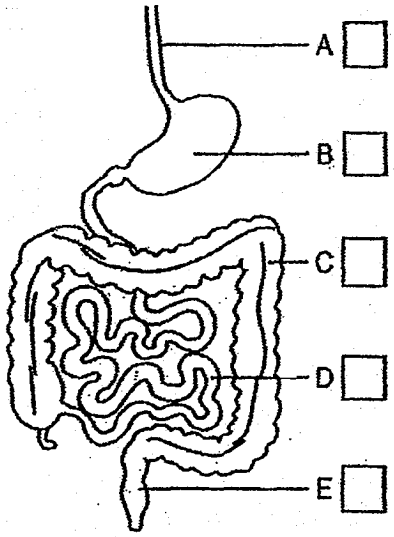
(c) Suggest how the organisms in Group A can be further classified into two groups based on their characteristics. [1]

_____

_____

3

3. The diagram below shows some organs, A, B, C, D and E, of the human digestive system.



(a) Refer to the diagram and answer the following questions [1]

(i) In which organ, A, B, C, D or E, does the digestion of food end?

_____

(ii) Put a tick in the box(es), A, B, C, D and/or E, where digestive juices are produced.

(b) How does the mouth help in the process of digestion? [1]

_____

_____

(c) Describe the function of organ A.

_____

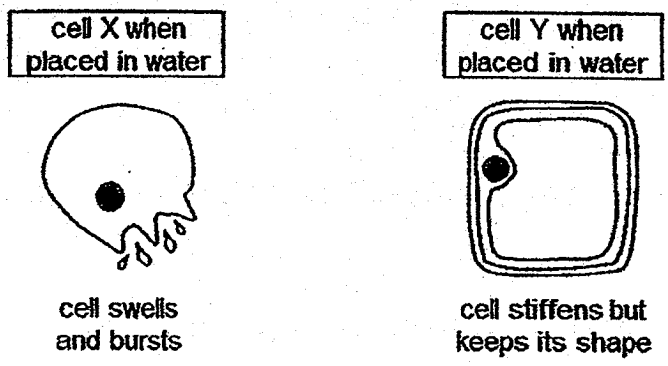
_____

3

31 The diagram below shows two cells, X and Y.

(a) Which cell, X or Y, is taken from a plant? Give a reason for your answer. [1]

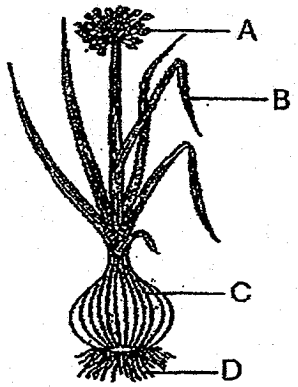
An experiment was carried out on cells X and Y to find out what happened when they were placed in an equal amount of water for two days. The diagram below describes the results of the experiment.



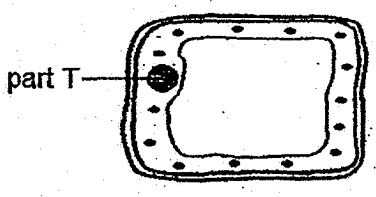
(b) Why does cell X burst but not cell Y at the end of the experiment? [2]

3

The diagram below shows the parts of a spring onion plant.



The magnified cell below is taken from a certain part of the plant.

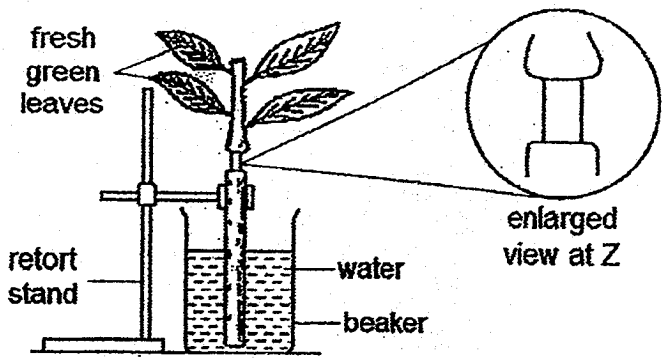


(c) Which part of the plant, A, B, C or D, is the cell most likely taken from? Explain your answer. [1]

(d) Why is the cell unable to survive if part T is removed? [1]

2

32 Sam set up an experiment as shown below. He removed the outer ring of the stem at Z.

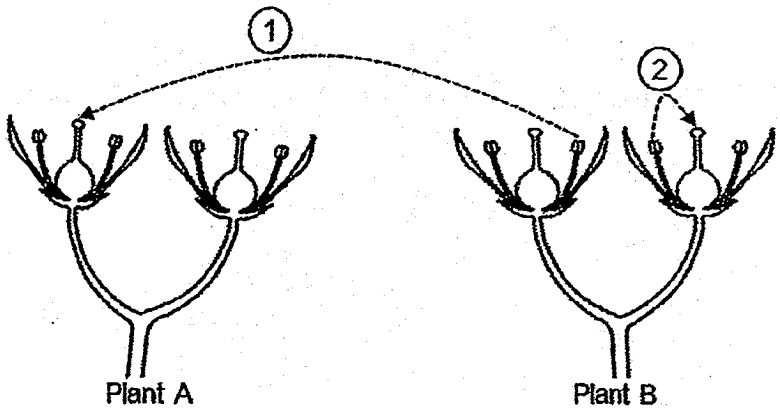


(a) After four days, he observed that the stem above Z was swollen but not the stem below. Explain why. [2]

(b) Why was the plant able to survive even after the outer ring was removed? [1]

3

33 The diagram below shows the flowers of two plants, A and B, of the same species. The two arrows, (1) and (2), show the process of pollination in the plants.

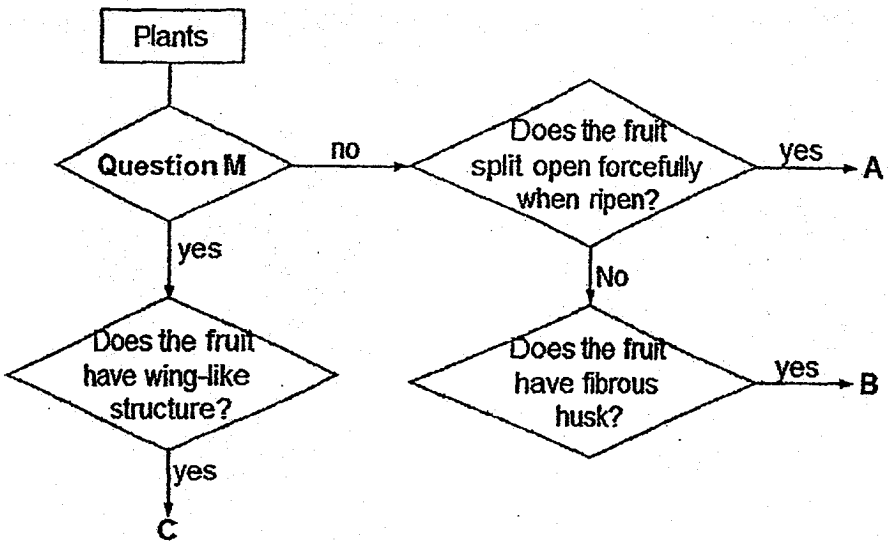


(a) What is the type of pollination represented by (1) and (2)?
Explain your answer. [2]

(b) Will the flowers develop into fruits immediately after pollination?
Explain your answer. [1]

3

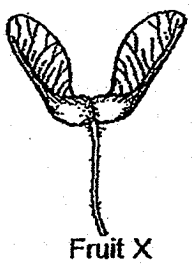
34 Study the flowchart below carefully.

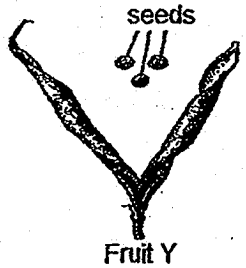


(a) What is **Question M**? [1]

Ten years ago, plants A, B and C were found growing on Island S but none grew on Island T.

The two fruits below, X and Y, could be found on Island S.


Fruit X



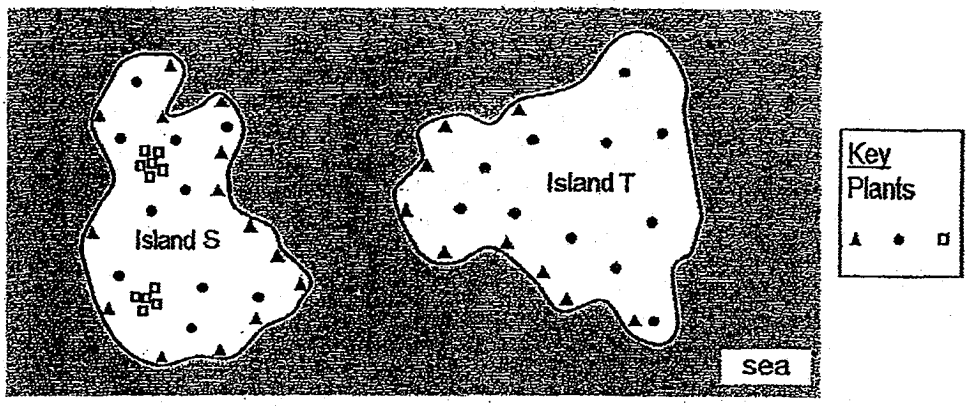
Fruit Y

(b) Which fruit, X or Y, would be dispersed close to the parent plant? Explain your answer. [1]

2

One year ago, scientists found plants growing on Island T and believe that these plants originated from Island S.

The diagram below shows the location of the plants on Island S and Island T.



(c) Which plants, A, B and/or C, would be found growing on Island T? Explain your answer. [2]

(d) Explain the importance of seed dispersal for the survival of young plants. [1]

3

METHODIST GIRLS' SCHOOL

Founded in 1887

MID-YEAR EXAMINATION 2018
PRIMARY 5
SCIENCE

BOOKLET B2

Total Time for Booklets A and B: 1 hour 45 minutes

INSTRUCTIONS TO CANDIDATES
Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.

Name:_____( )

Class: Primary 5._____

Date : 8 May 2018

Booklet B2	22

This booklet consists of 10 printed pages including this page.

For questions 35 to 42, write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part question.

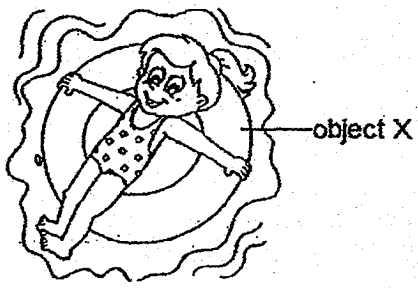
[22 marks]

---

35 Four materials J, K, L and M of equal mass were pushed into a container of water for 15 minutes. They were removed from the container and weighed. The readings are as shown in the table below.

Material	Mass of material (g)	
	At the start of experiment	At the end of experiment
J	50	75
K	50	50
L	50	63
M	50	68

The diagram below shows object X which is commonly used by children in the swimming pool.



(a) Which of the materials, J, K, L or M, is most suitable for making object X? Explain your answer based on the results above. [2]

_____ _____

_____ _____

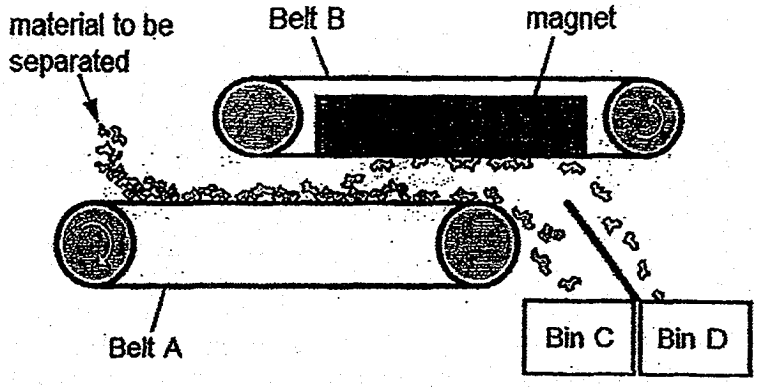
_____ _____

(b) Besides the property identified in (a), state two other properties that the material should have for making object X. [1]

_____

3

36 Mr Lin built a system to separate different types of material. The items to be separated were poured onto a moving conveyor Belt A. Belt B would attract some items and drop them into Bin D. Belt A would move the other items into Bin C.



(a) What is the property of the materials that would enable them to be separated into Bin C and Bin D? [1]

Bin C: _____

Bin D: _____

Mr Lin found the following items and poured them onto Belt A.

nickel coins	plastic discs	copper wire
steel nails	ceramic chips	glass beads

(b) What would be the items collected in Bin D? [1]

_____

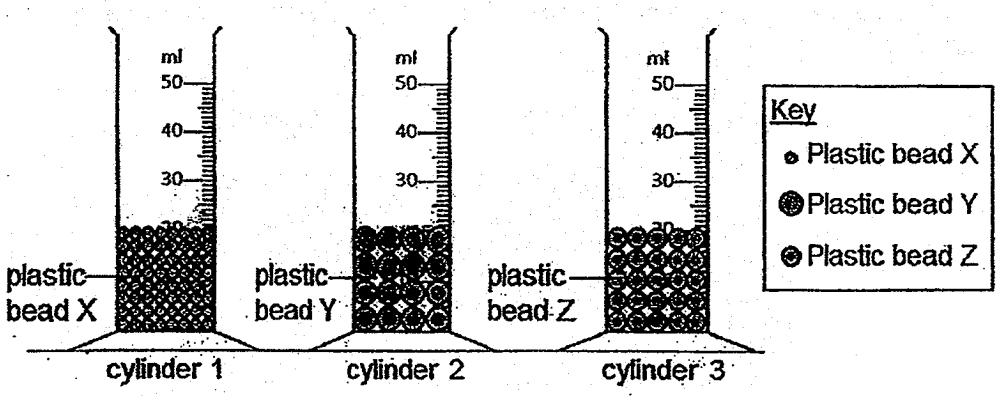
(c) Would this system be able to separate metallic and non-metallic materials? Explain your answer. [1]

_____

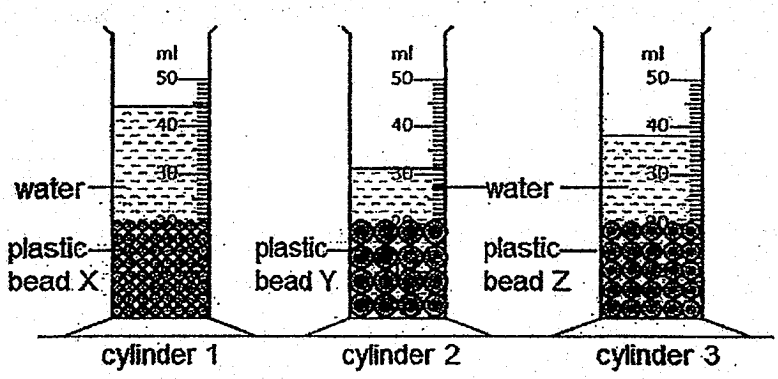
_____

3

37 Three identical measuring cylinders were filled with equal volume of plastic beads X, Y and Z, as shown in the diagram below.



30 ml of water was poured into each of the cylinders at the same time. The diagram below shows the observation one hour after the water was poured into the measuring cylinders.

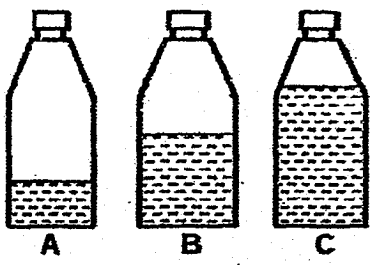


(a) Explain why the total volume in cylinder 1 was less than 50 ml after the water was poured in. [1]

(b) Compare and explain the difference in the water level in cylinders 2 and 3. [1]

2

38 Three identical 200 cm^3 plastic bottles were filled with different amount of water. They were sealed and placed into the freezer for 24 hours.



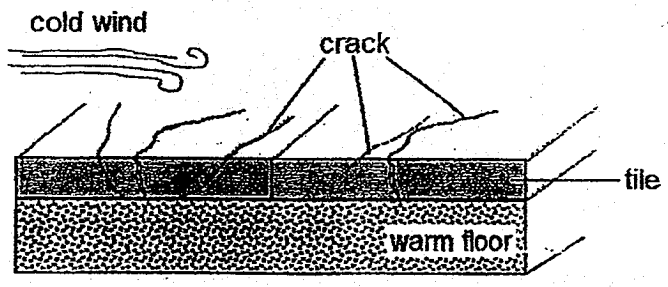
The volume of ice formed in each bottle was measured and recorded in the table below.

Bottle	Volume of water (cm^3)	Volume of ice (cm^3)
A	50	57
B	100	109
C	150	164

What happened to the volume of water when it was frozen? Explain your answer based on the results. [1]

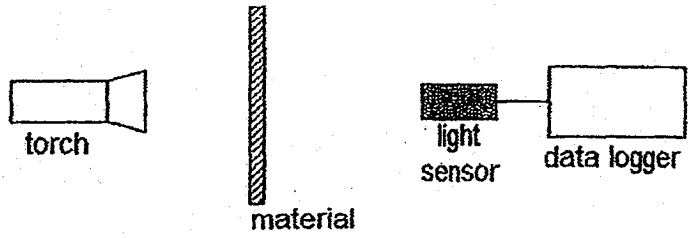
1

39 When the weather became very cold suddenly, cracks appeared in some tiles in the house.



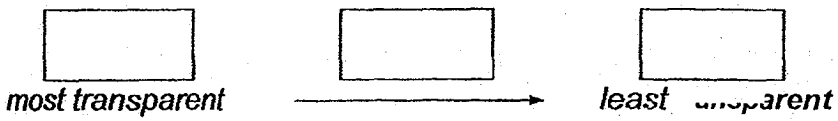
Explain how the sudden change in temperature caused the tiles to crack. [2]

40 Ali measured the amount of light that passes through materials A, B and C. The readings are as shown in the table below.

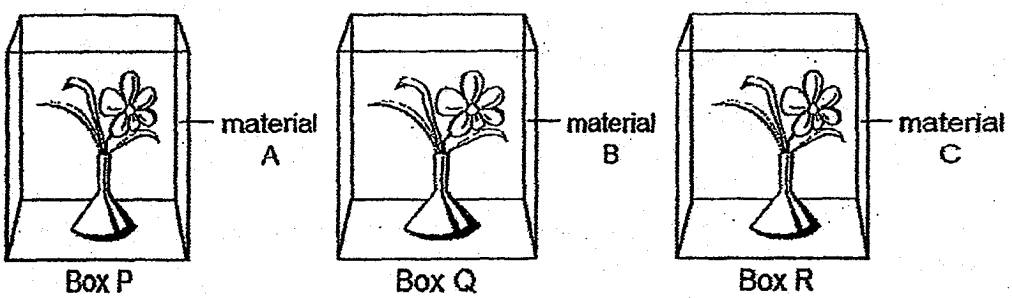


Material	Amount of light that passes through (lux)
A	300
B	100
C	700

(a) Rank the transparency of material by writing letters A, B and C in the boxes below. [1]



Ali made 3 boxes, P, Q and R, with the three materials and placed a vase filled with an equal amount of water into each box. Each vase contains an identical stalk of flower. The boxes were placed in a shady location.



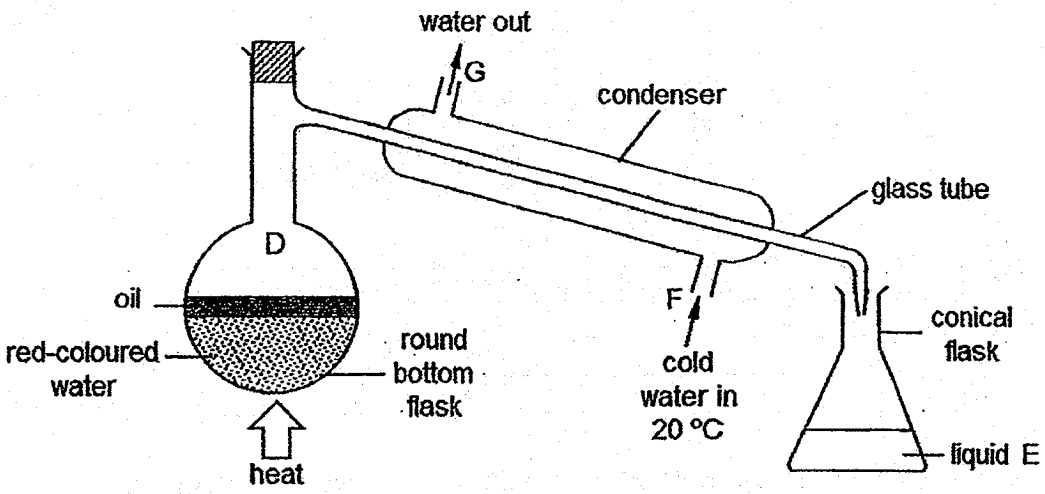
(b) In which box will the stalk of flower wither first after a week? Explain your answer. [2]

_____

_____

3

41 A flask containing oil and red-coloured water was heated continuously for half an hour.



(a) What is the difference between evaporation and boiling? [1]

(b) What is liquid E which is collected in the conical flask? [1]

(c) Explain how matter D changed its state when it passed down the glass tube of the condenser. [1]

(Go on to the next page)

Cold water at 20°C flowed into the condenser at F and flowed out of the condenser at G.

(d) Would the temperature of water at G be higher or lower than that at F? Explain the change in temperature. [1]

(e) What happened if the heat source was removed after half an hour? Explain your answer. [1]

2

(Go on to the next page)

42 Lionel planted 30 identical water plants in each of the four tanks. Each tank was filled with equal amount of water taken from different rivers, W, X, Y and Z, and placed at the same location.

He removed the dead water plants from each tank and counted the number of water plants left in each tank after every 10 days. The results are as shown in the table below.

Water taken from river	Number of water plants left in tank			
	Day 0	Day 10	Day 20	Day 30
W	30	30	30	30
X	30	20	13	3
Y	30	25	21	15
Z	30	22	15	9

(a) Which river is the most polluted? Explain your answer based on the above results. [1]

(b) Is this experiment a fair test? Explain your answer. [1]

(c) Suggest a reason why water is important to the life processes of a plant. [1]

3

SCHOOL : MGS PRIMARY SCHOOL
LEVEL : PRIMARY 5
SUBJECT : SCIENCE
TERM : 2018 SA1

SECTION A

Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
4	4	1	4	2	4	2	2	4	1
Q 11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20
4	2	2	1	3	4	2	1	4	4
Q 21	Q22	Q23	Q24	Q25	Q26	Q27	Q28		
1	3	2	3	4	1	4	3		

SECTION B

Q29)	a)Group A : Plants Group B : Fungi b)No. Moss can make its own food and nutrients, it is a plant, while bread mould obtain its food and nutrients from living things or non-living things it is growing on. c)They can be classified into, Found in water lettuce ,duckweed and Not Found in water ,bird's nest fern staghorn fern.
Q30)	a)i)Organ D. ii) B , D b)The mouth help to chew the food into smaller pieces to increase the exposed surface area of the food so that digestive juice can break them down into simples substance work in them more effectively. c)Organ A does not have digestive juice. Hence it does not digest food it only transports the undigested food from the mouth to the stomach.

Q31)	a)Cell Y. Cell Y has a cell wall, which only a plant cell has. b)Cell Y has a cell wall, which give the cell shape and support it cell X does not. Hence, when too much water enters cell X, it will swell and burst, while cell Y would only swell, to become more firm and full. c)Part B. B is the leaves, which makes food for the plant through photosynthesis. The cell has chloroplast, which capture sunlight to make food for the plant through photosynthesis. d)Part T is the nucleus, which controls all activites in the cell and allow cell division to take place.
Q32)	a)Sam has removed the food carrying tube so food made above Z cannot be transported to the roots but accumulated above Z. b)The water-carrying was not removed, so the water absorbed by the plant was still able to be transported to other parts of the plant, like the leaves to make food.
Q33)	a)1)The pollen grains of the flower on B is tranfered to the stigma of A. 2)The pollen grains of the flower on B is transferred within the same flower. b)No. After pollination, fertisation still need to occur before the flowers develop into fruits.
Q34)	a)It is dispersed by wind? b)Fruit Y. Fruit Y is dispersed by splitting, while Fruit X is dispersed by wind. The seeds will fall to the ground near the parent plant. c)Plants C and B. Plant C is dispersed by wind , as it has a wind-like structure so the wind can carry it to island T. Plant B is dispersed by sea, as it has a fibourous husk, so the sea can carry it to island T. The plants near the sea would be Plant B. d)Seed dispersed helps to reduce overcrowding and competition for light, space, water and nutrients between young and the parent plant.

Q35)	a)Material K. J, K ,L and M had an equal mass. When they were pushed into the water, only K remained at 50g. This shows that it did not absorb any water and is water proof. Object X is a float and has to be waterproof, it cannot absorb water. Hence when the children use the float, float will not absorb water so the float would not sink. b)Flexibility and strength.
Q36)	a)Bin C : Magnetic material can be attracted to a magnet. Bin D : Non-magnetic material cannot be attracted to a magnet. b)Nickel coins and steel nails. c)No. Some metal such as gold, copper is a non-magnetic material, so they won't be attracted by the magnet.
Q37)	a)They was air spaces in between Plastic beads X. Liquid does not have a definite shape. Hence it will fill the remainding spaces, causing the total volume in cylinder 1 to be less than 50ml. b)The water level of cylinder 2 was more than cylinder 3. The holes between the beads in cylinder 2 was greater than the one in Cylinder 3. Hence more liquid in 2 was used to fill the holes. Causing 3 to have a higher water level than 2.
Q38)	The volume of water increased when it was frozen. Some of the warmer water vapour could have condensed on the cooler surface of the glass when it was put in the refrigerator, to form water droplets. Hence the water changed from a liquid to solid state, the volume of the solid state increased.
Q39)	The top of the tiles contracted when it came into contact with the cold wind, while the bottom of the tiles expanded when it came into contact with the warm floor. The difference in temperature caused the tiles to expand and contract at the same time which resulted in the cracks.

Q40)	a)C A B b)Box Q. Box Q is made of material B, which allows the least light to pass through compared to A and C. Plant capture sunlight to make food for the plant through photosynthesis. Hence the plant in Box Q was unable to capture enough sunlight to make food and died. Causing it to wither first.
Q41)	a)Evaporation can take place at any temperature from 0℃ to 100℃ , while boiling of water can only occur at 100℃ b)Plain, pure water c)Matter D gained heat from the heat source and evaporated into water vapour. The warmer water vapour came into contact and lost heat to the cooler surface of the glass tube. It then changed from a gaseous state to a liquid state. d)The temperature of water at G would be higher than F. The water at F gained heat and its temperature increased. e)Less liquid E will be collected as less water evaporated and condensed to form water droplets.
Q42)	a)X. There was the least number of plants after days in river X. Shows that it is the most polluted. b)Yes. All the variables are the same except for 1 changed variable, the type of water taken from each river. c)Water is needed in the germination of the seed.