METHODIST GIRLS' SCHOOL (PRIMARY)

Founded in 1887

CONTINUAL ASSESSMENT 2015
PRIMARY 4
SCIENCE

(BOOKLET A)

Total Time for Booklets A and B: 1 hour

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 4._____

Date: 5 March 2015

This booklet consists of 10 printed pages including this page.

For each question from 1 to 15, 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).

[30 marks]

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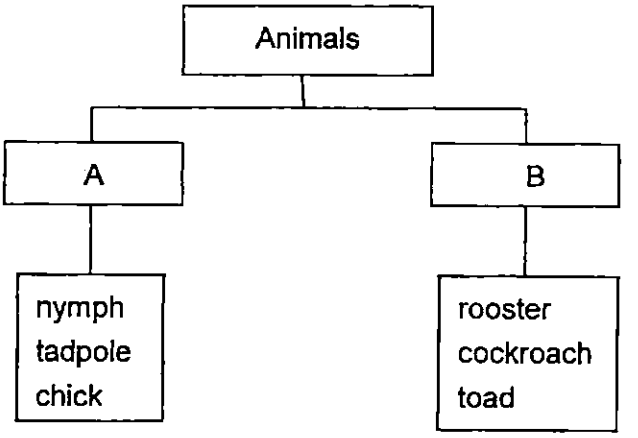
1. Study the classification chart below.



Which one of the following pairs of headings best represents A and B?

	A	B
(1)	Useful	Harmful
(2)	Young	Adult
(3)	Has no wings	Has wings
(4)	Has no body covering	Has body covering

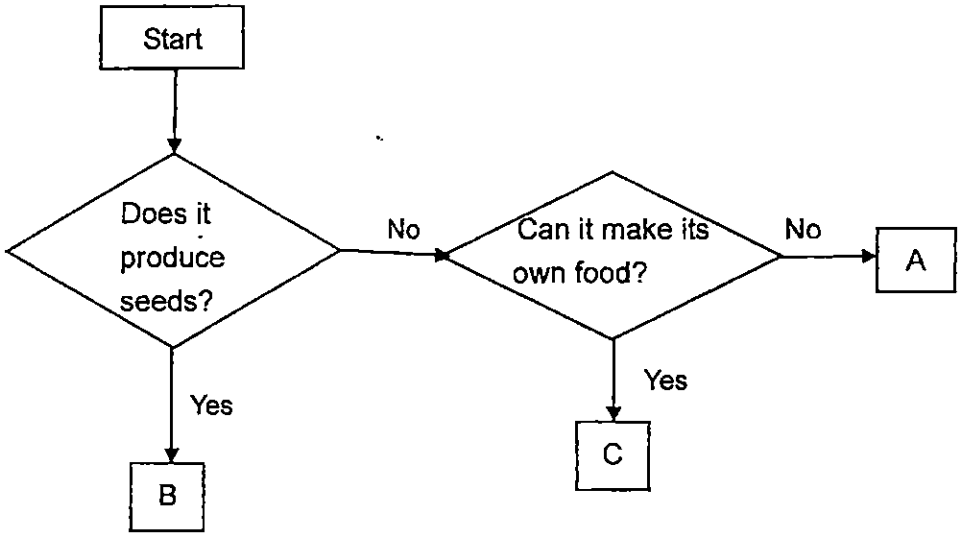
2. Fungi and bacteria are similar in that they both _____.

A : are micro-organisms
B : reproduce from spores
C : are neither animals nor plants
D : can be harmful and useful to human

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

(Go to the next page)

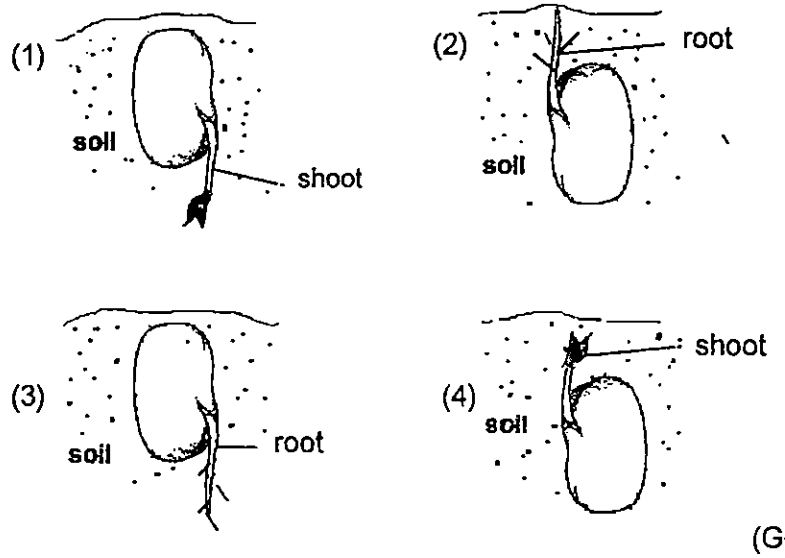
3. Study the flow chart below.



Which one of the following options best represents Organisms A, B, and C in the above flow chart?

	A	B	C
(1)	Bamboo	Lotus	String bean
(2)	Bird's Nest fern	Bamboo	bacteria
(3)	mould	Tomato	Bird's Nest Fern
(4)	mushroom	Chilli	bacteria

4. Alison was germinating some green bean seeds. Which one of the following shows what she would first observe?



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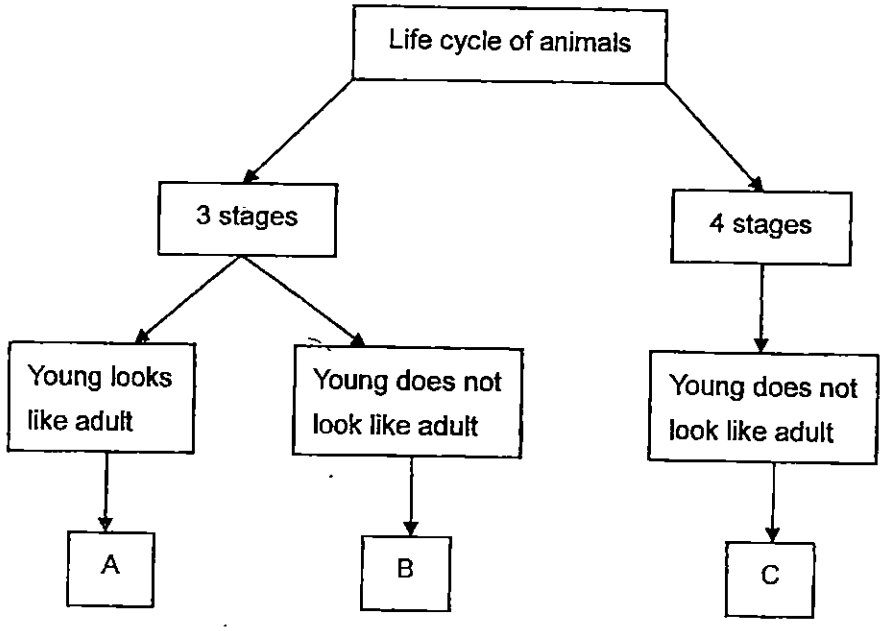
5. Study the classification chart below carefully.



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

	A	B	C
(1)	moth	cockroach	toad
(2)	cockroach	toad	moth
(3)	toad	cockroach	moth
(4)	cockroach	moth	toad

(Go to the next page)

6. Lina set up an experiment to find out the effect of different amount of light on an indoor plant. She placed four pots of similar plants under different conditions and recorded the results in the table below.

Plant	Amount of light (hours)	Average growth per week (cm)
	4	1
	6	4
	8	6
	10	3

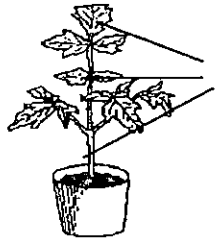
Which variables must Lina keep constant to ensure a fair experiment?

A : Amount of soil
B : Amount of light
C : Amount of water
D : Amount of fertilizer

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

(Go to the next page)

7. Bala applied grease on a plant as shown below. He then placed the plant near an open window and watered it daily. (Grease is a thick type of oil that is not clear.)

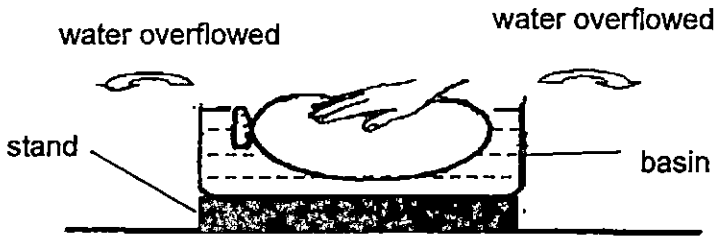


After a week, he noticed that the plant wilted.
The plant had wilted because the layer of grease prevented _____.

A : the exchange of gases.
B : water from reaching the leaves.
C : the leaves from trapping the sunlight.
D : the food made in the stem from reaching the leaves.

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

8. Alice filled a balloon with air. She then pushed the balloon into a basin of water as shown in the diagram below and noticed that some water overflowed the basin.



The demonstration shows that air _____.

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

(Go to the next page)

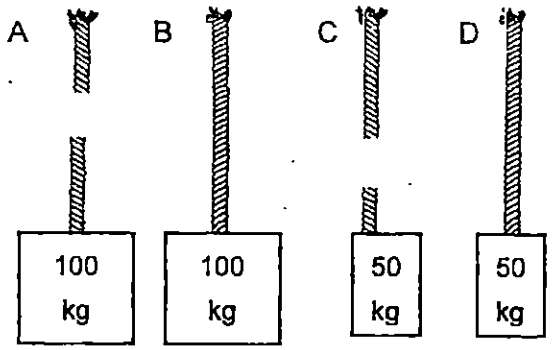
9. Alice placed four different types of materials, P, Q, R, and S of similar size and thickness into four beakers containing the same volume of water. The materials were weighed individually before they were placed into the beakers. After 15 minutes, the materials were weighed again and the results were recorded in the table below.

Material	Mass at the beginning	Mass after 15 minutes
P	10g	15g
Q	9g	13g
R	7g	10g
S	8g	9g

Which material is most suitable for use in making Part X of the tent shown below?

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

10. Ravi took four types of materials, A, B, C and D and made them into ropes. He tied them to heavy objects and lifted them. Rope A and C snapped as shown in the diagram below.



Which one of the following statements about the materials that were used to lift the objects is correct?

(1) Material A is stronger than Material B
(2) Material B is stronger than Material D.
(3) Material C is stronger than Material A.
(4) Material D is stronger than Material B.

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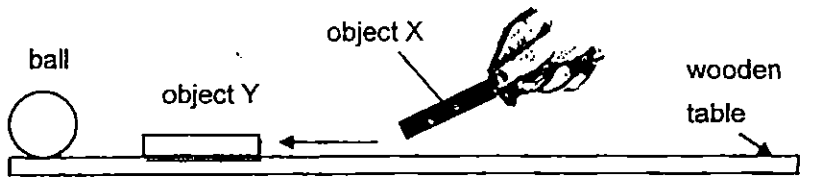
11. Jerry placed a ball and object Y on a table. He then brought object X near to object Y. When he did that, he noticed that Object Y moved away from object X and pushed the ball off the table.



What are Objects X and Object Y likely to be?

	X	Y
(1)	magnet	magnet
(2)	plastic	steel
(3)	magnet	aluminum
(4)	nickel	magnet

12. Zoe and Pat investigated the properties of Matter A and B and recorded their results in the table below.

Property	Matter	
	A	B
Definite volume	No	Yes
Definite shape	No	No
Has mass	Yes	Yes

What could Matter A and B represent?

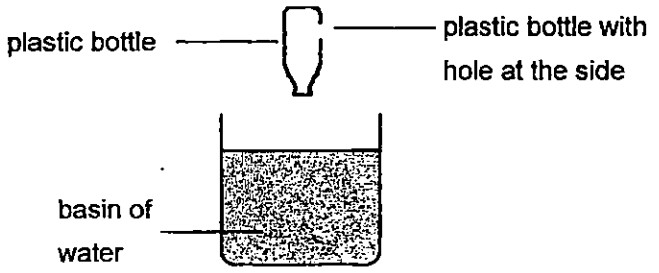
	A	B
(1)	oxygen	water
(2)	water	air
(3)	oil	oxygen
(4)	air	eraser

(Go to the next page)

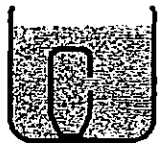
13. A basketball has a capacity of 500cm³. Ameena pumped in 400 cm³ of air into the ball at first. As she found that the ball could not bounce high, she pumped in another 300cm³ of air.
What is the volume of air in the basketball now?

(1) 400 cm³
(2) 500 cm³
(3) 700 cm³
(4) 900cm³

14. Rajoo has a plastic bottle and he made a hole at the side of the plastic bottle.

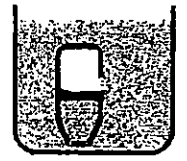


He then pushed the bottle into a basin of water slowly until the whole bottle is submerged in the water.
Which one of the diagrams below shows the water level in the bottle correctly?

(1) 

(2) 

(3) 

(4) 

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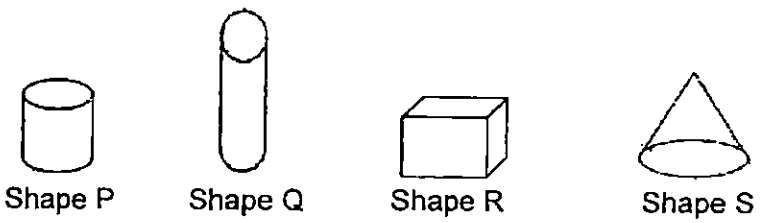
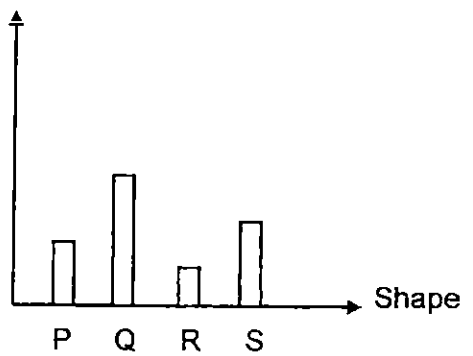
15. Sally took a piece of plasticine of mass 120g and moulded it into a different shape one at a time as shown in the diagram below.

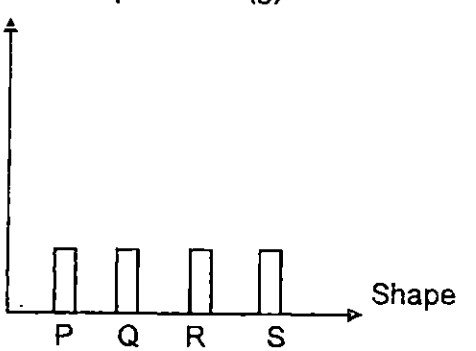


Which one of the following graphs correctly shows the mass of the plasticine for each shape that was moulded?

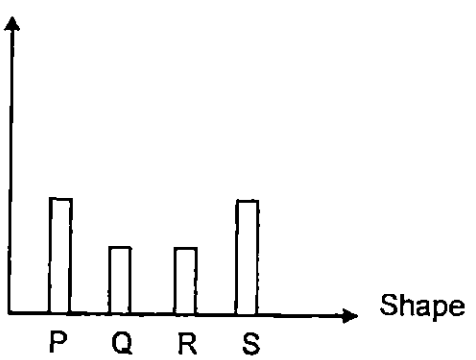
(1) Mass of plasticine (g)



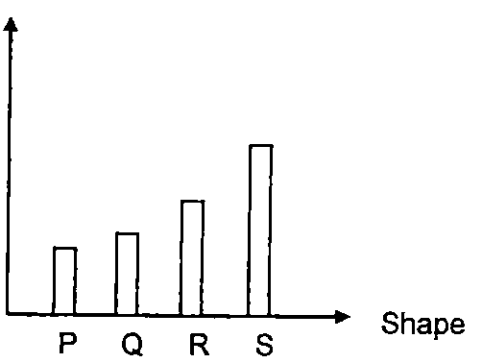
(2) Mass of plasticine (g)



(3) Mass of plasticine (g)



(4) Mass of plasticine (g)



End of booklet A

METHODIST GIRLS' SCHOOL (PRIMARY)

Founded in 1887

CONTINUAL ASSESSMENT 2015
PRIMARY 4
SCIENCE

(BOOKLET B)

Total Time for Booklets A and B: 1 hour

INSTRUCTIONS TO CANDIDATES

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

Name: _____ ( )

Class: Primary 4._____

Date: 5 March 2015

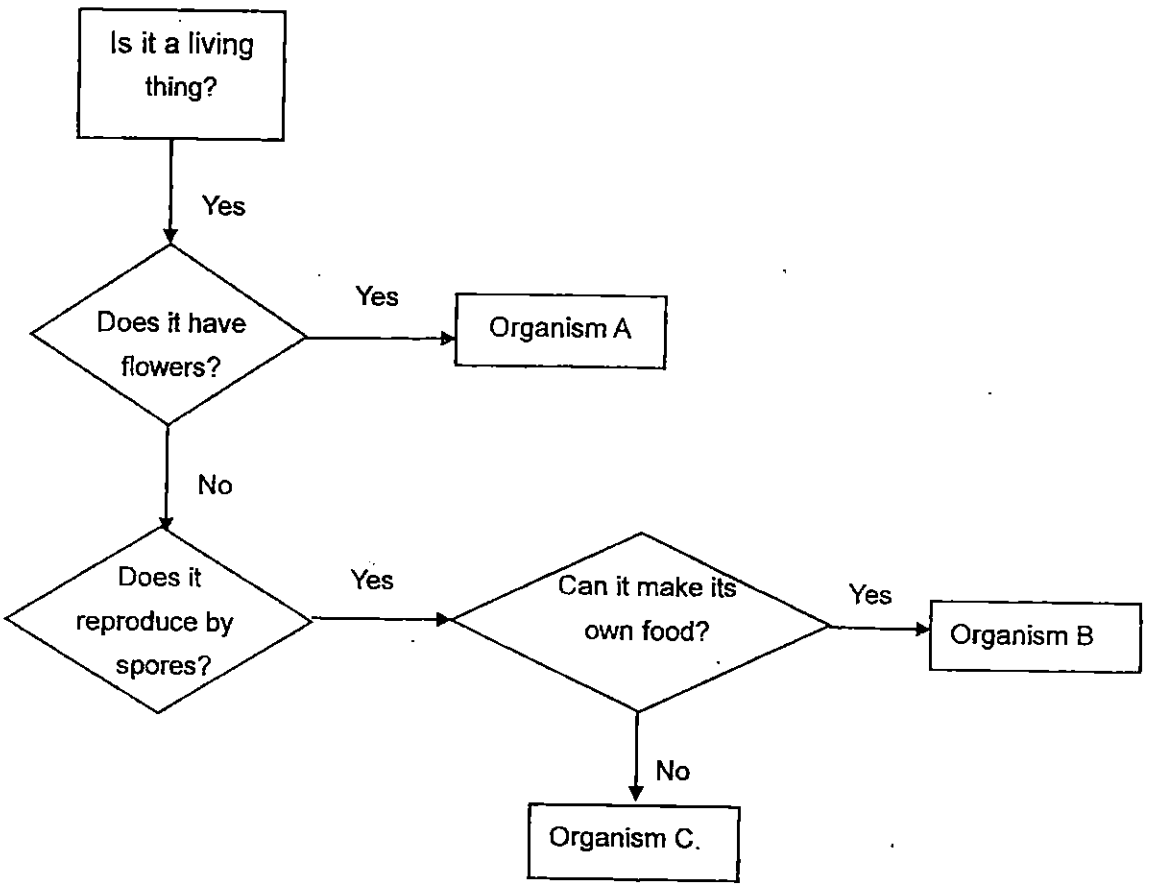
Booklet A	30
Booklet B	20
Total	50
Parent's Signature	

This booklet consists of 8 printed pages including this page.

For questions 16 to 22, 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.

[20 marks]

16. Study the flowchart as shown below.



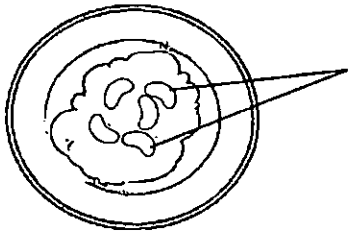
(a) Which organism, A, B or C might be a bracket fungus? Give a reason for your answer. [1]

(b) Based on the flowchart, state one similarity between Organisms B and C. [1]

2

(Go to the next page)

17. Alison wanted to investigate how temperature would affect the germination of seeds. She placed five beans on some moist cotton wool as shown in the diagram below, and put them in five different locations.



Set-up	**A**	**B**	**C**	**D**	**E**
Place	freezer	fridge	room	cupboard	oven
Temperature	4 °C	10° C	29° C	28° C	60°C

(a) What are 2 important variables that Alison must control to ensure a fair experiment? [1]

Variable 1 : _____

Variable 2 : _____

(b) In which set-ups did the seeds germinate into seedlings? Explain why. [2]

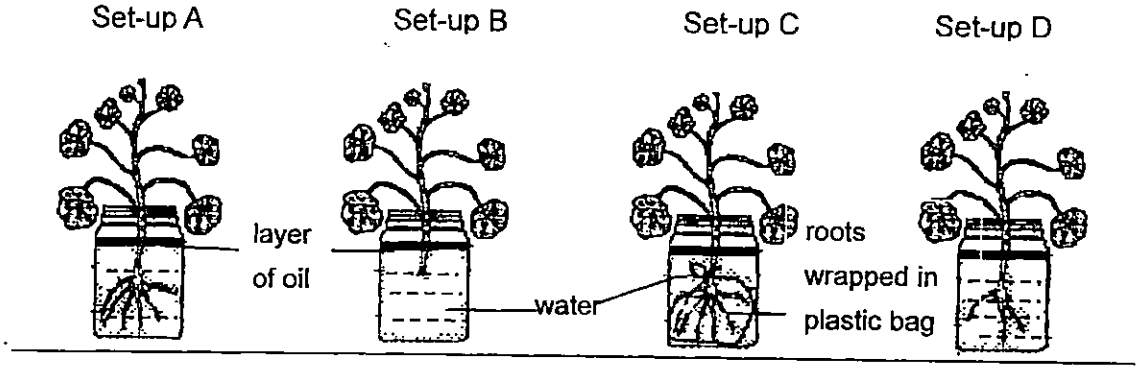
_____

_____

3

(Go to the next page)

18. Jean placed ~~three~~ four similar plants into identical jars containing 200ml of water. She also poured a layer of oil on the water surface in each jar as shown in the diagram below. Next, she placed the set-ups near the window for half a day.



(a) At the end of the experiment, she measured the amount of water left in the jar and recorded the result in the table below. Complete the table to show the correct results of the experiment. [2]

Amount of water	Set-up
200 ml	
198 ml	
190ml	
180ml	

(b) Jean compared the results between Set-up A and Set-up C.
What was Jean trying to find out? [1]

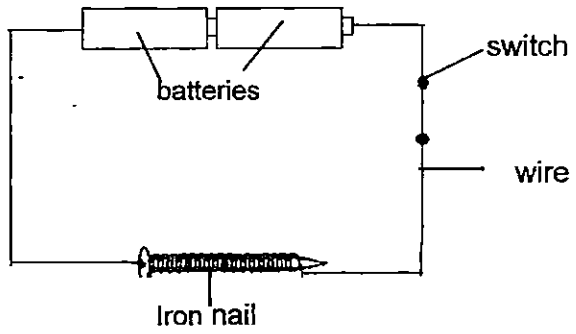
_____

_____

3

(Go to the next page)

19. Samy constructed an electrical circuit using two batteries as shown in the diagram below.



(a) Samy switched on the circuit and put some steel paper clips close to the nail. He observed that the electromagnet could attract only a few steel paper clips. Describe two methods how Samy could make the electromagnet stronger. [2]

Method 1 : _____

_____

Method 2 : _____

_____

(b) Samy later replaced the iron nail with a copper nail. What would Samy observe about the steel paper clips? Give a reason for your answer. [1]

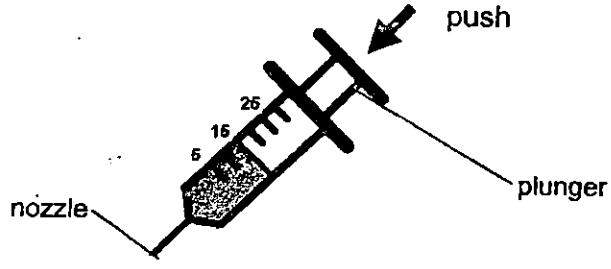
_____

_____

3

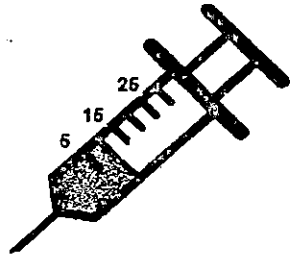
(Go to the next page)

20. Kelly put 15 ml of water into a 30 ml syringe. She blocked the nozzle with her finger and tried to push the plunger in as shown in the diagram below.



(a) Would Kelly be able to push the plunger in? Explain your answer. [1]

Kelly then removed her finger from the nozzle and pushed in the plunger. She observed that the water level in the syringe is lowered as shown below.



(b) What is the volume of air in the syringe? [1]

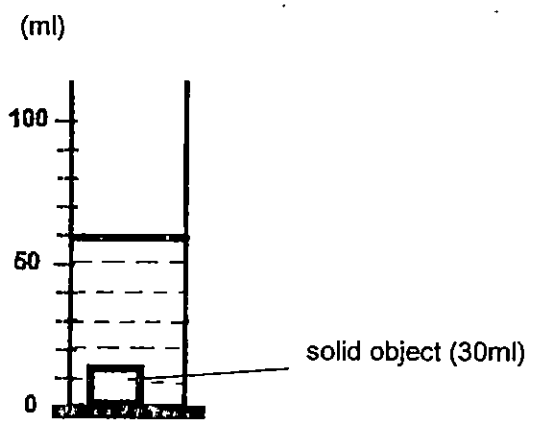
(c) ~~Why~~ Is there a difference in the volume of air after she pushed in the plunger? [1]

3

(Go to the next page)

21. Jamal was trying to set up an experiment to find the volume of matter. He attached an object of volume 30 ml to its base. Then he poured 50 ml of water into the measuring cylinder.

However, when he looked at the measuring cylinder, he observed that the water level was at 60ml as shown in the diagram below.



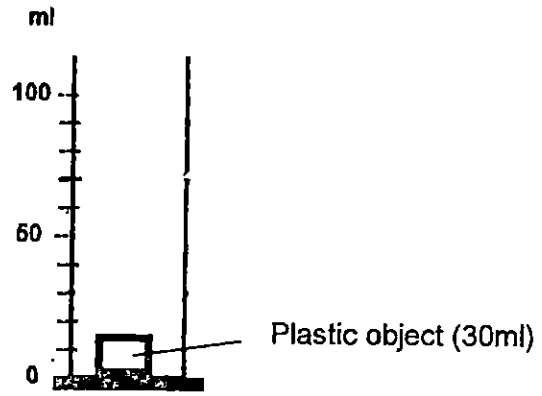
(a) Based on Jamal's observation, what could the solid object be? [1]

_____

(b) Give a reason for your answer in (a).

_____

(c) If the solid object is made of hard plastic, where would the water level be after 40 ml of water was added into the measuring cylinder?
Draw the water level in the diagram below. [1]



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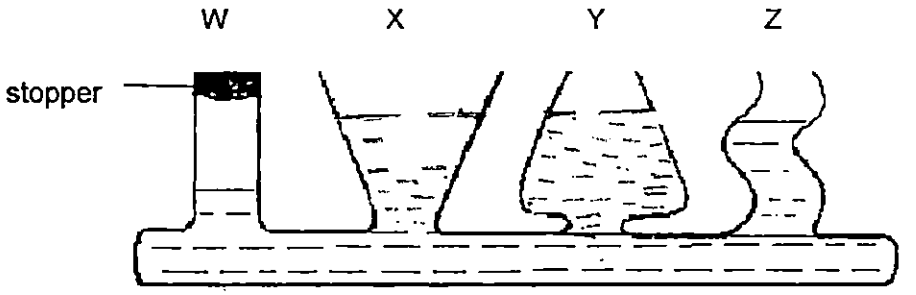
22. The diagram below shows a transparent container filled with water. There is a stopper at the opening of Part W. The water levels at Parts W and Z are given.



(a) Use a ruler and pencil to **draw** in the water levels at Parts X and Y. [1]

(b) Based on the above observations, state two properties of water. [2]

Property 1 : _____

_____

Property 2 : _____

_____

3

End of booklet B

LEVEL : PRIMARY 4
SCHOOL : METHODIST GIRLS' SCHOOL (PRIMARY)
SUBJECT : SCIENCE
TERM : CA1

Q 1	Q 2	Q 3	Q 4	Q 5	Q 6	Q 7	Q 8	Q9	Q 10
2	2	3	3	2	4	2	2	4	2
Q 11	Q 12	Q 13	Q 14	Q 15					
1	1	2	2	2					

Q16a. Organism C. A Bracket – fungus does not have flowers , reproduces by spores and does not make its own food as it is not a plant.

Q16b. They both reproduce by spores.

Q17a. Variable 1 : The number of days put in the location.
Q17a. Variable 2 : The type of seeds he uses.

Q17b. There is enough warmth in Set up C and D for beans to germinate.

Q18a. C / B / D / A

Q18b. To find out if the presence of roots affects the amount of water left in the jar .

Q19a. Method 1 : Coil the wire around the iron nail more times.

Q19a. Method 2: Add more batteries to the electrical circuit.

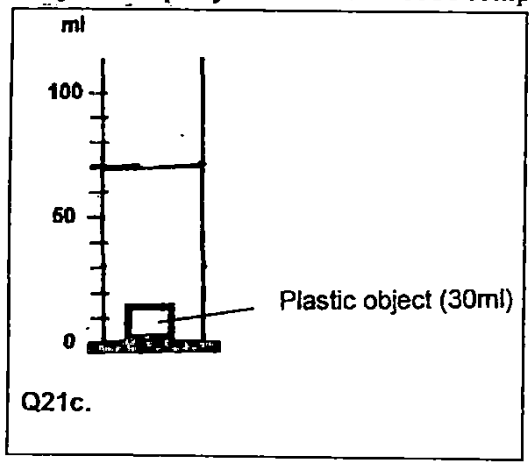
Q19b. No steel paper clips would be attracted. As copper is not a magnetic material. So, no matter how you try, no paper clips would be attracted to the copper iron nail.

Q20a. No. Water is a liquid and all liquids cannot be compressed.

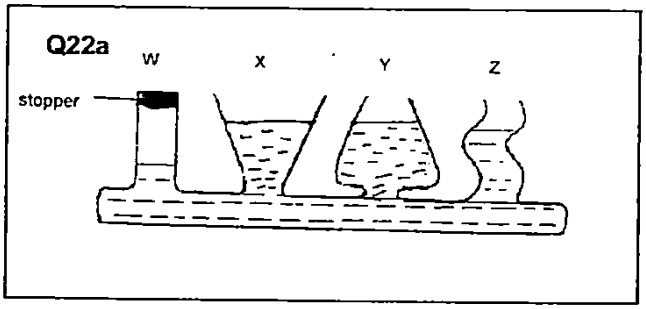
Q20b. 0 ml Q20c. There is no change in the volume in both cases.

Q21a. A sponge Q21b. The solid has air spaces so water fill up the air pocket instead

Q21c. **SEE PICTURE** Q22a. **SEE PICTURE** Q22b. Property 1 : Water has no definite shape.
Q22b. Property 2: Water cannot be compressed.



Q21c.



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