

FIRST SEMESTRAL ASSESSMENT 2017

PRIMARY 3

SCIENCE

SECTION A (40 MARKS)

INSTRUCTIONS TO CANDIDATES

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

Name: _____ ()

Class: Primary 3 ()

Date: 12 May 2017

Total Time for Sections A, B and C : 1 h 30 min

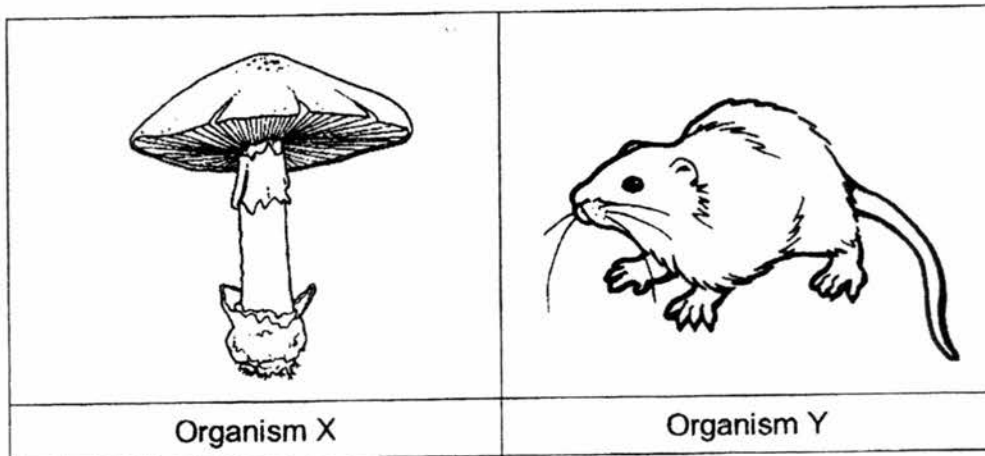
Section	Marks
A	/ 40
B	/ 16
C	/ 24
Total	/ 80

Parent's Signature: _____

Section A: Multiple-choice Questions (40 marks)

For each question from 1 to 20, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade it in the Optical Answer Sheet provided.

1. Look at the organisms X and Y shown in the diagrams below.



Which of the following about the organisms shown above is **not** correct?

- (1) Both need air and water.
- (2) Both can respond to changes.
- (3) Both depend on other organisms for food.
- (4) Both can move from place to place on their own.

2. The chart below shows how some living things, A, B, C and D, are observed and compared.

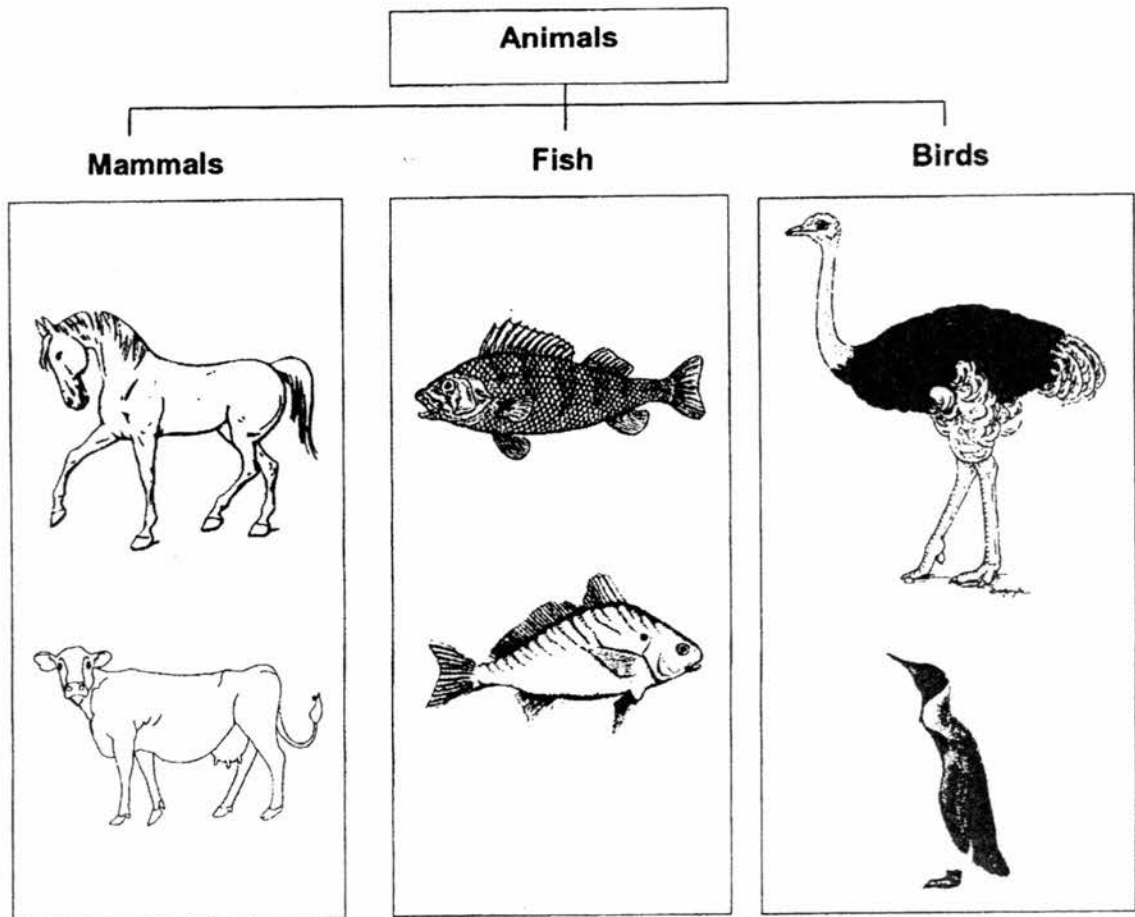
Living Thing	Need air, food and water	Can move from one place to another	Make its own food	Is a micro-organism
A	✓	✓	X	X
B	✓	X	✓	X
C	✓	✓	X	X
D	✓	✓	X	✓

(✓ - Yes, X - No)

Which of the following has similar characteristics of a plant?

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

3. The table below shows six animals classified into three groups.

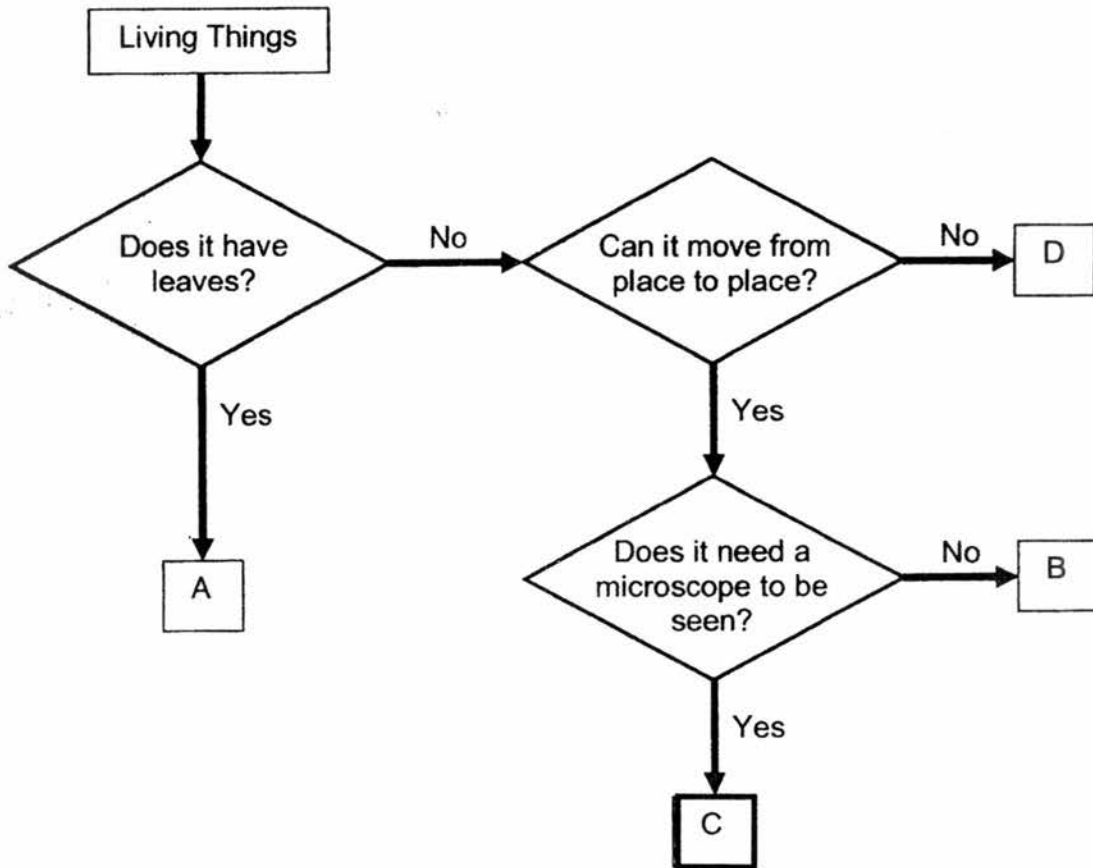


The six animals can be kept in the same groups shown above if they are classified according to _____.

- (1) their size
- (2) the food they eat
- (3) how they reproduce
- (4) their outer covering

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4. The diagram below shows a flow chart which can be used to classify living things.



Which of the following letters, A, B, C or D represents the correct living thing?

	Letter	Living Thing
(1)	A	mushroom
(2)	B	moss
(3)	C	bacteria
(4)	D	chicken

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5. The table below shows the characteristics of four animals, A, B, C and D.
(✓) means the animal has the characteristic and (X) means it does not.

Animal	Has feelers	Has dry scales as outer covering	Reproduces by laying eggs	Lives on land
A	X	✓	✓	✓
B	✓	X	✓	✓
C	X	✓	✓	X
D	X	X	X	✓

The diagram below shows animal R.



Which of the following animals from the table above is likely to be animal R?

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

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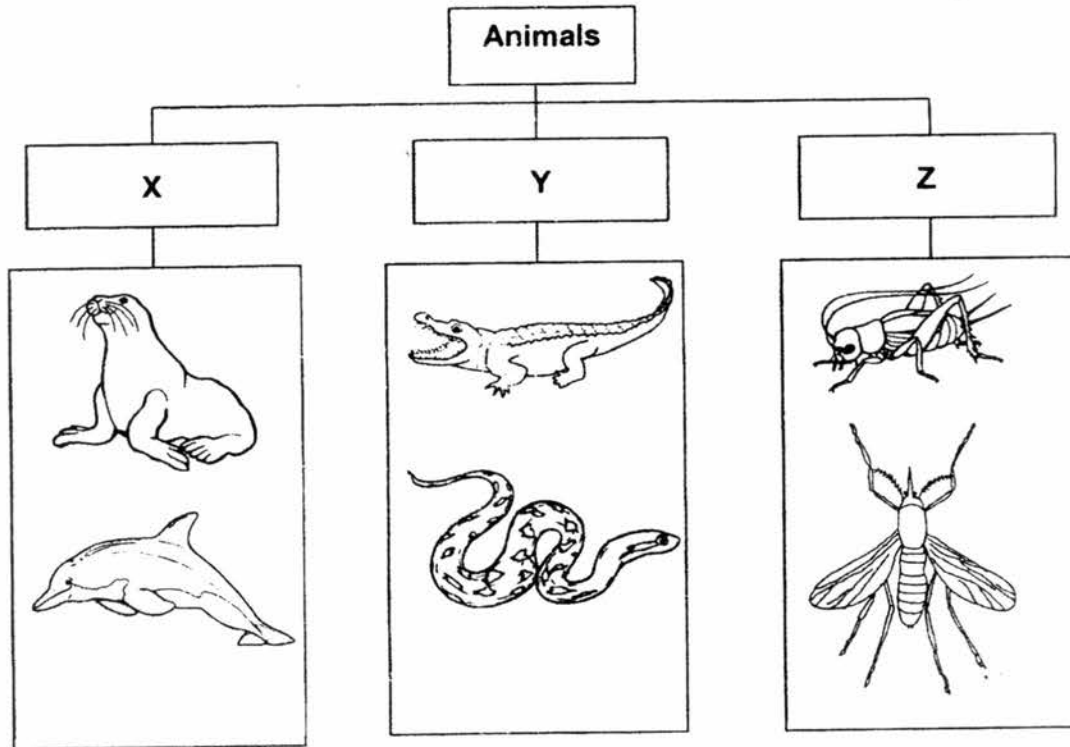
6. Which of the following characteristics are common to all birds?

A: They can fly.
B: They lay eggs.
C: They have feathers.

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

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7. Study the classification diagram below carefully.

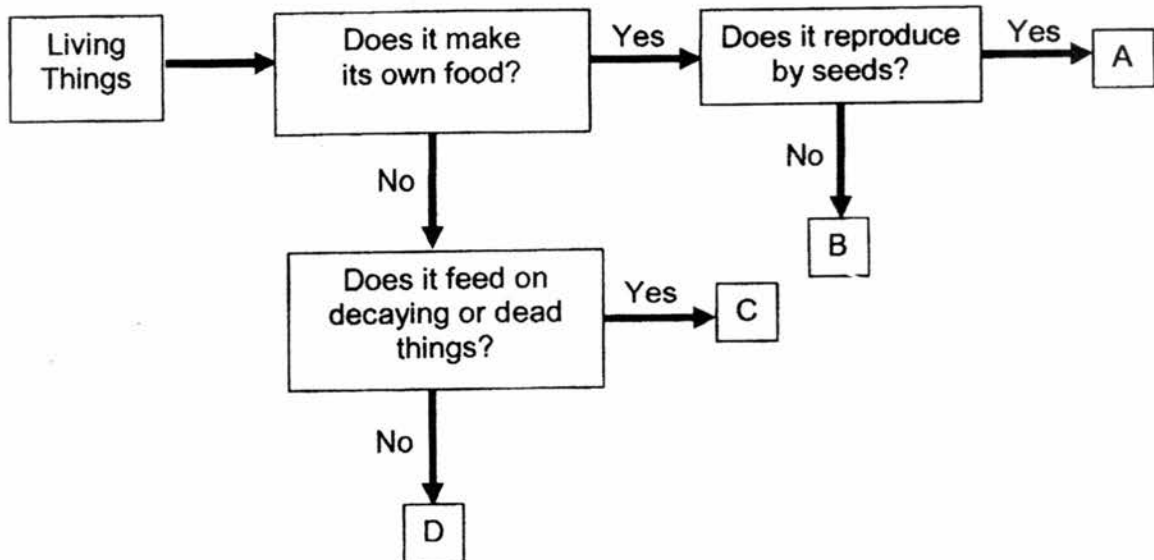


What are the most suitable headings for each group of animals?

	X	Y	Z
(1)	fish	reptile	insect
(2)	fish	amphibian	bird
(3)	insect	bird	amphibian
(4)	mammal	reptile	insect

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The chart below shows the characteristics of some living things.



8. Based on the flowchart above, which of the following statements is likely to be correct?

- (1) Living thing A is a plant.
- (2) Living thing B is a fungi.
- (3) Living thing C is a fern.
- (4) Living thing D is a non-flowering plant.

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9. When John chases a rat, it runs away in fear.
Which of the following characteristics does the rat show?

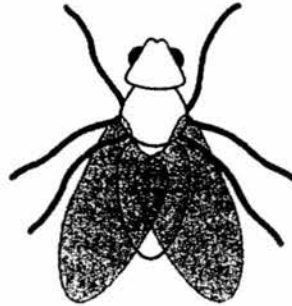
- (1) It can grow.
- (2) It can reproduce.
- (3) It needs food.
- (4) It responds to changes.

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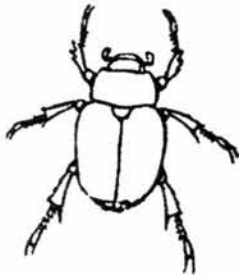
10. Look at the animals shown below.



A



B



C



D

Which of the following animals are insects?

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

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11. Look at the two plants shown below.

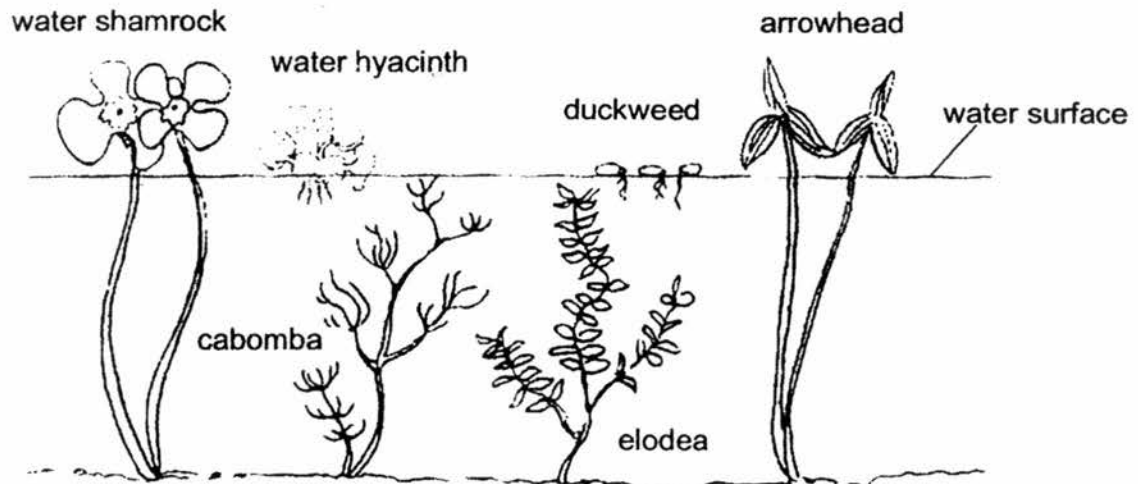


Which statement shows the similarity between the two plants?

- (1) Both can make their own food.
- (2) Both reproduce by spores.
- (3) Both have flowers.
- (4) Both grow in water.

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12. Study the water plants in the diagram below.



Study the note given below.

Note:

Floating plants – found on the water surface

Half submerged plants – part of the plant grows out of the water

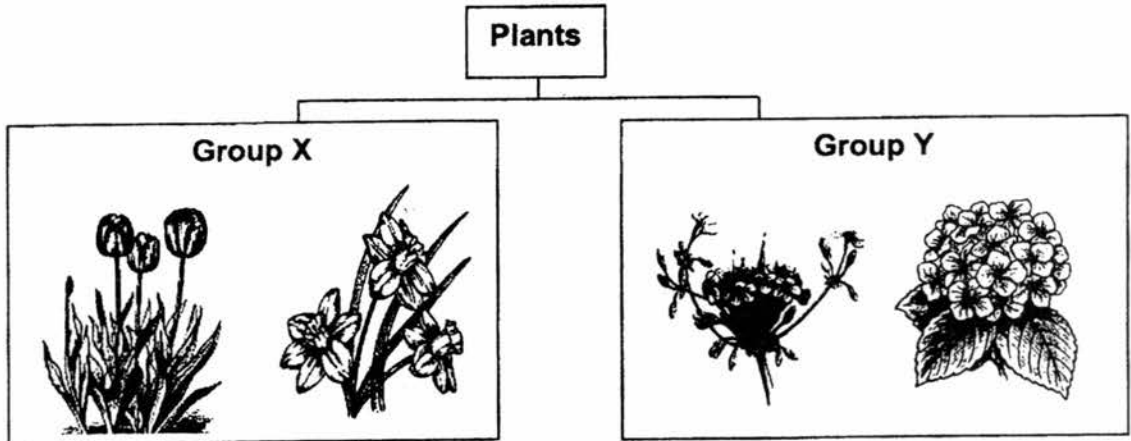
Fully submerged plants – whole plant grows below water surface

Which of the following shows the correct grouping of the water plants?

	Floating plants	Half submerged	Fully submerged
(1)	water shamrock	water hyacinth	arrowhead
(2)	cabomba	elodea	duckweed
(3)	duckweed	arrowhead	elodea
(4)	water hyacinth	water shamrock	arrowhead

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13. Study the classification table below carefully.



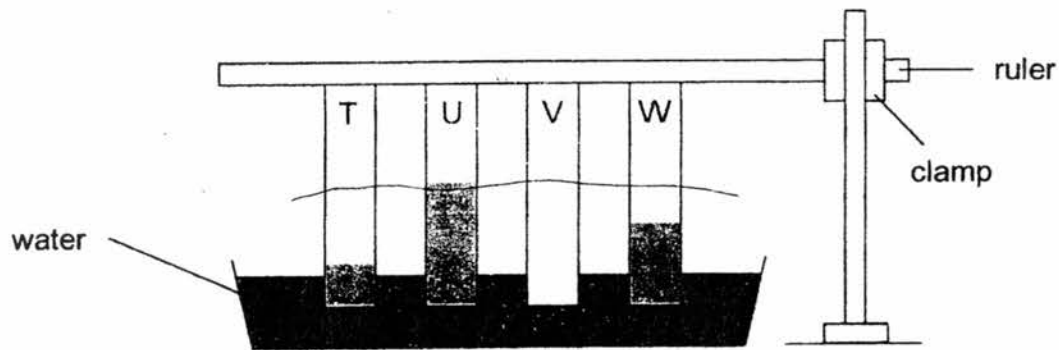
What could group X and group Y represent?

	Group X	Group Y
(1)	water plants	land plants
(2)	flowering plants	non - flowering Plants
(3)	weak stems	strong stems
(4)	flowers grow singly	flowers grow in bunches

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14. Kenji carried out an experiment to test how well each material can absorb water. He used materials T, U, V and W, which are of the same size and thickness.

The results of his experiment are shown in the diagram below.

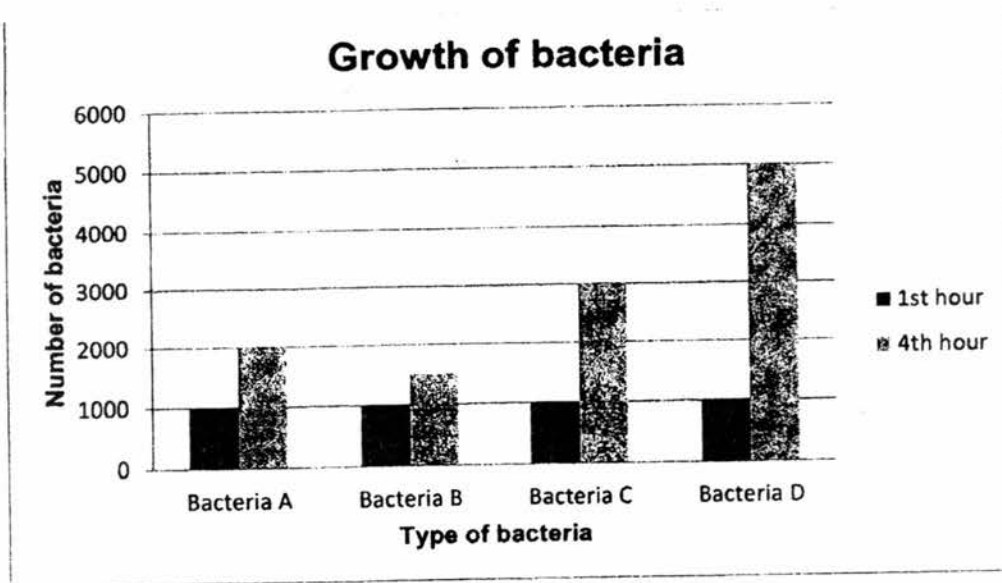


Which material, T, U, V or W, is most suitable for making a bath towel?

- (1) T
- (2) U
- (3) V
- (4) W

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15. The bar graph below shows the growth of bacteria A, B, C and D at the 1st hour and 4th hour.



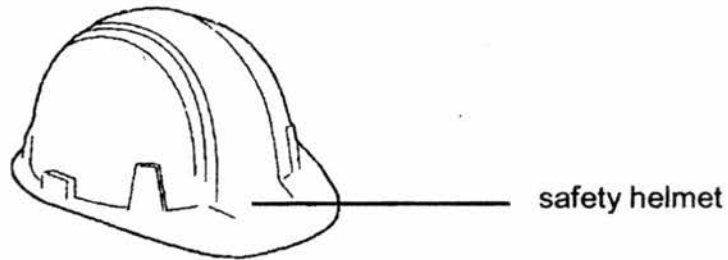
Which bacteria reproduced the **slowest**?

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

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16. Mr. Tan has to choose a suitable material for making safety helmets for his construction workers.

Safety helmets are worn by workers to protect their heads from falling objects.



Material	Strong	Waterproof	Flexible
A	Yes	No	Yes
B	No	Yes	No
C	No	Yes	Yes
D	Yes	Yes	No

Based on the table above, which material is the **most suitable** to make safety helmets?

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

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17. Tyler is showing his classmates that he can bend a rod.

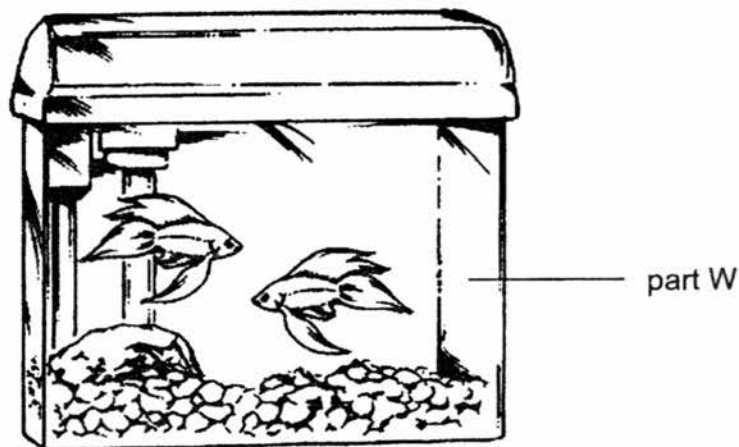


Tyler is able to carry out the above action because the rod is _____.

- (1) light
- (2) heavy
- (3) strong
- (4) flexible

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18. The diagram below shows a fish tank.



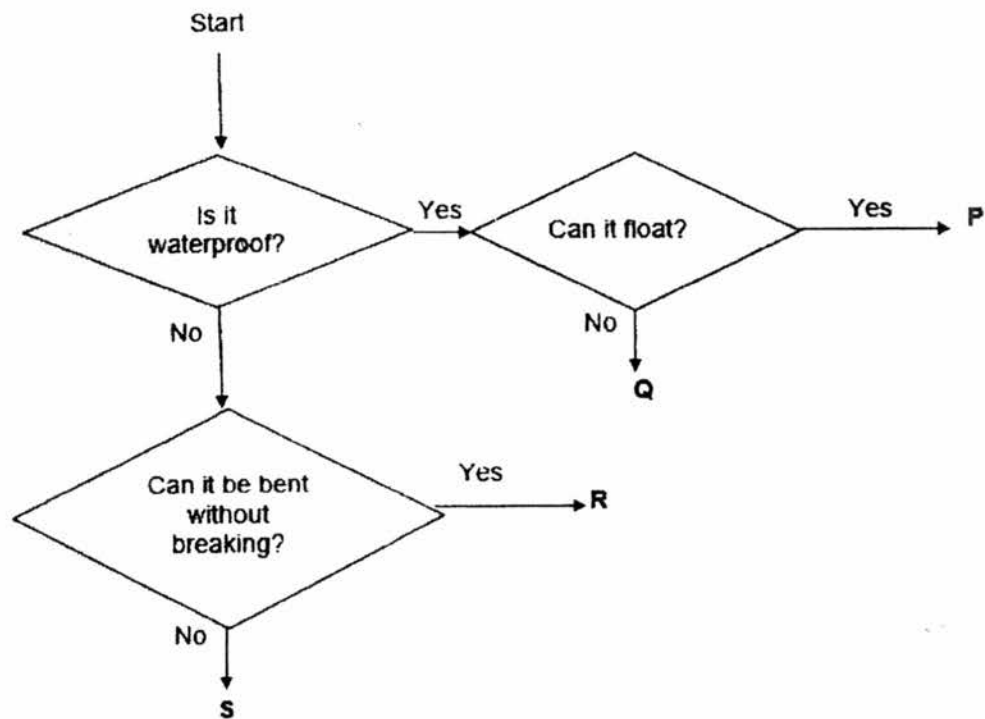
Which of the following statement(s) about the material part W is made of is/are correct?

- A: It must be strong.
- B: It must be waterproof.
- C: It must allow most light to pass through.

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

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19. The flowchart below shows how James classified some things.

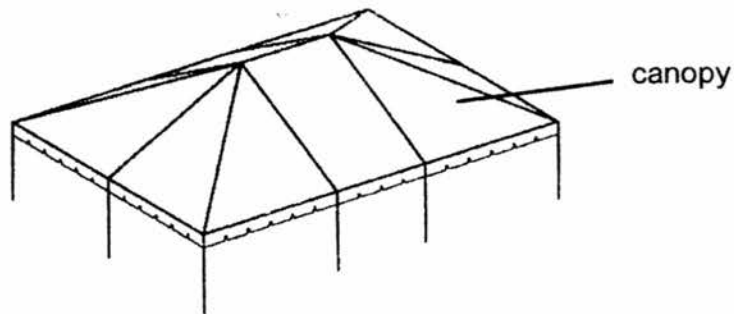


Which of the following best represents a paper towel?

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

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20. The diagram below shows part of a party tent where guests can stay under on sunny or rainy days.



Susan carried out some tests to find out if a material is suitable for making the canopy of the tent.

- Test A: Is the material waterproof?
Test B: Does the material float or sink in water?
Test C: Does light pass through the material?
Test D: Is the material smooth or rough to the touch?

Which two tests are important in deciding the suitability of the material in making the canopy of the tent?

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

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FIRST SEMESTRAL ASSESSMENT 2017

PRIMARY 3

SCIENCE

SECTION B & C (40 MARKS)

INSTRUCTIONS TO CANDIDATES

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

Name: _____ ()

Class: Primary 3 ()

Date: 12 May 2017

Total Time for Sections A, B and C : 1 h 30 min

Marks for Section B: _____

Marks for Section C: _____

Section B: Structured Questions (16 marks)

Write your answers to questions 21 – 28 in the spaces provided.

21. Ben picked up some things from his school garden.

He put them into two groups based on their similarities. He put one group in container P and the other group in container Q. He placed some food and water in both containers.

He observed them for two weeks and recorded his findings in the table below.

	Container P	Container Q
A	Moved by itself most of the time.	No movement at all.
B	Curled up when touched.	Did not respond when touched.
C	Food and water became lesser.	Food and water were untouched.
D	Grew bigger after 2 weeks.	Remained the same.

What do you think are in the containers?

[2]

Use the words, "**living things**" or "**non-living things**", to fill in the blanks below correctly.

Container P : _____

Container Q : _____

22. James is a newborn baby. The table below shows his height for a period of five months. His height was measured and recorded on the last day of each month.

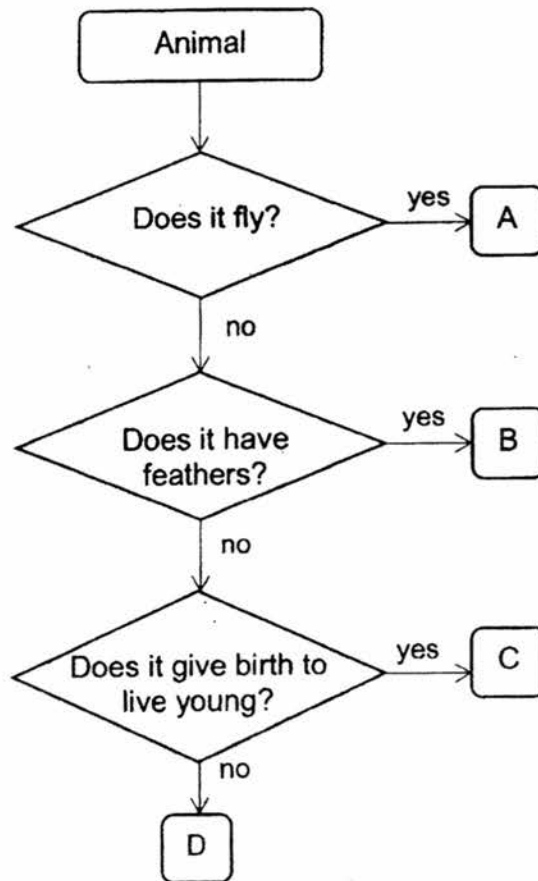
Month	Height (cm)
February	48
March	48
April	53
May	55
June	61

Based on the information given above, put a tick (✓) next to the statement(s) that is/are correct.

[2]

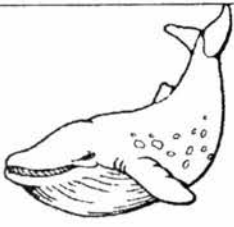
	Statements	Tick (✓)
a)	James' height did not increase during the first 2 months.	
b)	James' height increased during the last 3 months.	
c)	James' height did not increase in May.	
d)	James' height increases the least in June.	

23. Study the flowchart below.

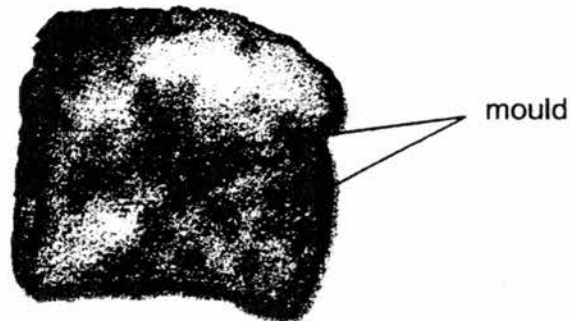


The table below shows four animals.

Fill in the boxes below correctly with the letters A, B, C and D from the flowchart above. [2]

							
Whale		Frog		Cassowary		Housefly	

24. A slice of bread was placed by the kitchen for a few weeks. Some mould was seen growing on it after a week.

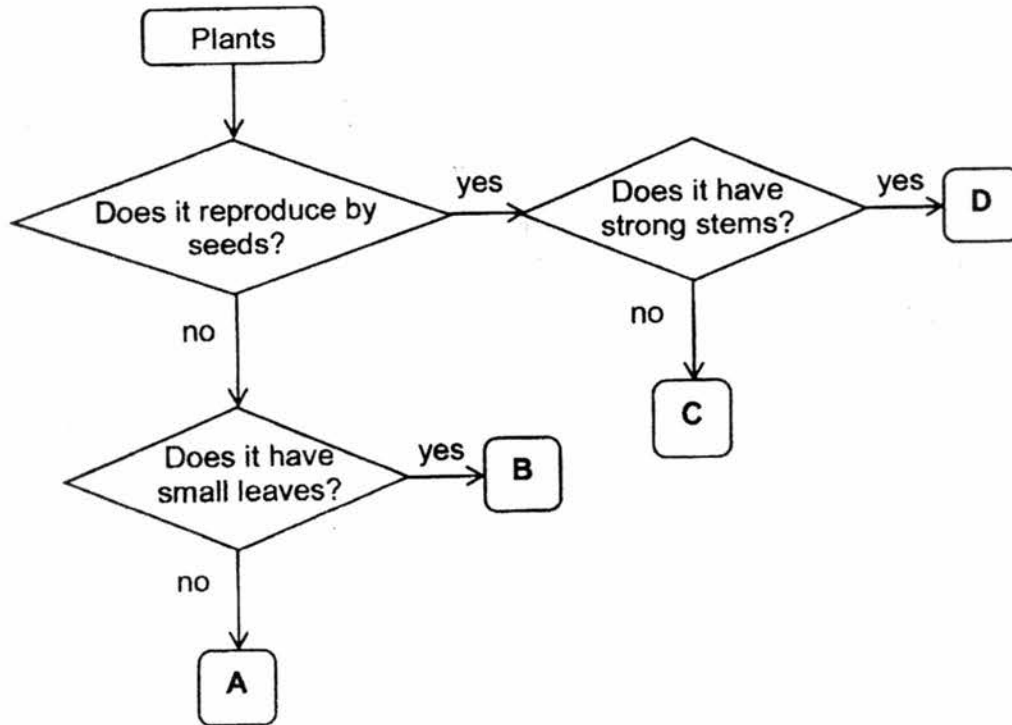


Based on the information given above, put a tick (✓) next to the statement(s) that is/are correct about the bread mould.

[2]

	Statements	Tick (✓)
(a)	It is a non-flowering plant.	
(b)	It reproduces from spores.	
(c)	It gets its food from the slice of bread.	

25. The flowchart below shows the characteristics of plants in groups A, B, C and D.



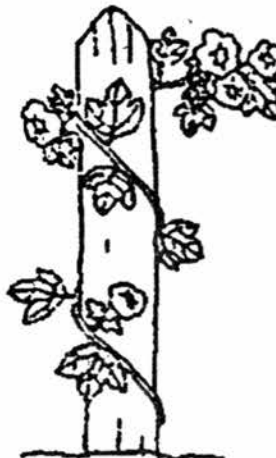
The diagrams below show plants S and T. Write in the boxes below which group (A, B, C or D) can these two plants be put in.

[2]

Plant S



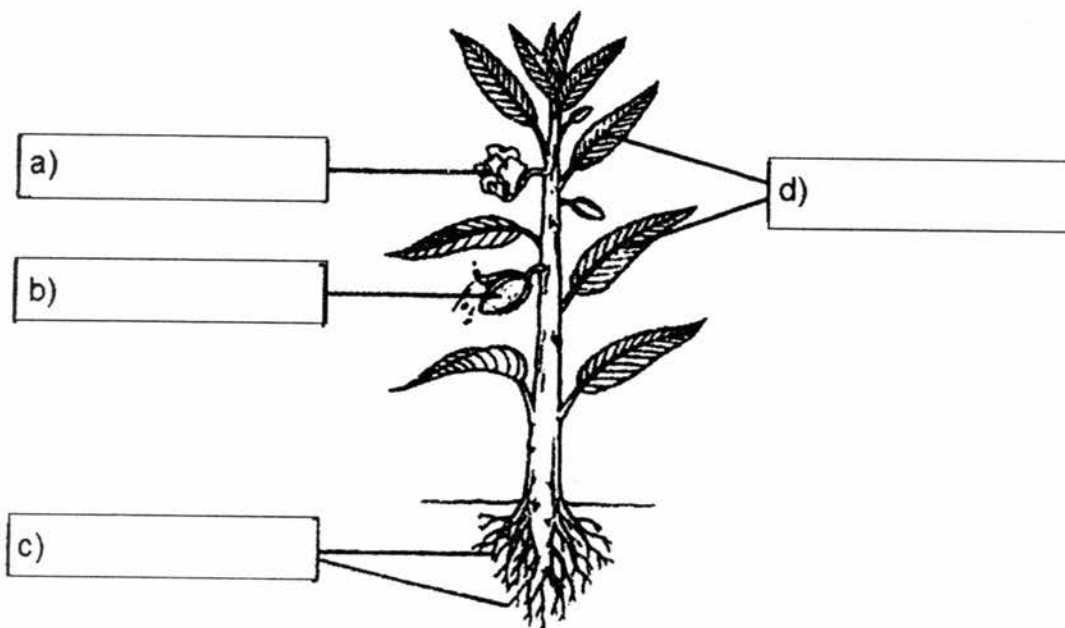
Plant T



26. Label the parts of the plant using the helping words given.

[2]

Fruit	Roots	Flower
Leaves	Stem	

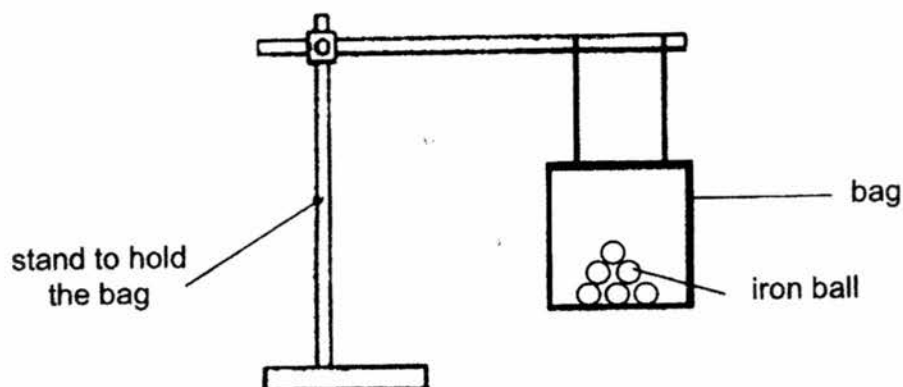


27. For each of the following statements, write 'T' for true or 'F' for false in the correct boxes.

[2]

	Statements	Write T or F
a)	Non-flowering plants reproduce by spores.	
b)	Flowering plants bear fruits.	
c)	Plants cannot make their own food.	
d)	Only flowering plants have roots and stems.	

28. Mdm Lee set up the experiment shown below to find out the strength of bags made of different materials. She added similar iron balls into bag A until the bag broke.



She repeated the experiment using bags B and C which were made of different materials. She recorded her observation in the table below.

Bag	Number of iron balls added before the bag broke
A	25
B	13
C	19

- a) Which bag, A, B or C, is the strongest?

[1]

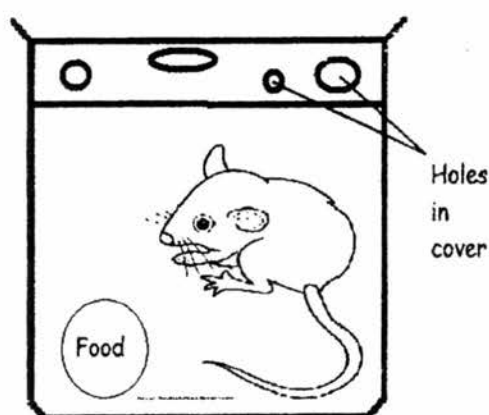
- b) Which bag, B or C, is strong enough to hold 16 iron balls?

[1]

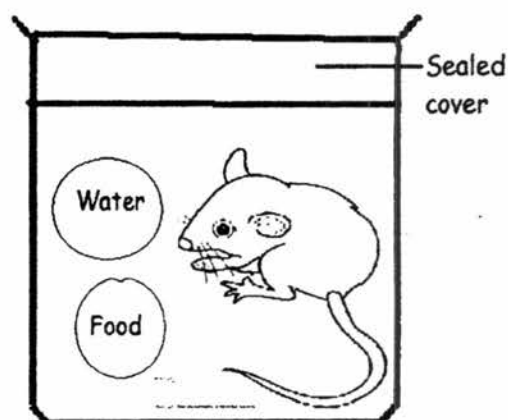
Section C (24 marks)

Write your answers to questions 29 to 36 in the spaces given.

29. Observe the organisms A and B in the diagrams below.



Organism A



Organism B

Only one organism was alive after two days.

- a) Which organism, A or B, was still alive after two days? [1]

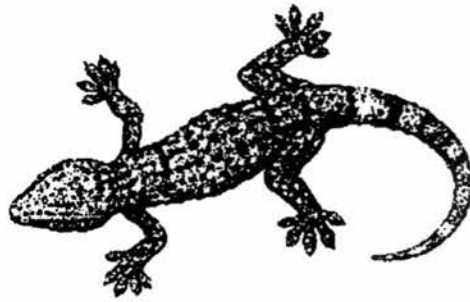
- b) Give reason for your answer in (a). [1]

- c) State one **other** characteristic of living things. [1]

30. The diagram below shows two animals, A and B, which are not drawn to scale.



Animal A



Animal B

- a) Based only on the pictures above, state two differences between animals A and B. (*Do not compare their sizes.*) [2]

Difference 1:

Difference 2:

- b) Which animal group does animal B belong to? [1]

31. Jimmy put some fish into a tank filled with water and some water plants. He fed the fish every day. He kept a record of the number of fish over a period of 12 days as shown in the table below.

Day	Number of fish
1	8
4	11
8	10
12	14

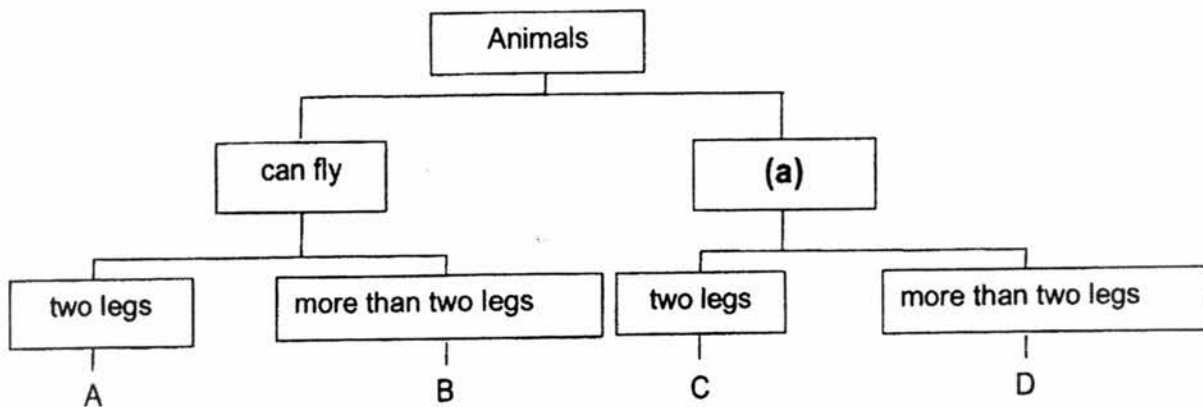
- a) How have the number of fish changed during the first four days?
Give a reason for this observation.

[2]

- b) State one characteristic of living things that can be observed from the table above.

[1]

32. Study the classification table shown below.



a) Give a suitable heading for (a) in the table above.

[1]

b) Jane saw animal K in her garden and recorded her observations in her science journal.

Animal K can fly.
Animal K has six legs.

Which group, A, B, C or D does animal K belong to?

[1]

c) Study the diagram of animal E below.



Animal E

Explain why animal E **cannot** be placed in any group in the classification table shown above.

[1]

33. Study the table below.

Characteristics	Group			
	W	X	Y	Z
Bears fruit	No	Yes	No	Yes
Grows in water	No	Yes	Yes	No



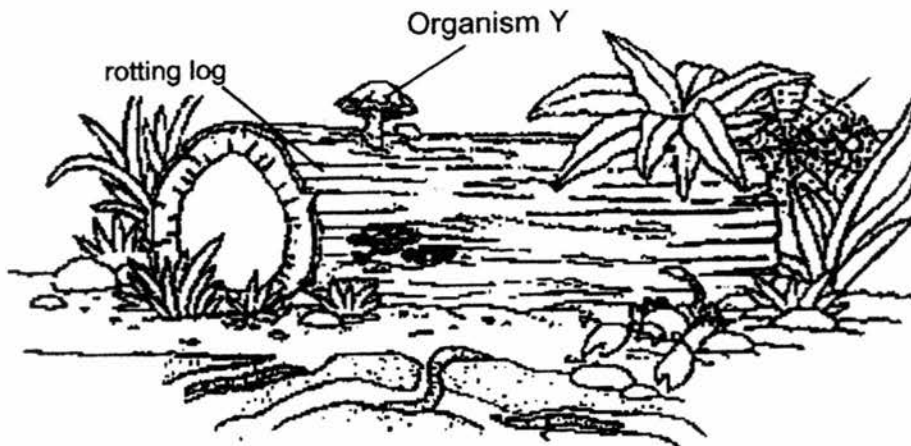
Plant F

- a) Which group will you put plant F in? [1]

Group _____

- b) If plant G belongs to group Z, how does it reproduce?
Give a reason for your answer. [2]

34. Primary three pupils were asked to observe organism Y growing on a rotting tree trunk as shown below.



Group 1 wrote the following two statements in their science logbook.

Statement 1: Organism Y can make its own food.

Statement 2: Organism Y reproduces by seeds.

Ms Quek, their science teacher commented that the two statements were wrong.

Rewrite the statements describing how organism Y obtain food and reproduce. [2]

Statement 1: _____

Statement 2: _____

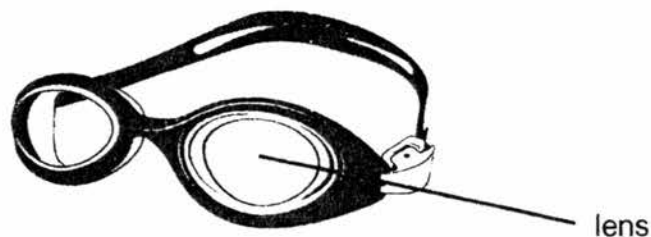
35. The table below shows some properties of three types of materials.

Property	Material S	Material T	Material U
waterproof	Yes	Yes	No
allows light to pass through	Yes	No	Yes
able to float	Yes	Yes	No

a) Based on the table above, state 2 differences between materials S and U. [2]

Difference (1)	
Difference (2)	

b) The diagram below shows a pair of swimming goggles.

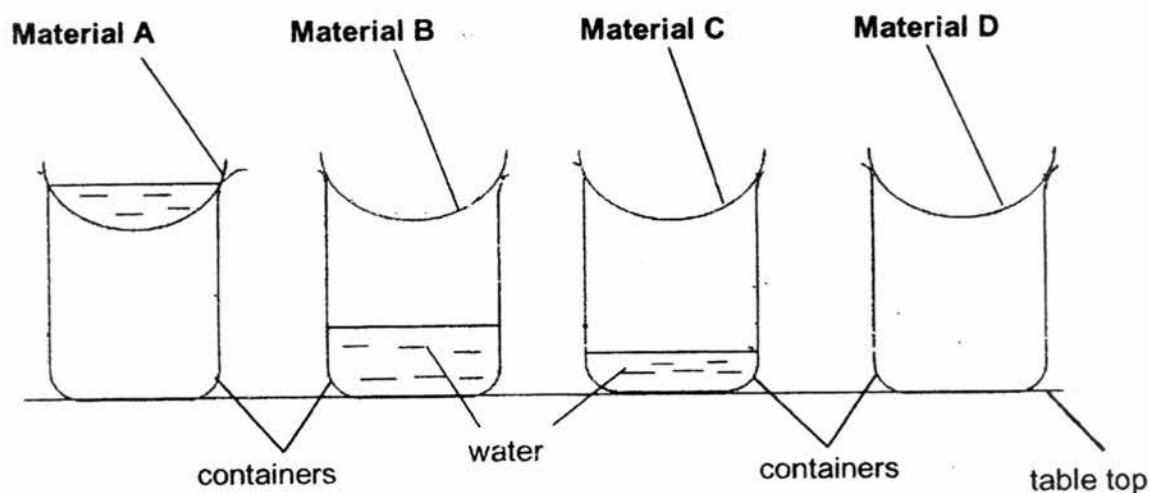


Which materials, S, T or U, is most suitable for making the lens of the swimming goggles shown above? [2]

Give a reason for your answer using the information from the table above.

36. Mary placed four different types of materials, A, B, C and D, over four containers as shown in the diagram below.

She then poured an equal amount of water onto each material. Water that flowed through the materials are collected in the containers.



	Amount of water poured (ml)	Amount of water on material (ml)	Amount of water collected in the container (ml)
A	50	50	0
B	50	0	40
C	50	0	20
D	50	0	0

- a) Which material, A, B, C or D is suitable for making raincoats? [1]

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

- c) Material D is more suitable than material C for making a bath towel. Give a reason for this. [1]

End of Paper

ANSWER KEY

YEAR : 2017
 LEVEL : PRIMARY 3
 SCHOOL : HENRY PARK PRIMARY SCHOOL
 SUBJECT : SCIENCE
 TERM : SA1

SECTION A

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

SECTION B

Q21. P: Living things

Q: Non-living things

Q22. a) and b)

Q23. Whale: C; Frog D; Cassowary: B; Housefly: A

Q24. b) and c)

Q25. S → D; T → C

Q26a) flower

b) fruit

c) roots

d) leaves

Q27. a) T b) T c) F

d) F

Q28a) Bag A

b) Bag C is enough to hold 16 iron balls.

SECTION C

Q29a) Organism

b) It has air and food.

c) Living things respond to changes.

Q30a) Animal A has wings but animal B does not have wings.

AND

Animal A has a pair of feelers but animal B does not.

b) It belongs to the amphibians group.

Q31a) Yes. The number of fishes increases as shown above as it reproduces.
b) Living things reproduce.

Q32a) Cannot fly
b) B
c) It has zero legs

Q33a) Group W
b) It reproduces by seeds. Plants which bear fruit reproduces by seeds.

Q34. Organism Y feeds on the rotting log for food.
Organism Y reproduces by spores.

Q35a) 1: S is waterproof but U is not waterproof.
2: S is able to float but U is not able to float.
b) S. Swimming goggles need to be waterproof and must allow light to pass through.

Q36a) A
b) It is waterproof.
c) D absorbs to most amount of water.

2
END