

## **RED SWASTIKA SCHOOL**

#### SCIENCE 2019 SEMESTRAL EXAMINATION 1 PRIMARY 3

| Name :  | (       | )      |
|---|---------|--------|
| Class : Primary 3/  |         |        |
| Date : 15 May 2019  |         |        |
| BOOKLET A   |         |        |
| Total time for Booklets A & B: 1h 30 min  |         |        |
| Booklet A: 15 questions (30 marks)  |         |        |
| Note:   |         |        |
| 1. Do not open the booklet until you are told to  | do s    | 0.     |
| <ol><li>Read carefully the instructions given at the<br/>of each part of the booklet.</li></ol>   | begin   | ning   |
| <ol><li>Do not waste time. If the question is too diffi<br/>go on to the next question.</li></ol> | icult f | or you |

5. In this booklet, you should have the following:

4. Check your answers thoroughly and make sure you

a. Page 1 to Page 9

attempt every question.

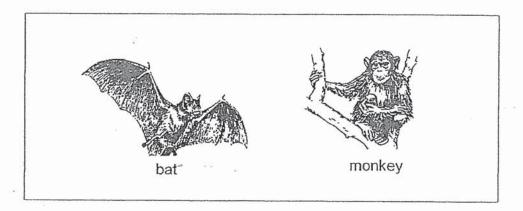
b. Questions 1 to 15

3. The height of a living thing was measured and recorded as shown in the table below.

| Week | Height (cm) |
|------|-------------|
| 1    | 14          |
| 2    | 19          |
| 3    | 25          |
| 4    | 32          |

Based on the table, what can you say about living things? Living things can \_\_\_\_\_\_.

- (1) grow
- (2) reproduce
- (3) move over a distance
- (4) respond to changes
- 4. Study the two animals below.

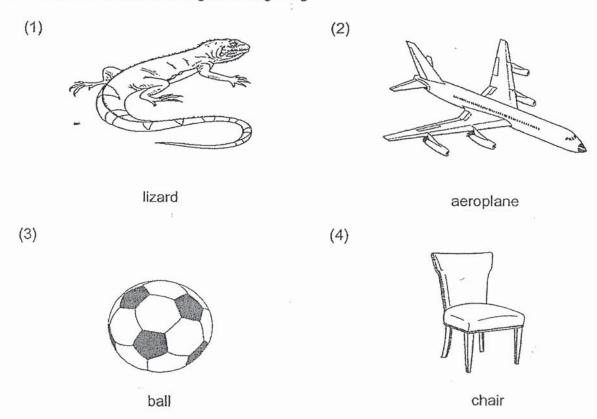


Which of the following correctly describes both animals?

|     | Covered with hair? | Covered with scales? | Give birth to young alive? |
|-----|--------------------|----------------------|----------------------------|
| (1) | yes                | no                   | yes                        |
| (2) | no                 | yes                  | no                         |
| (3) | yes                | no                   | no                         |
| (4) | no                 | no                   | no                         |

# For Questions 1 to 15, choose the most suitable answer and shade its number in the OAS provided.

1. Which one of the following is a living thing?



- 2. Which one of the following statements shows that living things respond to changes in the surrounding?
  - (1) The alarm clock rings in the morning.
  - (2) The glass vase broke when the ball hit it.
  - (3) The plastic bag flew when the wind blows.
  - (4) The mimosa plant closes its leaves when it is touched.

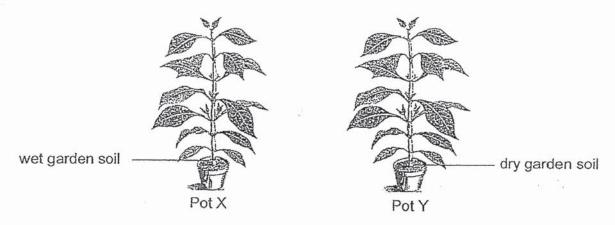
5. During a Science lesson, three students made the following statements about fungi.

Alexis: Fungi cannot make their own food.

Bobby: All fungi are micro-organisms. Craig: Fungi reproduce by spores.

Which student(s) made the correct statement?

- (1) Alexis only
- (2) Alexis and Craig only
- (3) Bobby and Craig only
- (4) Alexis, Bobby and Craig
- 6. Jamal planted the same type of plants in two similar pots, X and Y, as shown below. He placed the two pots near the windows.



After two days, he observed that the plant in pot X grew healthily while the plant in pot Y wilted. What does the experiment show?

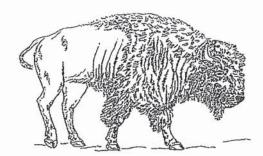
- (1) Plants need air to stay alive.
- (2) Plants need soil to stay alive.
- (3) Plants need water to stay alive.
- (4) Plants need leaves to stay alive.

7. The table below shows the characteristics of four things, A, B, C and D. A tick (✓) indicates that the thing has the described characteristic.

| Characteristics      | Α | В | С | D |
|----------------------|---|---|---|---|
| Has two wings        | 1 | 1 | 1 | 1 |
| Can reproduce        | 1 |   |   | 1 |
| Has four legs        |   | 1 |   |   |
| Has three body parts |   |   | 1 | 1 |

Which one of the following best represents an insect?

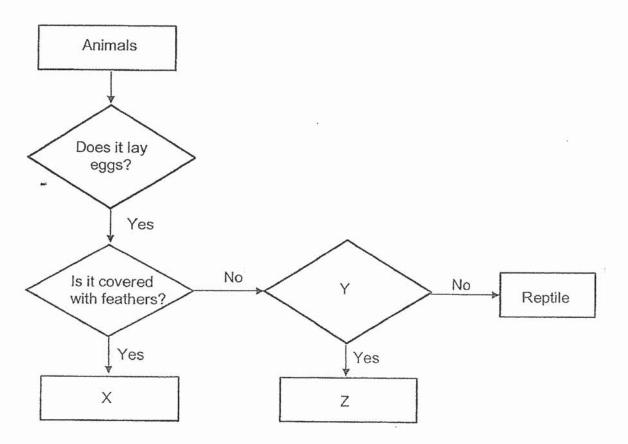
- (1) A
- (2) B
- (3) C
- (4) D
- 8. Salman saw the animal below in the zoo. He wanted to find out whether the animal is a mammal.



Which of the following characteristics will help Salman determine whether the animal above is a mammal?

- (1) It has four legs.
- (2) It lives on land.
- (3) It feeds its young with milk.
- (4) It needs air, food and water to survive.

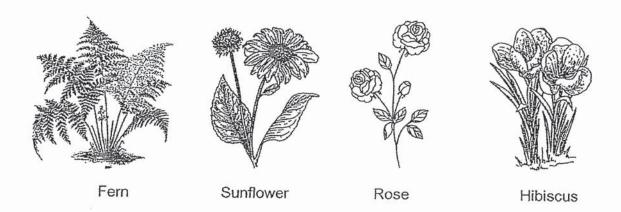
#### 9. Study the flow chart below.



Which one of the following correctly states what X, Y and Z are?

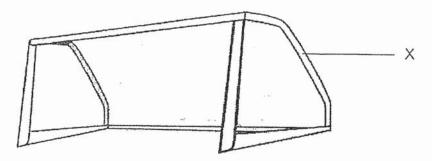
|     | X      | Question Y                     | Z         |
|-----|--------|--------------------------------|-----------|
| (1) | bird   | Is it covered with scales?     | insect    |
| (2) | insect | Does it live in water?         | amphibian |
| (3) | bird   | Does it breathe through gills? | fish      |
| (4) | insect | Does it crawl?                 | mammal    |

10. Tricia observed the four plants as shown below.



Which plant does not reproduce in the same way as the other plants?

- (1) Fern
- (2) Sunflower
- (3) Rose
- (4) Hibiscus
- 11. The diagram below shows a soccer goalpost.



Metal is used to make part X of the goalpost because metal \_\_\_\_\_

- (1) is shiny
- (2) is strong
- (3) is flexible
- (4) allows water to pass through

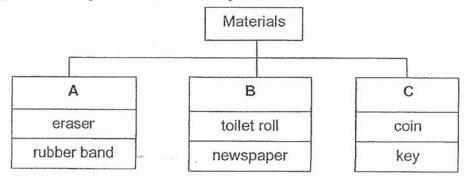
12. Devi used an umbrella to keep out the rain and sun.



Which of the following most correctly states the properties of G?

|     | Allow light to pass through | Waterproof |
|-----|-----------------------------|------------|
| (1) | yes                         | no         |
| (2) | yes                         | yes        |
| (3) | no                          | no         |
| (4) | no                          | yes        |

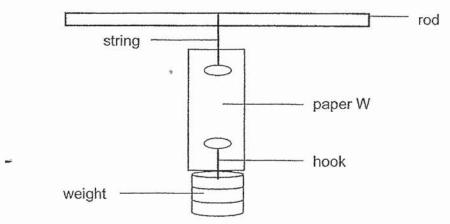
13. The classification chart below shows how some objects, A, B and C, have been grouped according to the materials they are made of.



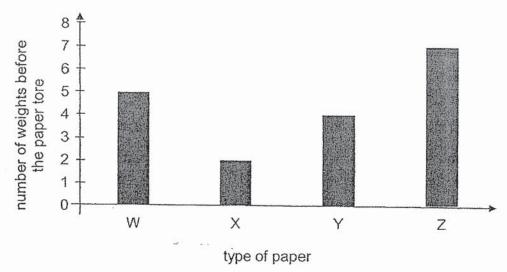
What could objects A, B and C be?

|     | Α         | В              | C              |
|-----|-----------|----------------|----------------|
| (1) | iron nail | balloon        | cardboard      |
| (2) | balloon   | plastic bottle | iron nail      |
| (3) | cardboard | iron nail      | plastic bottle |
| (4) | balloon   | cardboard      | iron nail      |

14. George wanted to find out the strength of four different types of paper, W, X, Y and Z. All the papers have the same shape and size. He set up the experiment using Paper W, as shown below.



He added one weight at a time to the hook until paper W tore. He repeated the experiment with papers X, Y and Z. The results of his experiment are shown in the graph below.



Based on the graph above, which of the following statements is correct?

- (1) Paper X is the strongest.
- (2) Paper Y is stronger than paper W.
- (3) Paper Z is stronger than paper X and Y.
- (4) Paper W is stronger than paper Y and Z.

15. The diagram below shows a pair of glasses.



What are the properties of the material used to make X?

- (1) waterproof and weak
- (2) waterproof and flexible
- (3) transparent and flexible
- (4) transparent and waterproof

End of Booklet A



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| Name  |               | . ( | ) |
|-------|---------------|-----|---|
| Class | : Primary 3/  |     |   |
| Date  | : 15 May 2019 |     |   |

#### **BOOKLET B**

6 Questions 20 Marks

In this booklet, you should have the following:

a. Page <u>10</u> to Page <u>15</u>

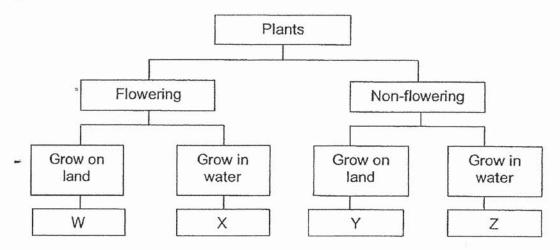
b. Questions 16 to 21

|           | MARKS<br>OBTAINED | POSSIBLE |
|-----------|-------------------|----------|
| BOOKLET A |                   | 30       |
| BOOKLET B |                   | 20       |
| TOTAL     |                   | 50       |

| Parent's | Signature: |  |
|----------|------------|--|
|----------|------------|--|

#### Answer all questions in the space provided.

16. Study the classification chart shown below.



| a) | Based on the classification chart above, state two characteristics of |
|----|---|
|    | plant Y. (2m)   |
|    |   |

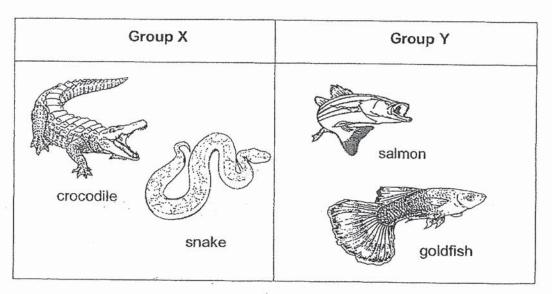
b) Based on the chart, classify the plants below by writing W, X, Y or Z in the space provided. (1m)

| Plants            | W, X, Y or Z |
|-------------------|--------------|
| Rose              |              |
| Bird's nest fern- | -            |

- On a learning journey to the Singapore Zoo, John was asked to observe the characteristics of a variety of animals.
- a) In the table below, complete all the boxes by putting a tick (✓) if the animal group has the characteristics and a cross (X) if the animal group does not have the characteristics.(2m)

| Characteristics | Insect | Bird |
|-----------------|--------|------|
| Has a beak      |        |      |
| - Has six legs  |        |      |

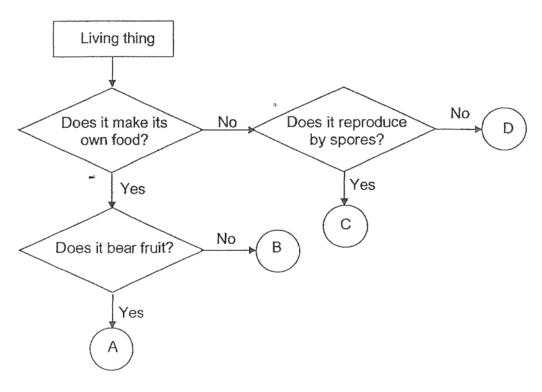
b) John drew four of his favourite animals in his Science journal and classified them as shown in the table below.



Based on the table above, state the correct animal groups for Group X and Group Y.(1m)

| Group X: |  |
|----------|--|
| Group Y: |  |

 Based on your observations, how are the animals in Group X and Group Y similar in their body coverings? (1m) 18. Study the flow chart below.



- a) Based on the information in the flow chart, which living thing, A, B, C or D, best represents bread mould? (1m)
- b) A and B are living things. Based on the flow chart only, state another similarity between A and B. (1m)
- Based on the flow chart only, state a difference between living thing C and living thing D. (1m)

- Geraldine had two similar pieces of bread, A and B. She wanted to find out how different amounts of water would affect the growth of mould.
- a) Which of the variables stated below must Geraldine keep the same at the start of the experiment in order to have a fair test?

Circle the correct option for each variable below. (2m)

| Variables                            | Variable to keep the same (Please circle) |  |  |
|--------------------------------------|---|--|--|
| place to put the bread               | Yes / No                                  |  |  |
| amount of water added onto the bread | Yes / No                                  |  |  |

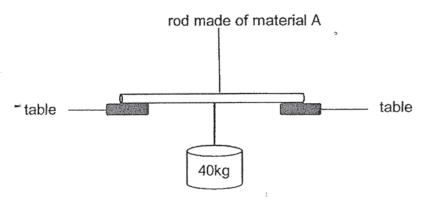
The following amount of water was added to breads A and B at the start of the experiment.

| Bread | Amount of water at the  |
|-------|-------------------------|
| bread | start of the experiment |
| А     | 20 ml                   |
| В     | 3 ml                    |

| b) | On which bread, A or B, would Geraldine find less mould growing after some time? Give an explanation for your answer. (2m) |
|----|--|
|    |  |



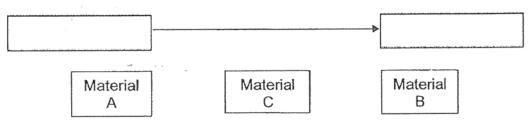
20. Mr Tan wants to compare the strength of three rods that are made of different materials, A, B and C. A 40kg weight is hung from the centre of each rod, which is supported at both ends by two tables. The diagram shows an example of the setup using the rod made of material A. He repeated the experiment for materials B and C.



a) The table below shows the results of the experiment.

| Material             | А                          | В                     | С                              |
|----------------------|----------------------------|-----------------------|--------------------------------|
| Result of experiment | Does not bend<br>and break | Breaks<br>immediately | Bends but<br>does not<br>break |

Materials A, B and C are arranged according to how strong they are. Fill in the empty boxes with 'weakest' and 'strongest' to indicate the materials' strength. (1m)



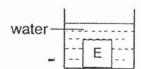
 Which material, A, B or C, is most suitable to make a bookshelf? Explain your answer. (2m)

14

21. There are four different types of materials, E, F, G and H of same thickness and size. Hashim set up an experiment to find out which material will absorb the most amount of water.

He placed the four materials into similar containers containing 80 ml of water at the same time.











After six minutes, he removed the materials and recorded the amount of water left in each container in the table below.

| Material | Amount of water left in the container (ml) |  |  |
|----------|--|--|--|
| E        | 40   |  |  |
| F        | 50   |  |  |
| G        | 70   |  |  |
| Н        | 60   |  |  |

- a) Based on the results above, which material, E, F, G or H, absorbs the least water? (1m)
- b) Which material, E, F, G or H, is the most suitable material for making a bath towel? (1m)
- c) Explain your answer in part (b). (1m)

End of Section B Please check your answers.



#### ANSWER KEY

YEAR : 2019

LEVEL : PRIMARY 3

SCHOOL : RED SWASTIKA SCHOOL

SUBJECT: SCIENCE

TERM : SA1

### SECTION A

| Q1  | 1 | Q2         | 4 | Q3  | 1 | Q4  | 1 | Q5  | 2 |
|-----|---|------------|---|-----|---|-----|---|-----|---|
| Q6  | 3 | <b>Q</b> 7 | 4 | Q8  | 3 | Q9  | 3 | Q10 | 1 |
| Q11 | 2 | Q12        | 4 | Q13 | 4 | Q14 | 3 | Q15 | 4 |

#### SECTION B

Q16a) Plant Y grow on land and it is a non-flowering plant.

Q16b)

| Plants           | W, X, Y or Z |  |
|------------------|--------------|--|
| Rose             | . W          |  |
| Bird's nest fern | Y            |  |

Q17a)

| Characteristics | Insect | Bird |
|-----------------|--------|------|
| Has a beak      | X      | ✓    |
| Has six legs    | 1      | X    |

Q17b) Group X: Reptile

Group Y: Fish

ļ

Q17c) Both Group X and Group Y has scales on their body.

Q18a) C

Q18b) A and B makes their own food.

Q18c) D does not reproduce by spores where as C does.

Q19a)

| - Variables                          | Variable to keep the same |  |
|--------------------------------------|---------------------------|--|
| Place to put the bread               | Yes                       |  |
| Amount of water added onto the bread | No                        |  |

Q19b) Bread B. There is lesser water for the mould to grow.

Q20a) Strongest → Weakest

Q20b) A, it is the strongest.

Q21a) G

Q21b) E

Q21c psorbs the most amount of water.

2

END'