NANYANG PRIMARY SCHOOL
Term 1 Weighted Assessment
Science
Primary 5

20

Name: _____( ) Date: _____

Class: 5____ Parent's signature: _____

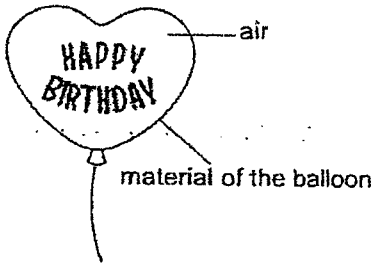
Dear Parent/Guardian,

Please sign the Weighted Assessment paper and have your child/ward return it the next day. Any query should be raised at the same time when returning the paper.

Section A: Multiple Choice Questions (12 marks)

For each question from 1 to 6, four options (1, 2, 3 and 4) are given. One of them is the correct answer. ***Indicate your choice in the brackets provided.***

1. Jasper blew air into a balloon and tied it tightly. He left the balloon tied to a pole under the hot sun. After a few hours, he noticed that the balloon became bigger.



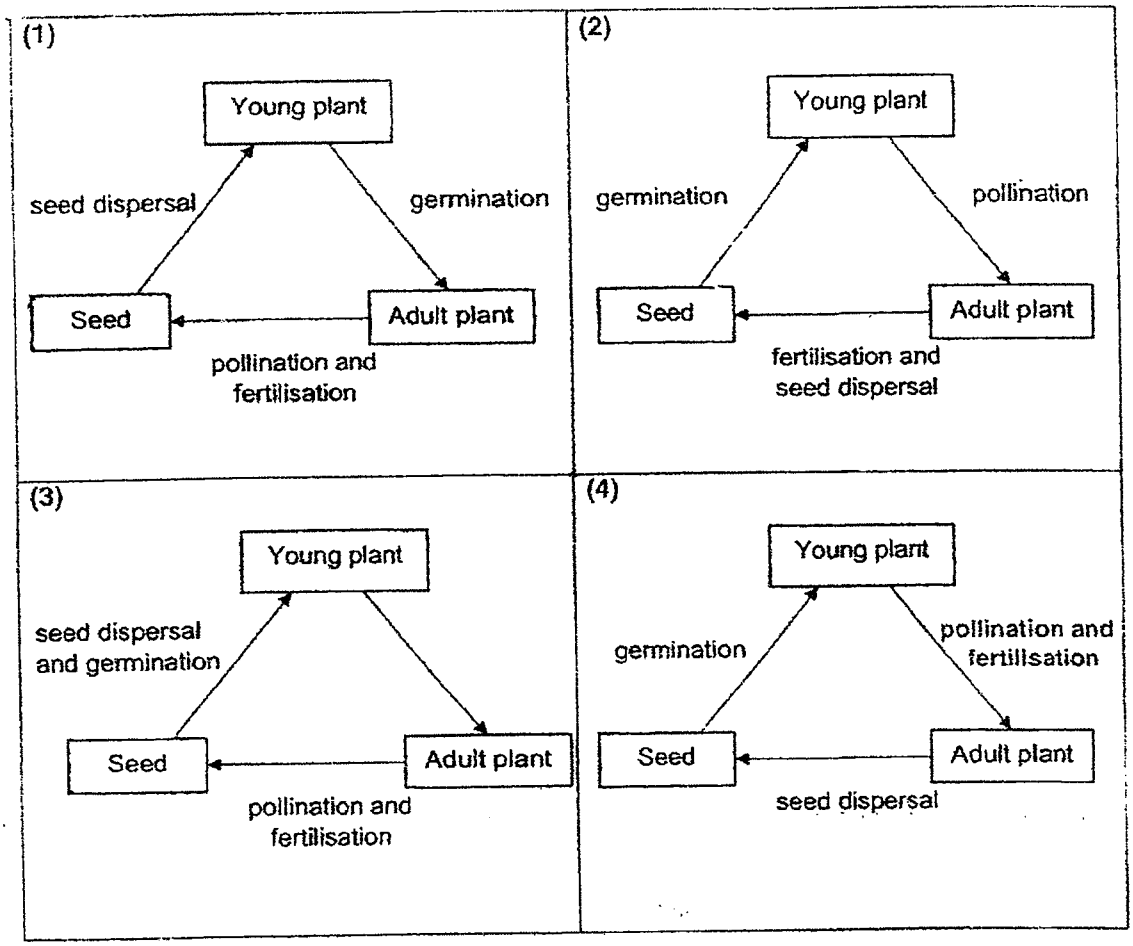
Which of the following is the correct explanation?

(1) The air in the balloon loses heat to the surrounding and contracted.
(2) The air in the balloon gains heat from the surrounding and expanded.
(3) The material of the balloon loses heat to the surrounding and contracted.
(4) The material of the balloon gains heat from the surrounding and expanded.

( )

2

2. Which of the following correctly shows the processes that have taken place in the life cycle of a plant?



( )

2

3. Nicholas wanted to find out if air is needed for seeds to germinate.

set-up	water (ml)	light (lux)	air (cm^3)	temperature (°C)
A	0	50	0	0
B	100	50	500	30
C	100	50	0	30
D	0	50	500	0

Which two set-ups should Nicholas use to conduct a fair test?

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

( )

4. John made the following statements.

A Humans reproduce to ensure the continuity of its kind.

B Female reproductive cells are produced in the womb.

C The young only inherits characteristics from the mother.

D Fertilisation takes place when the male reproductive cells enter the vagina.

Which of the following statement(s) is/are correct?

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

( )

5 Which of the following characteristics is **not** passed on to the young?

(1) hair colour
(2) length of hair
(3) type of eyelid
(4) type of earlobe

( )

6. Four students made the following statements about sexual reproduction in plants and humans.

A The fertilised egg develops in the womb.

B Fertilisation occurs in a female reproductive part.

C Male reproductive cells are produced in the anthers.

D Female reproductive cells are produced in the ovary.

Which of the statements are correct about sexual reproduction in plants and humans?

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

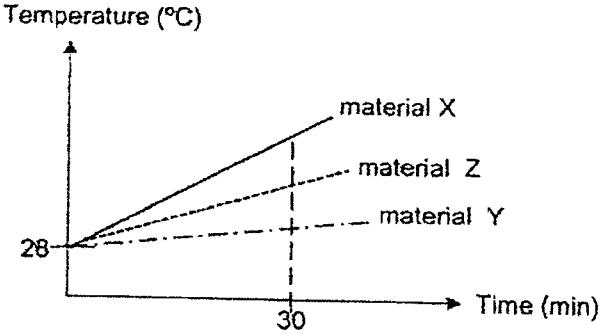
( )

Section B: Open-Ended Questions (8 marks)

For questions 7 and 8, fill in your answers in the spaces provided.

7. Jasper conducted an experiment using the set-up below. He measured the temperature of material X and placed material X in a beaker of water at 100°C. He then measured the temperature of material X over 30 minutes with a data logger.

He repeated the experiment for materials Y and Z. He recorded the results in the table below.



Before the start of the experiment, Jasper measured materials, X, Y and Z, and ensured that the materials were at 28°C.

(a) Give a reason why Jasper had to measure the temperature of the materials at the start of the experiment. [1]

_____

_____

Jasper wanted to make a cup to keep his hot tea warm for the longest period of time.

(b) Based on his experiment, which material is the most suitable for making a cup to keep his hot tea warm for the longest period of time? Explain your answer. [2]

_____

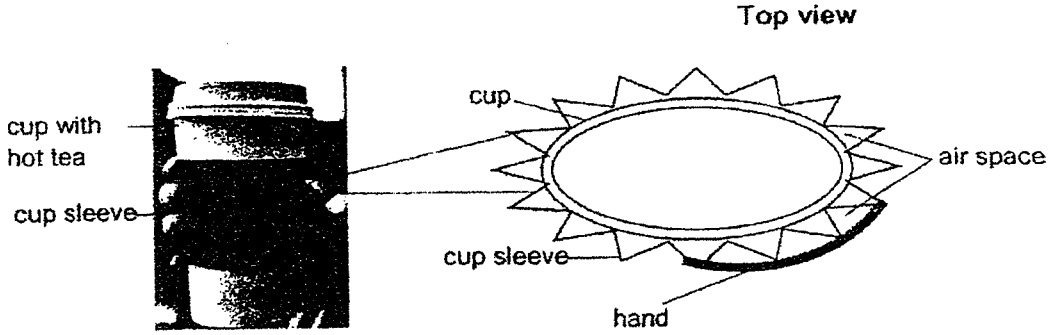
_____

_____

3

(Continue from Question 7)

Jasper added a cup sleeve to protect his hand from the heat from the hot tea as shown in the diagram below.

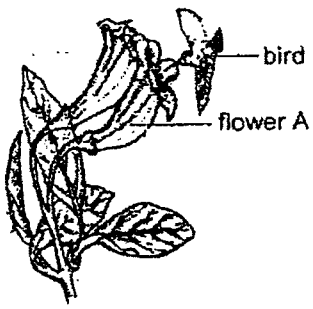


(c) Explain how the cup sleeve helps to protect his hand from the heat from the hot tea. [1]

_____

_____

8. In Island X, birds are commonly found near flower A.



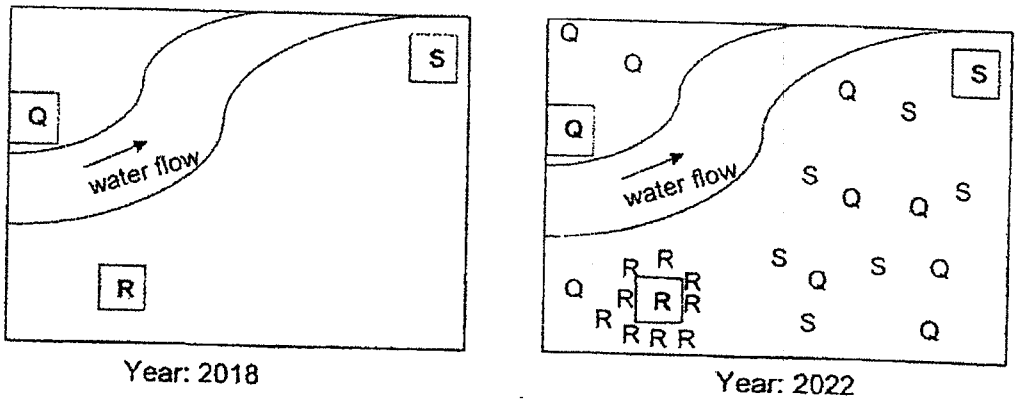
(a) How do birds help plant A to reproduce? [1]

_____

_____

2

The diagram below shows part of an island where 3 types of plant, Q, R and S are growing. The parent plants are indicated with a box.



(b) Explain why it is important for seeds to be dispersed from the parent plant. [1]

_____

_____

(c) Based on the diagram above, state the most likely method of seed dispersal for plants Q and R. [1]

(i) Plant Q: _____

(ii) Plant R: _____

The seeds of Plant S are dispersed by wind.

(d) Other than the size and weight of the seed, state one physical characteristic of seeds of plant S and explain how this physical characteristic helps the seeds to be dispersed further from the parent plant. [1]

Physical characteristic of seed: _____

Explanation: _____

_____

- End of Paper -

3

Suggested Answer Key – P5 WA1 2022

Qns No	Answer	Qns No	Answer
1	2	6	void
2	3		
3	3		
4	1		
5	2		

Qns No		Answer
7	(a)	Any increase in temperature is solely due to the differences in material and not due to any other factors
	(b)	Material Y. The temperature of material Y increases the slowest. loses Material Y is the poorest conductor of heat so material Y ~~transfers~~ heat the slowest from the tea to the surrounding.
	(c)	The air spaces (between her hand and the sleeve) is a poor conductor of heat. The air spaces slows down ~~the transfer~~ of heat from the tea to her hand. gain
8	(a)	Birds help to transfer pollen grains from the anther to the stigma of the flowers.
	(b)	It is to reduce competition for space, water, light and mineral salts.
	(c)	Plant Q : animal / wind Plant R: explosive action / splitting
	(d)	Wing-like structure. The wing-like structure allows fruit/seed of plant S to stay longer in the air.