RAFFLES GIRLS' PRIMARY SCHOOL

WEIGHTED ASSESSMENT (2)

Your Score	/ 15
Parent's signature	

Name : _____ **Index No.:** ____ **Class: P5**___ **Date:**_____

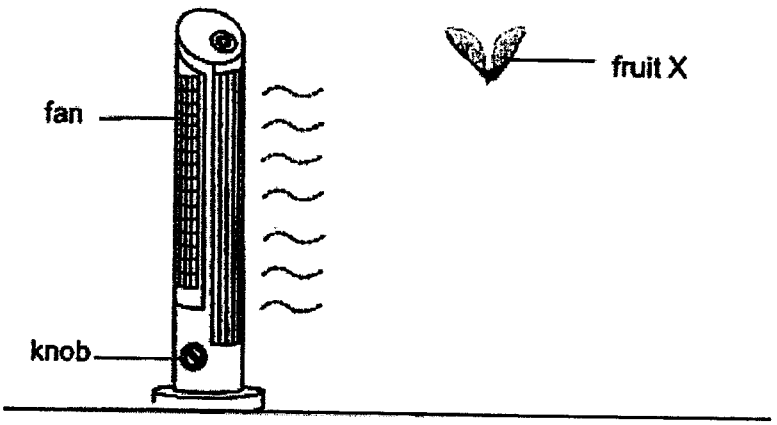
SCIENCE

Duration: 30 min

For questions 1 to 3, write your answers clearly in the spaces provided.

The number of marks is shown in brackets [ ] at the end of each question or part question.

1. Sam set up an experiment to find out if the speed of wind affects the distance moved by fruit X as shown below. The speed of wind of the fan can be adjusted from the slowest to the fastest by turning the knob from 1 to 5.



Sam recorded the results in the table below.

Knob of the fan	Distance moved by fruit X (cm)
1	50
2	103
3	147
4	188
5	210

Continue on next page

Continued from previous page

(a) The following are the variables listed by Sam.
Identify the correct independent variable, dependent variable and constant variables in Sam's experiment by putting a tick (✓) in the correct boxes in the table below. [2]

Variables	Independent Variable	Dependent Variable	Constant Variables
Speed of wind			
Distance moved by fruit X			
Location of experiment			
Time taken for fruit X to reach the ground			
Height at which the fruit X was released			

(b) Based on his results above, state how the wind speed affected the distance moved by fruit X. [1]

(c) Explain why fruit X needs to be dispersed far away from the parent plant. [1]

(d) Name the physical characteristic of fruit X which helps in its dispersal. [1]

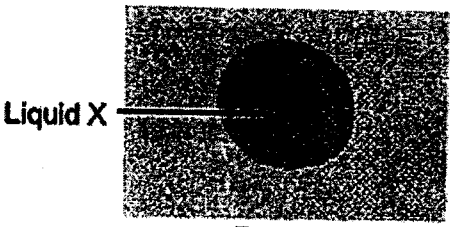
Score	/5

2. David has two identical pieces of paper, A and B, as shown below.

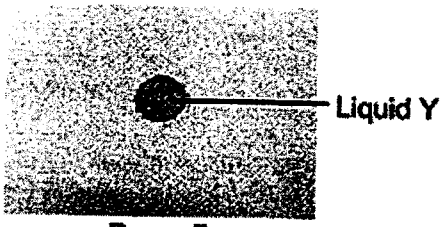
Paper A

Paper B

He placed one drop of liquid X and Liquid Y on papers A and B respectively as shown in the diagram below. *(refer to powerpoint slide shown on the screen)*

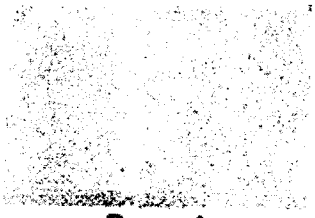


Paper A

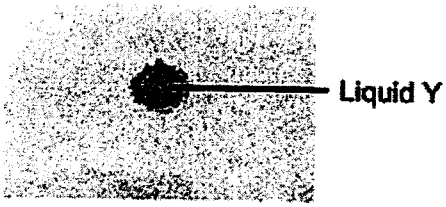


Paper B

After three minutes, he made the following observations as shown below.
(refer to powerpoint slide shown on the screen)



Paper A



Paper B

(a) Based on David's observation above, which liquid, X or Y, disappeared first? [1]

Liquid _____

(b) Explain your answer in (a). [2]

_____

_____

Score	
	3

Continue on next page

Continued from previous page

David carried out another experiment to find out the melting and boiling points of liquids X and Y. He recorded the results in the table below.

Liquids	Melting Point (°C)	Boiling Point (°C)
	- 114	78.5
	- 95	102

(c) Based on David's observation of liquids X and Y, complete the result table above by writing X and Y in the correct box. **[1]**

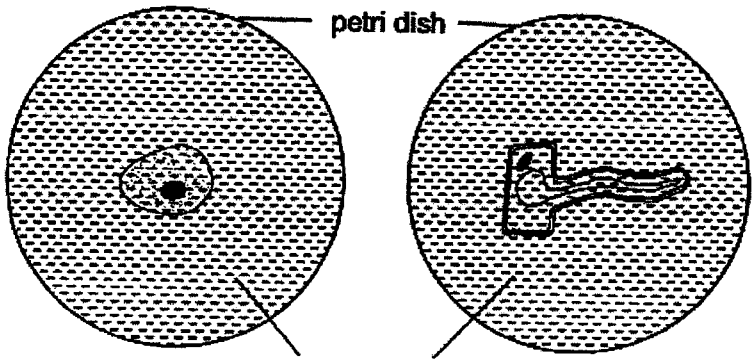
(d) Give a reason for your answer in (c). **[1]**

Score	/2

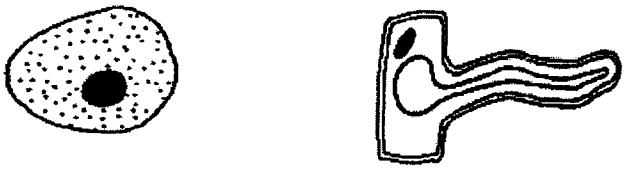
3. The diagram below shows two cells, A and B, observed under a microscope.

cell A cell B

Next, cells A and B were placed on two identical petri dishes filled with the same amount of liquid X.



The diagram below shows the change in cells A and B observed under the microscope half an hour later.



cell A cell B

(a) Based on the diagrams above, what could be observed of cells A and B after half an hour? [1]

Score	/ 1

Continue on next page

Continued from previous page

(b) Cells A and B were left in the same petri dish in liquid X for a few more hours. One of the cells burst. Identify the cell and explain why it burst. [2]

The diagram below shows cells C viewed under a microscope. *(refer to powerpoint slide shown on the screen)*

(c) (i) Name the group of organism that has cell C. [1]

(ii) Which part of the organism identified in (c)(i) can cells C be found? Explain your answer clearly. [1]

END OF PAPER

Score	/4

SCHOOL : RAFFLES GIRLS' PRIMARY SCHOOL
LEVEL : PRIMARY 5
SUBJECT : SCIENCE
TERM : WEIGHTED ASSESSMENT (2)

CONTACT :

Q1)

a)

Variables	Independent Variable	Dependent Variable	Constant Variables
Speed of wind	√		
Distance moved by fruit X		√	
Location of experiment			√
Time taken for fruit X to reach the ground			
Height at which the fruit X was released			√

b) As the wind speed increases, the distance moved by fruit X increases.

c) To prevent overcrowding and competition for water, sunlight, space and nutrients between fruit X and its parent plant.

d) Wing-like structures.

Q2)

a) Liquid X

b) Liquid X gained heat from the surrounding and evaporated faster

c)

Liquids	Melting Point (°C)	Boiling Point (°C)

		X	-114	78.5
		Y	-95	102
	d) Liquid X evaporated faster than liquid Y. Hence liquid X has a lower boiling point than liquid X.			
Q3)	a) They have increased in size b) Cell A burst. It does not have a cell wall. The cell wall protects / supports the cell. c) i) Plant ii) It is most likely taken from a leaf. It has chloroplast which contain chlorophyll for leaves to trap light for photosynthesis.			