Methodist Girls' School (Primary)
Weighted Assessment 1, 2020
Primary 5
Science

40

Name: _____ ( )

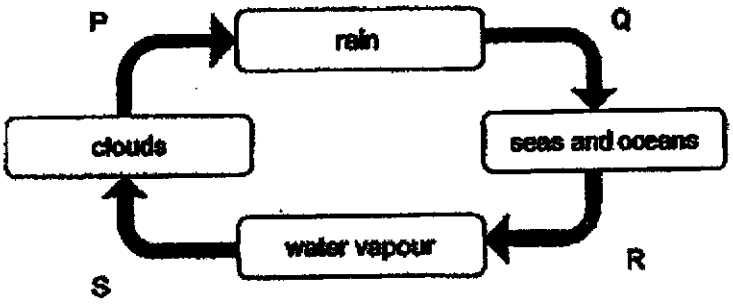
Class: Primary 5. _____

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Section A [24 marks]

For each question from 1 to 12, 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).

1 The diagram below represents the water cycle.



Which of the letters, P, Q, R, S, represent processes that involve a change of state?

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

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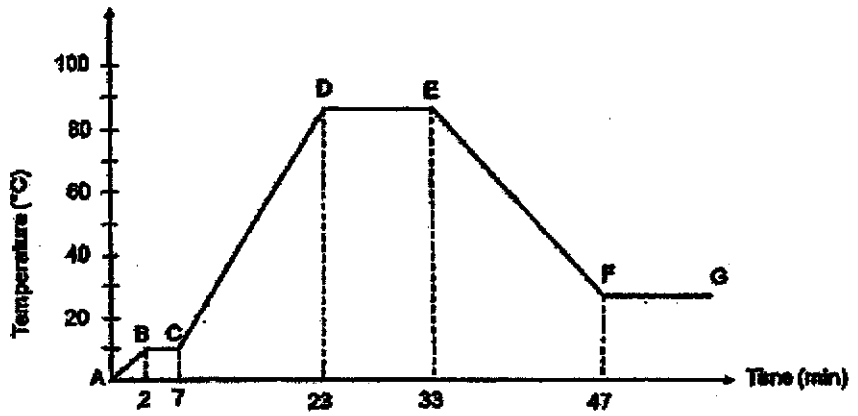
2 The table below shows the melting point and boiling points of substances A, B and C.

Substance	Melting point (°C)	Boiling point (°C)
A	8	125
B	33	65
C	15	100

Which one of the following is true?

(1) Substances A and C are solids at 10°C.
(2) Substances B and C are liquids at 30°C.
(3) Substances B and C are liquids at 50°C.
(4) Substances A and C are gases at 100°C. ( )

3 A beaker containing solid substance Z was heated until its boiling point and it was left to cool. The temperature of substance Z was measured and represented in the graph below.



Which of the following lines represent the melting point and boiling point of substance Z in the graph?

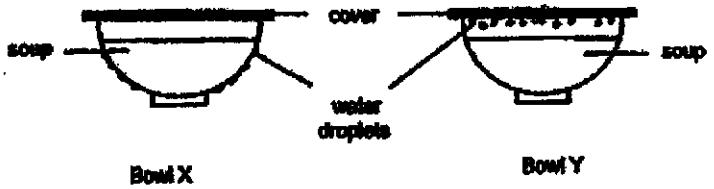
	melting	boiling
(1)	AB	DE
(2)	BC	CD
(3)	BC	DE
(4)	CD	FG

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4 Mrs Poh placed two bowls of soup, bowl X and Y, on the dining table. The surrounding temperature is 25°C. After five minutes, some water droplets were observed as shown below.



What could the temperature of the soup in Bowl X and Y be?

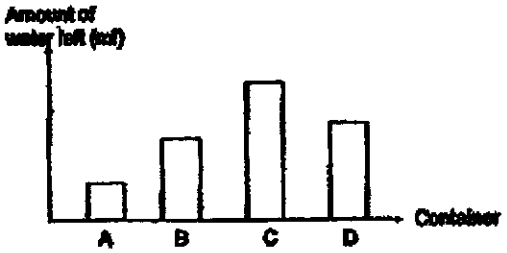
	Bowl X (°C)	Bowl Y (°C)
(1)	0	25
(2)	10	75
(3)	25	0
(4)	75	10

( )

5 An experiment was carried out to investigate the effect of exposed surface area on the rate of evaporation of water. Each container had 200 ml of water at the beginning of the experiment as shown below.



All the containers were left at the same place for 12 hours. The amount of water for each container was measured and represented in the bar chart as shown below.



An error was made when the results were recorded. Which of the results were recorded wrongly?

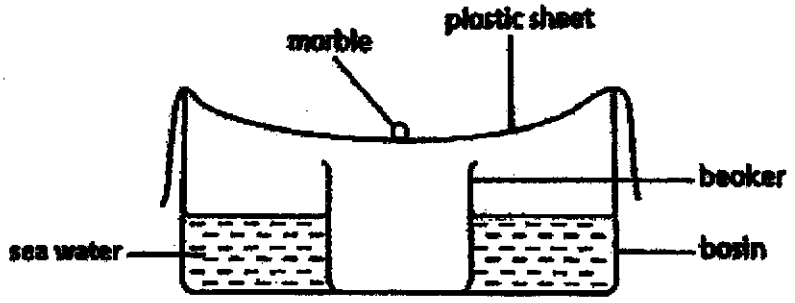
(1) Container A only
(2) Container C only
(3) Containers B and D only
(4) Containers C and D only

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6 Mr Zainal wanted to obtain pure water from sea water. He then prepared a set-up to collect the pure water in the beaker as shown below.



What could Mr Zainal do to collect the pure water at a faster rate?

P Heat up the sea water before pouring into the basin.
Q Cool down the sea water before pouring into the basin.
R Add ice on the plastic sheet.

(1) P only
(2) Q only
(3) P and R only
(4) Q and R only ( )

7 A group of students observed three cells, A, B and C, under the microscope and recorded their observations in the table below. A tick (✓) indicates that the part was observed in the cell.

Parts of the cell	Cell A	Cell B	Cell C
Chloroplasts		✓	
Cell membrane	✓	✓	✓
Cell wall		✓	✓
Cytoplasm	✓	✓	✓
Nucleus	✓	✓	✓

Based on what they had observed, each of them classified the three cells into two groups shown below. Which student has classified the cells correctly?

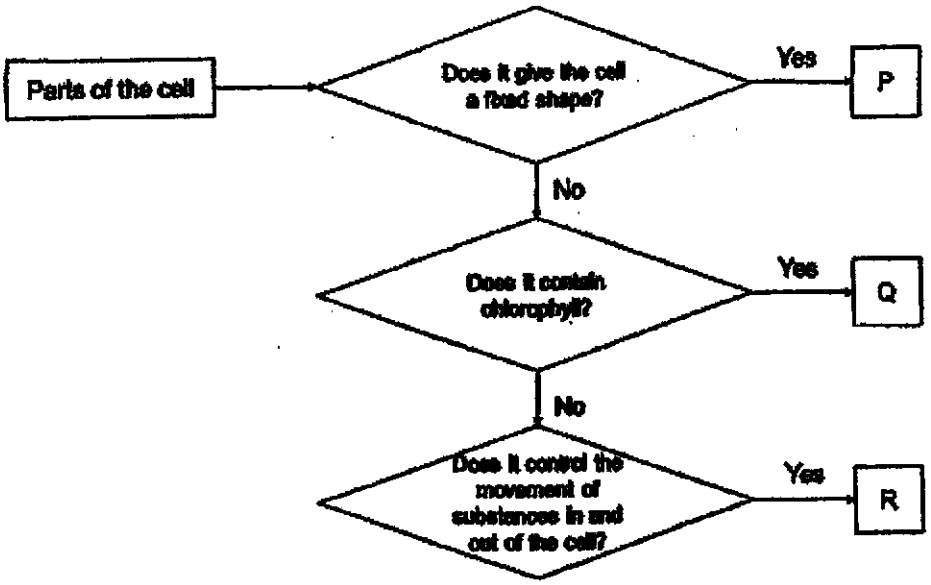
	Student	Plant Cells	Animal Cells
(1)	W	A	B, C
(2)	X	B	A, C
(3)	Y	B, C	A
(4)	Z	A, C	B

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8 Study the flow chart below.



Which parts of the cell could P, Q and R be?

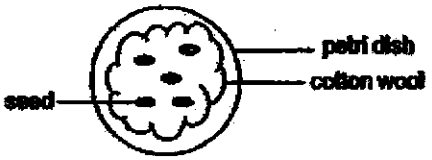
	P	Q	R
(1)	cell membrane	cytoplasm	nucleus
(2)	cell membrane	chloroplast	cell wall
(3)	cell wall	cytoplasm	nucleus
(4)	cell wall	chloroplast	cell membrane

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9 Raju carried out an experiment as shown below to investigate the conditions necessary for seed germination.



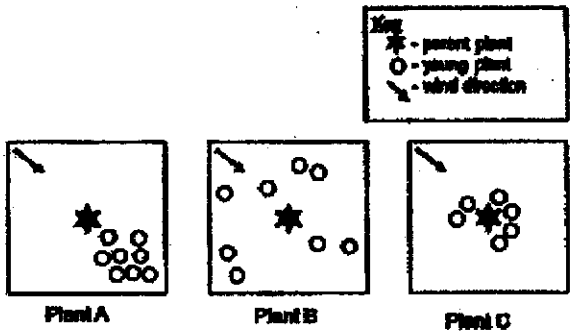
The table below shows the different conditions in which the set-ups were placed.

Conditions	Set-up W	Set-up X	Set-up Y	Set-up Z
Cotton wool	dry	wet	wet	wet
Place	near the window sill	near the window sill	in the refrigerator	in the cupboard

In which of the set-up(s) would Raju observe the seeds germinating after two days?

(1) Set-up X only
(2) Set-ups X and Z only
(3) Set-ups W and Y only
(4) Set-ups W and Z only ( )

10 The diagrams below shows the dispersal pattern of the fruits/seeds of three different types of plants, A, B and C.



Which of the following correctly describe the characteristics of the fruits/seeds of plants A, B and C?

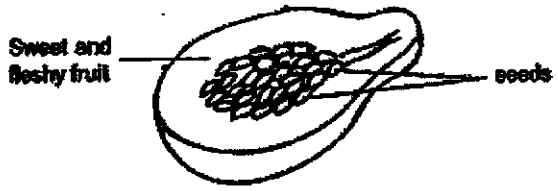
	Plant A	Plant B	Plant C
(1)	small and light	juicy flesh	fibrous husk
(2)	juicy flesh	wing-like structure	pod-like structure
(3)	splits open when ripe	small and light	juicy flesh
(4)	small and light	has hooks	pod-like structure

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11 A fruit was cut open as shown.



Some students made the following statements.

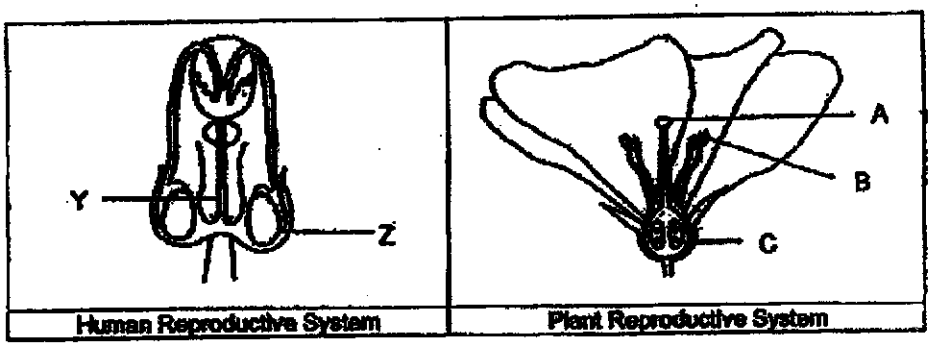
Aminuk: The fruit has many small seeds so it is dispersed by wind.
Bala: The fruit and seeds of this plant are developed from a flower.
Cathy: The fruit has many seeds because the flower contained many ovules.
Dehua: The fruit has many seeds because the flower contained many ovaries.

Which of the students made the correct statements?

(1) Aminul and Cathy only
(2) Aminul and Dehua only
(3) Bala and Cathy only
(4) Bala and Dehua only

( )

12 The diagrams below show the human and plant reproductive systems.



Which of the following parts of the human and plant reproductive systems share similar functions?

(1) Y and A only
(2) Y and B only
(3) Z and B only
(4) Z and C only

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Section B [16 marks]

For questions 13 to 17, write your answers in this booklet. The number of marks available is shown in the brackets [ ] at the end of each question or part question.

13 Ryan noticed substance R appearing in front of his mouth when he spoke during winter as shown below. The temperature of the surrounding air was 3°C.



(a) How was substance R formed? Explain your answer. [2]

(b) Substance R disappeared quickly. Explain why. [1]

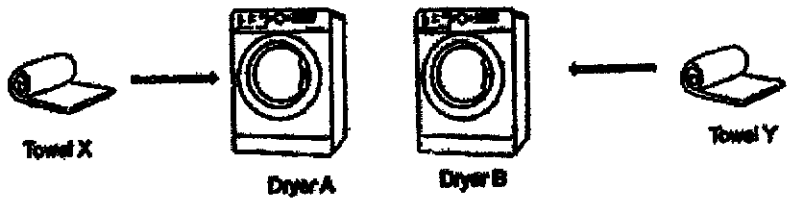
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14 Michelle wanted to find out which clothes dryer could dry her clothes faster. The clothes dryer helps to remove water from the clothes by producing heated air. The same amount of water was poured onto two identical towels and she recorded the mass of the towels as shown below.

Towel	Mass of towel before water was added (g)	Mass of towel after water was added (g)
X	200	300
Y	200	300

She then placed the towels into the respective dryers as shown below.



Michelle measured the mass of the towel over a period of time and the results are shown below.

Time (min)	Mass of Towel X (g)	Mass of Towel Y (g)
0	300	300
10	280	290
20	250	270
30	200	250
40	200	220

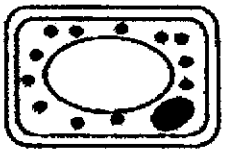
(a) How would the amount of time that the towels spend in the dryer, affect the amount of water left on the towel? [1]

(b) Based on the results, Michelle concluded that the air in Dryer A was "hotter". Explain why. [2]

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15 A typical plant cell is shown below.



(a) Which part of the cell will ensure that the young plant will always develop the same colour of flowers as the parent plant? Explain why. [1]

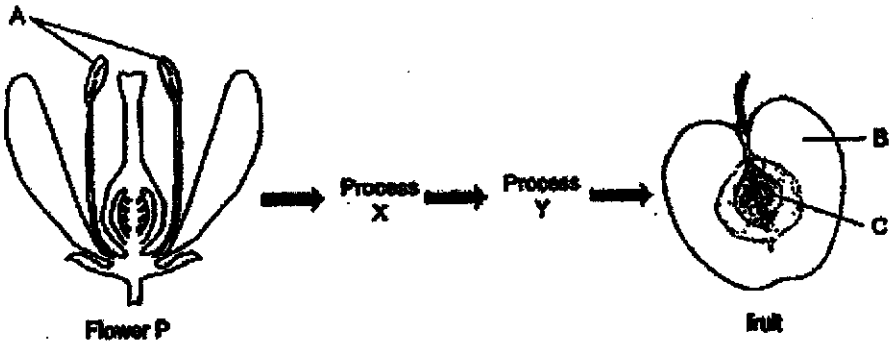
(b) Label and name the part of the cell where all cell activities take place. [1]

(c) Which part(s) of the plant can this cell most likely be found in? Explain your answer. [1]

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16 The diagram below shows how a fruit is formed from Flower P.



(a) Identify and state the function of part A. [1]

(b) Is Flower P able to develop into a fruit if part A is cut off? Explain your answer. [2]

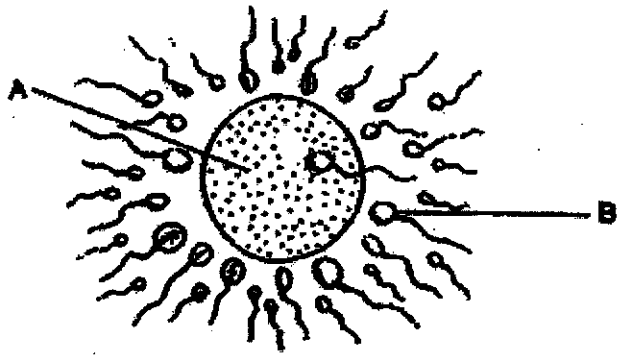
(c) Describe which parts of Flower P form parts B and C after process Y. [1]

(d) In humans, a similar process takes place. Which process X or Y takes place in humans? Describe the process. [1]

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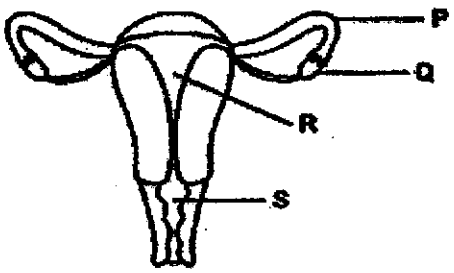
17 The diagram below shows a process that takes place in the reproduction of humans.



(a) Identify the human reproductive organs where cells A and B are produced. [1]

Cell	Organ
A	
B	

The female reproductive system is shown below.



(b) In which part P, Q, R or S, of the female reproductive system, will the baby develop? Name this reproductive part. [1]

_____

End of Paper

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SCHOOL : MGS PRIMARY SCHOOL
LEVEL : PRIMARY 5
SUBJECT : SCIENCE
TERM : 2020 JULY

SECTION A

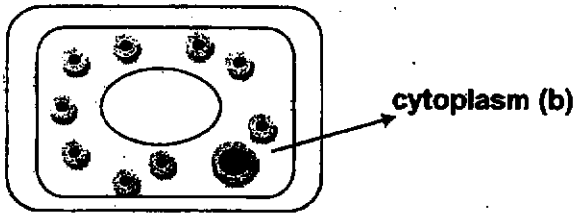
Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
4	3	3	2	3	3	3	4	2	4
Q 11	Q12								
3	3								

SECTION B

Q13)	a)Substance R was formed from tiny water droplet. When Ryan spoke, warmer water vapour from his mouth escaped. The warmer water vapour came into contact with and lose heat to the cooler surrounding air, causing the warmer water vapour to condense into tiny water droplets. Hence, substance R was formed. b)Substance R gained heat from the surrounding air, causing it to evaporate into the surrounding air . Hence, substance R disappeared quickly.
Q14)	a)As the amount of time that the towel spend in the dryer increase, the amount of water left on the towel decreases. b)After 40 minutes, towel X was completely dry and had a lower mass than towel Y. Towel X gained more more heat from Dryer A causing the water in the towel to evaporate at a faster rate than the water in towel Y, indicating that Dryer A was "hotter" than dryer B.

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Q15)	a)Nucleus. The nucleus contains all the genetic information that will be based on from parents to their young, from generation to generations. Hence, the young plants will always develop into the same colour of the flower as the parents plant. b)  c)The leaf. The leaf makes food the plant. This cell has chloroplasts which contains chlorophyll, that traps light to make food for the plant through photosynthesis. Hence, this cell is most likely taken from the leaf, allowing the leaf to make food for the plant through photosynthesis.
Q16)	a)Part A is the anther. The anther contains and releases pollen grains. b)Yes. Flower P has a stigma which would still be able to receive pollen grains from a different flower, but of the same species. The flower would be able to undergo pollination and thus, fertilisation would occur. Hence, fruit P would be able to develop into a fruit. c)The ovary would swell and develop into part B the fruit. The ovules would develop into part C the seeds. d)Process Y. Process Y is fertilisation. The nucleus of the male reproductive cell, fuses with the nucleus of the female reproduction cell.
Q17)	a) A --- ovary B --- testes b)R. The womb

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