Primary 5 Science (Term 2) - Tao Nan	
65 points	
	Score:
e choice answers with a cross or tick:	
t one answer	
t multiple answers	
	Primary 5 Science (Term 2) - Tao Nan 65 points e choice answers with a cross or tick: ct one answer t multiple answers

Question 1 of 65	Primary 5 Science (Term 2)	2 pts
•		

For each question, four options are given. One of them is the correct answer. (28 x 2 marks)

Look at the life cycle of the plant below.



Which of the following has a similar life cycle as shown above?

1

A	Fern	-
В	Moss	
C	Bean plant	
D	Lady's finger plant	1

A) A and B only

.......

- B) C and D only
- C) A, C and D only
- **D)** A, B, C and D

damp cotton

wool

Study the set-ups shown below.



dry cotton wool

Set-up C: Placed near a window

In which set-up(s) would the seeds likely germinate?

- **A**) A only
- **B**) B only
- **C**) A and B only
- **D**) A and C only

The diagram below shows the life cycle of a flowering plant.



What process(es) is/are happening at P?



- **A**) A only
- **B**) B only
- C) A and C only
- OD) B and C only

Three types of plants, A, B and C, were planted on an island near the sea as shown in Diagram A below.



A few years later, young plants of the three types of plants were found growing at different parts of the island as shown in Diagram B. Based on the information given above, how are the fruits or seeds of each type of plant dispersed?

-				_				
(⊂ A)	Plant A		Plant B		Plant C			
	By Splitting Action		Ву	Anima	ls	By Wat	er	
⊖В)	Plant A Plant		В	Plant	С			
	By Animals By Wi		nd	By Sp	littiı	ng Actio	n	
⊖ C)	Plant A	Plant B				Ρ	lant C	
	By Water	By Splitting Act		Action	В	y Anima	als	
O D)	Plant A	Plant B		Pla	ant C			
	By Wind	By Splitting Action		By	v Water			

The diagram below shows four flowers, A, B, C and D, from the same plant. Certain parts of the flowers have been removed.



Which of the flowers are still able to develop into fruits?

- A) A and B only
- **B** B and C only
- C) C and D only
- **D**) A and D only

The diagram below shows the life cycle of an insect.



Which of the following shows the correct stages of its life cycle?



The picture below shows the cross section of fruit X.



Based on the diagram, which of the following statements are definitely true about the flower of this fruit?

A	The flower is dull-coloured.	
в	The flower is pollinated by wind.	
С	Its ovary contains many ovules.	
D	The flower has been pollinated.	

- **A**) A and B only
- **B**) A and D only
- **C**) B and C only
- **D**) C and D only

Question 8 of 65

Primary 5 Science (Term 2) 2 pts

Janet made the following statements about a fern, a mushroom and a moss.

They cannot make their own food.
They reproduce by spores.
They do not bear flowers.
They absorb the food of the tree they grow on.

Which of the above statements are correct?

- **A**) A and B only
- **B**) A and D only
- **C**) B and C only
- OD) C and D only

The graph below shows the amount of undigested food at various stages in our digestive system after a meal.



Which of the stages, A, B, C or D, represents the stage when the undigested food enters the small intestine?



Tubes at X and Y were cut off. Which of the following is the correct explanation why Mr Chan can no longer reproduce?

- **A)** The penis can no longer produce sperm.
- B) The testes can no longer produce sperm.
- **C)** The eggs can no longer be sent to fertilise the sperm.
- **D**) The sperm can no longer be sent to fertilise the eggs.

The diagram below shows an unborn baby.



Which of the following best describes the function of X?

- **A)** X sends nutrients to the mother.
- **B**) X send oxygen to the unborn baby.
- C) X connects the unborn baby to the ovary.
- **D)** X helps to remove carbon dioxide from the mother's blood.

Question 12 of 65

Primary 5 Science (Term 2) 2 pts

Which of the following characteristics is not passed on from parents to their young?

- **A**) Dimples
- **B**) Face Shape
- **C**) Hair Length
- OD) Eye Colour

Study the energy transfer between the Sun and the organisms below.

```
Sun \rightarrow plant \rightarrow grasshopper \rightarrow bird
```

Which of the following is a correct statement of the energy transfer shown above?

○ A) The bird gets its energy from the Sun indirectly.

B) The grasshopper gets its energy from the bird.

C) The bird gets its energy directly from the plant.

D) The plant gets its energy from the grasshopper.

Question 14 of 65

Primary 5 Science (Term 2) 2 pts

The diagram below shows a leaf of a plant under the Sun. The arrows show the movement of substances P and Q in and out of the leaf respectively.



Which of the following substances are represented by P and Q, during photosynthesis?



All used the setup below to find out how the intensity of light could affect the rate of photosynthesis.



Which of the following shows the correct relationship between the amount of gas X collected and distance *d*?

- **A)** As the amount of gas **X** increases, distance *d* decreases.
- **B**) As the amount of gas **X** decreases, distance *d* decreases.
- C) As distance *d* increase, the amount of gas X decreases.
- **D**) As distance *d* decreases, the amount of gas **X** decreases.

Question 16 of 65

Primary 5 Science (Term 2) 2 pts

The container below has a capacity of 200 cm³. It contains 120 cm³ of water. 100 cm³ of air was pumped in before the mouth of the container was sealed.



What is the final volume of air in the container?

- **A)** 80cm³
- B) 100cm³
- C) 200cm³
- **D**) 220cm³

Study the flowchart below.



-. × ... Adilah bought an umbrella to shelter herself from the rain.



Which letter, A, B, C or D, best represents the material most suitable in making part X and part Y of the umbrella as shown in the diagram above?

۰.

(A () Part X Part Y В A OB) Part Y Part X В D () C Part X Part Y С D (D Part X Part Y С D

Cindy is reading from a book as she does her homework. Which of the following diagrams best shows how Cindy is able to see the textbook on the table?





() D)



Melissa shone a torch on some objects as shown below. The objects were placed in a straight line



Which of the following images will be cast on the screen?

O A)



ОВ)



() C

IN A DISTRIBUTION	61
	B

() D)



Three bar magnets can be arranged as shown below. Their poles are T.U.W.X.Y and Z.



Which of the following is another possible arrangement for the magnets?





Question 21 of 65

Primary 5 Science (Term 2) 2 pts

The diagram below represents the changes of state of water and the processes, A and B.



Which of the following correctly identifies the processes A and B?



An ice ball and some water in a glass was left in a kitchen at a room temperature of 28°C as shown in the diagram below.



The following describes events in the water cycle.

A. Droplets of water form clouds

- B. Earth's surface is warmed up by the heat from the Sun
- C. Water droplets fall as rain when they get bigger and heavier
- D. Water evaporates
- E. Water vapour condenses

Which of the following describes events in the formation of rain in correct order?

○ A) C --> B --> D --> A --> E

- B) B --> C --> D --> E --> A
- C) B --> D --> E --> A --> C
- D) D --> E --> A --> B --> C

Question 24 of 65

Kumar placed some ice cubes into four similar beakers of 300 ml of water of different temperature. The total mass of ice cube(s) in each beaker is the same. Which of the following set-ups will the ice cube(s) be completely melted first?



Amy set up an experiment as shown below.



She placed the set-up in a dry place and recorded the temperature of the air inside the small cup over a period of 20 minutes. Her results are shown below.

Time (minute)	Temperature (°C)
0	30
10	28
20	27

What caused the drop in temperature of the air inside the small cup?

- **A)** Water in the sand lost heat and evaporated.
- **B**) Water vapour condensed on the damp cloth.
- **C)** Water in the wet sand gained heat and evaporated.
- **D)** Heat in the cup was conducted to the thermometer.

Study the table below.

	State of su	ibstance at
Substance	50°C	70°C
A	solid	solid
В	solid	liquid

Based on the table, which of the following is definitely true?

- \bigcirc A) The boiling point of substance B is at 70°C.
- \bigcirc B) The freezing point of substance A is lower than 70°C.
- **C**) Substance A has a higher melting point than substance B.
- \bigcirc **D)** The melting point of substance B is between 40°C and 70°C.

Question 27 of 65

Alex filled four cylinders of different sizes, each with 200 ml of water and placed them at his balcony as shown below. Which of the following cylinders of water would evaporate the fastest?



Doris packed a container of warm cooked food for her recess. Before she opened the container, Doris observed water droplets formed under the transparent cover of the enclosed container as shown in the diagram below.



Which of the statement below correctly explains how these condensed water droplets were formed?

- A) The water vapour from the cooked food gained heat from the container.
- **B)** The hot water vapour from the surrounding air lost heat to the container.
- C) The hot water vapour from the cooked food lost heat to the cooler cover.
- **D)** The water vapour from the surrounding air gained heat from the cooler cover.

Peter studied the flowers of plant X and plant Y. Plant X has tiny brightly-coloured flowers. They have sweet nectar at the base of their petals and their pollen grains are sticky and rough.



How does having the nectar at the base of the flower of plant X help in insect pollination? (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

Question 30 of 65

Primary 5 Science (Term 2) 0 pts

Peter studied the flowers of plant X and plant Y. Plant X has tiny brightly-coloured flowers. They have sweet nectar at the base of their petals and their pollen grains are sticky and rough.



Based on the diagram of the flower of plant Y, what characteristics of this flower help it to be wind-pollinated? (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Peter studied the flowers of plant X and plant Y. Plant X has tiny brightly-coloured flowers. They have sweet nectar at the base of their petals and their pollen grains are sticky and rough.



How does the flower of a plant help to ensure continuity of its kind? (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Chris set up different number of seeds of the same type in the 2 identical pots of garden soil as shown below.



He placed both pots in a field and watered them daily with the same amount of water. The average heights of the seedlings in the pots were recorded in the graph shown below.



Fill in the boxes above with "P" and "Q" to indicate which lines represented the seedlings in Pot P and Pot Q respectively. (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Chris set up different number of seeds of the same type in the 2 identical pots of garden soil as shown below.



He placed both pots in a field and watered them daily with the same amount of water. The average heights of the seedlings in the pots were recorded in the graph shown below.



Explain the difference in the average heights of the seedlings in both pots. (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Chris set up different number of seeds of the same type in the 2 identical pots of garden soil as shown below.



He placed both pots in a field and watered them daily with the same amount of water. The average heights of the seedlings in the pots were recorded in the graph shown below.



Based on the results of the experiment, explain why dispersing seeds by animals ensures that the seedlings have a higher chance of survival than dispersal by splitting. (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

The diagram below shows two similar fruits, S and T. Some parts of fruit T have been cut off.



The two fruits were dropped from the same height and the time they took to land on the ground was recorded. The table below shows three sets of readings from the experiment.

	Time taken for the	fruit to land on the	around (seconde
	1 st Reading	2 nd Reading	3 rd Reading
Set A	3.3	3.1	2.2
Set B	6.4	75	3.2
		1.5	7.0

What is the changed variable in this experiment? (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

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The two fruits were dropped from the same height and the time they took to land on the ground was recorded. The table below shows three sets of readings from the experiment.

	Time taken for the	fruit to land on the	around (seconds
	1 st Reading	2 nd Reading	3 rd Reading
Set A	3.3	31	2 a
Set B	6.4	75	3.2
		1.5	7.0

Why must three sets of reading be taken? (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

The diagram below shows two similar fruits, S and T. Some parts of fruit T have been cut off.



The two fruits were dropped from the same height and the time they took to land on the ground was recorded. The table below shows three sets of readings from the experiment.

	Time taken for the	fruit to land on the	ground (seconds
	1 st Reading	2 nd Reading	3 rd Reading
Set A	3.3	31	2.2
Set B	6.4	7.5	0.2
		<i>C.1</i>	7.0

Based on the information given in the table above, which set of readings, A or B, represents the readings for fruit S? Explain why. (2 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

The diagrams below shows the life cycles of a frog and a grasshopper.



Based on the diagrams above, state one similarity between the stages of the life cycles of a frog and a grasshopper. (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

The diagrams below shows the life cycles of a frog and a grasshopper.



Based on the diagrams above, state one difference between the stages of the life cycle of a frog and a grasshopper. (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

The diagrams below shows the life cycles of a frog and a grasshopper.



The animals in the table below have been grouped according to the number of stages in their life cycles. Complete the headings by filling in "3-staged" and "4-staged" in the blanks provided.

Animals with	life cycle	Animals with	life cycle
Cockroach Chicken		Mosquito Mealworm Beetle	

The diagrams below show the reproductive parts of a flowering plant (Diagram 1) and humans (Diagrams 2 and 3).



Write the <u>letter</u> representing the reproductive part of the human that has similar function as the plant reproductive part stated in the table below.

Plant Reproductive Part (Diagram 1)	Human Reproductive Part (Diagram 2 or 3)
Anther	

The diagrams below show the reproductive parts of a flowering plant (Diagram 1) and humans (Diagrams 2 and 3).



Write the letter representing the reproductive part of the human that has similar function as the plant reproductive part stated in the table below.

Plant Reproductive Part (Diagram 1)	Human Reproductive Part (Diagram 2 or 3)
Ovary	

The diagram below shows a process in sexual human reproduction.



Name the process.

Question 44 of 65	Primary 5 Science (Term 2)	1 pt	
After the process mentioned in (b), an unborn baby w reproductive organs as shown below.	ill develop inside one of the		



Bala placed a pot of plant by a window and measured the changes in the size of the liny openings of its leaves at different times of the day. The results were shown below.



Based on his results, what effect does the intensity of light have on the size of the tiny openings? (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Bala placed a pot of plant by a window and measured the changes in the size of the liny openings of its leaves at different times of the day. The results were shown below.



How does the change in the size of the tiny opening in the previous question help in photosynthesis? (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Bala placed a pot of plant by a window and measured the changes in the size of the liny openings of its leaves at different times of the day. The results were shown below.



Besides gaseous exchange, water also evaporates from the tiny openings of the leaves. The change in size of the tiny openings in the presence of light can also be a disadvantage to a plant. What is the disadvantage? (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.



The diagrams below show plant A, plant B in a forest and their leaves.

Give a reason why plant B which grows below plant A has bigger leaves. (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Plant Q stores food in X as shown below.



Explain in detail how plant Q made its food and stored the excess in X. (2 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Plant Q stores food in X as shown below.



At a farm, the farmers grow the plants in an area with a higher level of carbon dioxide in the air. Will the amount of food obtained from the plants be more, less, or the same as before? Explain your answer. (2 marks)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

The map below shows a river that had been polluted. Water was collected and tested for pollutants at parts of the river A, B, C, D, E, F and G.



Water samples tested from three test sites led to the conclusion that farm X was the only source of the pollution.

Based on the diagram, which three test sites had the water samples been taken from to make this conclusion?

The map below shows a river that had been polluted. Water was collected and tested for pollutants at parts of the river A, B, C, D, E, F and G.



Water samples tested from three test sites led to the conclusion that farm X was the only source of the pollution.

Will the farmers at farm Y be able to use the water at test site C for watering its crops? Explain why. (2 marks)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Mr Lee poured 250 ml of water of different temperature into two glasses and placed them on a kitchen top. Water droplets were soon observed forming on the two glasses in the diagram below.



Based on the diagram above, indicate whether the temperature of the water in the glass is **'higher'** than, **'lower'** than or **'same as'** the room temperature by choosing the correct answer.

Glass	Higher	Same as	Lower
А			

- **A**) Higher
- **B**) Same as
- **C**) Lower

Mr Lee poured 250 ml of water of different temperature into two glasses and placed them on a kitchen top. Water droplets were soon observed forming on the two glasses in the diagram below.



Based on the diagram above, indicate whether the temperature of the water in the glass is **'higher'** than, **'lower'** than or **'same as'** the room temperature by choosing the correct answer.

Glass	Higher	Same as	Lower
В			

- **A**) Higher
- **B**) Same as
- **C)** Lower

Mr Lee poured some cold water into glass C. He placed glass C on a weighing scale as shown below.



He recorded the mass of glass C on the weighing scale at one-minute interval and plotted the results in the graph below.



Explain why the total mass of glass C increased during the first 10 minutes. (2 marks)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Mr Lee poured some cold water into glass C. He placed glass C on a weighing scale as shown below.



He recorded the mass of glass C on the weighing scale at one-minute interval and plotted the results in the graph below.



Explain why the total mass of glass C decreased after 10 minutes. (2 marks)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

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 Sam conducted an experiment to compare the rate of evaporation of different types of liquid P, Q and R. He poured the same amount of each liquid into three beakers of different sizes.



He placed the three beakers in the school field and measured the time taken for each liquid to evaporate completely. His results are shown below.

Liquid	Р	Q	R
Time (h)	2	2	2

Sam realised that his experiment were conducted unfairly after looking at his results. Explain why. (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

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Primary 5 Science (Term 2) 1 pt

After correcting his set-ups, Sam repeated his experiment and his results are shown below.

	Liquid	P	Q	R	
	Time (h)	3	5	2	
	Landrense starters and starters		;;		ar pr
Com	plete the table	below with P, Q a	nd R.	5	[1]
	Service of reasons of weather reasons the construction of				
		• • •	•	×	21 - 15
		fastest	 rate of evapora 	tion	► slowest

Question 59 of 65

Same wanted to use one of the liquids to make perfume. Based on his new results, which liquid would he use so that he would be able to smell his perfume more quickly when applied on his skin? Explain your answer. (1 mark)



Sarah dropped an iron ring into a plastic tank filled with water as shown in the diagram below.



She wanted to remove the iron ring from the plastic tank using a magnet. Describe how she can do so without getting the magnet wet or changing the set-up. (2 marks)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Sarah dropped an iron ring into a plastic tank filled with water as shown in the diagram below.



Joshua wanted to attract some copper coins placed in the same plastic tank using a strong magnet but was unable to do so. Give a reason for his observation.

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Kumar carries out an investigation, on how the number of holes at the base of each cup affects the number of cups stacked within a minute.

toy stacking cups base of cup with one hole base of cup with two holes base of cup with three holes

His results are shown below.

Number of holes at the base	Number of cups stacked in a vertical
 of each cup	pile in one minute
1	10
2	12
3	15

Assuming Kumar is able to stack the identical cups consistently in the same manner, using the same amount of force, state one variable that he must keep constant to ensure a fair test. (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Kumar carries out an investigation, on how the number of holes at the base of each cup affects the number of cups stacked within a minute.

toy stacking cups base of cup with one hole base of cup with two holes base of cup with three holes

His results are shown below.

	Number of holes at the base	Number of cups stacked in a vertical
	of each cup	pile in one minute
	1	- 10
-	2	12
1	3	15

What is the relationship between the number of holes and the speed at which the cups can be stacked? (1 mark)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Two rods of the same size and thickness but made from different materials, A and B, are joined together at part Y. Same amount of wax is placed at one end of each rod. These rods are heated at part Y as shown below.



The wax at the end of material A melted first. Explain why. (2 marks)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

Question 65 of 65

Primary 5 Science (Term 2) 1 pt

