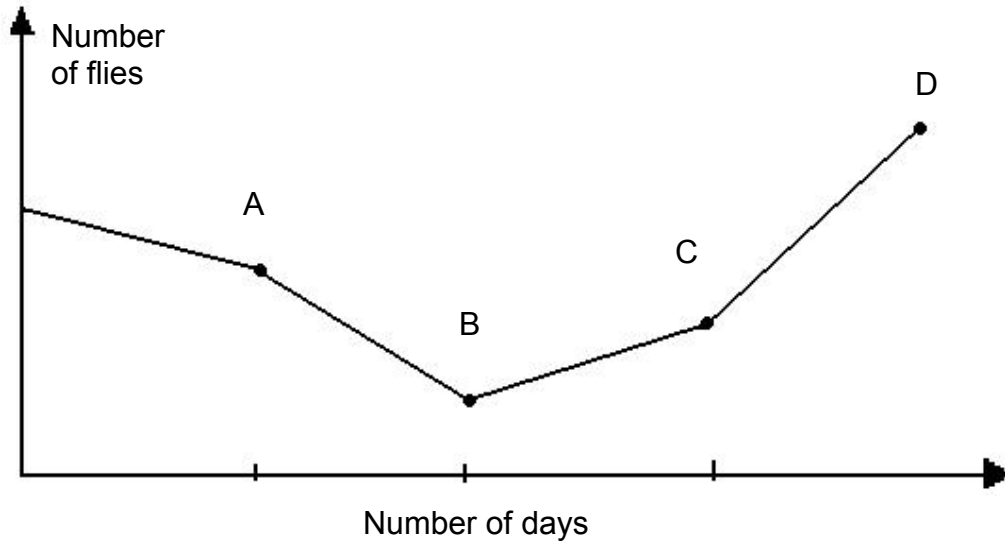


**Primary Six  
Science  
Continual Assessment Two**

**Section A: Each question carries 2 marks and is followed by four possible answers. Mark your choice [1, 2, 3, 4] in the given box.**

1. Ben kept some fruit flies, a few slices of apple and a frog in a jar. The graph below shows the changes in the population of the fruit flies over a the next few days.



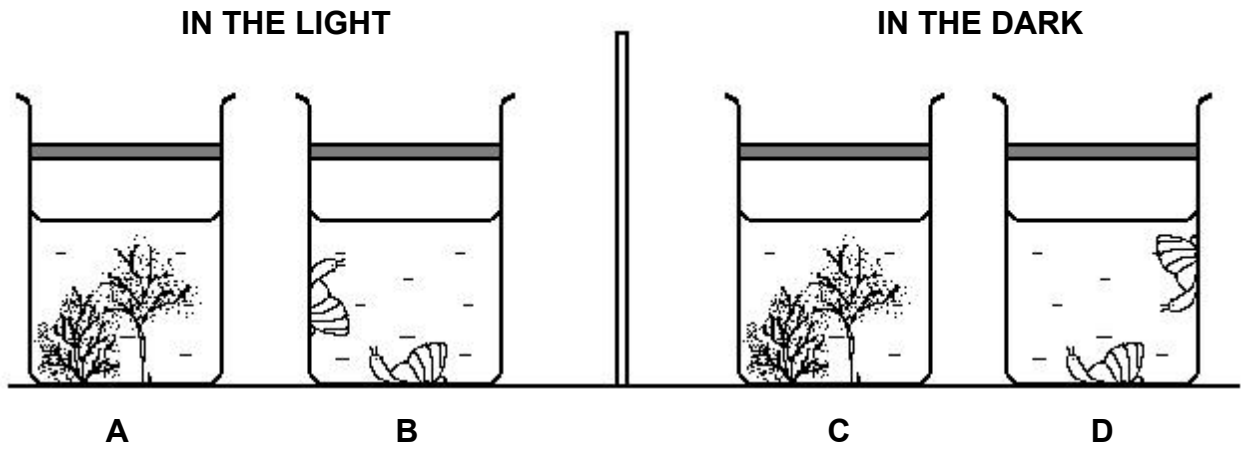
At which point of the graph did Ben take the frog out of the jar?

- (1) A
- (2) B
- (3) C
- (4) D

2. Which of the following is grouped correctly?

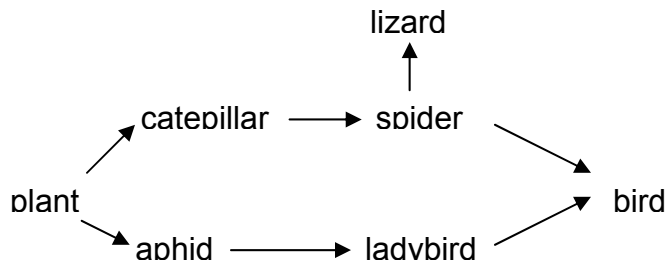
	<b>Root</b>	<b>Underground Stem</b>	<b>Fruit</b>
(1)	Ginger	Water Chestnut	Pumpkin
(2)	Radish	Carrot	Rambutan
(3)	Tapioca	Potato	Chilli
(4)	Turnip	Tapioca	Peanut

3. For an experiment, Jessie put snails or plants into each of the containers and sealed them. Which one of the containers will contain the least amount of carbon dioxide?



- (1) A
- (2) B
- (3) C
- (4) D

4. Study the food web as shown below.



Which populations will increase if there is an increase in the bird population?

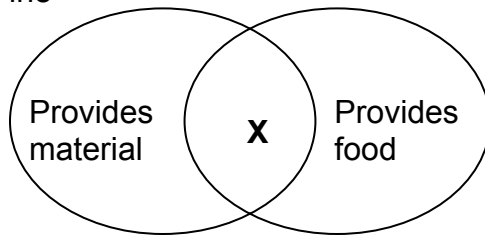
- (1) ladybird and spider
- (2) aphid and lizard
- (3) aphid and caterpillar
- (4) lizard and spider

5. The tiny organisms in the pond cannot be seen with the unaided eye. However, they are very important to the aquatic animals in the pond. Why is this so?

- (1) To protect the aquatic animals
- (2) To maintain the warm temperature of the water
- (3) To control the amount of light entering the water
- (4) To act as food for the other aquatic animals

6. From the Venn diagram below, which of the following plants can **X** be?

- (A) Bamboo
- (B) Coconut
- (C) Croton
- (D) Pine

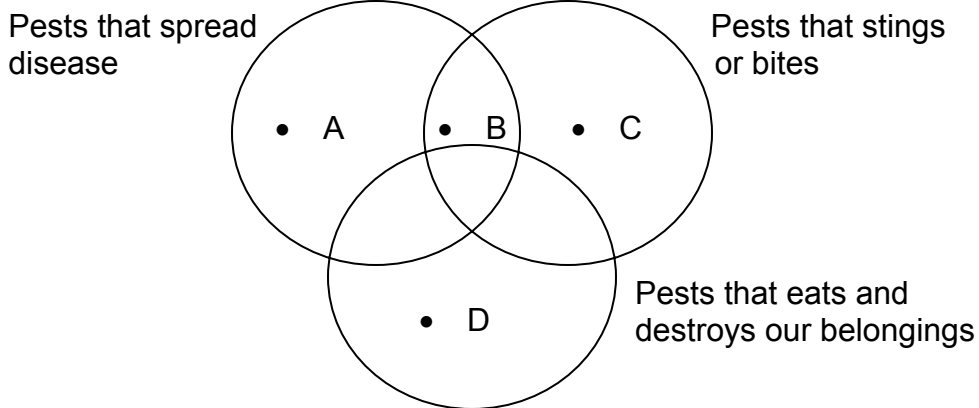


- (1) A and B only
- (2) B and C only
- (3) C and D only
- (4) D and A only

7. The figure below shows 2 containers, A and B. They contain different kinds of food and are kept in the cupboard for one week. The food in container A remains the same while the food in Container B became smelly and mouldy. Which of the following could possibly be the food in the 2 containers?

	Container A	Container B
(1)	Rice grains	Moist bread
(2)	Apple slices	Corn
(3)	Prawns	Potato
(4)	Onion slices	Curry puff

8. Study the Venn diagram below.



	A	B	C	D
(1)	housefly	mosquito	bee	silverfish
(2)	pigeons	rice weevil	bed bug	cockroach
(3)	mosquito	hornet	bee	termite
(4)	housefly	cockroach	termite	lizard

9. Which of the following statements are **true** about decomposers?

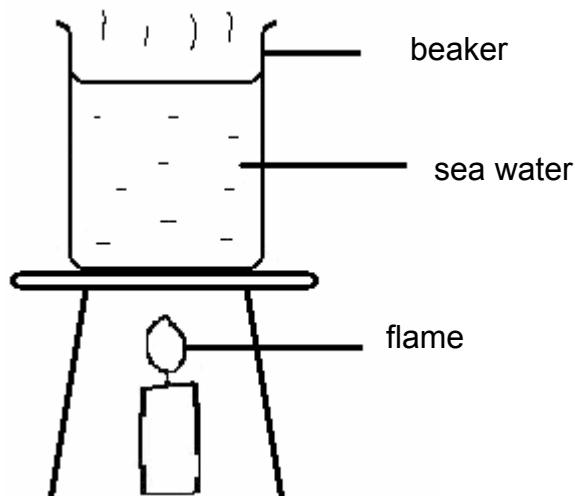
- (A) They cannot make their own food
- (B) They are harmful as well as useful
- (C) They can thrive without moisture
- (D) They are inactive at low temperature

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

10. What is the function of seed leaves?

- (1) They absorb water.
- (2) They take in light for photosynthesis.
- (3) They supply air to the seedling.
- (4) They provide food for the seedling.

11. Study the figure below.



When the beaker of seawater is heated as shown in the figure, some changes will take place. Which of the following statement(s) are **true** about these changes?

- (A) A new substance will be formed.
- (B) There will be a change in state.
- (C) There will be a change in volume.

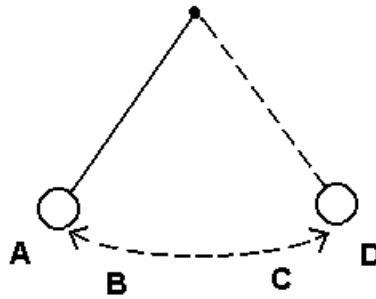
- (1) A only
- (2) A and B only
- (3) B and C only
- (4) A, B and C

12. If the force of gravity **increases**, which of the following is/are more likely to happen?

- (A) Objects will fall more quickly.
- (B) We can jump higher.
- (C) Objects will weigh more.

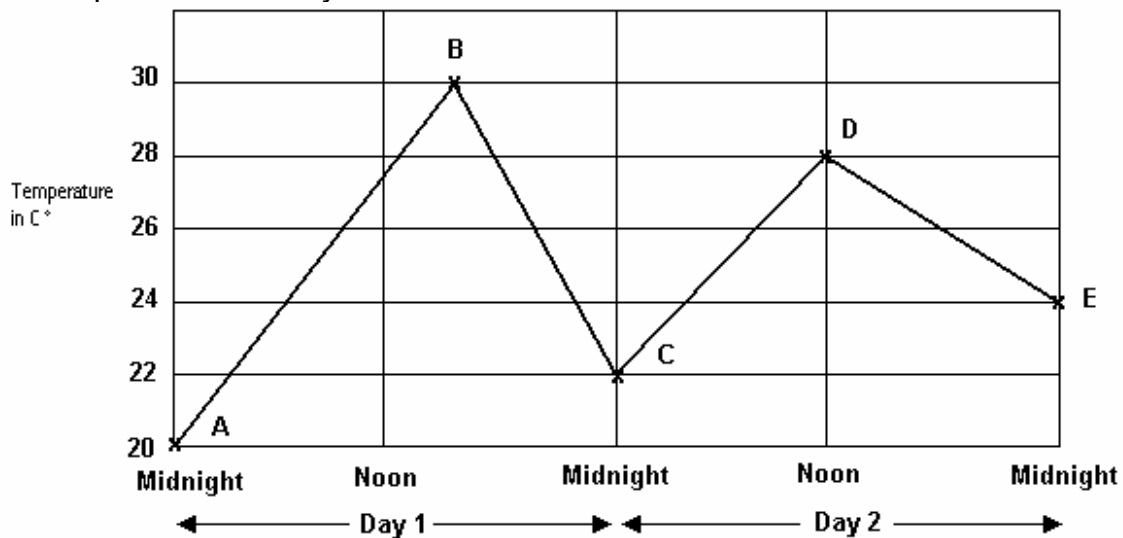
- (1) A only
- (2) A and B only
- (3) A and C only
- (4) B and C only

13. At which point will the kinetic energy of the swinging pendulum be zero?



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

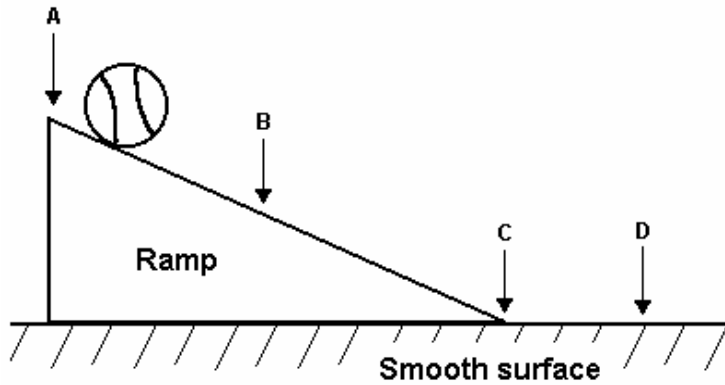
14. The graph below shows the changes in the temperatures of the school field over a period of two days.



Which of the following statements is **true**?

- (1) The highest temperatures on both days are recorded at noon.
- (2) The difference in the highest temperatures recorded on the 2 days is 2°C
- (3) The temperature increases and then decreases on Day 2.
- (4) The lowest temperature of the 2 days was recorded at point C.

15. When the ball is released from the ramp at point A, it rolled down and stopped at point D.

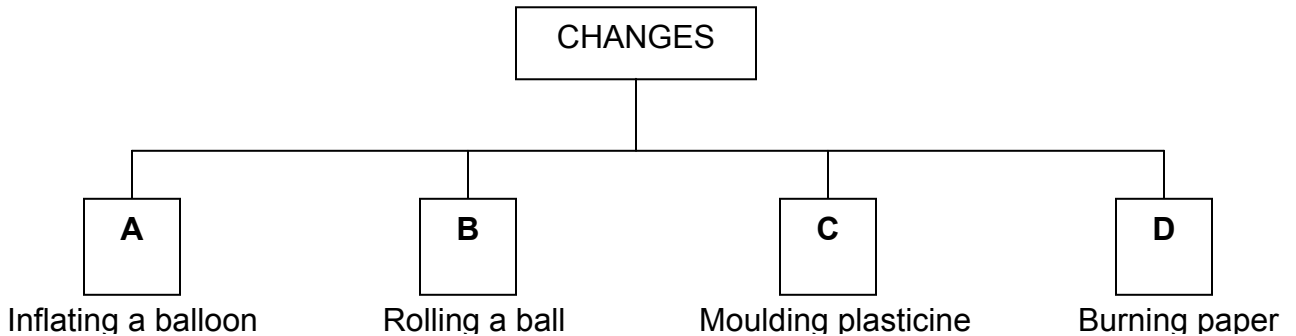


Which of the following statement(s) is **true** about the ball?

- (A) The ball has most kinetic energy at points C and D.
- (B) The ball has the most potential energy at point A.
- (C) The ball would have rolled down at a faster speed if the slope is steeper.

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

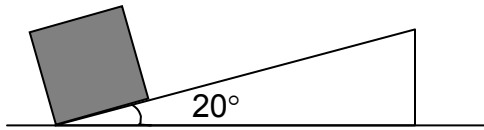
16. Study the following table



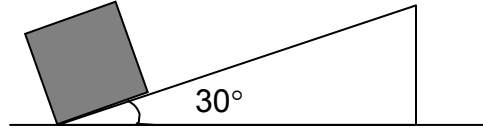
Which of the following group correctly describes the changes in the table above?

	A	B	C	D
(1)	Size	Position	Shape	Substance
(2)	Temperature	Shape	Size	State
(3)	Shape	State	Position	Substance
(4)	State	Shape	Size	Temperature

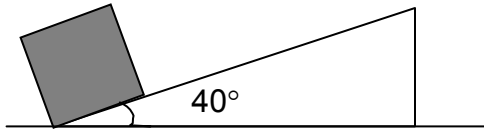
17. Which of the following figures will record the greatest force required to pull the block of wood up the inclined plane?



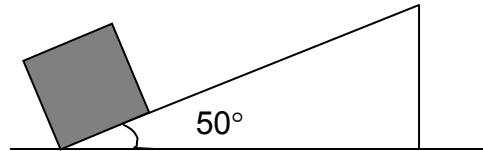
A



B



C



D

- (1) A
- (2) B
- (3) C
- (4) D

18. Stephanie filled each of the following containers with 100ml of water.



A

B

C

D

The table below shows the records of the measurements of the water left in the containers after 2 days.

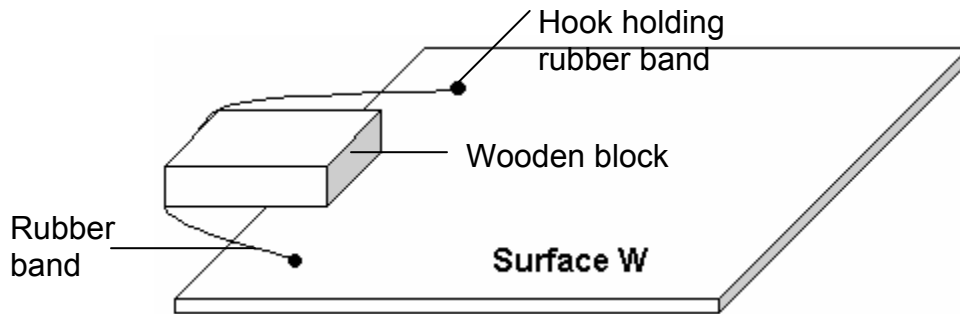
	Container	Volume(ml)
(1)	A	73
(2)	B	88
(3)	C	65
(4)	D	69

Stephanie probably placed container \_\_\_\_\_ in a different place from the others.

- (1) A
- (2) B
- (3) C
- (4) D



19. Isaac did the following experiment to test the friction of 4 different surfaces. Study the figure below.



He recorded the results in the table below.

Distance moved by the wooden block (cm)			
Type of surface	1 <sup>st</sup> try	2 <sup>nd</sup> try	3 <sup>rd</sup> try
Surface W	75	73	68
Surface X	61	65	67
Surface Y	80	75	79
Surface Z	62	60	61

Arrange the 4 surfaces, starting with the one with the **least** friction.

- (1) X, Z, Y, W
- (2) Y, W, X, Z
- (3) Z, Y, W, X
- (4) W, X, Z, Y

20. What happens to ice when it melts?

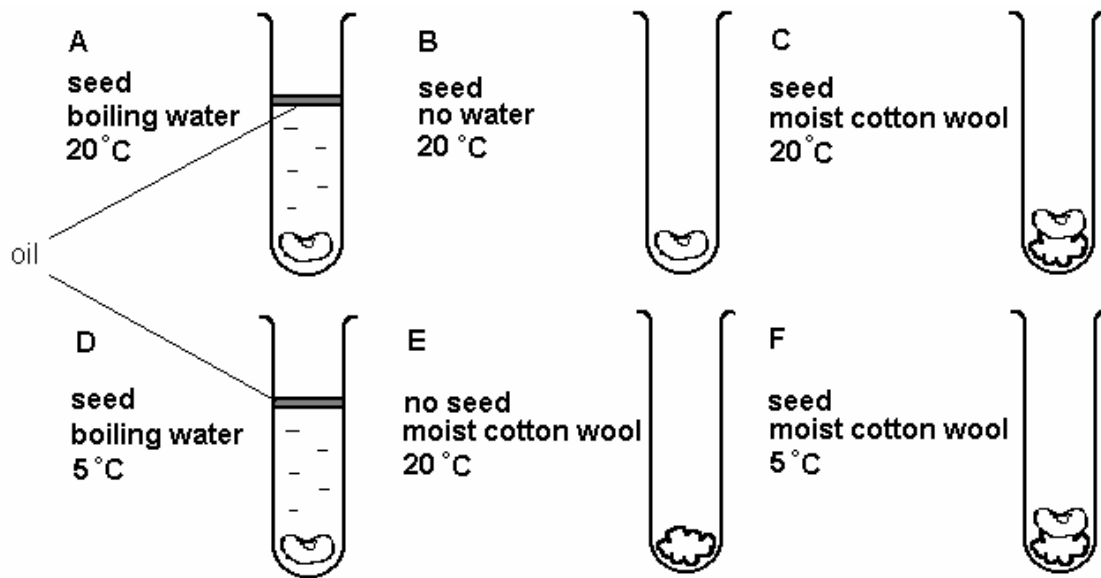
- (1) It absorbs heat.
- (2) It increases its mass.
- (3) Its temperature rises.
- (4) It absorbs water vapour.

21. The stomata of the leaf are found on the lower surface of the leaf. It helps the plant to take in \_\_\_\_\_.

- (A) water
- (B) oxygen
- (C) sunlight
- (D) carbon dioxide

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

22. Kathy did the following experiment to test the conditions required for seeds to germinate.



Which of the following test tubes should she use to make the experiment a fair one?

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

23. Which parts of our body controls all the other parts?

- (1) The heart
- (2) The brain
- (3) The lungs
- (4) The muscles

24. What happens to the blood in our lungs?

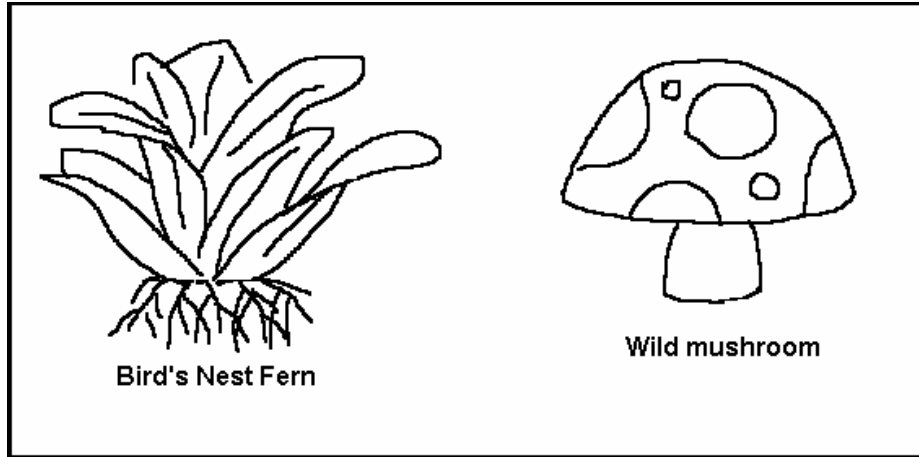
- (A) It absorbs oxygen from our lungs.
  - (B) It releases carbon dioxide to our lungs.
  - (C) It filters germs and bacteria from our lungs.
- 
- (1) A only
  - (2) B only
  - (3) A and B only
  - (4) A, B and C

25. Which of the following are the functions of our circulatory system?

- (A) Carries away unwanted substances
  - (B) Breaks food down into simpler substances
  - (C) Transports digested food and water
  - (D) Transports oxygen and carbon dioxide
- 
- (1) A and B only
  - (2) C and D only
  - (3) A, B and C only
  - (4) A, C and D only

**Section B: (30 marks) Study each question carefully and write its correct answer in the space provided.**

26. How does the two living things below obtain their food? (2 marks)



(a) Bird's Nest Fern

---

(b) Wild mushroom

---

27. Bacteria and fungi cause the decay of dead plants and animals.

(a) What happens when dead organisms decay?

\_\_\_\_\_ (1 mark)

(b) State **one** way in which decomposers like bacteria and fungi are

(i) useful to man:

\_\_\_\_\_ (1 mark)

(ii) harmful to man:

\_\_\_\_\_ (1 mark)

28. Mathew carried out the following experiment to find out the effect of temperature on the decaying process of chicken meat. The results of the experiment are recorded in the table below.

Temperature (°C)	5	10	15	20	25
Time before meat turns bad (hours)	100	70	36	10	5

(a) If Matthew wants to cook the meat 4 days later, what would be the best temperature to keep the meat?

\_\_\_\_\_ (1 mark)

(b) How does this temperature in question(a) help to preserve the meat?

\_\_\_\_\_ (1 mark)

29. The following table shows the food relationship for 5 organisms, A, B, C, D and E.

Organism	The food it eats
A	C
B	A and E
C	-
D	A
E	C and D

(a) Draw a food web to show the food relationships of the 5 organisms. (2 marks)

(b) In the food web you have drawn above, identify one organism that is:

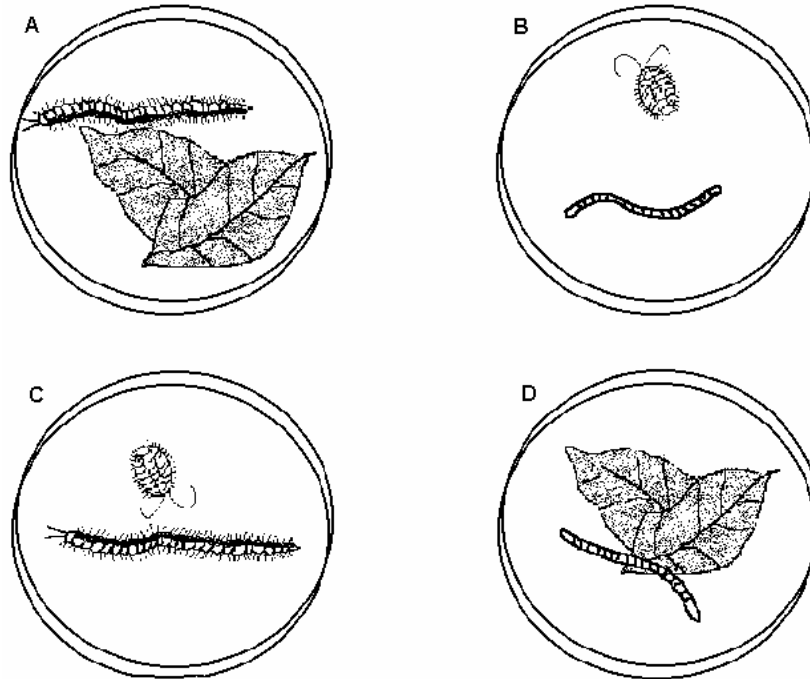
(i) a predator only:

\_\_\_\_\_ (1 mark)

(ii) both a predator and a prey:

\_\_\_\_\_ (1 mark)

30. Joe and his classmates collected some dead leaves, centipedes, millipedes and wood lice to find out how are they connected in a food web. They set up an experiment, as shown below. Each dish was covered with a lid with small holes to let air in, and was left in a cool dark place for a few days.



Study their observations in the table below.

Dish	What they observed and the end of the experiment
A	Dead leaves and a dead centipede
B	A dead wood louse and a dead millipede
C	A partly eaten wood louse and a living centipede
D	Dead leaves and a living millipede

(a) Why did the centipede die in Dish A?

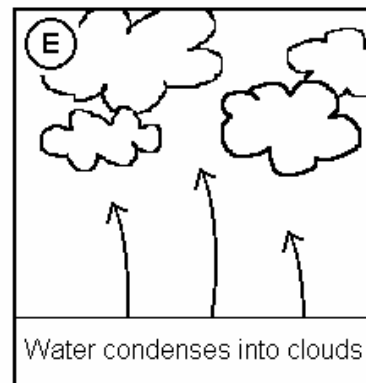
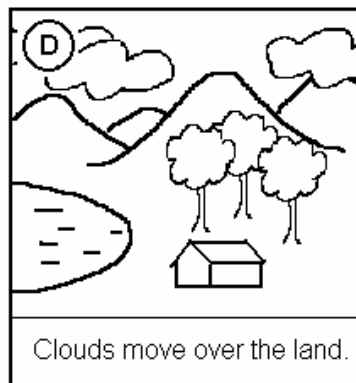
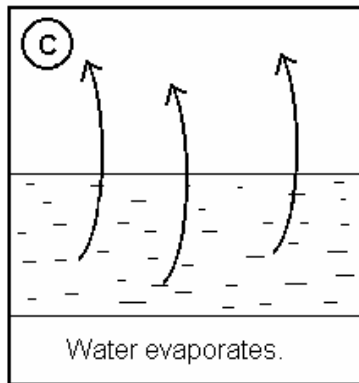
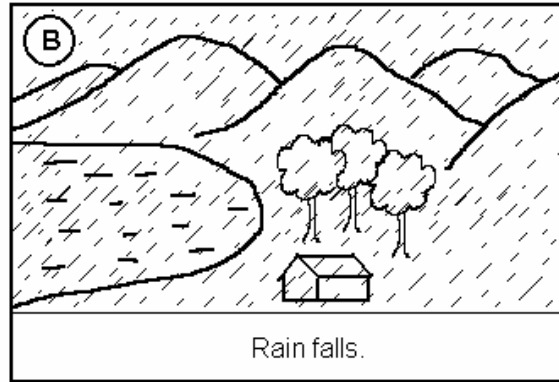
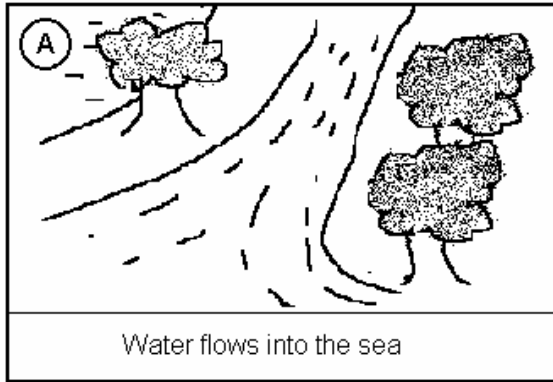
\_\_\_\_\_ (1 mark)

(b) The teacher told them that to find out more about the food relationships of the above 4 items, they need another two dishes. What should these new dishes contain? (Each dish should contain only 2 items)

(i) Dish E: \_\_\_\_\_ (1 mark)

(ii) Dish F: \_\_\_\_\_ (1 mark)

31. Study the figures below. It shows the different stages of the water cycle, however they are not arranged in order.



(a) Arrange the stages of the water cycle in order. The first stage is given as A.

\_\_\_\_\_ (1 mark)

(b) Name the 2 processes that allow the water cycle to take place.

(i) Process 1: \_\_\_\_\_ (1 mark)

(ii) Process 2: \_\_\_\_\_ (1 mark)

32. A group of students set up the following experiment to find out more about the evaporation of water.

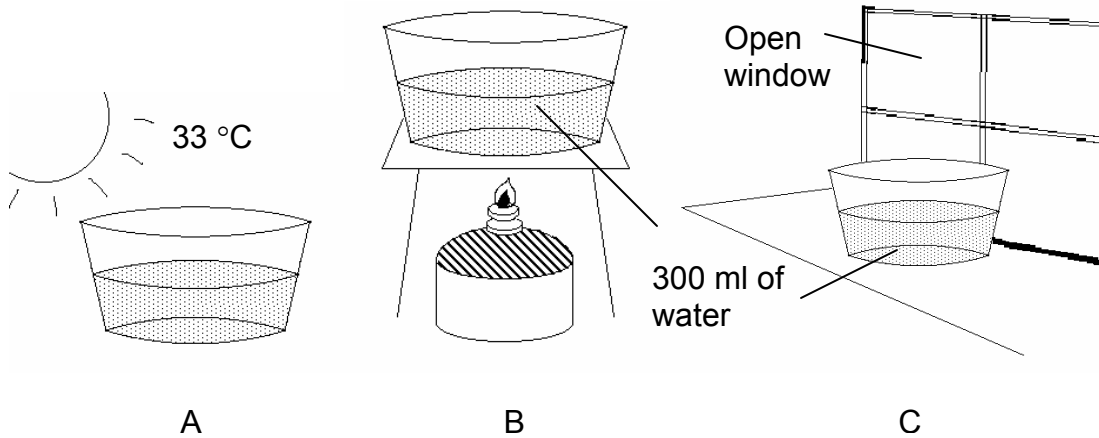


Diagram	Time taken to evaporate completely
A	3 days
B	1 hour
C	5 days

From the table above, what two conclusions can you make on the evaporation of water?

(a) Conclusion 1: \_\_\_\_\_(1 mark)

(b) Conclusion 2: \_\_\_\_\_(1 mark)



33. Mr. Toh discovered his plantation was infested by two kinds of aphids, A and B. He wants to use ladybirds to get rid of the aphids. He decided to set up the following experiment to find out which type ladybirds (X, Y, Z) will be most effective?

The experiment:

He put 100 ladybirds of each type into 3 different cages and put in each cage, he put 200 Aphid A and 200 Aphid B. The table below shows the number of each type of aphids in each cage.

<b>Cage with</b>	<b>Aphid A</b>	<b>Aphid B</b>
Ladybird A	20	160
Ladybird B	50	145
Ladybird C	160	40

Answer the questions on next page using the table above.

(a) Mr. Toh started and ended the experiment at the same time for all three cages. Why was this necessary?

\_\_\_\_\_ (1 mark)

(b) Mr. Toh wants to use just one type of ladybird to get rid of the aphids. Which type should he use if he wants to:

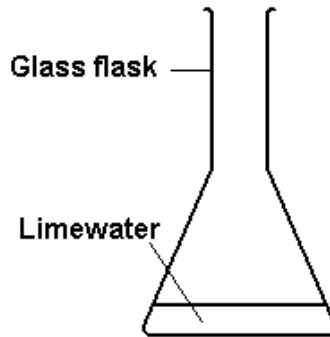
(i) remove as many Aphid B as possible from his plantation?

\_\_\_\_\_ (1/2 mark)

(ii) remove as many as both aphids as possible from his plantation?

\_\_\_\_\_ (1/2 mark)

34. Susan has a drinking straw and a flask containing some limewater.



(a) Using only the given items, suggest how she can make the limewater chalky in less than two minutes?

\_\_\_\_\_ (1 mark)

(b) Limewater is used to test for the presence of \_\_\_\_\_. (1 mark)  
(Hint: it is a gas)

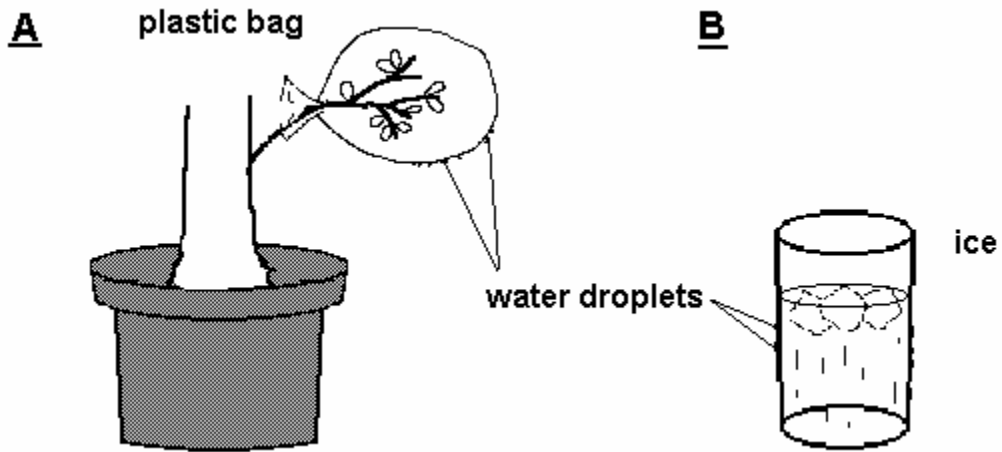
35. Digestion breaks food down into simple substances. Study the table below and complete the table by,

(i) Arranging the sentences in the correct sequence 1 to 4 according to the stages of digestion process. (1 mark)

(ii) Naming the organs where each stage occurs. (2 marks)

		Sequence	Organ where the process occurs
(a)	Water is removed from the undigested food		
(b)	Food is moistened with digestive juice and is partially broken down to simple substances		
(c)	More digestive juices are secreted and the digestion of food is completed here		
(d)	Solid waste is passed out		
(e)	Food is mixed with digestive juice and churned until it becomes almost liquid		

36. Study the diagrams below; water droplets are formed on different surfaces in the two cases.

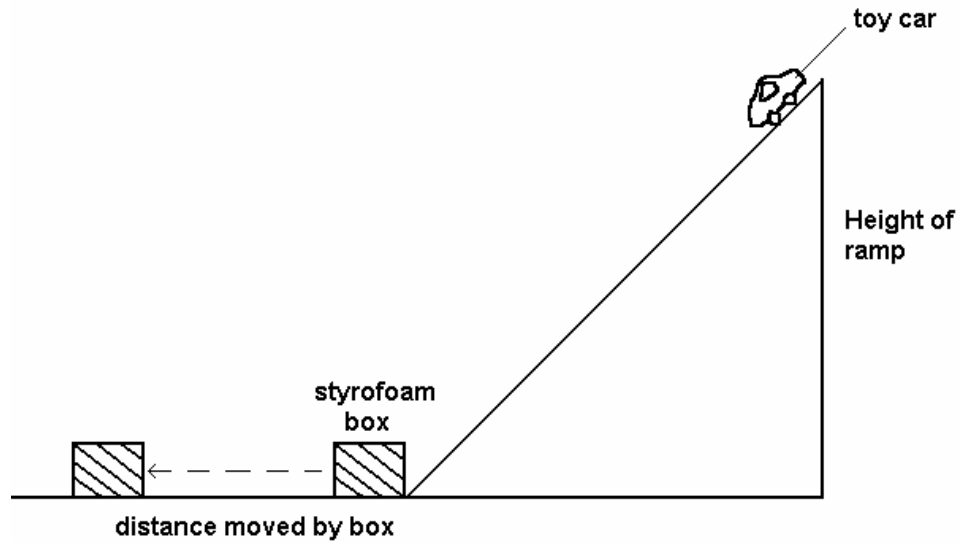


How did the water droplets formed on the surfaces in each case?

(a) Case A: \_\_\_\_\_  
\_\_\_\_\_ (1 mark)

(b) Case B: \_\_\_\_\_  
\_\_\_\_\_ (1 mark)

37. James released his toy car from the top of the ramp as shown in the diagram below. It hits the styrofoam box at the foot of the ramp and both his toy car and the styrofoam box moved in the direction shown.



The toy car was released on the ramp at different heights and the table below shows that the different distance moved by the styrofoam box.

Height of ramp (cm)	20	25	30	35
Distance moved by the styrofoam box (cm)	12	28	42	58

(a) What is the relationship between the height of the ramp and the distance moved by the styrofoam box?

\_\_\_\_\_ (1 mark)

(b) If James uses the same toy car and styrofoam box for the whole experiment, what other two variables must remain the same for the experiment to be a fair one?

(i) Variable 1: \_\_\_\_\_ (1 mark)

(ii) Variable 2: \_\_\_\_\_ (1 mark)