



RED SWASTIKA SCHOOL

SK7

RED SWASTIKA SCHOOL

2004 SEMESTRAL ASSESSMENT 1

SCIENCE

Name : _____ ()

Class : Primary 4/ ____

Date : 13 May 2004

BOOKLET A

30 Questions

60 Marks

Duration of Paper : 1 hour 30 minutes

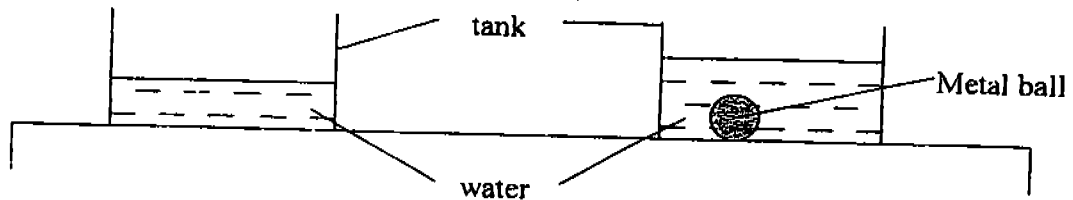
Note:

1. Do not open this Booklet until you are told to do so.
2. Questions 1 - 30 are to be done on the OAS provided.
3. Read carefully the instructions given at the beginning of each part of the Booklet.
4. Do not waste time. If a question is difficult for you, go on to the next one.
5. Check your answers thoroughly and make sure you attempt every question.

Section A : Multiple Choice Questions (MCQ) (2 marks each)

Choose the correct answer and shade the appropriate oval in the OAS provided.

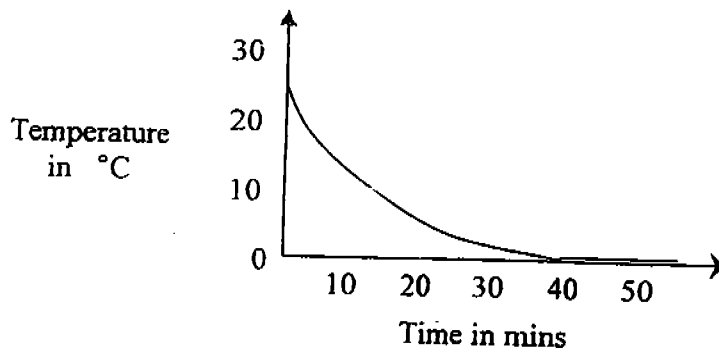
1. Alan filled a tank with water. When he dropped a metal ball into the tank, he observed that the water level rose as shown below.



What is the explanation for the above observation?

- 1) The metal ball does not float on water.
 - 2) The water expanded when the metal ball was placed in the tank.
 - 3) The metal ball took up the space previously occupied by the water.
 - 4) The metal ball is heavier than the water.
2. Which of the following statements about matter are true?
- A. Matter has mass.
 - B. Matter takes the shape of the container it is in.
 - C. Matter takes up space.
 - D. Matter is in all the things around us.
- 1) A, B and C only
 - 2) A, C and D only
 - 3) B, C and D only
 - 4) A, B, C and D

3.



The above graph shows how temperature changes over time. Which of the following event is most likely to be happening?

- 1) Water becoming steam.
- 2) Steam becoming water.
- 3) Water becoming ice.
- 1) Ice becoming water.

4. Which of the following are water in the gaseous form?

- A. Fog
- B. Steam
- C. Morning dew
- D. Water Vapour

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

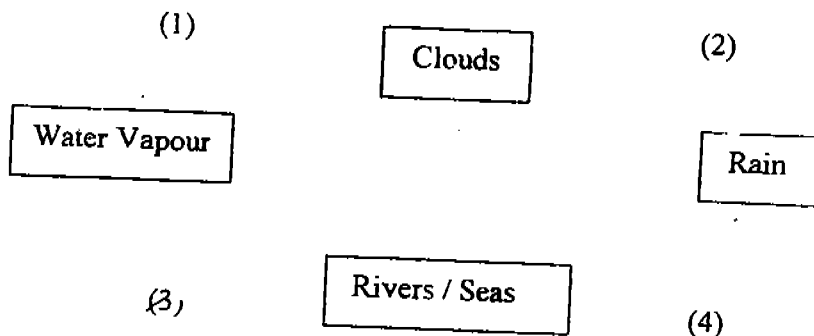
5. The hand dryer in the toilet helps to dry our hands quickly because _____.

- 1) heating increases the rate of evaporation
- 2) the hot air sucks up water from our hands
- 3) heat energy absorbs the moisture from our hands
- 4) water turns into heat energy

6. Rachel is having a high fever. What should her mother do to bring down her fever?

- 1) Cover her with as many blankets as possible so that she can perspire.
- 2) Sponge her with water so that when water evaporates, she will lose heat from the surface of her skin.
- 3) Let her drink as many glasses of ice water as possible to cool her down.
- 4) Make her sit in a tub of warm water and the steam will bring her fever down.

7. Study the water cycle below. The process of evaporation takes place at arrow _____.



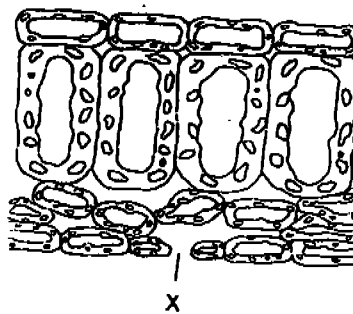
8. Which of the following activities does **not** save water?

- 1) Making sure that the tap is not dripping in the house.
- 2) Washing a car with a pail of water.
- 3) Turning off the shower when shampooing.
- 4) Using a running hose to water the plants.

9. The plants in a cloudy pond will die because they cannot get enough _____.
- 1) nutrients
 - 2) sunlight
 - 3) clean water
 - 4) carbon dioxide
10. Which of the following best explains why there is an urgent need for Singaporeans to conserve water?
- 1) It is difficult to obtain rainwater as it does not rain daily.
 - 2) The industries in Singapore use a lot of water.
 - 3) Singapore does not have natural resources of water.
 - 4) It is expensive to treat water at the waterworks.
11. Which one of the following processes takes place in the lungs?
- 1) An exchange of gases.
 - 2) Food mixes with oxygen to become energy.
 - 3) Messages are sent to the brain.
 - 4) Blood is pumped from there to all parts of the body.
12. Which of the following describes respiration?
- A. Animals take in carbon dioxide and give off oxygen.
 - B. Animals take in oxygen and give off carbon dioxide.
 - C. Plants take in carbon dioxide and give off oxygen.
 - D. Plants take in oxygen and give off carbon dioxide.
- 1) A and C only
 - 2) A and D only
 - 3) B and C only
 - 4) B and D only
13. When we are trapped in the lift, we will not have a good supply of fresh air after some time. Which of the following correctly shows the changes in the amount of oxygen, carbon dioxide and water vapour in the trapped lift after some time?

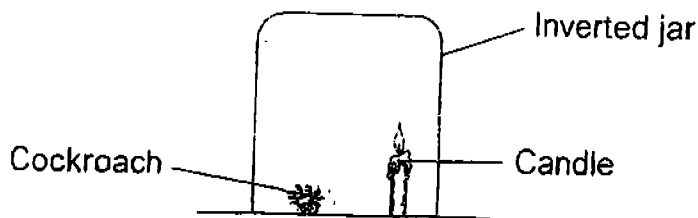
	Oxygen	Carbon Dioxide	Water Vapour
1)	Increase	Decrease	Increase
2)	Decrease	Increase	Increase
3)	Increase	Decrease	Decrease
4)	Decrease	Increase	Decrease

14. The tiny opening ' X ' found in the leaf structure shown in the diagram below has a few functions.



What are these functions?

- A. Allows carbon dioxide to be taken in.
 - B. Allows oxygen to be given out.
 - C. Allows water vapour to escape.
 - D. Helps to trap chlorophyll.
- 1) A and B only
2) B and D only
3) A, B and C only
4) A, B, C and D
15. When Alice put a cockroach and a lighted candle in an inverted jar, she noticed that the flame of the candle went off after a while.



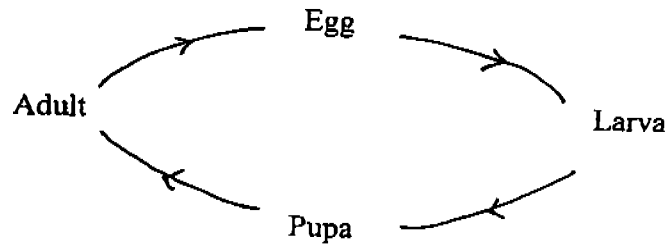
What caused the flame to go off?

- A. The carbon dioxide given out by the cockroach.
 - B. The oxygen in the jar was used up by the cockroach.
 - C. The oxygen in the jar was used up to burn the candle.
 - D. The water vapour given out by the cockroach.
- 1) A and B only
2) B and C only
3) B, C and D only
4) A, C and D only

16. As they waited for their turn during an interview, the applicants walked up and down the freezing corridor, stamping their feet and blowing on their fingers. What is the most likely reason for their blowing on their fingers?

- 1) Their fingers are cold and blowing on them helps to keep the cold air away.
- 2) Exhaled air in an air conditioned room is warmer than inhaled air, hence will help warm the fingers.
- 3) Blowing on the fingers helps prevent the fingers from sticking together.
- 4) The room is very dusty and blowing will help to keep the dirt off their fingers.

17. Look at the diagram of the life cycle below.

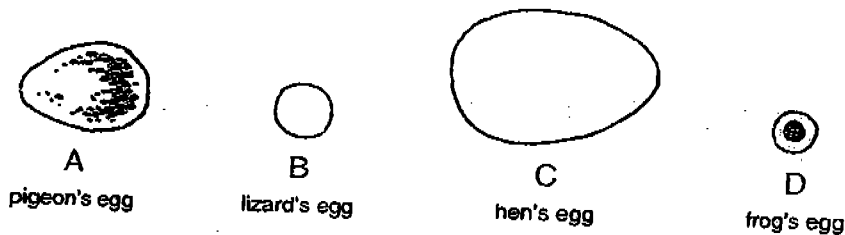


Which of the following animals have the life cycle shown above?

- A. Caterpillar
- B. Mosquito
- C. Cockroach
- D. Dragonfly

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

18. The pictures below show the eggs of 4 different animals.



Which one of the following statements about the eggs is wrong?

- 1) The shapes of the eggs are different.
- 2) All the eggs contain a supply of food for the developing young.
- 3) Some of the eggs have shells while the others do not.
- 4) All the four eggs are fertilised internally.

19 Which of these living things lay eggs to ensure the survival of their species?



Kangaroo A



B Whale



C Crocodile



Eagle D



Woman E

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

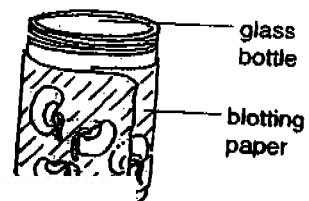
20. Shi Li noticed that although the female goldfish in the school aquarium lays hundreds of eggs at a time, the population of goldfish does not increase very much. What are the likely reasons for this?

- A. Some eggs are fertilised internally.
- B. Some of the fry are eaten by predators.
- C. Some eggs are eaten by the parent fish.
- D. Some eggs do not hatch because they are not fertilised.

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

21. Ahmad soaked some green bean seeds overnight and scattered them randomly in a glass bottle lined with moist blotting paper, (a spongy paper which absorbs moisture), the next day. He noticed that whatever positions the beans were in, all their roots grew downwards. This was because the roots are _____

- 1) trying to grow in search of soil
- 2) trying to grow towards the light
- 3) pulled downwards by the force of gravity
- 4) heavy



22. Which one of the following is the process in which seeds start to grow roots and shoots?
- 1) germination
 - 2) fertilisation
 - 3) pollination
 - 4) metamorphosis
23. Place the following steps of the development of a seed in order.
- A. The seedling gets its food from the seed leaves.
 - B. The shoot grows.
 - C. The root grows.
 - D. Green leaves of the seedling make food in sunlight.
- 1) A, B, C, D
 - 2) B, C, A, D
 - 3) B, C, D, A
 - 4) C, B, A, D
24. Although green plants are different in many ways, they share one similar characteristic. Which one of the following is this special characteristic?
- 1) They bear leaves, flowers and fruits.
 - 2) They have stems to hold them upright.
 - 3) They are able to reproduce from seeds.
 - 4) They photosynthesise in the presence of light.
25. Which of the following will change as we grow from a baby to an adult?
- A. Eye colour
 - B. Fingerprints
 - C. Height
 - D. Weight
- 1) A and B only
 - 2) C and D only
 - 3) A, B and D only
 - 4) B, C and D only

26. Which one of the following helps to identify the owner of the identity card?



- 1) The fingerprint
2) The name of the owner
3) The date of birth
4) The blood type
27. Brandon's father was at a roadside durian stall. He wanted to buy some good durians. Which of the following senses can help him to select the durians?
- A. Smell
B. Sight
C. Taste
D. Touch
- 1) A and B only
2) B and C only
3) A, B and C only
4) A, B, C and D
28. The list below shows different food which are grouped according to their taste.

Group A
Lemon
Lime

Group B
Ice-cream
Lollipop

Which of the following food can be placed in Group A?

- 1) Candy
2) Pepper
3) Vinegar
4) Oyster Sauce

29. Bala took his lunch five hours ago. How did the food travel in his body before it was absorbed?

- A. Small intestine
- B. Gullet
- C. Stomach
- D. Large intestine

- C, B, A and D
- B, C, A and D
- C, B, D and A
- B, C, D and A

30. How does the body absorb food that we eat?

- 1) There are many blood vessels in the small intestine to absorb the food.
- 2) The digestive juices in the stomach turn the food into a porridge-like substance.
- 3) The saliva wets the food so that it can travel along the digestive tract.
- 4) There are hairs in the intestine to trap the food.



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2004 SEMESTRAL EXAMINATION 1

SCIENCE

Name : _____ ()

Class : Primary 4/ ___

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BOOKLET B

16 Questions
40 marks

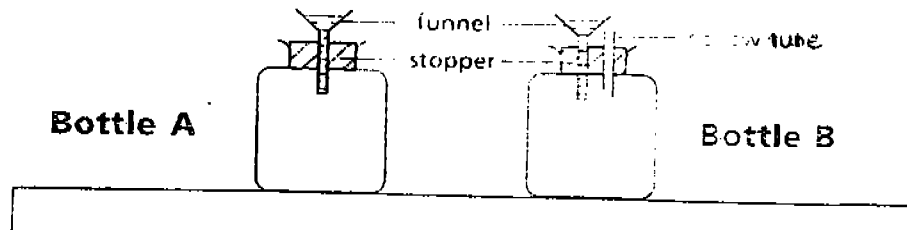
MARKS

	OBTAINED	POSSIBLE
BOOKLET A		60
BOOKLET B		40
TOTAL		100

Parent's Signature : _____

Section B: Open-ended Questions (16 Questions 40 marks)
 Answer the following questions in the space provided.

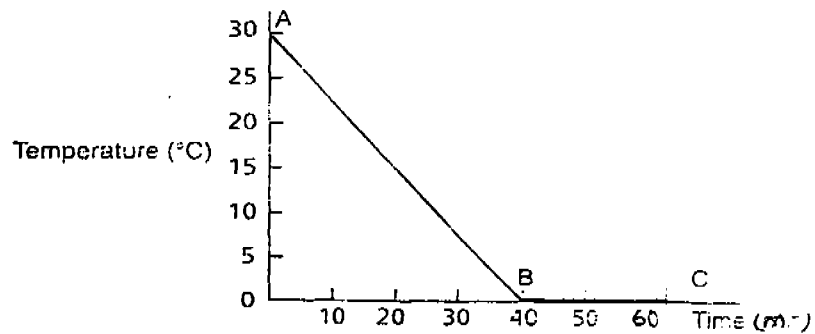
31. Two similar bottles are fitted with funnels.



a) Which bottle will water flow in easily? (1 mark)

b) Give a reason for your answer in (a). (1 mark)

32. A glass of water at room temperature was left in a freezer compartment of a refrigerator. The graph below shows the changes in the temperature of the water

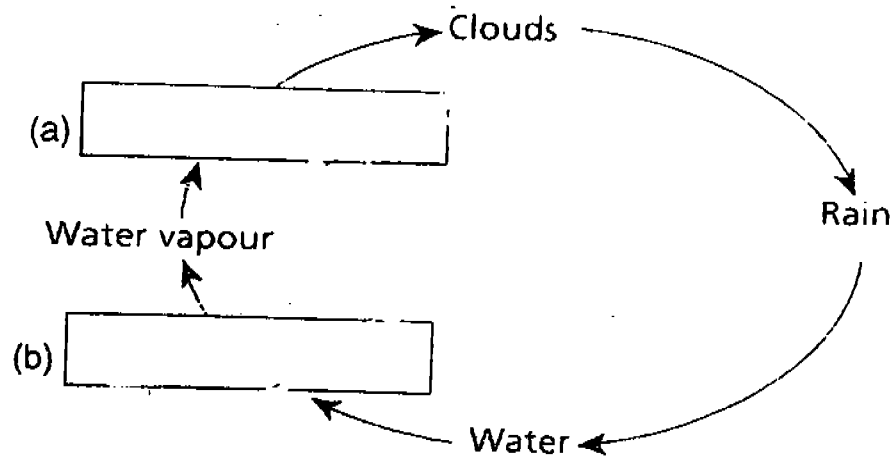


a) In what state was the water at C? (1 mark)

b) Name the process that took place from B to C. (1 mark)

c) How long did the water take to reach 0°C? (1 mark)

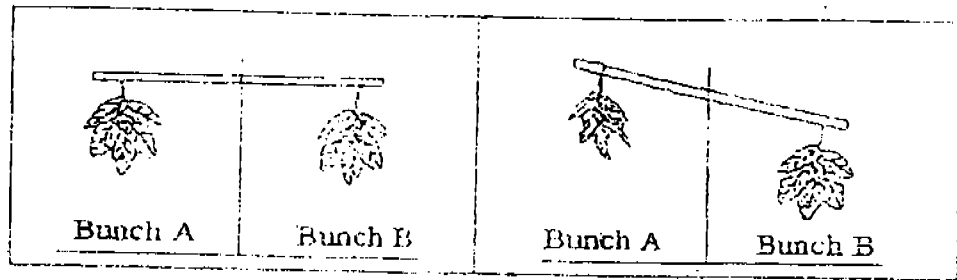
33. Look at the diagram below. Fill in the boxes with the names of the two processes that take place in the water cycle. (2 marks)



34. Arrange the statements below to show the correct order of the water cycle. Write the numbers 1, 2, 3, 4 and 5 in the spaces provided. The first one has been done for you. (2 marks)

- a) _____ Rain water flows into reservoirs, lakes and seas.
- b) _____ Water vapour condenses to become clouds.
- c) _____ Rain falls onto the earth.
- d) _____ Water droplets in the clouds get heavier and heavier.
- e) _____ Water evaporates and water vapour rises high up in the sky.

35. Two bunches of fresh leaves were weighed on an equal arm balance as shown below. One of the bunch of leaves was then placed in the hot sun for several hours. The leaves were then placed back onto the arm balance again. The drawing below shows what happened.



Start of the experiment

End of the experiment

- a) Which bunch of leaves was placed in the sun? (1 mark)

- b) Explain your answer in (a). (2 marks)

36. a) What is the process of the clearing forests, by cutting down trees, known as? (1 mark)

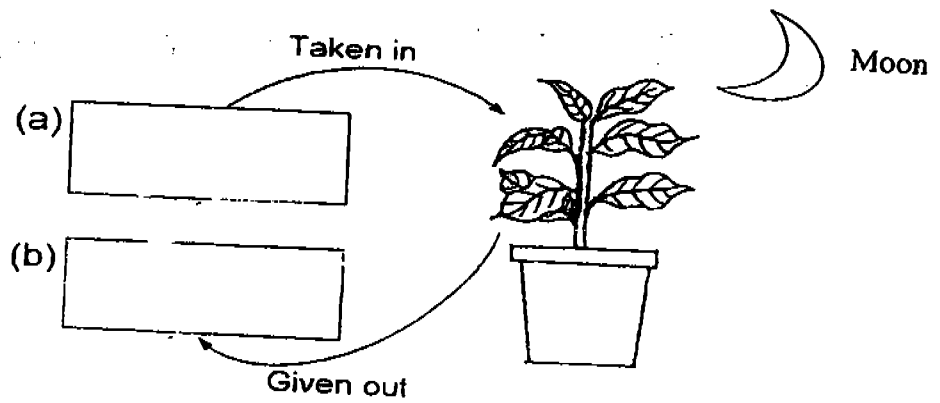
- b) How do trees help to prevent soil erosion? (1 mark)

37. 'Water. It's in your hands. Use it wisely.' List two ways in which you can help save water at home. (2 marks)

a) _____

b) _____

38. Look at the diagram below carefully. Fill in the boxes with the names of the gases. (2 marks)



39. Compare the respiratory systems of man and fish.

a) Name one similarity in the way they breathe. (1 mark)

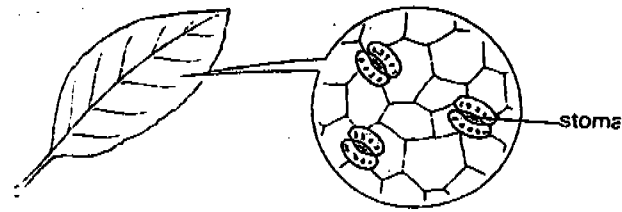
b) Name one difference between them. (1 mark)

40. Shabnam says that having plants in our bedroom **at night** is not advisable.

a) Do you think she is right? (1 mark)

b) Explain your answer in (a) (2 mark)

41. The diagram below shows the cross section of a leaf.

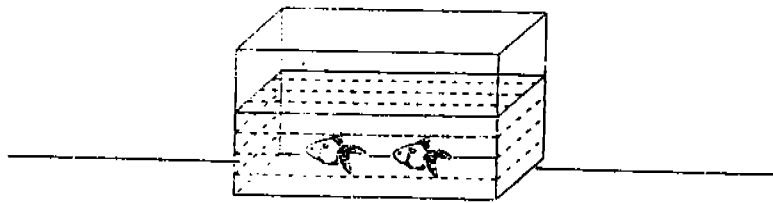


a) What is the function of a stoma? (1 mark)

b) Which part of the leaf are stomata usually found? (1 marks)

c) Explain why they are found at the part of the leaves stated in (b). (1 mark)

42 Two fish were kept in a tank as shown below for 3 days.

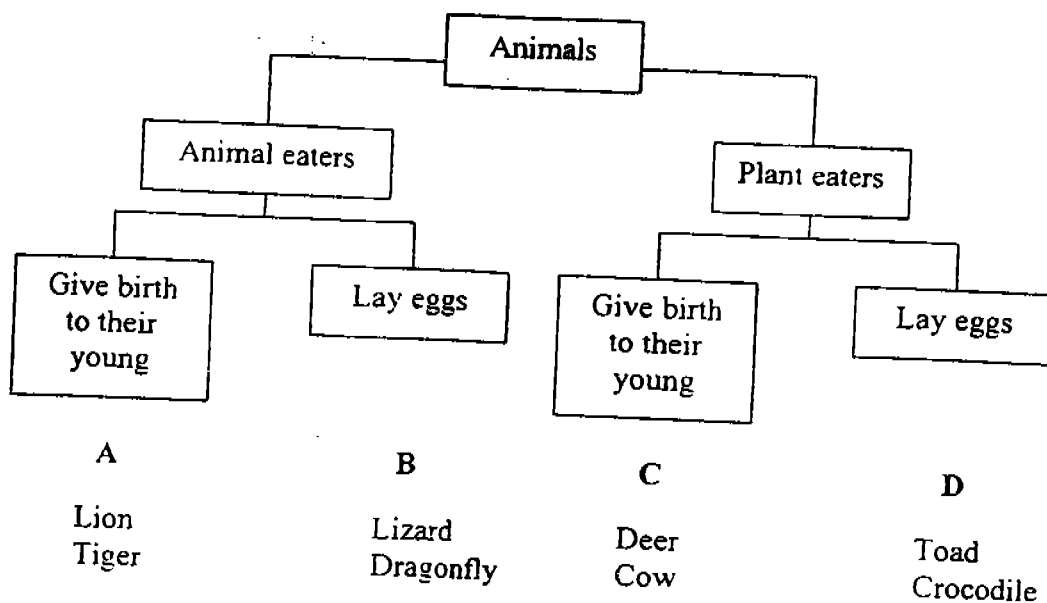


a) Where did the fish get their supply of oxygen from? (1 mark)

b) There are some feather-like structures found under the gill covers of the fish. What are these structures? (1 mark)

c) Suggest two ways in which the amount of oxygen in the tank could be increased. (2 marks)

43. Look at the classification table below.



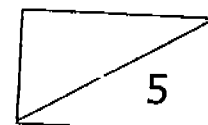
a) Which group of animals, A, B, C or D, is **wrongly** grouped? (1 mark)

b) Give a reason for your answer in (a). (2 marks)

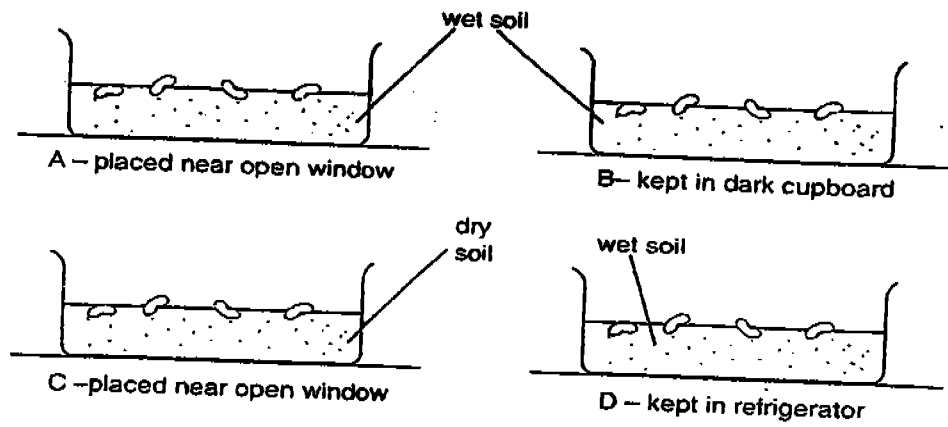
44. Two cups of cocoa are placed on a table. One of the cups contains very hot cocoa and the other contains cold cocoa. Suggest two ways of finding out which cup contains the hot cocoa. (2 marks)

a) _____

b) _____



45. The following dishes were set up to compare the growth of seeds.



a) In which of the above set-ups (A, B, C or D) will the seeds grow best? (1 mark)

b) In which set-up(s) will the seeds not grow at all? (1 mark)

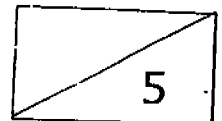
c) Explain your answer in (b). (1 mark)

46. Digestion is a process in which our body breaks down food into simpler substances.

a) What is the first step in the digestion process? (1 mark)

b) Why is porridge easier to digest than rice? (1 mark)

~Please Check Your Work.~



SM

- 1) 28)
- 2) 29)
- 3) 30)
- 4) 31) a) Bottle B
- 5) b) Bottle B allows air to escape from the container through the hollow tube.
- 6)
- 7) 32) a) Solid
- 8) b) It is freezing
- 9) c) 60 minutes
- 10) 33) a) condensation
- 11) b) evaporation
- 12) 34) a) 2
- 13) b) 4
- 14) c) 1
- 15) d) 5
- 16) e) 3
- 17) 35) a) Bunch A
- 18) b) Bunch A was in the sun far too long It burnt and it became lighter.
- 19) 36) a) Deforestation
- 20) b) It holds the soil together with their roots.
- 21) 37) a) Take a shower than a bath.
- 22) b) Use a pail of water to wash your car.
- 23) 38) a) oxygen b) carbon dioxide
- 24) 39) a) They breathe in oxygen.
- 25) b) Man breathe through lungs while fish breathe through gills.
- 26)
- 27) 40) a) Yes.
- b) Plants take in oxygen and give out carbon dioxide at night with the

- 41) a) It takes in carbon dioxide and gives out oxygen.
b) The underside of the leaf.
c) They are sheltered from direct sunlight, thus preventing water loss.
- 42) a) They get it from the dissolved oxygen in the water.
b) They are the gills.
c) By putting in water plants. By putting in air pump to pump air into the water.
- 43) a) Group D
b) Toads and crocodiles are animal eaters.
- 44) a) The cold one will have water droplets on the outer surface of the cup.
b) The hot one will have white clouds.
- 45) a) Set-up A
b) Set-up C
c) It has no water.
- 46) a) The teeth will grind and crush the food into smaller pieces.
b) Porridge is easier to chew and is softer.