



RAFFLES GIRLS' PRIMARY SCHOOL

SEMESTRAL ASSESSMENT (1)

2004

Name : _____ Class: P5 _____ Index No: _____

Your Score Out of 100 marks		
	Class	Level
Highest score		
Average score		
Parent's Signature		

13 May 2004

SCIENCE

ATT: 1 h 45 min

Section A (30 x 2 marks)

For each question from 1 to 30, 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).

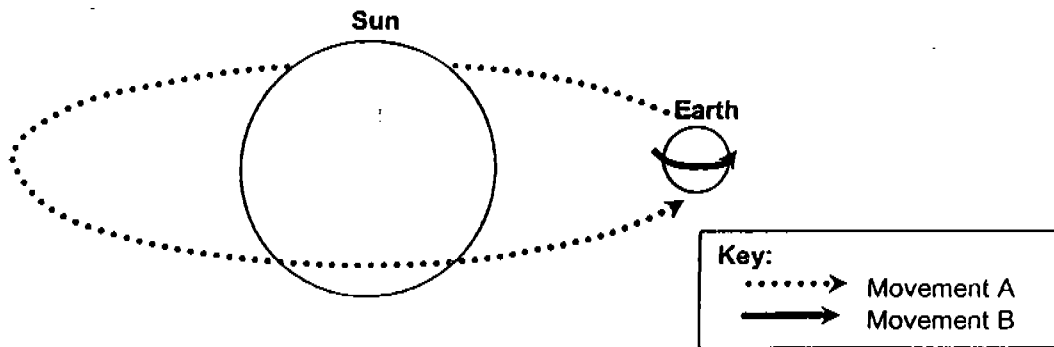
1. Study the table below.

	Mercury	Venus	Earth	Mars	Jupiter	Saturn	Uranus	Neptune	Pluto
Distance from the Sun in millions of km	58	108	150	228	778	1427	2871	4497	5913

On Earth, there are 365 days in a year. With the help of information in the table above, on which one of the following planets will the length of a year be shorter than 365 days?

- 1) Jupiter
- 2) Mercury
- 3) Neptune
- 4) Pluto

2.



Which one of the following represents correctly, the two movements of the Earth and their resulting effects?

	Movement A	What it causes	Movement B	What it causes
(1)	revolution	day and night	rotation	change of seasons
(2)	revolution	change of seasons	rotation	day and night
(3)	rotation	day and night	revolution	change of seasons
(4)	rotation	change of seasons	revolution	day and night

3. There is life on Earth because _____.

- A Earth has only one moon
- B Earth revolves round the Sun
- C there is an abundance of water
- D there is oxygen in our atmosphere

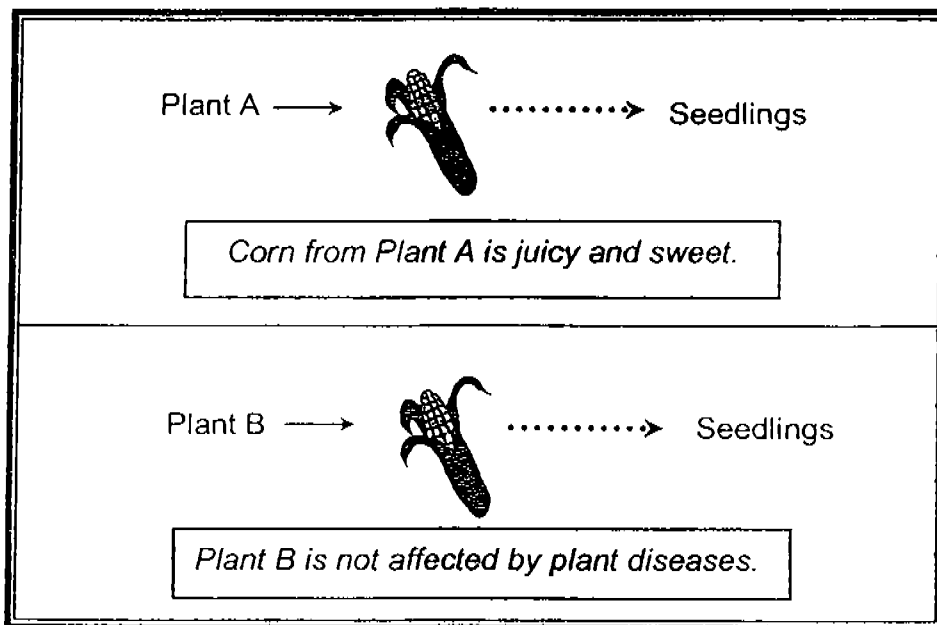
- (1) A and B only
- (2) C and D only
- (3) B, C and D only
- (4) A, B, C and D

4. Which of the following is/ are made up of cells?

- A Ice
- B Balsam
- C Scissors
- D Crocodile

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

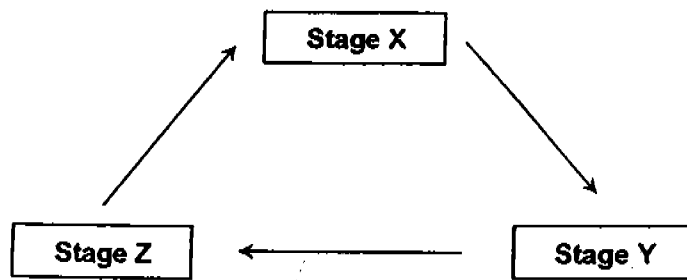
5. Study the diagram below.



The seedlings from Plant A will probably produce _____ corn and those from Plant B will probably develop into _____ adult plants.

- (1) tasteless ... healthy
- (2) sweet but dry ... weak
- (3) sweet and juicy ... weak
- (4) sweet and juicy ... healthy

6. Study the diagram below.

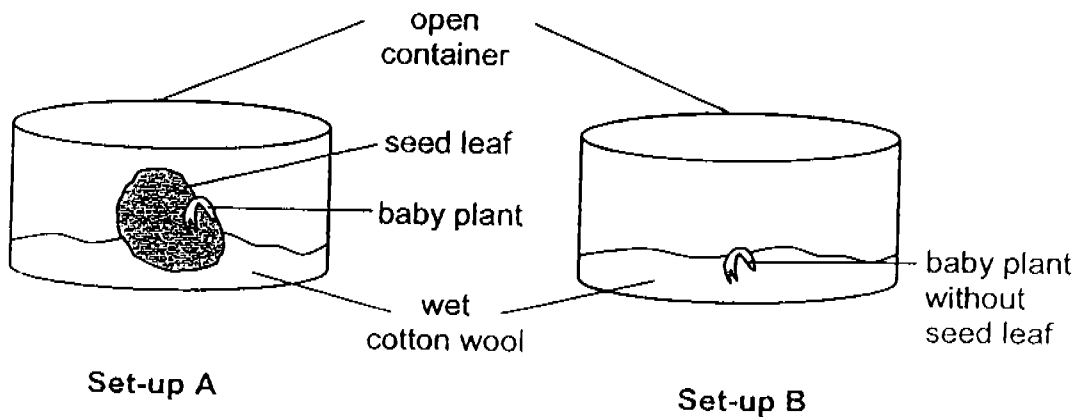


Life Cycle of a Flowering Plant

Which one of the following represents correctly the Stages X, Y and Z?

	Stage X	Stage Y	Stage Z
(1)	seed	adult plant	seedling
(2)	spore	seedling	adult plant
(3)	adult plant	seed	seedling
(4)	spore	adult plant	seedling

7. Minah set up an experiment as shown below. She made sure that both baby plants received sufficient sunlight and water. What would Minah probably observe 4 days later?



- (1) The baby plants in both A and B died.
- (2) The baby plants in both A and B continued to grow.
- (3) The baby plant in A continued to grow but the seedling in B died.
- (4) The baby plant in B continued to grow but the seedling in A died.

8. Li Ling found 6 seeds in the orange that she ate. How many ovules were fertilised in order to form the orange that she ate?

- (1) 1
- (2) 3
- (3) 6
- (4) 9

9. Which plant reproduces asexually only?

- (1) lily
- (2) Ixora
- (3) angsana
- (4) bird's nest fern

10. A green leaf was taken from a plant and put in a dish. A few days later, roots began to appear. Which one of the following plants was the leaf most likely to have been taken from?

- (1) onion
- (2) hibiscus
- (3) pineapple
- (4) bryophyllum

11. A farmer wants to produce some ginger plants quickly. What should he do?

- (1) Plant some ginger seeds.
- (2) Plant some roots of a ginger plant.
- (3) Plant some leaves of a ginger plant.
- (4) Plant some pieces of ginger with buds.

12. Susan wanted to grow a potato plant from a potato. She cut a potato into a few pieces and planted one of the pieces in a pot of garden soil. She left the pot near a window and watered it every day. However, nothing happened. Why?

- (1) A potato plant cannot be grown from a potato.
- (2) The piece which she planted was not large enough.
- (3) The piece which she planted did not have any buds.
- (4) The pot should have been placed in a dark cupboard.

13. Which one of the following body parts is correctly matched to its function?

	Body Part	Function
A	testes	Produce eggs
B	ovaries	Produce sperms
C	womb	A baby develops in it until birth
D	penis	Transports sperms out of the male body

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

14. Which one of the following statements about reproduction in humans is false?

- (1) The unfertilized egg is made up of one cell only.
- (2) Fertilization takes place outside the female body.
- (3) Fertilization involves the fusion of a sperm and an egg.
- (4) The ovaries are part of the female reproductive system.

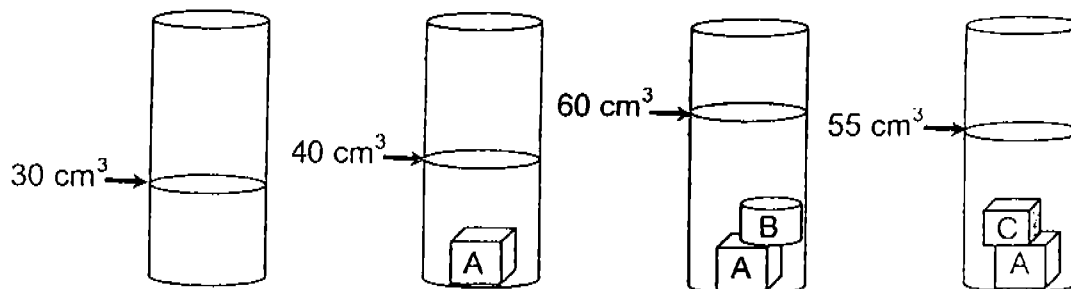
15. In what way is sexual reproduction similar in plants and animals?

- (1) Fertilisation takes place in the ovary.
- (2) Both require male and female sex cells.
- (3) Female sex cells travel to fuse with male sex cells.
- (4) Sperms are the male sex cells in both plants and animals.

16. A liquid is different from a solid because it _____.

- (1) has mass
- (2) occupies space
- (3) has no definite shape
- (4) has a definite volume

17. The diagram below shows how different combinations of Objects A, B and C are placed into a container filled with 30 cm^3 of water. No water is added or removed during the whole process. Which one of the following represents correctly the volumes of Objects A, B and C in ascending order?



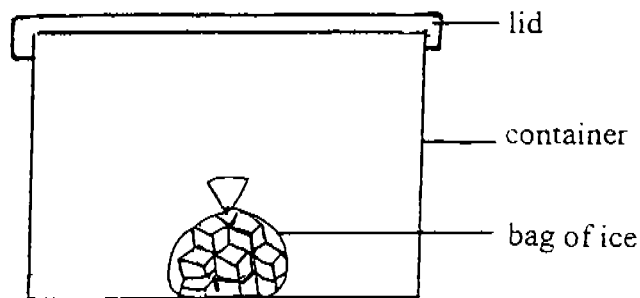
- (1) A, B, C
- (2) B, C, A
- (3) C, A, B
- (4) A, C, B

18. In which of the two processes is there heat gain?

- A. melting
- B. freezing
- C. evaporation
- D. condensation

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

19. A bag of ice was put into the container below and a lid was fitted tightly over it. After a few minutes, there were many water droplets seen on the outer surface of the bag of ice.



From this observation, we can say that the amount of water vapour in the container _____.

- (1) has increased
- (2) has decreased
- (3) remains the same
- (4) has decreased then increased

20. Which of the following will help a wet towel hanging from a clothes-line dry more quickly?

- A. A cloudy day
- B. Low humidity
- C. Presence of wind
- D. Folding the towel in two

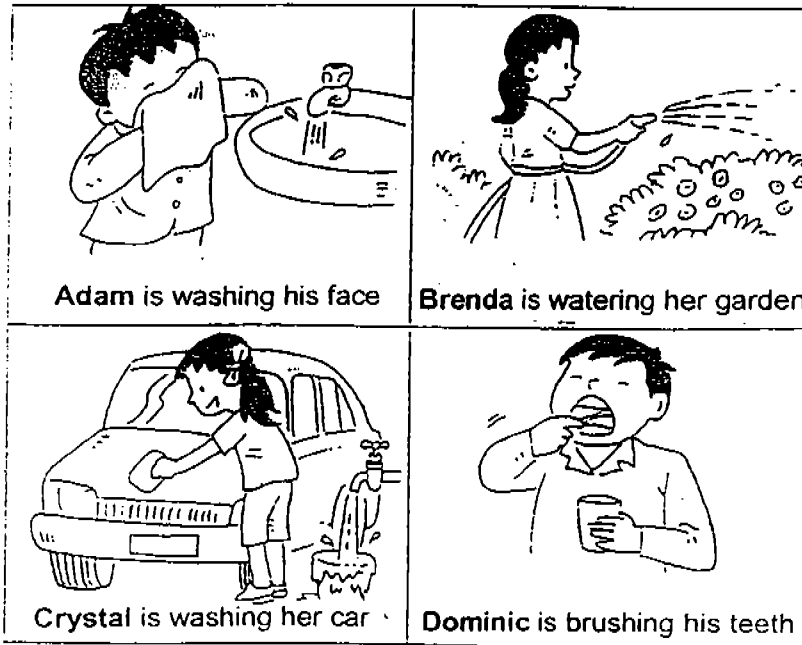
- (1) A and B only
- (2) B and C only
- (3) A, B and C only
- (4) A, B, C and D

21. Which of the following is **true** about the water cycle?

- A. Evaporation takes place only in the daytime.
- B. The water cycle cannot take place in a desert.
- C. Water vapour rises into the sky and condenses.
- D. The Sun is the main source of heat in the water cycle.

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

22. Which child is conserving water?



- (1) Adam
- (2) Brenda
- (3) Crystal
- (4) Dominic

23. The following table shows the breathing organs used by the different animals. Which is correct?

	Animals	skin	lungs	gills
(1)	man	✓	✓	
(2)	frog	✓	✓	
(3)	shark		✓	✓
(4)	mudskipper	✓		✓

24. Four pupils were asked to complete a table about photosynthesis and respiration. Their responses are shown below.

Pupil		Photosynthesis	Respiration
1	Takes place in the day	✓	✓
	Takes place all the time		✓

Pupil		Photosynthesis	Respiration
2	Takes place in the day	✓	✓
	Takes place all the time	✓	✓

Pupil		Photosynthesis	Respiration
3	Takes place in the day	✓	
	Takes place all the time		✓

Pupil		Photosynthesis	Respiration
4	Takes place in the day	✓	
	Takes place all the time	✓	✓

Which pupil (1, 2, 3 or 4) completed the table correctly?

25. Which of the following can move by themselves?

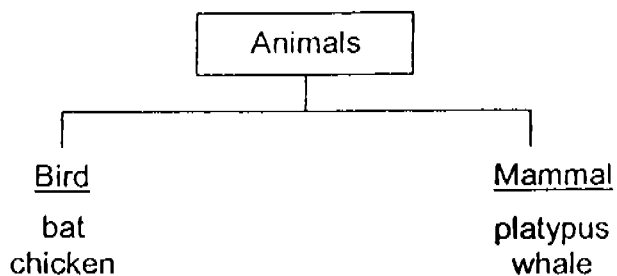
- A. car
- B. lion
- C. ball
- D. fish

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

26. Not all birds _____.

- (1) can fly
- (2) lay eggs
- (3) have wings
- (4) have feathers

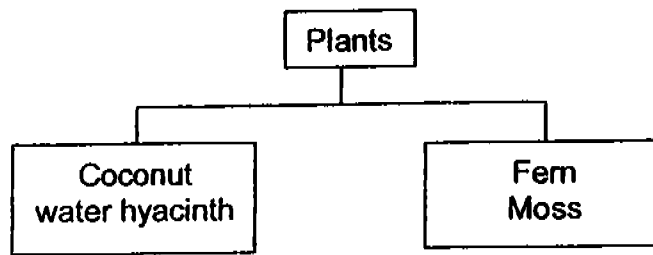
27. Geetha classified four animals as shown in the classification table below.



Which of the animals is classified wrongly?

- (1) bat
- (2) chicken
- (3) platypus
- (4) whale

28. Study the classification table.



The plants in the table above are grouped according to whether they are _____.

- (1) useful or harmful plants
- (2) land plants or water plants
- (3) plants with weak or strong stems
- (4) flowering or non-flowering plants

29. Rubber can be used to make _____.

- (1) erasers and balloons
- (2) ribbons and spanners
- (3) spectacle lens and socks
- (4) food wrap and window panes

30. Joanne had the following items in her bag:

- a wooden ruler
- a piece of paper
- A cotton handkerchief

The items in her bag are all made of materials that _____.

- (1) are waterproof
- (2) are unbreakable
- (3) come from plants
- (4) come from animals

Name: _____ Class: P5 _____ Index No.: _____

Section B (40 marks)

There are 16 questions in this section. Answer all of them. Write your answers in the spaces provided.

31. Read the following dialogue and answer the following questions.

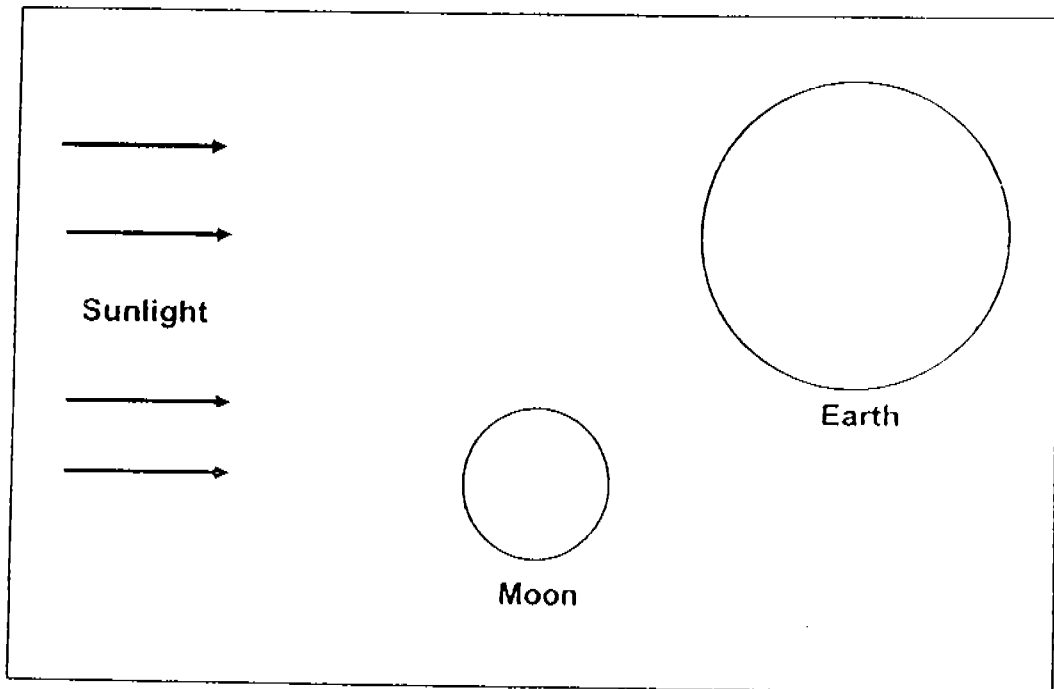
Teacher: Why does the shape of the Moon change with passing day?

Halim: It is because the area of the Moon that is lighted by the Sun changes every day.

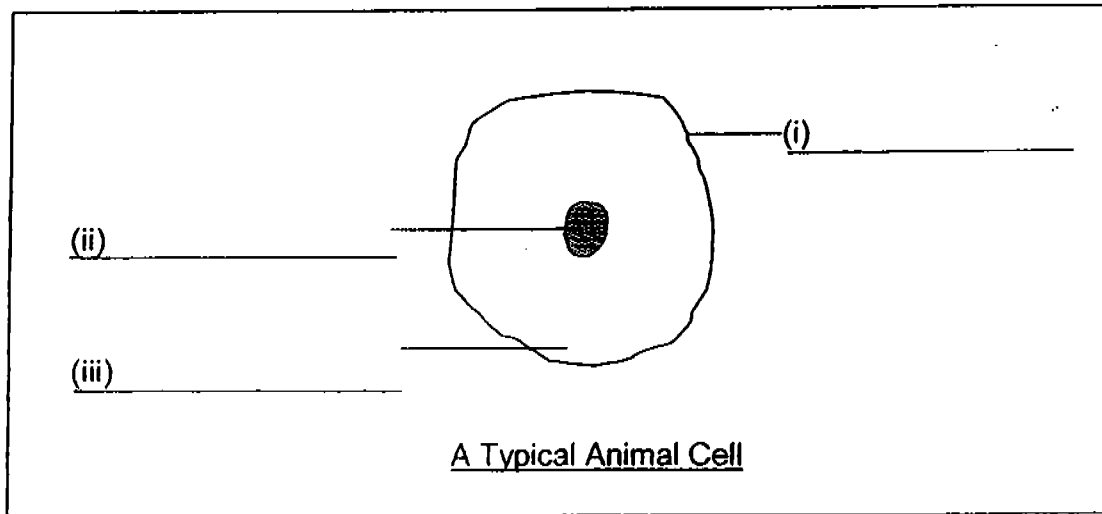
Meena: I think it is because we see a different portion of the lighted side of the Moon every day.

(a) Who do you think gave the right answer? Halim or Meena? (1 m)

(b) In the diagram below shade the parts of the Moon and Earth that are not receiving sunlight in this situation. (2 m)



32 (a) Label the animal cell shown below. ($1\frac{1}{2}$ m)



(b) Use the clues given to guess the cell part and write your answer in the space provided. ($1\frac{1}{2}$ m)

i) I can only be found in plant cells. Without me, plants cannot carry out photosynthesis.

Which cell part am I?

Which cell part am I?

ii) I control all the activities that take place in a cell and I have information that determines what you look like.

iii) I control the substances that enter and leave a cell. I can be found in both animal and plant cells.

Which cell part am I?

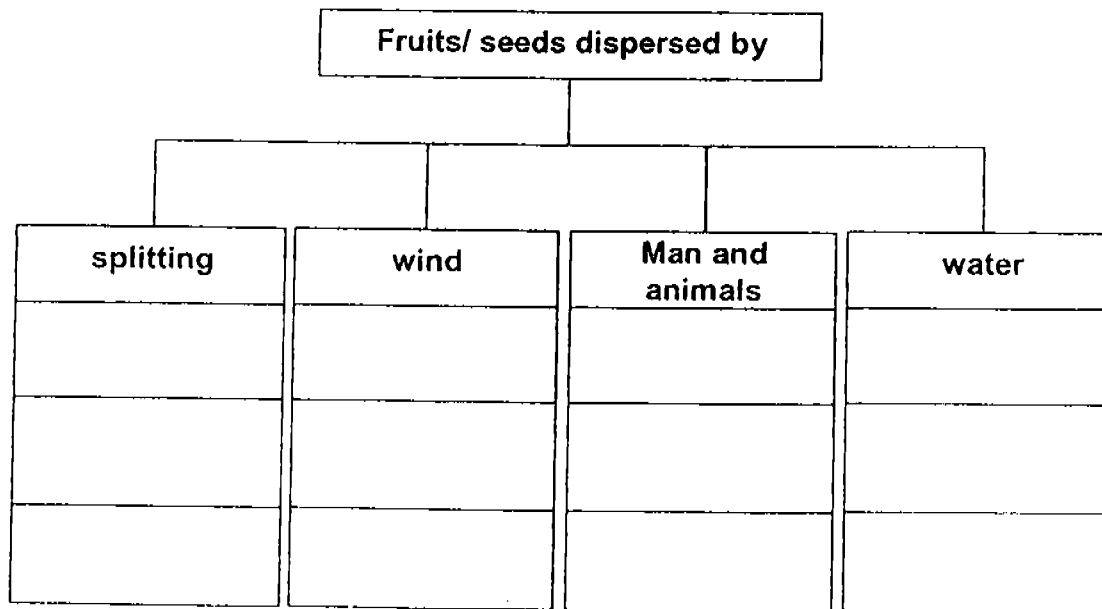
33. Su Lin was asked to describe her partner, Rani, during an English lesson. She made the following observations about Rani:

- ❖ has long hair
- ❖ has brown eyes
- ❖ has attached ear lobes
- ❖ wears a watch every day

Which of the above do you think Rani inherited from her parents? (2 m)

34. Classify the following plants correctly in the classification table below. (3 m)

Mimosa	Casuarina	Nipah
Rubber tree	Lallang	Shorea



35. Plant X is a non-flowering plant.

Plant X



(a) How does the above plant reproduce? (1 m)

(b) Name an organism that cannot photosynthesise and uses the same reproduction method as Plant X. (1 m)

36. There was only one adult banana plant growing in Mr Sin's garden. A few months later, Mr Sin noticed that a young banana plant has grown beside the adult plant although he did not plant it. No bananas have grown on the adult tree so far.

(a) Explain how the young banana plant managed to grow in Mr Sin's garden although he did not plant it. (1 m)

(b) Which two plants have the same method of reproduction as the banana plant? Circle them. (2m)

lalang

angsana

heliconia

pineapple

(c) Mr Sin is told that the adult banana plant will die after producing a bunch of fruit. How will the death of the adult banana plant be advantageous to the young banana plant? (1m)

37. The diagram below shows an unborn human baby.

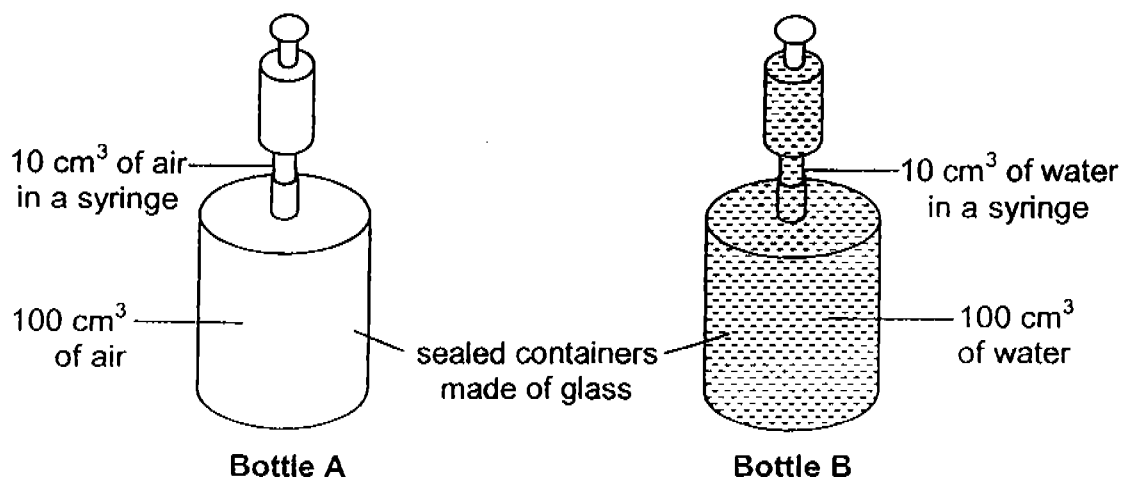


(a) Name the part labelled X. (1m)

(b) State one function of X. (1m)

(c) Why do living things need to reproduce? (1m)

38. Bottles A and B, shown in the diagram below, are made of the same material and have the same capacity. Lucy completely filled Bottle A with air and completely filled Bottle B with water.

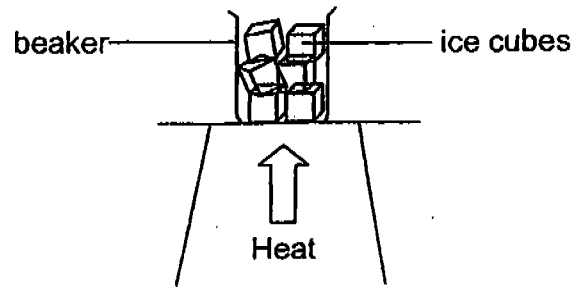


She then tried to force another 10 cm³ of air into Bottle A and 10 cm³ of water into Bottle B by placing two syringes at the mouths of the bottles as shown above.

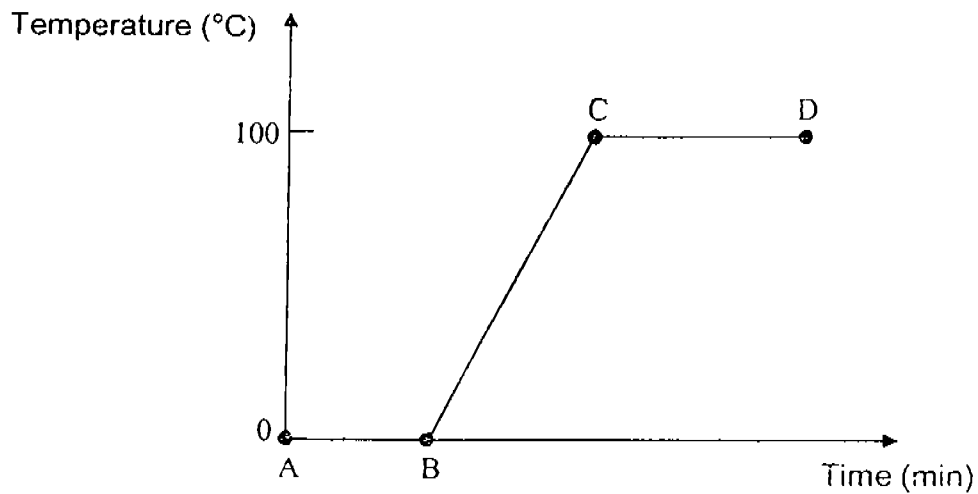
- (a) Do you think Lucy was able to force another 10 cm³ of air into Bottle A, if the air already in it did not leak out? Give a reason for your answer. (1m)

- (b) Do you think Lucy was able to force another 10 cm³ of water into Bottle B, if the water already in it did not leak out? Give a reason for your answer. (1m)

39. A beaker of ice cubes is heated as shown in the diagram below.



The graph below shows the changes in temperature as the beaker of ice cubes was heated.

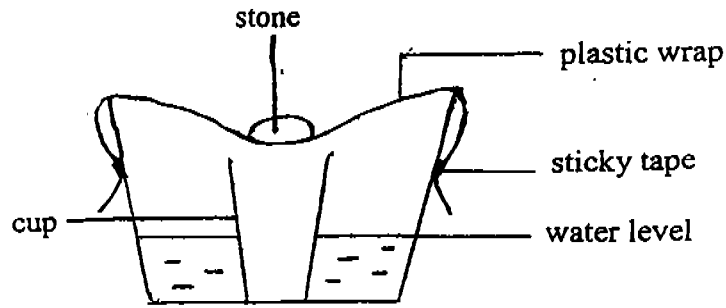


Name the two different processes represented by AB and CD in the graph. Write your answers in the spaces provided below. (2m)

AB: _____

CD: _____

40. Li Lin placed the experimental set-up shown below, in a field at 12 noon on a sunny day. It was left undisturbed for an hour.



Put a tick (✓) in the correct box to indicate what Li Lin would have seen or would not have seen after an hour. (2m)

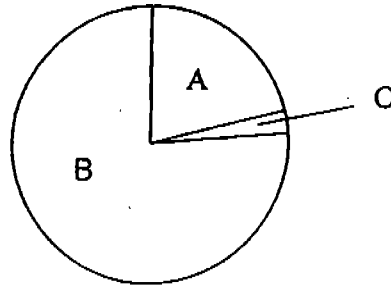
Observations	Yes	No
There is no more water in the basin.		
The water level in the basin was higher.		
Some clear water was collected in the cup.		
There are water droplets on the underside of the plastic wrap.		

41. An oil tanker crashed into some rocks. The oil from the tanker leaked into the sea. Many seagulls hunted for their food from the water and came into contact with the oil. State two effects on the seagulls after they were covered with oil. (2 m)

- (i) _____

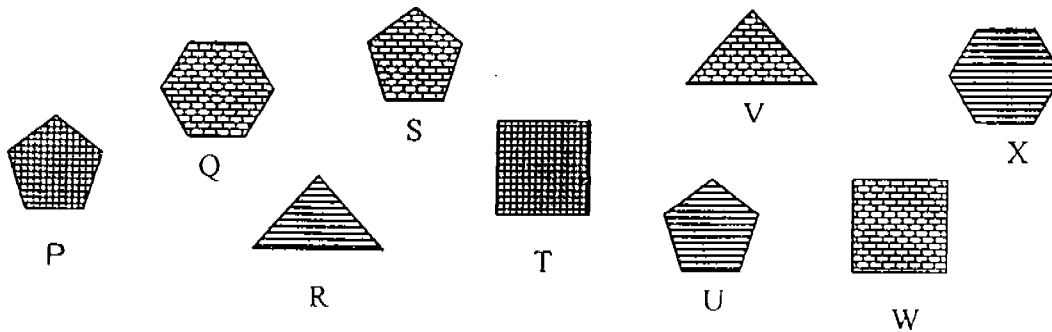
- (ii) _____

42. (a) In the pie chart, C represents a small amount of gases found in the air. Name one of these gases. (1 m)



- (b) On the pie chart, shade the portion showing the gas that is needed by both plants and animals. (1 m)

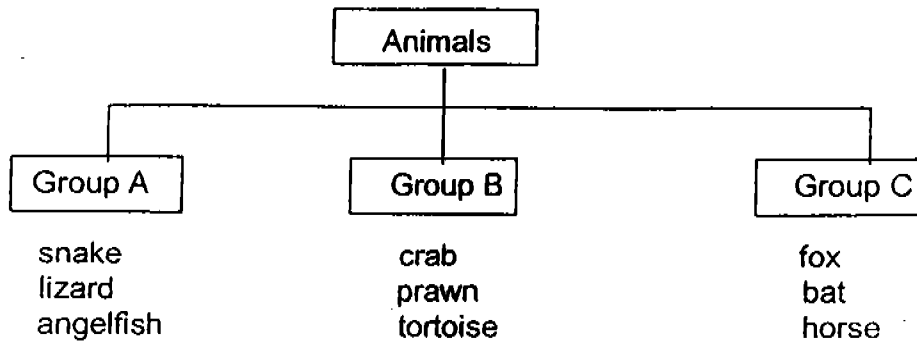
43.



Sort the above figures into three groups. (3 m)

Group 1	Group 2	Group 3

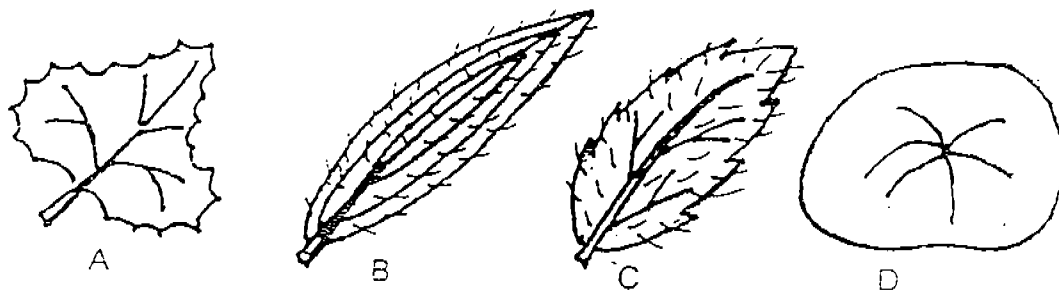
44. Study the classification table shown.



(a) How are the above animals grouped? (1 m)

(b) In which group does a sheep belong? (1m)

45. Study the leaves shown below.

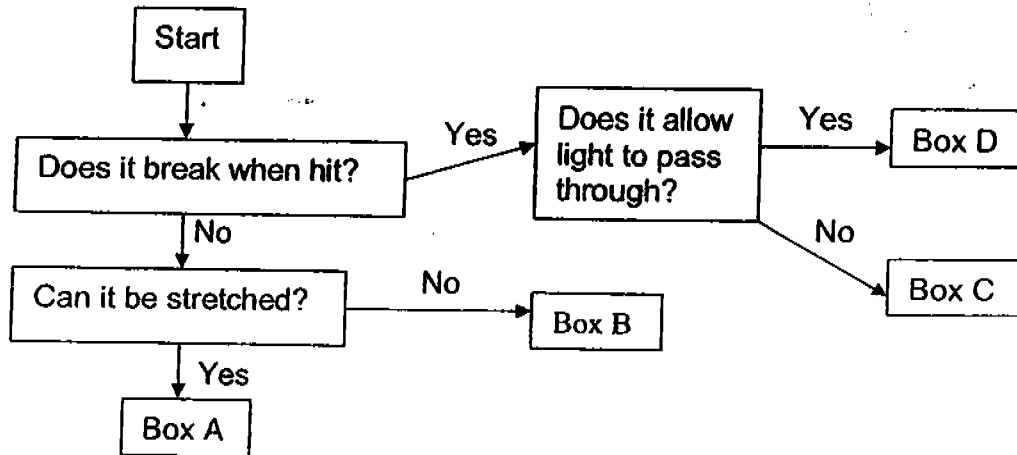


Based on what you see from the diagram, classify the leaves into two groups, stating the characteristics used. (Do not compare size.) (3 m)

Characteristic: _____	Characteristic: _____

25

- 46: Rachel has four balls made of different materials. She sorts them into four boxes A, B, C and D as shown in the flowchart below.



- (a) In which box should a glass ball be placed? (1m)

- (b) What material could the ball in Box A be made of? (1m)

Setters: Mrs C. Quek
Miss Ho H. L.
Mdm Lim Y. K.

Raffles Girls' Primary School SA 1 - Science

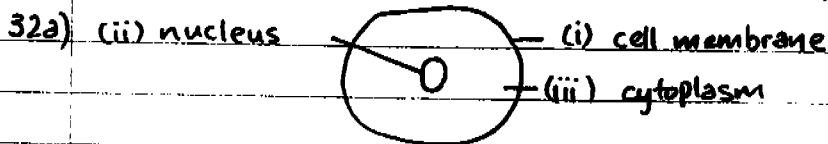
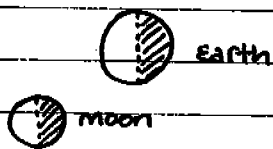
Section A

1	(2)	16	(3)
2	(2)	17	(4)
3	(3)	18	(2)
4	(4)	19	(2)
5	(4)	20	(2)
6	(3)	21	(3)
7	(3)	22	(4)
8	(3)	23	(4)
9	(4)	24	(1)
10	(4)	25	(3)
11	(4)	26	(1)
12	(3)	27	(1)
13	(2)	28	(4)
14	(2)	29	(1)
15	(2)	30	(3)

Section B

3(a) Meena

b)



bi) Chloroplasts

ii) Nucleus

iii) cell membrane

33) has brown eyes and has attached ear lobes

34)	Splitting	wind	man and animals	water
	rubber tree	lallang	mimosa	nipah
		shorea		

35a) Spores formation. (Each spore bag contains thousands of tiny and light spores which can grow into a new plant.)

b) Yeast

36a) Small plants grow from the base of stems of the parent plants. (Suckers)

b) heliconia and pineapple

c) Less competition for nutrients from adult banana plant allowing the young banana plant to grow better.

37a) Umbilical cord

b) Connects a baby to its mother inside her womb and transfers oxygen and food from the mother to her baby.

c) All living things die hence they reproduce to ensure that there will always be plants and animals of their own kind around.

38a) Yes. Air is compressible.

b) No. Water is incompressible.

39) AB: melting
CD: Boiling

40)	Yes	No
		✓
		✓
	✓	
	✓	

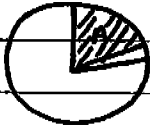
41i) Difficult to breathe

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As they lack the wings hence seagulls unable to fly

42a) Carbon dioxide , water vapour

b)



(oxygen - A)

43)

Group 1

P

T

Group 2

Q

S

V

W

Group 3

R

U

X

44a) Body coverings

b) Group C

45) Characteristic : Hairy - B, C Characteristic : non-hairy - A, D

Toothed - A, C

Smooth / entire - B, D

46a) Box D

b) Rubber