

SAT

TAO NAN SCHOOL
MID-YEAR PRIMARY 5 SCIENCE EXAMINATION-2004.

Name: _____

Date: 10.5.04

Class: P5 ()

Time: 1.25 p.m. to 3.10 p.m.

Parent's Signature: _____

Marks: _____/100

Section A (30x2 marks)

For each question, choose the most suitable answer and shade the oval bearing the correct number on the **Optical Answer Sheet (OAS)** provided.

1. Which of the following statements are true of man-made satellites?
- A) They enable scientists to know when a hurricane is going to happen.
 - B) They move around the Sun in fixed paths called orbits.
 - C) They are launched into space using rockets.
 - D) They enable astronauts in space to communicate with people on Earth.
- 1) A and B only
2) B, C and D only
3) A, C and D only
4) A, B, C and D
2. Study the table below:

A	B
Earth	Sun
Moon	Stars

Select suitable headings for the two groups above.

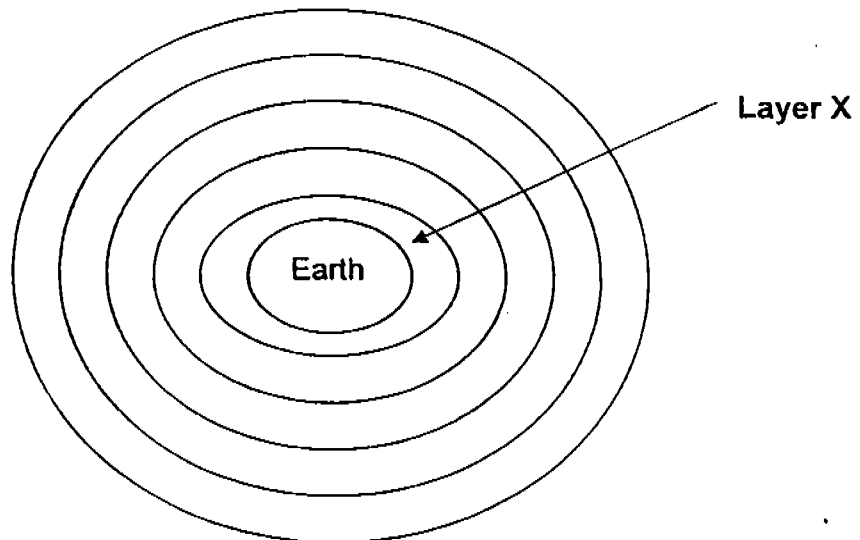
	A	B
1)	Reflect light	Give off heat
2)	Exert gravity	Do not exert gravity
3)	Change shapes regularly	Do not change shapes
4)	Make at least two movements	Do not make any movement

3. Refer to the information below:

	Planet	Distance from the Sun (in millions of km)
1)	Venus	67
2)	Saturn	886
3)	Earth	93
4)	Jupiter	483

Which of the planets above is likely to be the hottest?

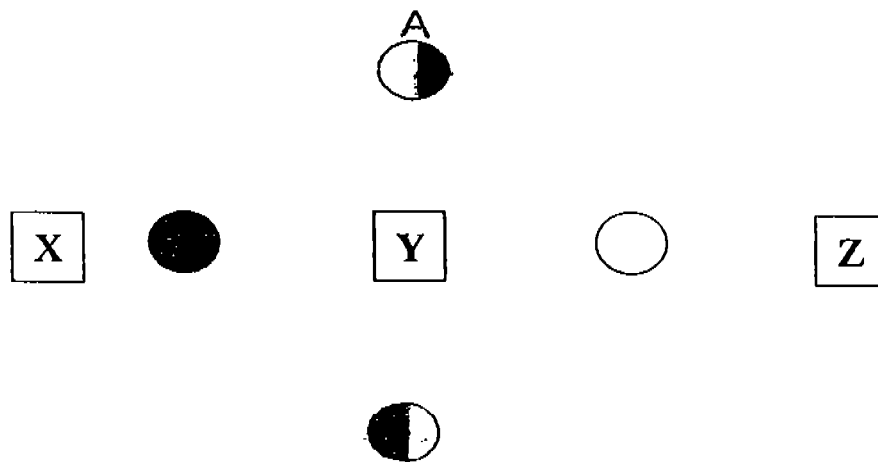
4.



The diagram above shows the layers of the atmosphere surrounding the Earth's surface. Layer X provides _____.

- A) sunlight for warmth
 - B) water for living thing
 - C) carbon dioxide for plants
 - D) nitrogen for bacteria in the soil
-
- 1) A and B only
 - 2) C and D only
 - 3) A, B and C only
 - 4) A, B and D only

5. The diagram shows the phases of the Moon.



When the moon is at point A, the position of the Sun and the Earth is _____.

	Sun	Earth
1)	X	Y
2)	Y	Z
3)	X	Z
4)	Z	Y

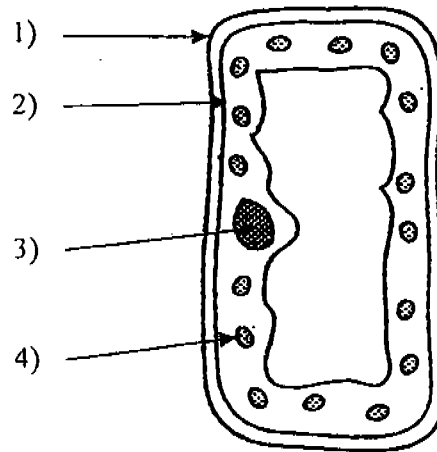
6. The paramecium reproduces by _____.

- 1) fusing
- 2) cloning
- 3) cell fusion
- 4) binary division

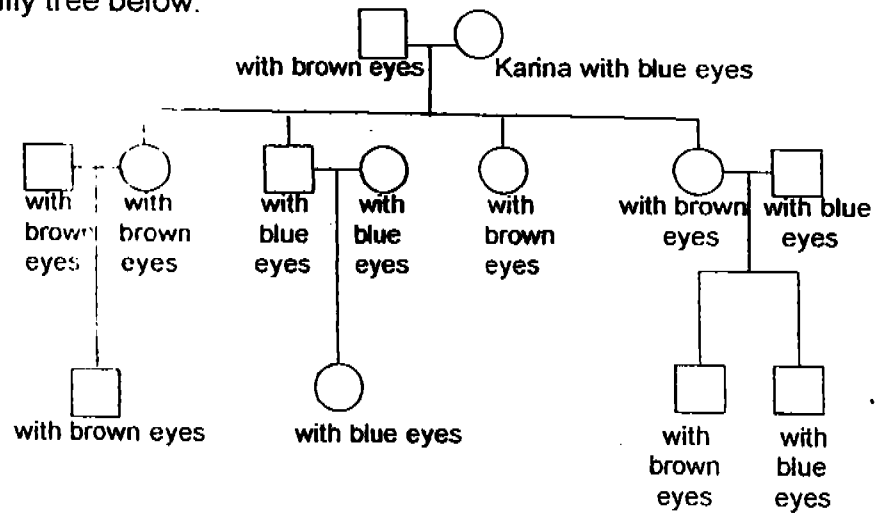
7. Plants lose water through the _____.

- 1) xylem
- 2) stoma
- 3) phloem
- 4) chlorophyll

8. Which part of the cell below controls the movement of materials in and out of the cell?



9. Study the family tree below.



Key:

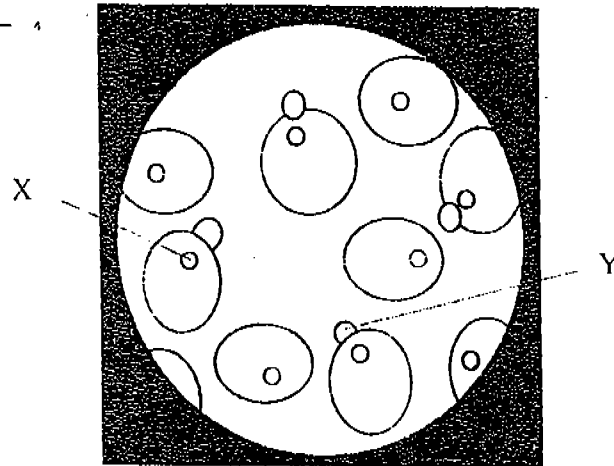
□ Male

○ Female

How many of Karina's children have brown eyes?

- 1) 3
- 2) 4
- 3) 5
- 4) 6

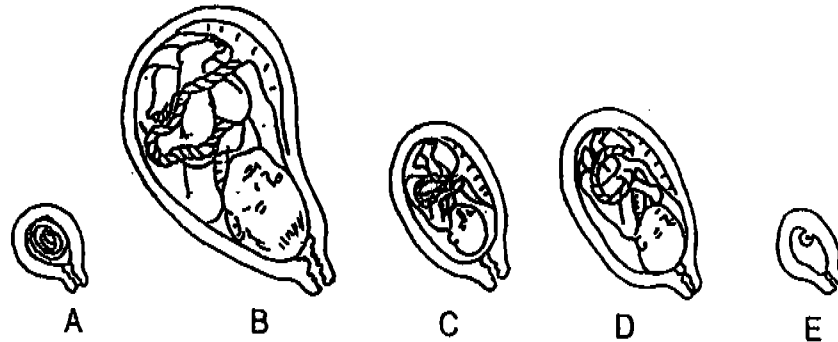
10. Study the yeast cells below. Part X is the _____ and Part Y is the _____.



	X	Y
1)	nucleus	bud
2)	nucleus	egg
3)	cytoplasm	bud
4)	cytoplasm	egg

11. Which of the following traits is not inherited from our parents?
- 1) hairline
 - 2) handwriting
 - 3) skin colour
 - 4) tongue rolling
12. Which of the following animals reproduce the same way as the penguin?
- 1) ostrich
 - 2) dolphin
 - 3) seal
 - 4) guppy
13. The developing baby in a mother's uterus gets its food and oxygen through the _____.
- 1) nose
 - 2) mouth
 - 3) vocal chord
 - 4) umbilical cord
14. The figures below show the different stages of development of a foetus.

14. The figures below show the different stages of development of a foetus.



Which of the following gives the correct sequence of development?.

- 1) B D C A E
 - 2) E C A B D
 - 3) E A C D B
 - 4) A B C D E
15. The young of a _____ does not resemble its parents.
- 1) fish
 - 2) lizard
 - 3) mosquito
 - 4) grasshopper

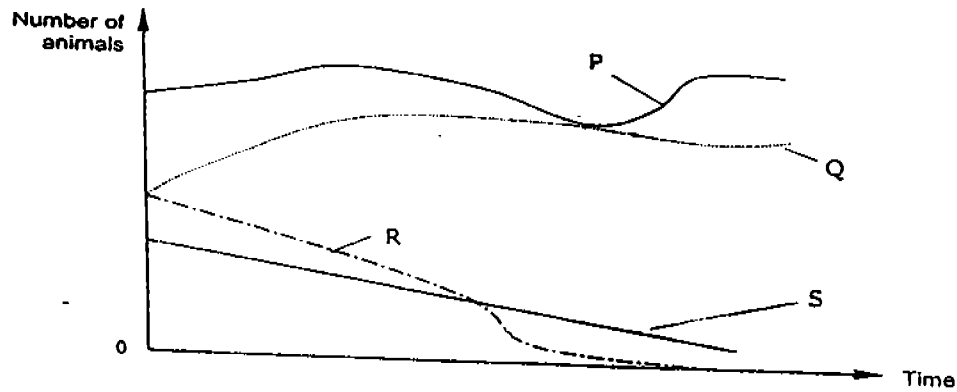
16.

A	B
Owl	Deer
Turtle	Guppy
Chicken	Horse

Which of the following animals should be placed under B?

- 1) ape
- 2) platypus
- 3) cockroach
- 4) grasshopper

The graph below shows the number of different organisms, P, Q, R and S, found on Earth. Study the graph and answer questions 17 and 18.



17. Which of the organisms is becoming endangered?

- 1) P
- 2) Q
- 3) R
- 4) S

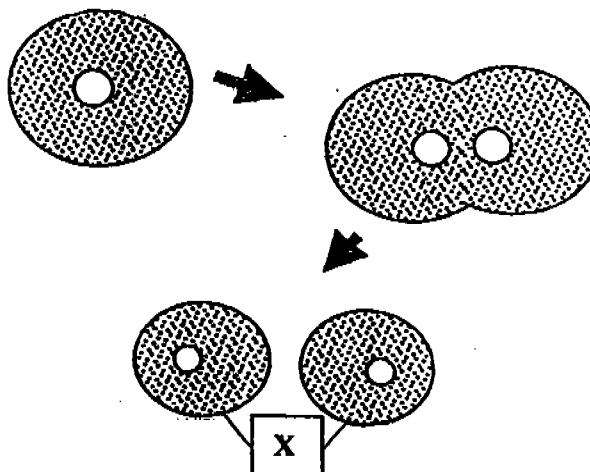
18. Which organism has become extinct?

- 1) P
- 2) Q
- 3) R
- 4) S

19. When Animal X was born, it weighed 3 kg. Five weeks later, it weighed 8 kg. Which of the following contributed to the increase in mass?

- 1) division of cells
- 2) death of blood cells
- 3) enlargement of cells
- 4) replacement of damaged cells

20.



The diagram above shows a process that many cells undergo. What is X called?

- 1) twins
- 2) new cells
- 3) parent cells
- 4) daughter cells

21. Which of the following will change as a baby grows into an adult?

- A) mass
 - B) height
 - C) dimples
 - D) earlobes
- 1) C only
 - 2) A and B only
 - 3) B, C and D only
 - 4) A, B C and D

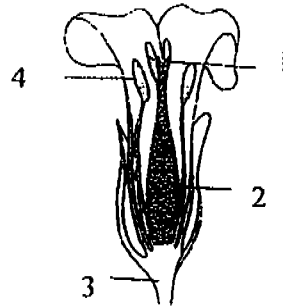
22.

A	B
Mangrove	Rain Tree
Nipah	Rubber

Which of the following would you place under A and B?

	A	B
1)	Lotus	Saga
2)	Sea Almond	Mimosa
3)	Rambutan	Longan
4)	Coconut	Lalang

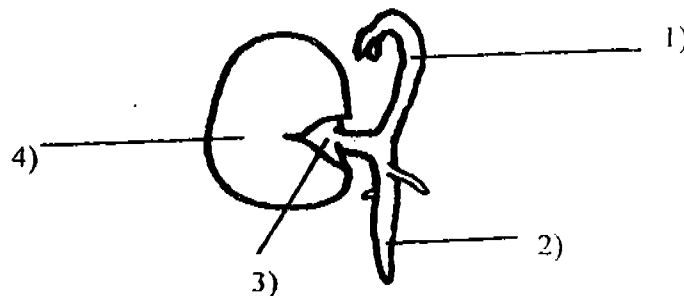
23. Which part of the flower below releases pollen grains?



24. A farmer grew Plant X and Plant Y in his farm. Some ants were seen crawling on Plant X but not on Plant Y. After some time both plants developed fruits. What are the most likely ways the plants were pollinated?

	Plant X	Plant Y
1)	Insects	Wind
2)	Water	Wind
3)	Wind	Insects
4)	Insects	Water

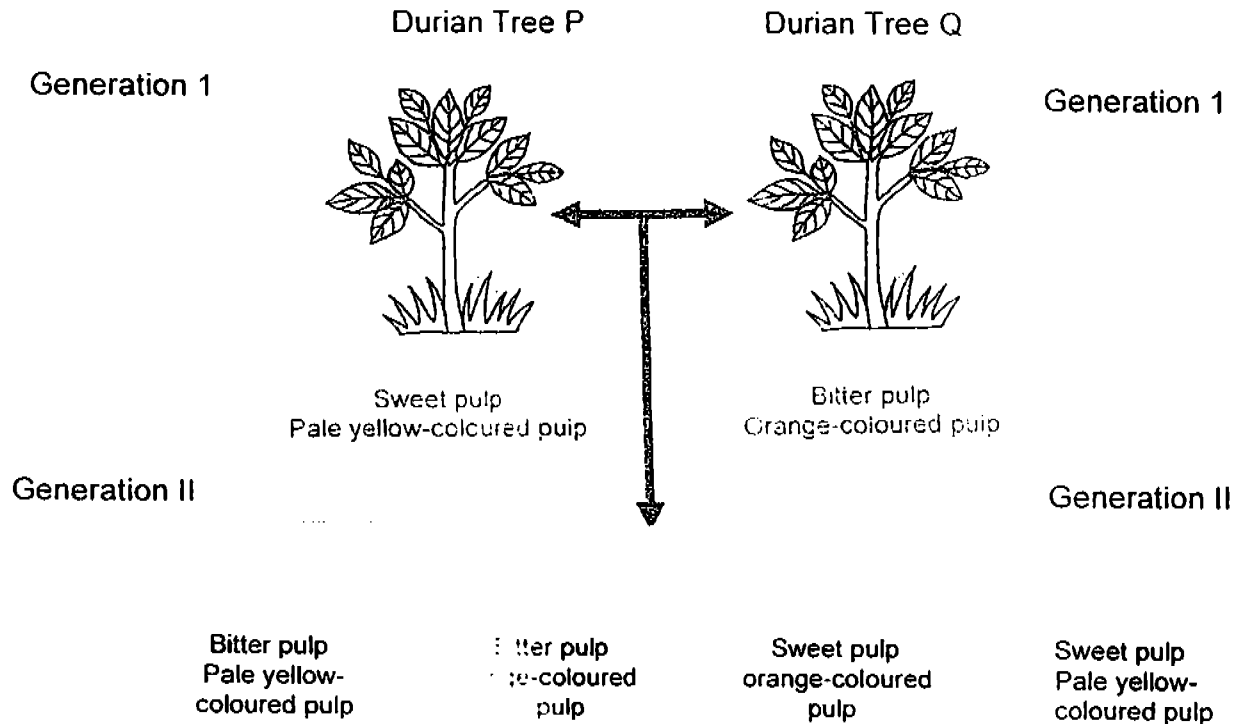
25. Which part of the seed below provides food for the seedling?



26. Which of the following statements about flowers is true?

- 1) Pollen sacs ^{are} on the anther.
- 2) Pollination can only take place after fertilisation.
- 3) Pollen grains can be transferred by water.
- 4) All flowers have male and female reproductive cells.

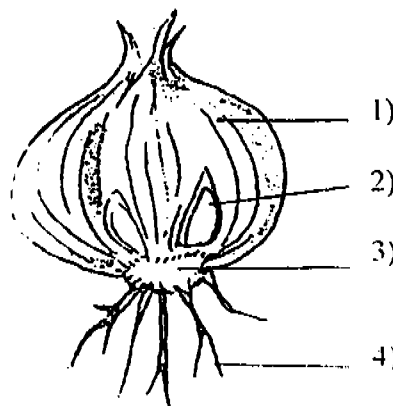
27. The diagram below shows the possible result when we cross-pollinated durian tree P and durian tree Q.



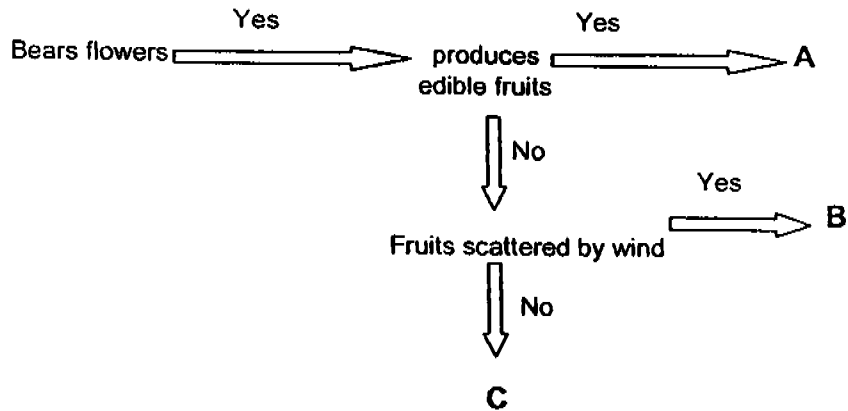
Which of the following statements is true?

- 1) Half of the trees in Generation II bear fruits with bitter and yellow-coloured pulp.
- 2) Half of the trees in Generation II bear fruits with sweet pulp.
- 3) Some of the trees in Generation II bear fruits with bitter-sweet pulp.
- 4) None of the trees in Generation II bear fruits with pale yellow pulp.

28. Which part of the onion below can grow into a new onion plant?



29. Study the flow chart below.



Which of the following represents A, B and C?

	A	B	C
1)	Mango	Fern	Vernonia
2)	Apple	Lalang	Mimosa
3)	Durian	Pong Pong	Coconut
4)	Chilli	Balsam	Cotton

30. The diagram below shows the pod of a plant.



Just by looking at the diagram, what conclusion can you draw about the plant above?

- A) It has edible parts.
- B) It is a flowering plant.
- C) It has many flowers.
- D) Its ovary contains more than one ovule.

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

Name: _____
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Section B (40 marks)

Answer the following questions in the spaces provided.

31. The Moon is Earth's _____ and its closest neighbour in space
It _____ light. It takes about _____ to make one
_____ round the Earth.

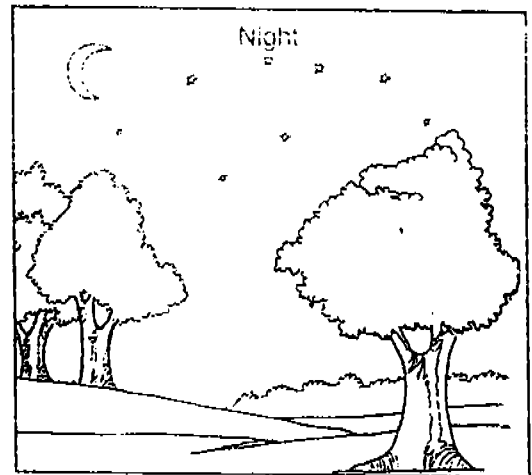
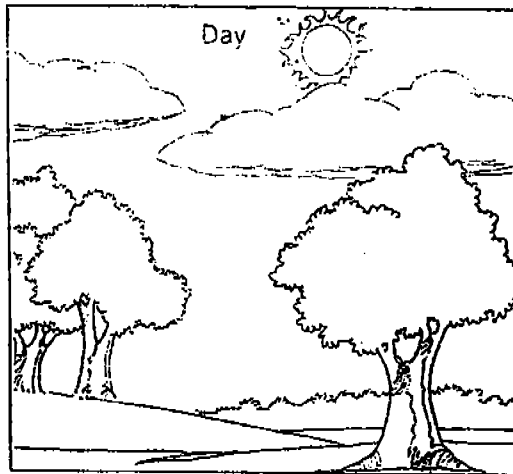
(2m)

32. Explain why the energy of the Sun is essential to life on Earth.

- a) _____

- b) _____

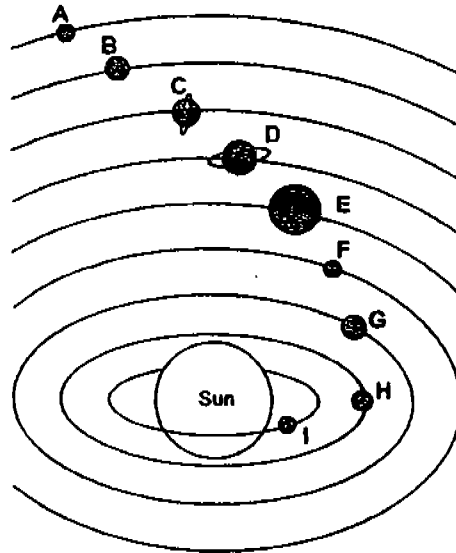
33.



- a) The pictures above show the change from day to night. What has caused such a change?

- b) How does such a change affect the lives of living things?

34. Study the diagram below.



a) What would happen if the Earth were in position B instead of position G?

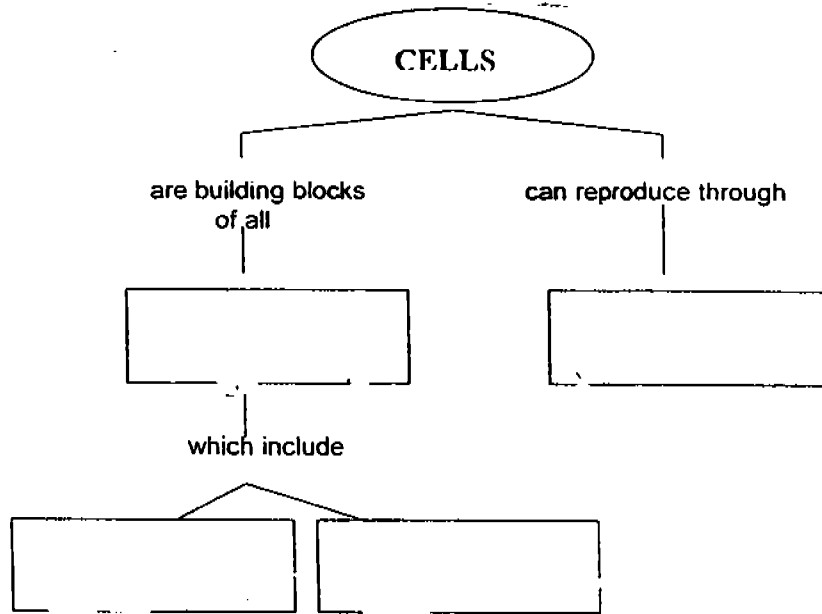
(1m)

b) How is the position of the Earth important for life on Earth?

35. Draw an animal cell and label the part that contains water and nutrients. (1m)

(2m)

36. Fill in the boxes with a suitable answer.



(2m)

37. How are bacteria, yeast and amoebae similar?

(2m)

How does yeast reproduce?

(1m)

38. Mary wants to find out which type of soil is the most suitable for growing long bean plants. She plans her investigation like this:

- Put some long bean seeds in a tray.
- When the seedlings are big enough, plant each of them in different types of soil.
- Put equal amount of fertilisers into each type of soil.
- Weigh each seedling after a month.

Identify 3 variables kept constant and 1 variable kept different in ^{her} ~~his~~ investigation.

Variables kept constant:

Variable kept different:

(2m)

39. Jane cut a piece of ginger into three parts and placed them in the same flowerbed in her garden. She watered them every day. One week later, Jane discovered that two of the three pieces of the cut ginger had young healthy shoots developing.

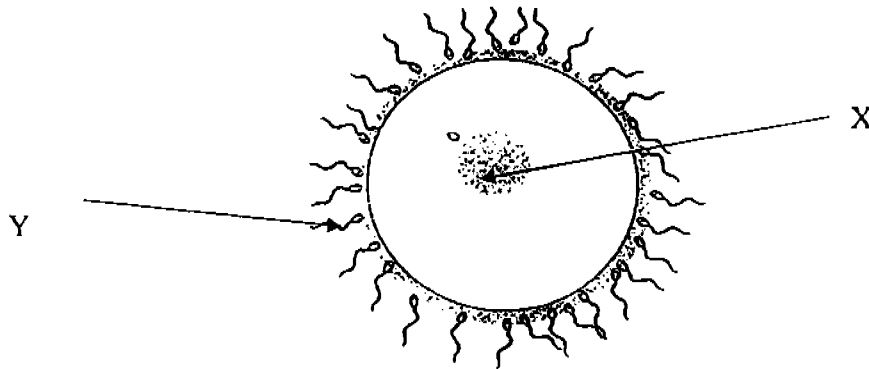
a) What is the reason for one of the pieces not developing shoots?

(2m)

b) State the method of reproduction for the ginger?

(1m)

40. The diagram below shows two special cells, cell X and cell Y, that the human female and male produce respectively.



a) The diagram shows the process of _____ (1m)

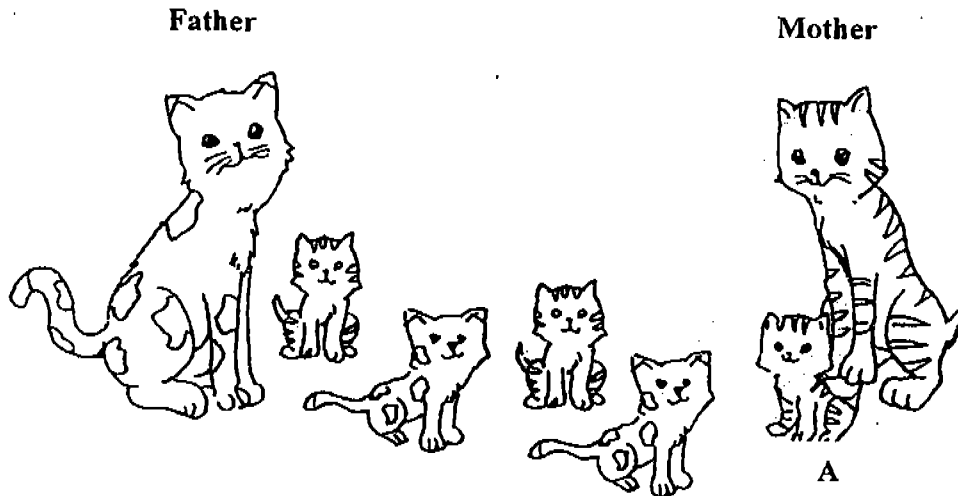
b) Which organ produces X?

(1m)

c) Which organ produces Y?

(1m)

41. Study the family of cats below.



Use only the information given in the drawing above, decide if the statements below are "True", "False" or "Not possible to tell" by putting a tick in the appropriate box. (2m)

Statement	True	False	Not possible to tell
All the kittens look more like the mother.			
Kitten A is the youngest among the kittens.			
All the kittens look like their parents.			
There are two male kittens.			

42. Jane wants to find out if sunlight is necessary for the germination of seeds. She prepares two set-ups with the conditions shown in the table below. The tick (✓) shows that the condition is present.

Condition	Set-up A	Set-up B
Sunlight	✓	
Water		✓
Temperature (° C)	33	26
Air	✓	✓

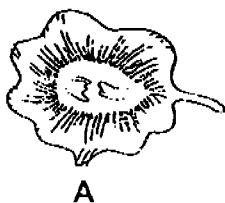
a) Is the test a fair one? Give a reason for your answer.

.....

b) What conditions are necessary for the germination of seeds? (2m)

..... (1m)

43. Susila dropped two angsana fruits A and B as shown in the diagram below from the same height.



She recorded the time taken by each fruit to reach the ground.

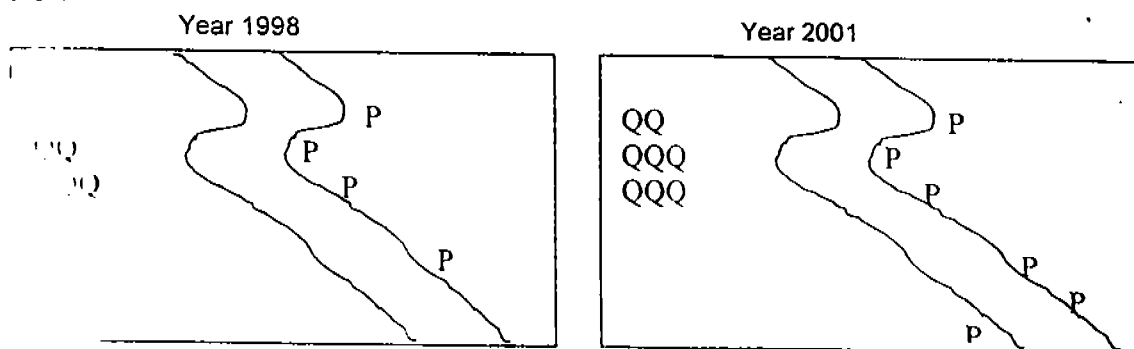
Set of record	Time (in seconds)	
	A	B
1	3.2	4.5
2	4.5	4.5
3	4.5	3.2
4	4.5	9.2

- a) Which of the above is most likely to be the correct set of records?
Set of record:

(1m)

Give a reason for your answer in (a).

44. The species of plants, P and Q, can be found in an area represented in the map below.



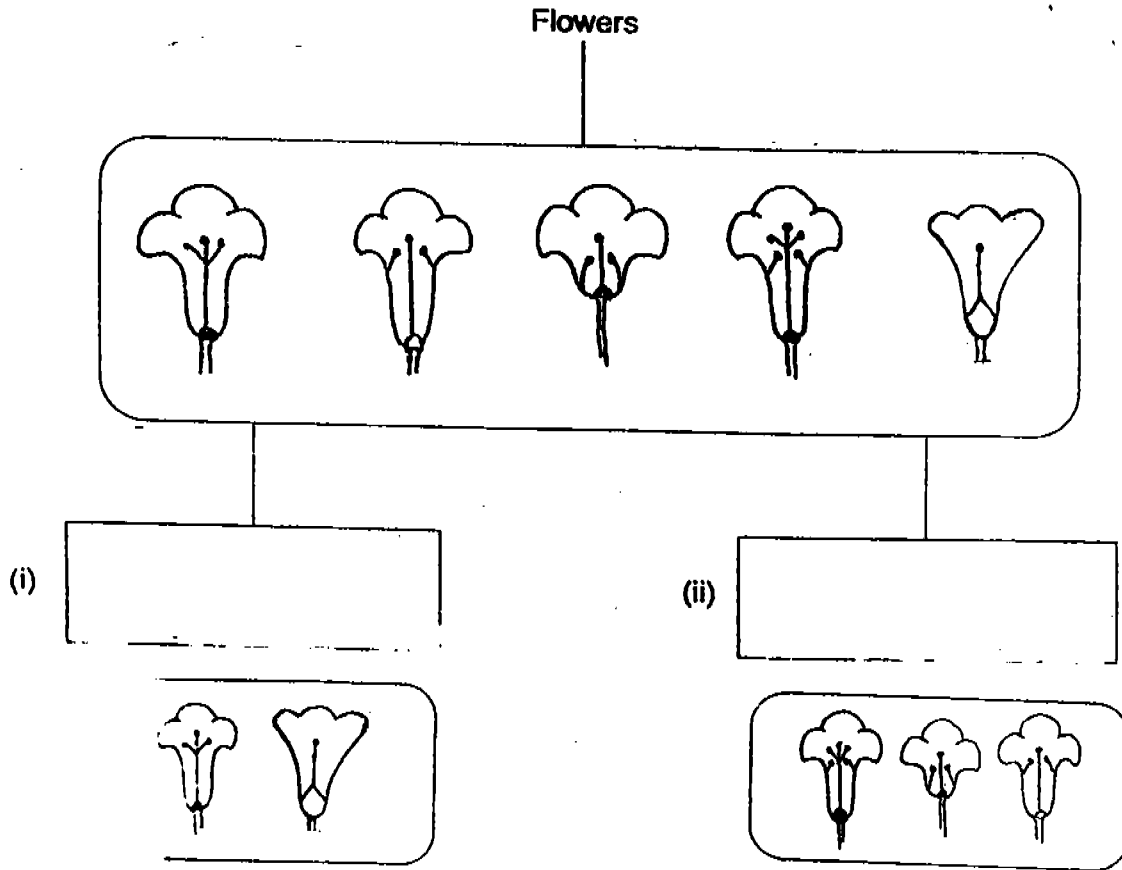
From the map, how are the fruits or seeds of Plant P and Plant Q dispersed?

Plant P --- _____ (1m) Plant Q --- _____ (1m)

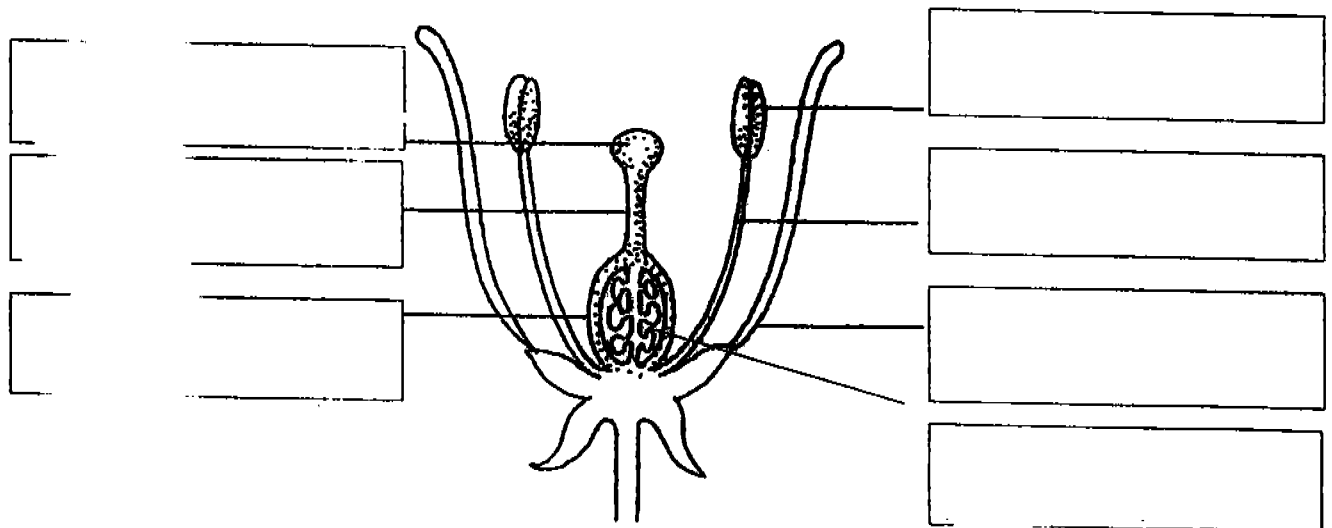
What feature does Plant P have in order to be dispersed by the method given in your answer.

_____ (1m)

45. The diagram below shows how five flowers are classified.



- a) Fill in boxes (i) and (ii) with two of the following headings:
male flowers, female flowers, bisexual flowers (have male and female parts) (1m)
- b) Name the female parts of the flower below. (2m)

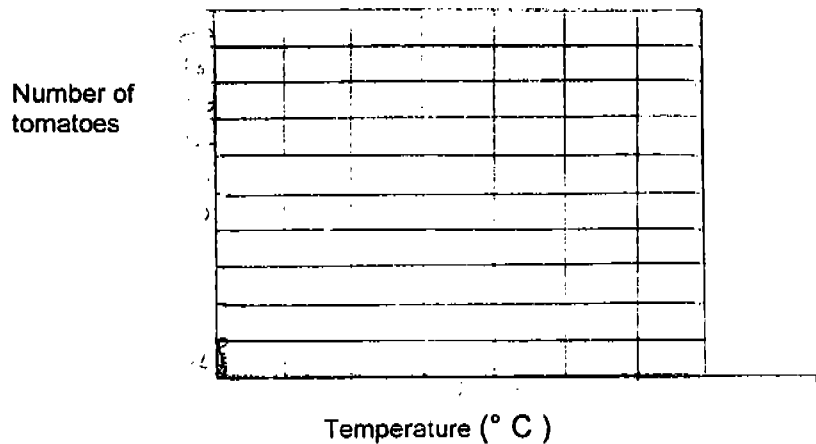


46. Peter wanted to find out the best temperature to grow tomatoes. Using the same type of soil, but different temperatures, he planted some tomatoes plants He watered them with the same amount of water everyday. After some time, the number of tomatoes that grew on each plant was recorded as follows:

Temperature (° C)	Number of tomatoes
8	2
12	6
16	12
18	14
22	20
24	16

- a) Represent the information above with a bar graph below.

(2m)



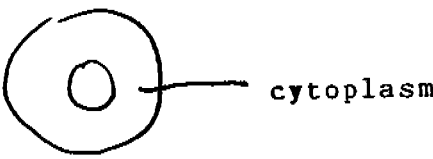
- b) What is the best temperature to grow tomatoes?

(1m)

END-OF-PAPER

S07

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PRIMARY 5 SCIENCE

- 1) 3 28) 2 29) 2 30) 2
- 2) 1 31) natural satellite
- 3) 1 reflects 28 days
- 4) 2 revolution
- 5) 1
- 6) 4 32) a) It provides warmth to life on Earth.
- 7) 2 b) Plants trap its energy to make food.
- 8) 2 33) a) The Earth rotating about its own axis.
- 9) 1 b) More activities can be carried out when there is light in the day. At night, animals usually rest.
- 10) 1
- 11) 2 34) a) It will become cold and life cannot exist on Earth.
- 12) 1 b) It has just enough heat and light from the Sun for life to exist on Earth.
- 13) 4
- 14) 3 35)
- 15) 3  cytoplasm
- 16) 1
- 17) 4
- 18) 3 36) Living things Cell division
- 19) 1 humans plants
- 20) 4 37) a) They are made up of only one cell.
- 21) 2 b) It reproduces through budding.
- 22) 1 38) a) The amount of fertilizers
- 23) 4 b) The amount of water for watering the long bean plants.
- 24) 1 c) The amount of long bean seeds.
- 25) 3 d) The types of soil.
- 26) 1 39) a) It did not have any buds.
- 27) 2 b) The giner reproduces from underground stems.

- 40) a) fertilization
 b) The ovaries
 c) The testes

41)

	✓	
		✓
✓		
		✓

- 42) a) No. Set-up A has no water.
 b) Warmth and water.

43) a) 3

- b) A has a wing-like structure that enables it to stay afloat for a longer time than B.

44) a) By water By splitting

- b) It has a fibrous husk and is waterproof.

45) i) female flowers ii) bisexual flowers

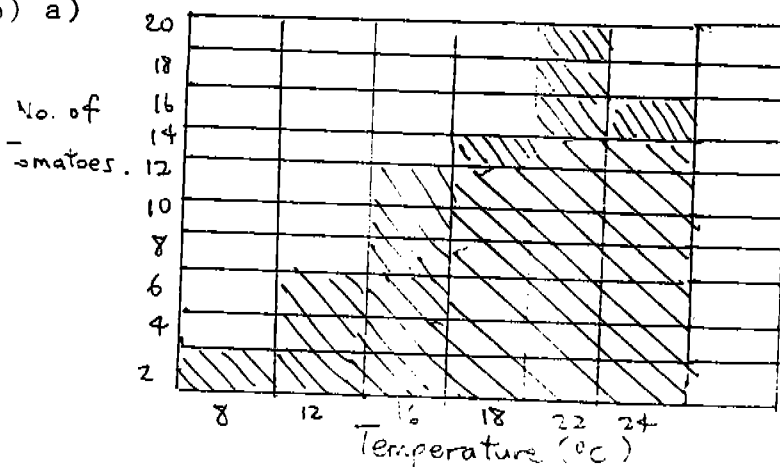
b) Stigma -----

Style -----

Ovary -----

Ovule

46) a)



b) 22° C