

SA

Pei Chun Public School
Semestral Assessment 1 – 2005
Science
Primary 5 EM1/2

Name : _____ ()

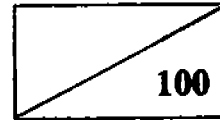
Date : 10 May 2005

Class : Pri. 5 ()

Parent's Signature : _____

Science Teacher : _____

Marks :

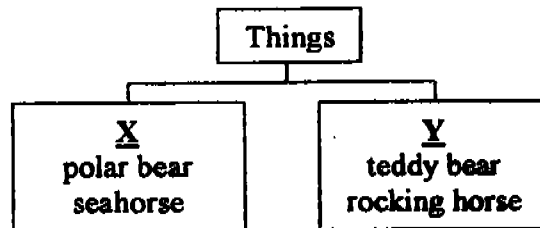


Time : 1 hr 45 min

Section A (25 × 2 marks)

For each question from 1 to 25, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet.

1. The things in Group X and Group Y are different and yet they are similar in some ways.



One common characteristic between the things in Group X and those in Group Y is that they _____.

- (1) have mass
- (2) can move on their own
- (3) need air, food and water
- (4) can increase in size as they grow ()

2. The pictures show 2 different animals.



caterpillar



snake

Based on what you can observe, which one of the following sentences best describes them?

- (1) The caterpillar is a plant-eater but the snake is an animal-eater.
- (2) The caterpillar has legs for movement but the snake does not.
- (3) The caterpillar and snake both reproduce by laying eggs.
- (4) The caterpillar and snake belong to the same community. ()

3. The arrows in the pictures below point to the roots of three different plants.

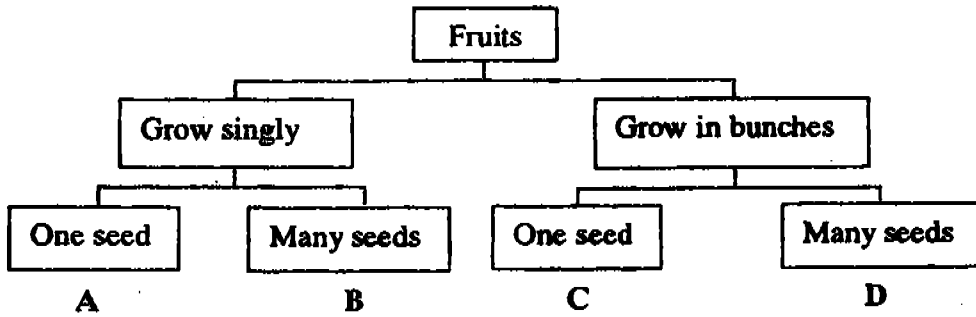


Which one of the following matches the roots of A, B and C to the functions correctly?

	store food and water	cling to the support	absorb moisture from the air
(1)	A	B	C
(2)	B	C	A
(3)	C	A	B
(4)	C	B	A

()

4. Study the classification chart below.



Which group does 'rambutan' belong to?

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

()

5. Study the characteristics of W, X, Y and Z.

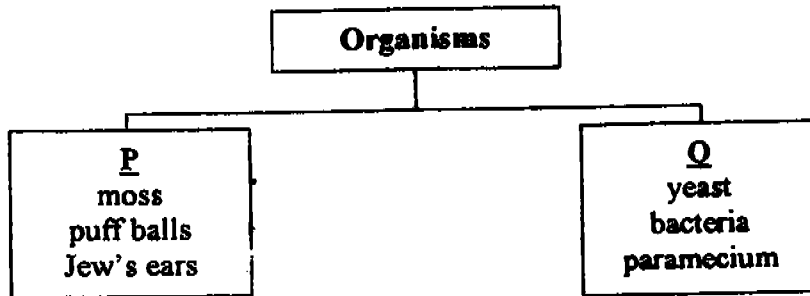
	Occupies space	Has definite volume	Has definite shape
W	✓	✓	x
X	✓	x	x
Y	✓	✓	✓
Z	x	x	x

Which one of the following most likely represents 'shadow'?

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

()

6. Study the classification chart below.

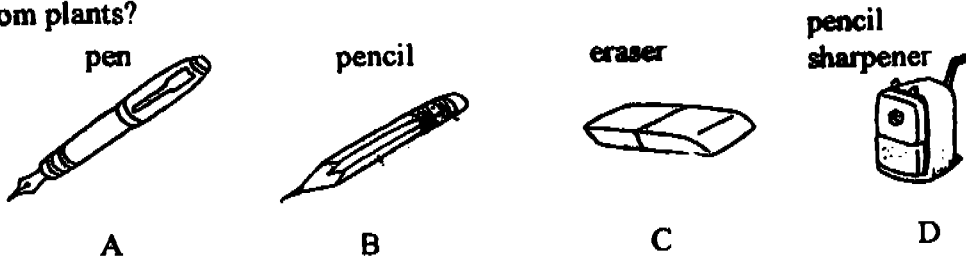


How are the organisms above grouped?

	P	Q
(1)	Fungi	Micro-organisms
(2)	Useful	Harmful
(3)	Inedible	Edible
(4)	Multiple cells	Single cell

()

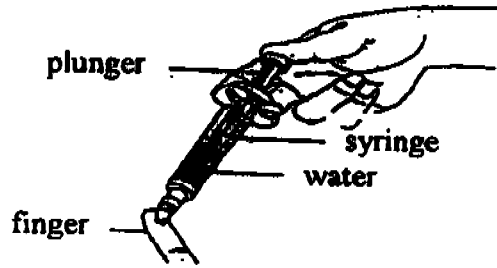
7. Which of the following objects could most likely be made completely of material taken from plants?



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

()

8. Lina filled a syringe with some air and some water.
The plunger could only be pushed in a little.

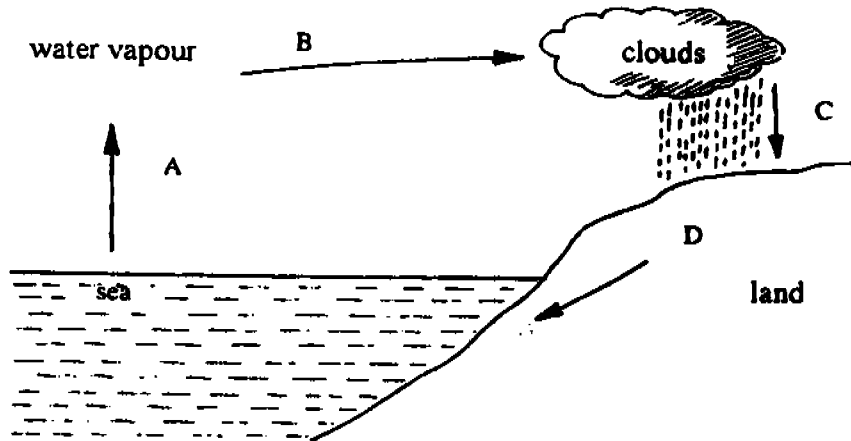


This experiment shows that _____

- (1) water and air have no definite volume and can be compressed
- (2) water has definite volume but air has no definite volume
- (3) water and air cannot escape out of the syringe
- (4) water allows the air to be dissolved in it

()

9.

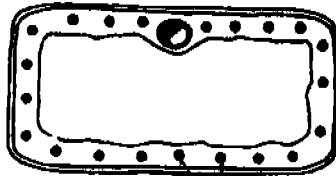


In the water cycle above, an increase in temperature at part A can lead to _____

- ~~(1)~~ heavier rainfall
- ~~(2)~~ an increase in sea level
- ~~(3)~~ a more humid weather
- (4) darker clouds in the sky

()

10. The cell shown below most likely comes from _____

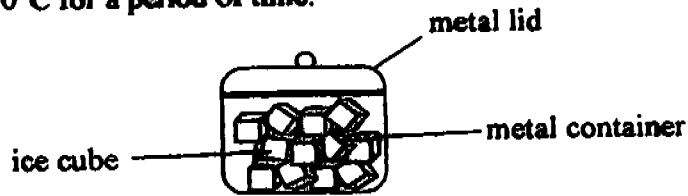


- ~~(1)~~ a potato
- (2) human blood
- ~~(3)~~ a papaya leaf
- (4) the root of plant

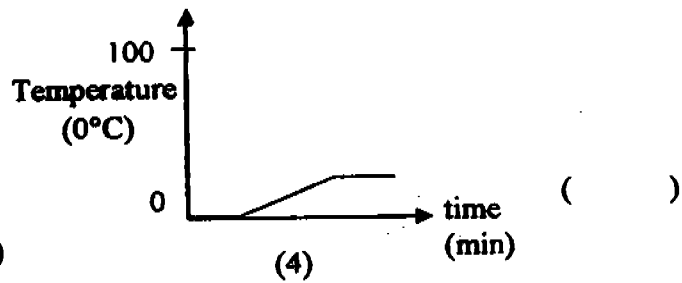
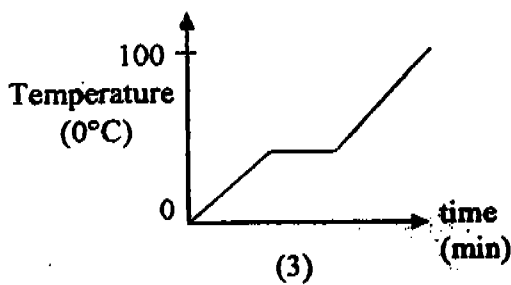
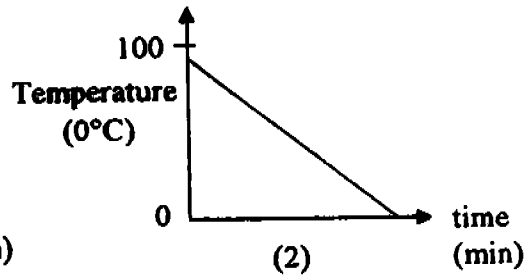
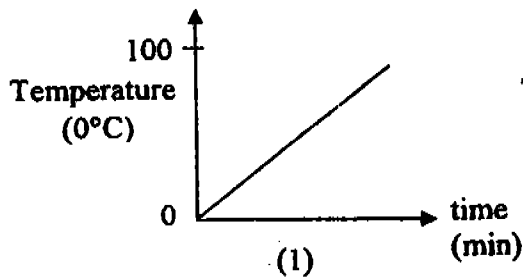
() 4

For questions 11 and 12, refer to the diagram below.

A dry metal container was filled with ice and covered with a metal lid. It was left in a room at 30°C for a period of time.



11. Which one of the following graphs best shows the change in temperature of the ice cubes in the container over a period of time?

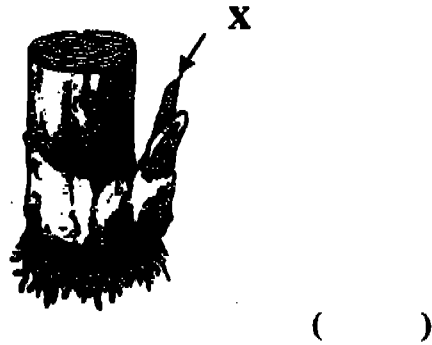


12. Droplets of water appeared on the outside surface of the metal container and lid after a short while.

Which one of the following gives the correct explanation for this in terms of heat gain or loss?

	Ice inside the container	Water vapour in the air surrounding the container
(1)	gains heat	loses heat
(2)	gains heat	gains heat
(3)	loses heat	gains heat
(4)	loses heat	loses heat

13. The picture shows a certain part of a plant.
The part marked X is the _____



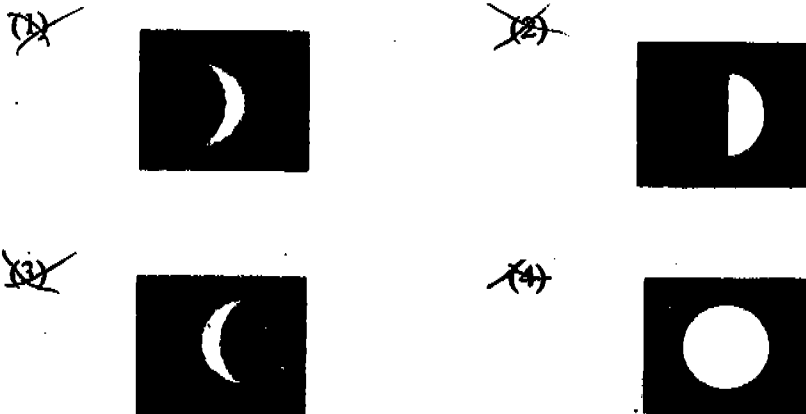
- ~~(1)~~ shoot of a ginger
- ~~(2)~~ fleshy leaf of an onion
- (3) sucker of a banana plant
- ~~(4)~~ bud of the sugarcane stem

()

14. The diagram below shows the Moon, Earth and Sun at a certain position.

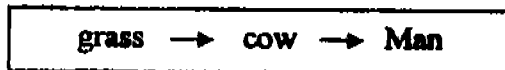


Which one of the following shows the correct shape of the moon as seen on Earth when it is in this position?



()

15. The energy chain below shows energy being transferred from one living thing to another.

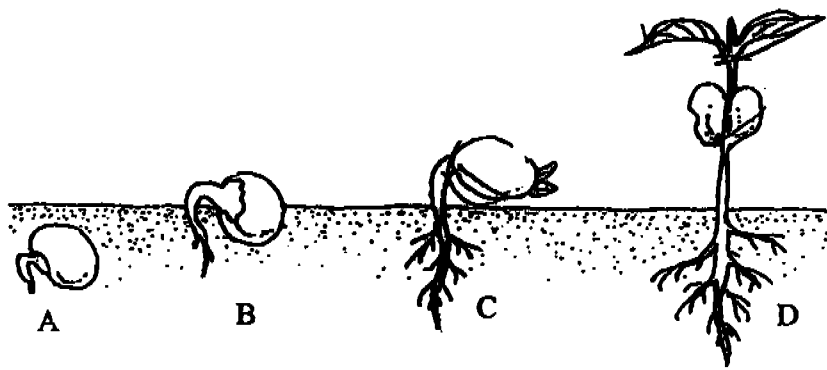


Where does the energy originate from?

- (1) Sun
- (2) cow
- (3) grass
- (4) Man

() 6

16. The diagram shows the stages of growth of a seed.

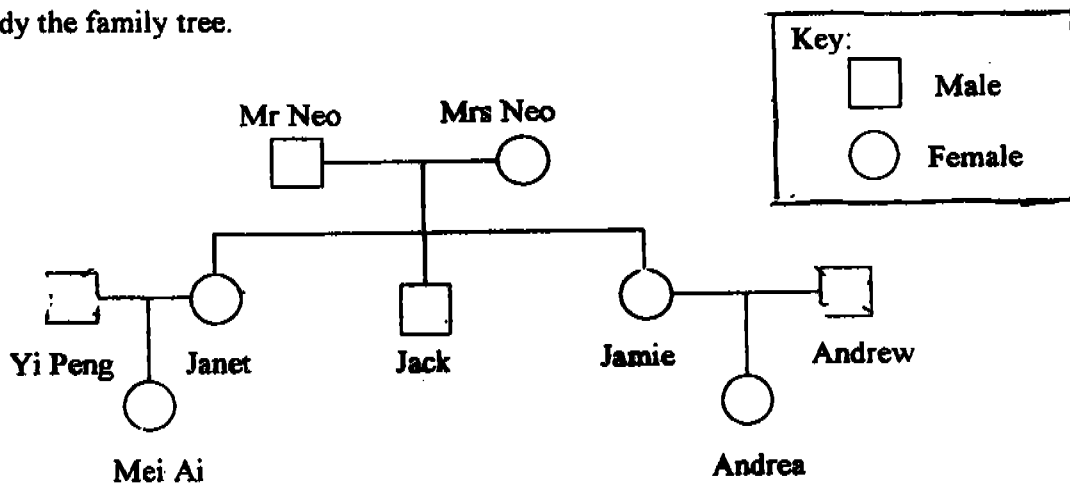


At which stage(s) of growth would the seed **not** be affected if it was completely covered by a black cardboard box?

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

()

17. Study the family tree.



From the family tree shown above, which one of the following statements is correct?

- (1) Mei Ai has 2 aunts.
- (2) Andrea has 3 uncles.
- (3) Jack is Janet's brother.
- (4) Mr and Mrs Neo have 5 children.

()

18. Which one of the following statements about animal reproduction is false?

- (1) The umbilical cord carries food and oxygen from the baby to the mother.
- (2) The baby takes about 38 weeks to fully develop inside the womb.
- (3) Fertilisation occurs only when the sperm fuses with the egg.
- (4) The baby starts breathing through her nose only after birth.

() 7

19. Study the table below.
P, Q, R and S represent 4 children.

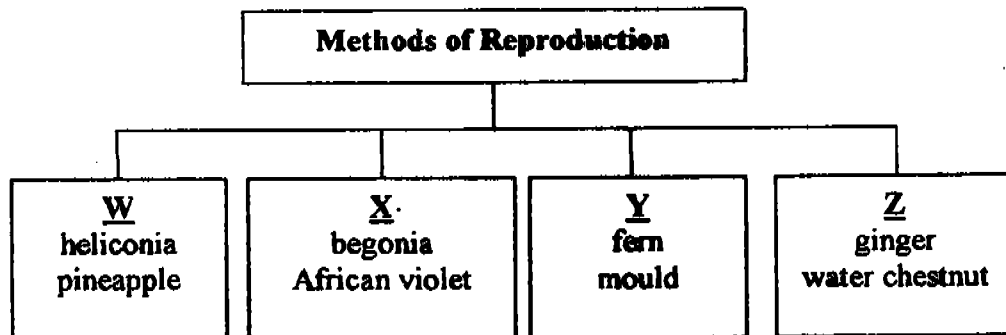
Characteristics	P	Q	R	S
dimples		✓	✓	✓
short hair	✓			✓
sharp nose	✓		✓	
brown eyes		✓		✓
attached ear lobe	✓		✓	

Which two children are most likely to be identical twins?

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

()

20. The classification table shows how some plants are grouped.



What headings would W, X, Y and Z represent?

	W	X	Y	Z
(1)	underground stem	spores	leaf	suckers
(2)	spores	underground stem	suckers	leaf
(3)	leaf	suckers	underground stem	spores
(4)	suckers	leaf	spores	underground stem

()

21. The picture shows the male and female reproductive organs.

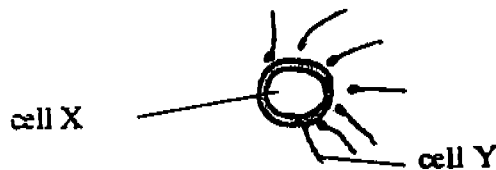


Which parts produce sperms and eggs?

	Sperms	Eggs
(1)	P	R
(2)	P	S
(3)	Q	R
(4)	Q	S

()

22. The picture below shows the fusion of two different types of cells.

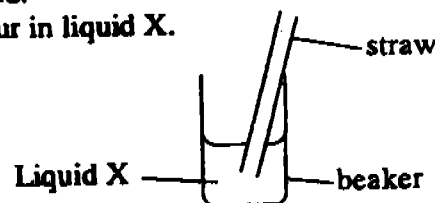


Which one of the following statements correctly describes the process?

- (1) Cell Y provides food for Cell X.
- (2) Several of cell Y can enter cell X at one time.
- (3) ~~Cell X will undergo cell division after the fusion.~~
- (4) It can take place anywhere inside the body of a female animal.

()

23. Norman filled a small beaker with liquid X.
He then blew through the straw into the liquid.
He observed that there was a change in colour in liquid X.



What do you think is liquid X?

- (1) alcohol
- (2) limewater
- (3) lemon juice
- (4) iodine solution

() 9

24. A labourer requires a lot of energy to carry out his daily work.
Which combination of food items would provide him with the most amount of energy?

Type of food	Items	Energy per serving (kJ)
cakes	banana cake	969
	chocolate cake blackforest cake	1240
snacks	onion rings	543
	cheese balls	355
	potato chips	428
drinks	fruit tea	137
	iced milo coffee without milk	54

- (1) banana cake, iced milo and onion rings
 (2) ~~chocolate cake~~, onion rings and ~~iced milo~~
 (3) blackforest cake, potato chips and fruit tea
 (4) banana cake, cheese balls and coffee without milk

()

25. During a Science experiment, Lydia was given 4 food samples.
The table shows the result of the iodine test she conducted.

Food Sample	Results
A	iodine turned dark blue
B	no change in iodine
C	iodine turned dark blue
D	no change in iodine

Based on Lydia's observations, which one of the following items matches the food sample with the results?

(1)	A	raw meat
(2)	B	mashed potato
(3)	C	mushrooms
(4)	D	steamed fish

()

For Questions 26 to 30, please refer to Booklet K.

End of Section A

Pei Chun Public School
Semestral Assessment 1 – 2005
Science
Primary 5 EM1/2

Name : _____ ()

Date : 10 May 2005

Class : Pri. 5 ()

Parent's Signature : _____

Science Teacher : _____

Time : 1 hr 45 min

Marks for Section A	60
Marks for Section B	30
Marks for Booklet K (exclude Section A Qns. 26 to 30)	10
Total Marks	100

Section B (30 marks)

For questions 31 to 42, write your answers in the spaces provided.

31. Study the table below.

Pick out 4 of the animals that do not belong to the correct group.

List them and indicate which group they should belong to.

Groups			
Mammals	Birds	Insects	Fish
bat anteater _____	_____ chicken penguin	cricket silverfish caterpillar	shark _____ _____

Animals

Group

i. _____

ii. _____

iii. _____

iv. _____

(4 m)

//

32. Minah wants to grow some plants along the ^{fencing} ~~side~~ of her garden. She would like the fence to be covered by the leaves as the plant grows.



morning glory



balsam

a) Which one of the plants shown above should Minah choose? Why? (2 m)

b) State one similarity between the two plants. (1 m)

33. Some potatoes were left in a sack, away from sunlight, for 2 weeks. The picture shows what some of the potatoes looked like when they were taken out from the sack.



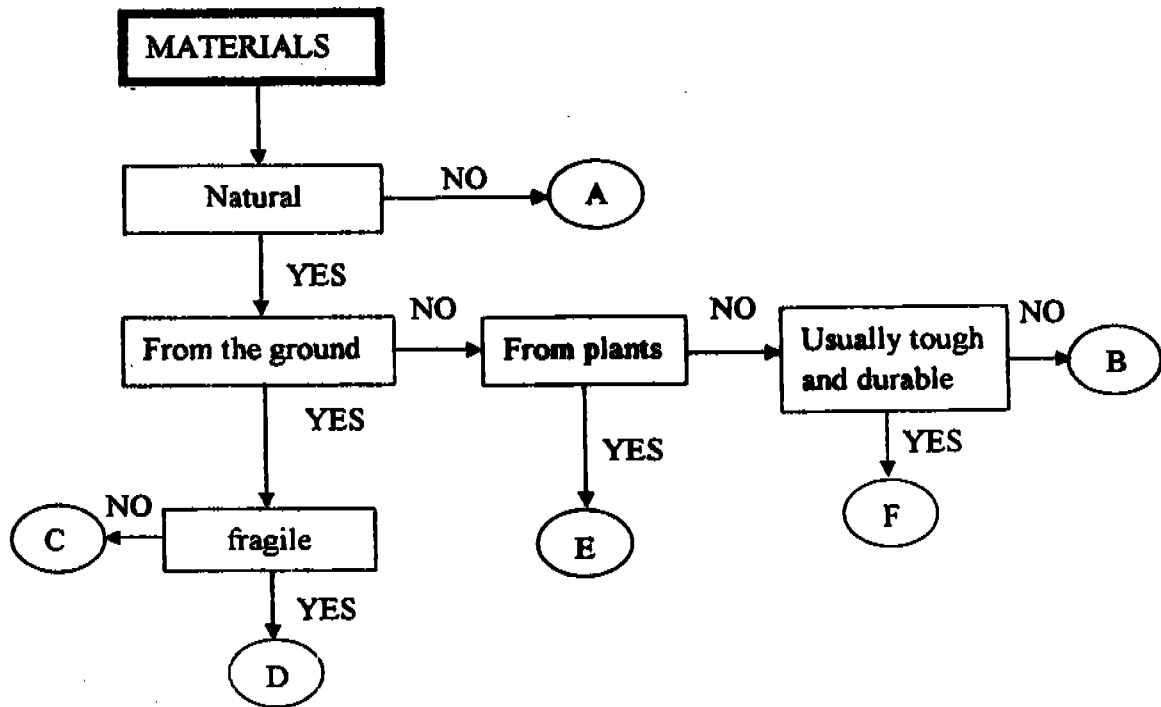
a) What is part X? (½ m)

b) Which ^{part} of the potato plant does X get its food from? (½ m)

c) Circle the factor(s) which is/are not necessary for X to appear. (1 m)

heat	light	water	oxygen
------	-------	-------	--------

34. Study the flow chart below.



Match the letters A, B, C, D, E and F to the correct materials in the table below:

Material	Letter
silk	
wood	
metal	
glass	
nylon	
leather	

(3 m)

35. Rosnah put a stalk of rose into each vase A, B and C.



Vase A



Vase B



Vase C

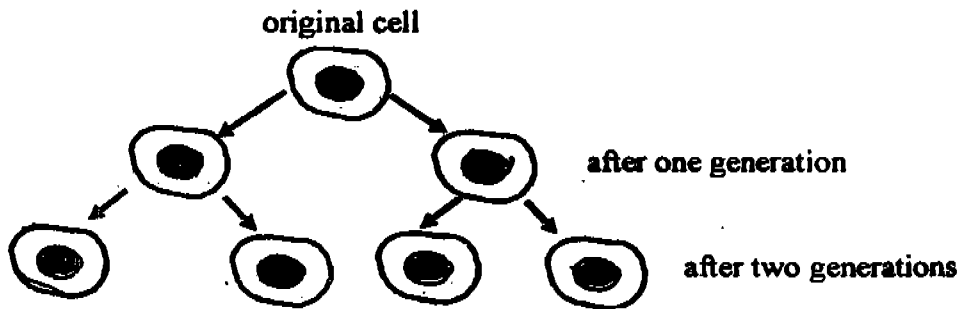
She filled the vases with equal amount of water and placed them on the same table. Two days later, she noticed that the volume of water left in the vases differ from one another.

a) Assuming that the 3 stalks of roses take in the same amount of water, which vase would have the least amount of water left? Why? (1 m)

b) Why was the volume of water reduced in each vase? (½ m)

c) State one way how Rosnah could prevent this unnecessary loss of water. (1 m)

36. The diagram below shows how a cell divides to form new cells.



a) Draw, in the diagram above, the third generation of cells. (1 m)

b) Name this method of reproduction. _____ (1 m)

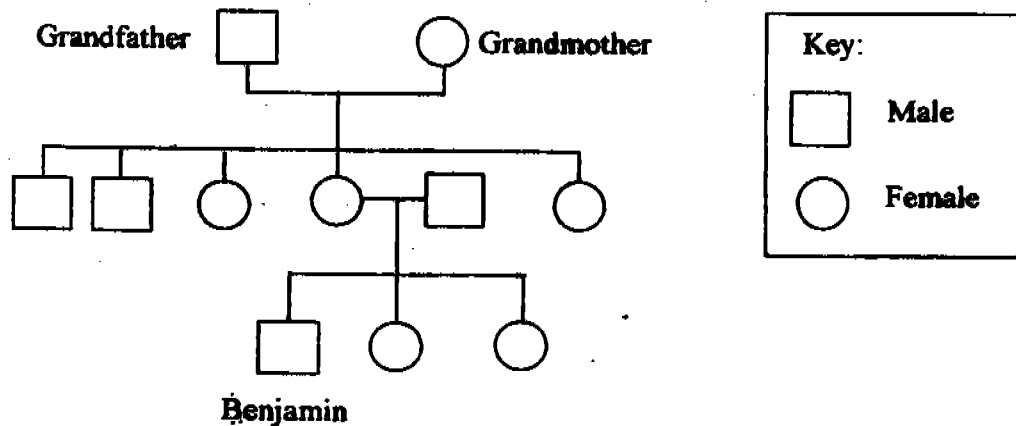
37. The table below shows a comparison of 3 kinds of cells.

Type of cells \ Parts of a Cell	A	B	C
nucleus	✓	✓	✓
cell wall	✓	✓	x
cytoplasm	✓	✓	✓
chloroplast	✓	x	x
cell membrane	✓	✓	✓

a) Which 2 cells could possibly come from the same organism? (1 m)

b) Explain your answer in (a). (2 m)

38. The diagram below shows Benjamin's family tree.



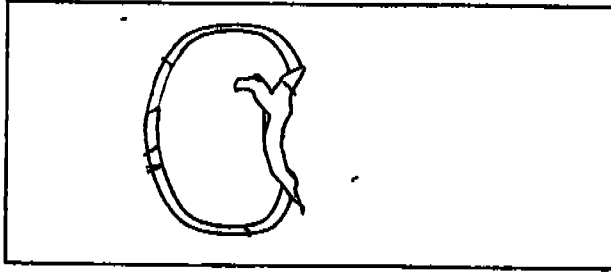
a) How many children do Benjamin's grandparents have? (1 m)

b) Benjamin's mother has just given birth to another son. (1 m)

Draw in the family tree above to show this new addition to the family.

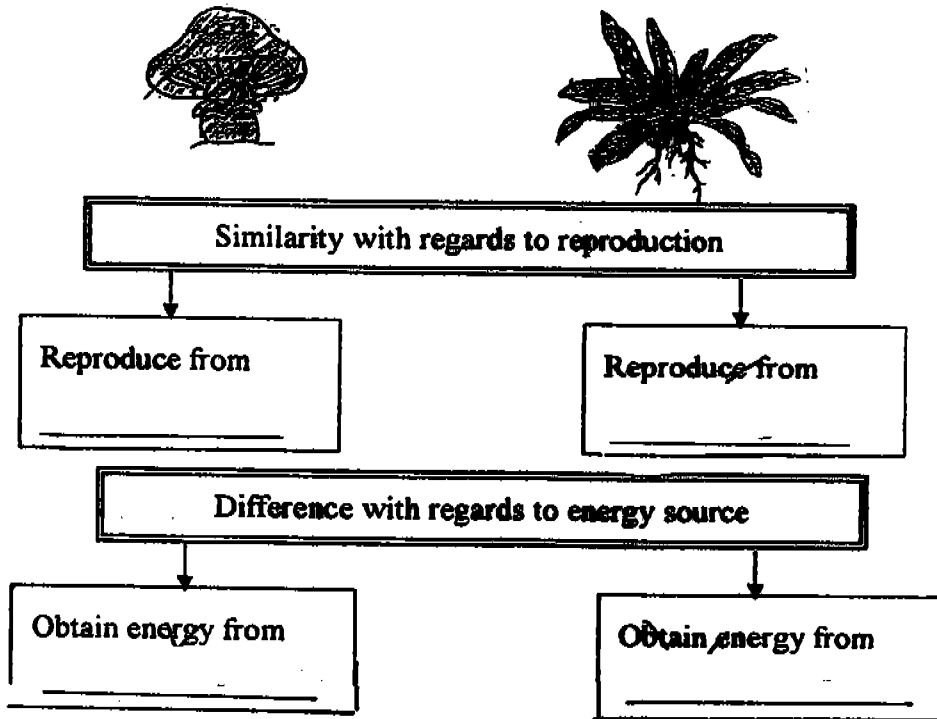
15

39. Study the diagram of the cross-section of a germinating seed.



- a) Draw an arrow and name the part which provides food for the baby plant to grow. (1 m)
- b) State the conditions necessary for germination to take place. (1 m)

40. The pictures show a mushroom and a bird's nest fern. Study the graphic organizer below and complete it with the correct answer.



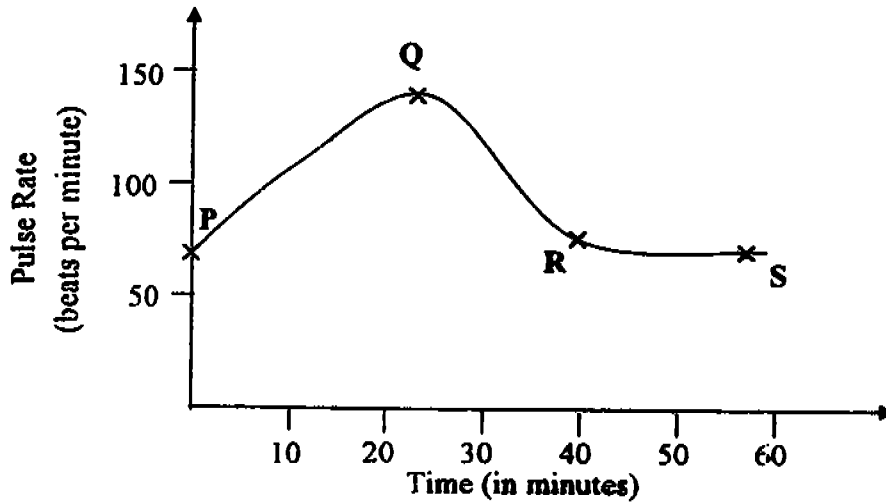
41. Fill in the blanks with suitable words.

The two cells involved in human reproduction are the _____ and the _____.

When these two cells fuse, a _____ is formed in the mother's _____. After the gestation period, the baby emerges out of the mother's body through the _____.

(2½ m) /6

42. Hamkah did an aerobics exercise for a few minutes before resting. The graph below records his pulse rate over a period of 1 hour.



- a) Which part of the graph shows that he is exercising? (½ m)
-
- b) Which part of the graph shows his normal pulse rate? (½ m)
-
- c) What does his body need in order to have the energy to carry out the exercise? (1 m)

For Questions 43 to 46, please refer to Booklet K.

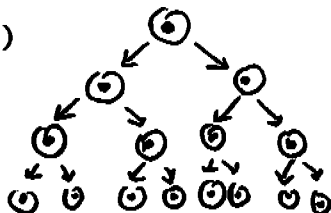
End of Paper

Set by : Mdm Nora
Vetted by: P5 Science Committee teachers

17/18

PEI CHUN PUBLIC SCHOOL
 SEMESTRAL ASSESSMENT 1 - 2005
 SCIENCE
 PRIMARY FIVE

- | | | |
|-------|-----------------|---|
| 1) 1 | 28) 1 | |
| 2) 2 | 29) 2 | |
| 3) 3 | 30) 2 | |
| 4) 3 | 31) i) seahorse | Fish |
| 5) 4 | ii) ladybird | Insects |
| 6) 4 | iii) dolphin | Mammals |
| 7) 2 | iv) Kingfisher | Birds |
| 8) 2 | | |
| 9) 3 | 32) a) | The morning glory. Since the plant has a weak stem, it has to climb up the fencing for support. |
| 10) 3 | | |
| 11) 4 | b) | They both have flowers. |
| 12) 1 | 33) a) | Shoots |
| 13) 3 | b) | It gets its food from the underground stem of the potato plant |
| 14) 1 | c) | Light |
| 15) 1 | 34) B | |
| 16) 3 | E | |
| 17) 3 | C | |
| 18) 1 | D | |
| 19) 4 | A | |
| 20) 4 | F | |
| 21) 2 | 35) a) | Vase C. It has largest area of exposed surface. |
| 22) 3 | b) | The roses take in the water in order to survived and some water evaporated. |
| 23) 2 | c) | Pour oil on the surface of the water to avoid evaporation of water. |
| 24) 2 | | |
| 25) 4 | 36) a) | |
| 26) 2 | | |
| 27) 3 | | |
| 28) 1 | b) | cell division |

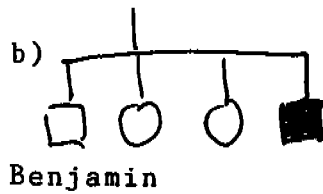


b) cell division
www.missskoh.com

37) a) A and B

b) A and B have cell wall but C has no cell wall.

38) a) 5 children



39) a)

seed
leaf



b) Warmth, oxygen and water.

40) spores

spores

Decaying matter
dead organisms/
dead plants or
animals/rotting log/
wood

Sunlight/light energy/sun

41) egg cell

sperm

foetus

womb

vagina/birth canal

42) a) P to Q

b) R to S

c) His body needs food/oxygen.