MAHA BODHI SCHOOL

2024 SCIENCE REVIEW 1

PRIMARY FIVE

Name : _____( ) Date : 24 April 2024

Class : Primary 5 _____

Duration : 50 min

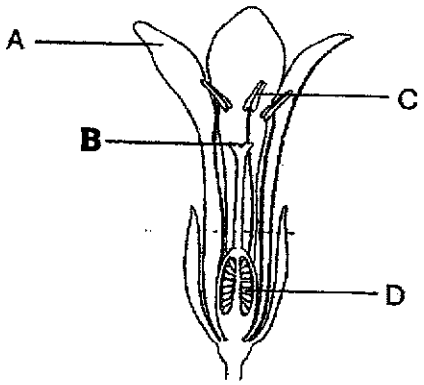
Marks: / 30

Parent's signature : _____

Section A : [8 x 2 marks = 16 marks]

For each question from 1 to 8, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). **Write your answer in the bracket.**

1. The diagram below shows the cross section of a flower.



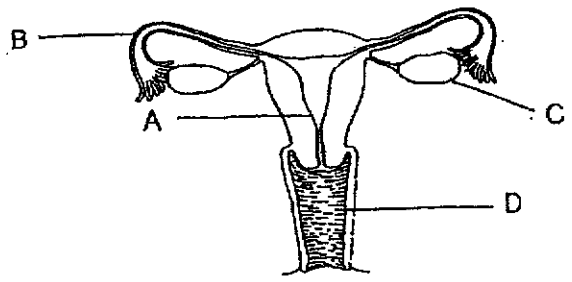
Which part of the flower, A, B, C or D should the pollen grains land on so that pollination is completed?

1. A
2. B
3. C
4. D

( )

Marks : / 2

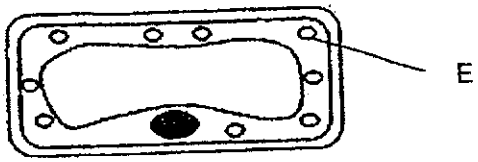
2. The human female reproductive system is shown in the diagram below.



Where are the eggs produced?

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

3. The diagram below shows a cell.

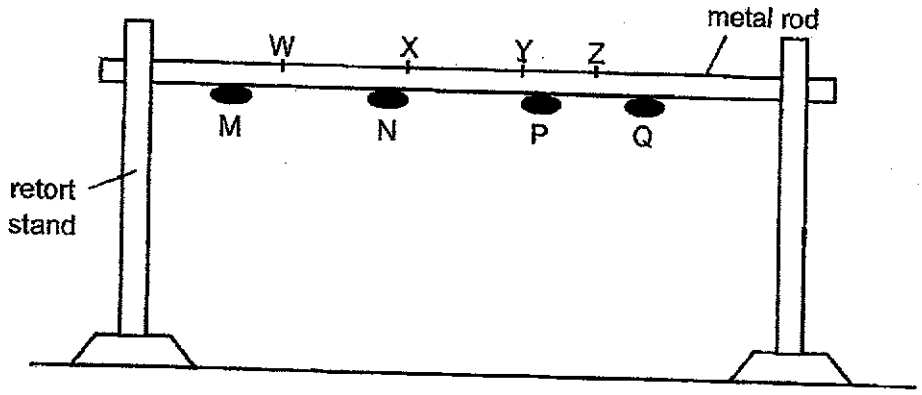


Which of the following statements correctly describes the function of part E?

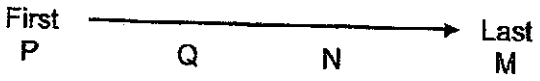
(1) It controls all activities in the cell.
(2) It supports the cell and gives it a regular shape.
(3) It contains chlorophyll to trap sunlight to make food.
(4) It controls movement of substances in and out of the cell. ( )

Marks : / 4

4. Four identical pieces of wax, M, N, P and Q, were attached to a metal rod as shown in the diagram below.



The metal rod was heated at one point by a lighted candle. The pieces of wax melted and dropped in the following order:



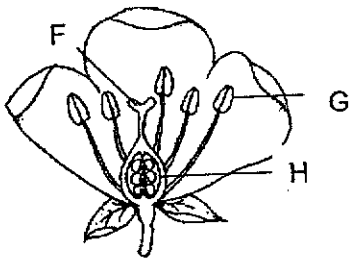
At which point of the metal rod was the lighted candle heating?

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

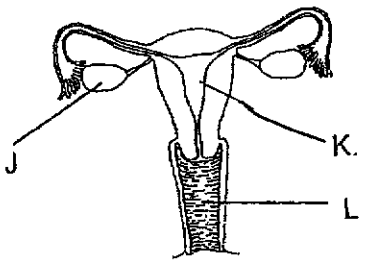
( )

Marks : /2

5. The diagrams below show the plant and human reproductive systems.



Plant reproductive system



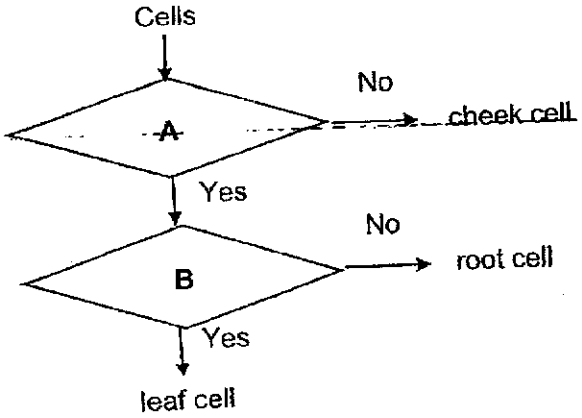
Human reproductive system

The fertilised eggs develop at _____.

(1) F and K only
(2) G and J only
(3) H and K only
(4) H and L only

( )

6. Study the flowchart below carefully.



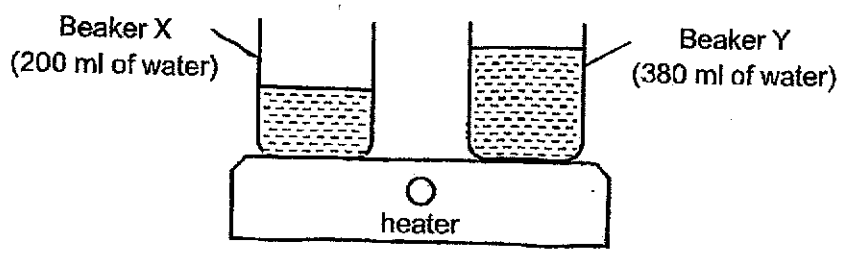
What are possible questions A and B?

	A	B
(1)	Does the cell have a cell wall?	Does the cell have cell membrane?
(2)	Does the cell have chloroplast?	Does the cell have cell membrane?
(3)	Does the cell have cell membrane?	Does the cell have chloroplast?
(4)	Does the cell have cell wall?	Does the cell have chloroplast?

( )

Marks : /4

7. Different amounts of water at room temperature were poured into two identical beakers, X and Y. The two beakers of water were heated, as shown in the diagram below, until the water reached 100°C.



Which of the following statements are true?

A. Water in beakers X and Y reached 100°C at the same time.

B. Water in Beaker X reached 100°C faster than the water in Beaker Y.

C. When the water in both beakers were at 100°C, they had the same amount of heat.

D. The water in beaker Y had more heat than the water in beaker X when they were at 100°C.

(1) A and C only

(2) A and D only

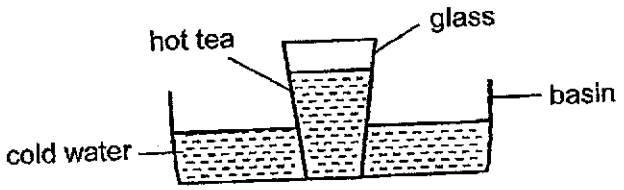
(3) B and C only

(4) B and D only

( )

Marks : /2

8. A glass of hot tea was placed in a basin of cold water, as shown in the diagram, for one hour.



Which of the following shows the correct observation and explanation of this set-up after one hour?

	Observation	Explanation
(1)	The water became warmer than the tea.	The cold water lost coldness to the hot tea.
(2)	The water and tea were at the same temperature.	The cold water gained heat from the hot tea.
(3)	The water and tea were at the same temperature.	The hot tea gained coldness from the cold water.
(4)	The tea became colder than the water.	The hot tea lost heat to the cold water.

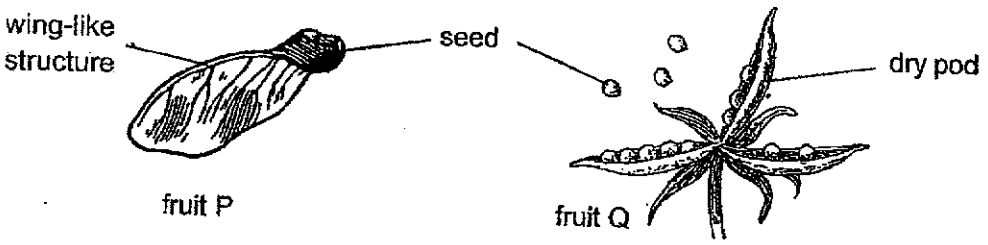
( )

Marks : /2

SECTION B : [14 marks]
For questions 9 to 12, write your answers in this booklet.

The number of marks available is shown in the brackets [ ] at the end of each question or part-question.

9. The diagrams below show fruits P and Q from two different plants.



(a) State the dispersal method for the seeds of fruits P and Q. [1]

P: _____

Q: _____

(b) Explain how the characteristic of fruit P helps in its dispersal. [2]

_____

_____

_____

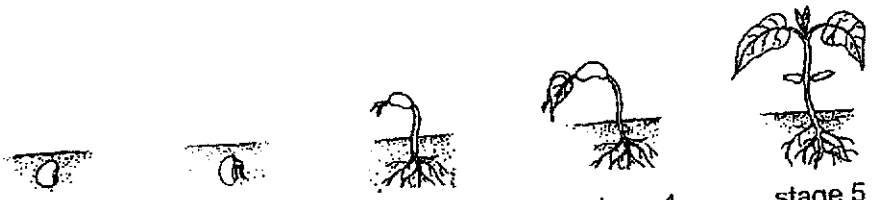
(c) State one advantage for plant Q when their seeds are dispersed further away from their parent plants. [1]

_____

_____

Marks: / 4

10. The diagram below shows the stages of seed R growing into a young plant.



(a) State the conditions needed for seed R to grow from stage 1 to 2. [1]

(b) Explain why the seed leaf in stage 5 is smaller as compared to when it is in stage 3. [1]

(c) As seed R grows into an adult plant, it bears red flowers like its parent plant. Explain why this is so. [1]

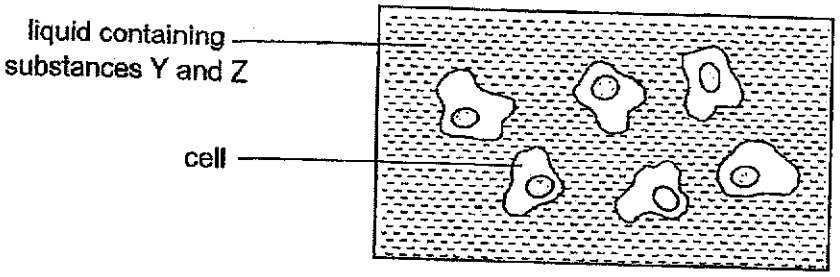
Marks: /3

11. (a) State the function of a cell membrane. [1]

_____

_____

(b) Ali placed some cells into a container of liquid with substances Y and Z.



He measured the amount of substances Y and Z in the cells before and after the experiment and recorded his observations in the table below.

Cell	Amount of substance			
	Y at the start	Y at the end	Z at the start	Z at the end
1	2	2	0	2
2	0	0	0	3
3	0	0	2	5
4	1	1	0	2
5	0	0	0	3
6	1	1	0	3

(i) Why did Ali place 6 cells in the container instead of 1? [1]

_____

_____

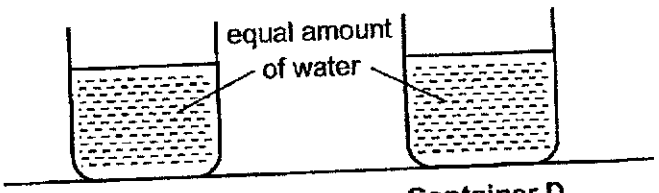
(ii) Based on the results, what can Ali conclude about the cell membrane of the cell? [1]

_____

_____

Marks: / 3

12. (a) Two identical containers, C and D, were filled with equal amounts of water of different temperatures, as shown in the diagram below. They were placed in a room with a temperature of 28°C for 30 minutes.



Container C
Temperature of water was 9°C

Container D
Temperature of water was 60°C

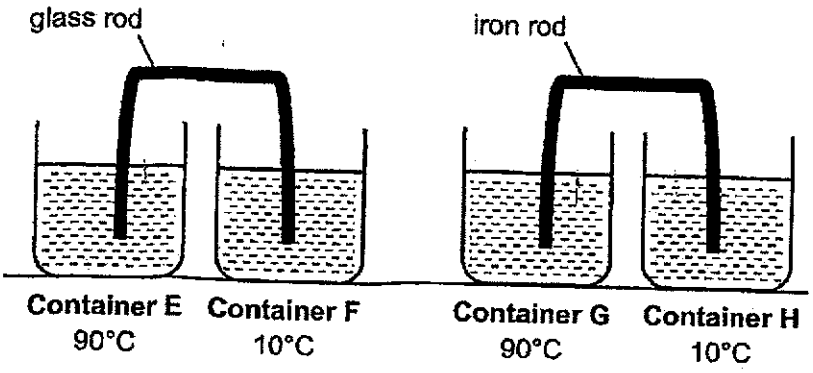
9

Place ticks (✓) in the correct boxes to show the changes taking place in both containers of water when they were placed in the room. [1]

	gained heat	**lost heat**	**temperature increased**	**temperature decreased**
water in Container C				
water in Container D				

Marks: / 1

(b) An experiment was set up using four identical styrofoam containers, E, F, G and H, with equal amounts of water. The temperatures of the water in the containers at the start of the experiment are shown in the diagram below.



A glass rod and an iron rod were placed in the containers as shown. After five minutes, the temperatures of the water in the containers were measured.

(i) Arrange the containers according to the temperature of the water in them, from the lowest to the highest, by writing the letters E, F, G and H, in the correct boxes. [1]

lowest temperature ⟶ highest temperature

(ii) Explain the difference in the temperatures of the water in Containers F and H after five minutes. [1]

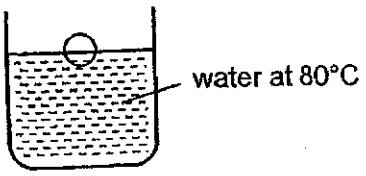
_____

_____

_____

Marks: /2

(c) Alfred dented his ping pong ball. To change the ping pong ball back to its original shape, he placed it in a container of water at 80°C.

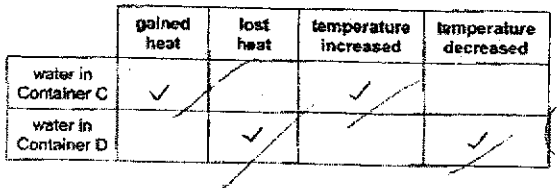


Explain how this would change the ping pong ball to its original shape. [1]

Marks: / 1

~ END OF PAPER ~

SCHOOL : MAHA BODHI SCHOOL
LEVEL : PRIMARY 5
SUBJECT : SCIENCE
TERM : 2024 WA1

Q1)	2
Q2)	3
Q3)	3
Q4)	3
Q5)	3
Q6)	4
Q7)	4
Q8)	2
Q9)	a) P: Wind Q: Explosive action b) The fruit has wing-like structure. It can stay longer in the air. The fruit can be carried further away from the parent plant. c) When plant Q's seeds are dispersed further away from their parent plants, they can reduce overcrowding and competition for minerals, water, sunlight and space among the parent plants and young plants and will grow more healthily.
Q10)	a) Air, water, warmth. b) The young plant has used up the food stored in the seed leaf. c) The plant inherited the characteristics from its parents.
Q11)	a)A cell membrane controls the substances entering and exiting the cell. b)i)To ensure that his results are reliable. ii)The cell membrane allows Z to enter the cell but not Y.
Q12)	a)  b)i)F , H, G, E ii)Iron is a better conductor of heat than glass. Water in H gained heat faster than the water in F. c)The air in the ball gained heat from the hot water and expanded.