

Class : 6

Time: 2 hrs 15 minutes

## Instructions

- 15 minutes cool-off time is allotted for reading and understanding the activities.
- Answer any six questions.
- Internal choices (A & B) are given to question 2 and 3. You need to answer any one of these questions.

1. a) Observe the flowers of mango and cashew trees. Compare the flowers and their fruits. Write their similarities and differences.

Mango tree



Cashew tree



- b) Pictures of the simple fruits, Mango and Bitter gourd are given below.

Mango



Bitter gourd



Observe them and write the reason for the difference in the number of seeds.

- c) Choose the correct statement about multiple fruit.
- A fruit is formed from a flower.
  - More than one fruit is produced from one flower.
  - Fruits formed from an inflorescence combine to form one single fruit.
  - Each flower in an inflorescence becomes a fruit.

2. This question has two parts 2 (A) & 2 (B). Write either 2 (A) or 2 (B).

## 2. (A)

- a) Substances and arrangements of different molecules are given. Analyse the table. Write which of the following is the correct arrangement.

Substance			Arrangement of molecules
1	Ice	a	
2	Water	b	
3	Water vapour	c	



A. 1 a, 2 b, 3 c,

B. 1 b, 2 a, 3 c

C. 1 b, 2 c, 3 a,

D. 1 c, 2 a, 3 b

b) Write the relation between the arrangement of molecules and their shapes of ice and water.

c) Examine the statements given below.

Statement 1 - Air is a mixture.

Statement 2 - Carbon dioxide is a pure substance.

Are these statements correct? Why?

OR

2. (B)

a) Some instances where components need to be separated from mixtures are given below.

A Separating chaff from the rice.

B Lemon seeds are separated from lime juice.

C Butter is separated from curd.

D Separating Bengal gram from rice.

Which properties of components are used in each situation to separate them.

b) How do you separate the components from a mixture of salt and sand?

c) Which of the following is a reason why stones can be separated from Jaggery?

A. Difference in colour

B. Difference in size

C. Difference in solubility

D. None of the above

3. This question has two parts 3 (A) & 3 (B). You have to attempt either 3 (A) or 3 (B)

3. (A)

Read the conversation.



Nutmeg tree  
needs another  
nutmeg tree to  
bear fruits.

Mango tree  
bears fruits,  
even it is just  
one.



a) A nutmeg tree does not bear fruits if it is only one. Write the reason.

b) The table showing a list of flowers, their characteristics and pollinating agents is given below.

Complete the table.

Flower	Pollinating agent	Characteristics
Paddy	A. ....	B. ....
Ixora	Honey bee	C. ....
D. ....	Moth	White and fragrant flower

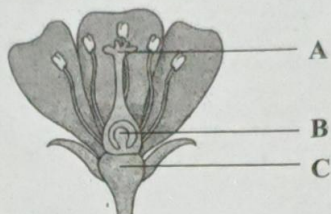


- c) Some statements related to pollination are given below. Which of them are correct?
- Both self pollination and cross pollination take place in dioecious plants.
  - In dioecious plants, only cross pollination takes place.
  - Both self pollination and cross pollination take place in monoecious plants.
  - In monoecious plants only cross pollination takes place.
- A. Statements i and ii are correct      B. Statements ii and iii are correct  
C. Statements i and iv are correct      D. Statements iii and iv are correct

OR

3. (B)

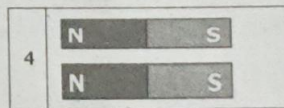
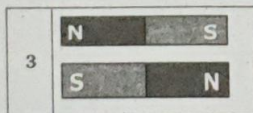
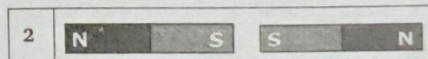
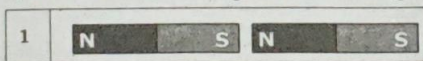
- a) Write the labelled parts of the flower.



- b) Different stages of fertilization are given below. Write them in the correct order.
- Pollen grain grows down through style in the form of a tube.
  - Male gamete fuses with the egg to form zygote.
  - Pollen grain falls on stigma.
  - Male gamete reaches the ovary through this tube.

4.

- a) Using the properties of a magnet make a toy of a 'Fish moving towards the hook.' The magnet and the hook are available. What are the other materials needed? Write the method of preparation.
- b) Observe the arrangement of magnets.

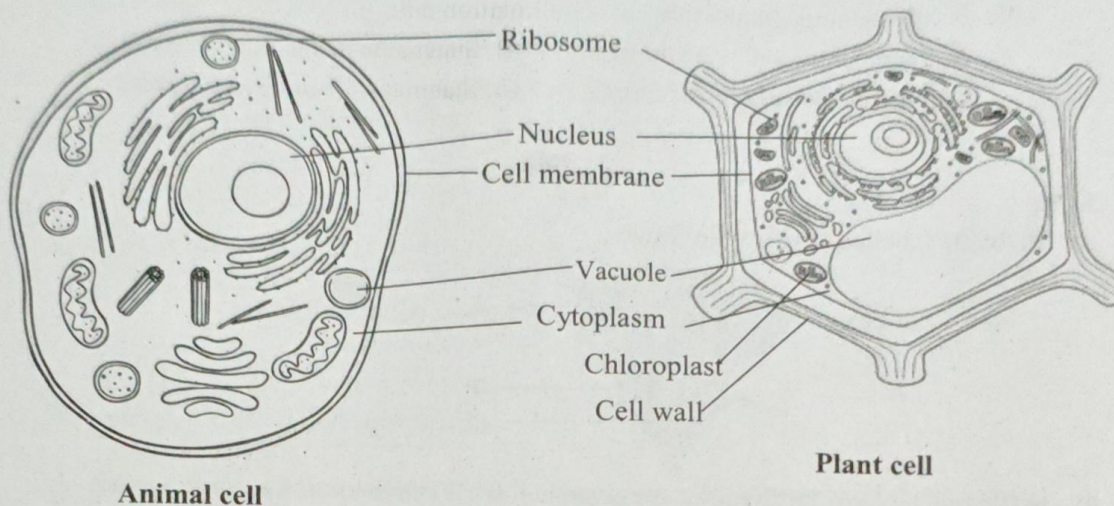


In which situations do the magnets attract? In which situations do the magnets repel? Why?

5.

- a) A friend who fell while playing feels pain and difficulty to move his hand. The child should be taken to the hospital without moving this hand. What first aid would you give? Write down the materials required and the procedure of giving first aid.

- b) In an awareness class conducted by Health Club, the doctor suggested to include leafy vegetables, eggs and milk in diet for bone health. What could be the reason?
6. Observe the picture.



- a) Write the parts that are common in plant and animal cells.
- b) (1) Which cell organelle helps in protein synthesis?  
(2) Which part of the cell controls the functions of the cell?
- c) Four statements related to cells are given below. Which of them is correct?
- i. Cells are the basic unit of all organisms.
  - ii. Euglena is a multicellular organism.
  - iii. Cells can be observed using hand lens.
  - iv. Mitochondrion produces the energy required for the cell.
- A. Statements i and ii are correct.
  - B. Statements i and iii are correct.
  - C. Statements i and iv are correct.
  - D. Statements i, iii, iv are correct.