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## CH: 5 Plant reproduction

### I Technical words:

#### 1. Reproduction:

The process by which a living organism produces more of its own kind.

#### 2. Germination:

The process by which a seed develops into a young plant or seedling under proper conditions.

#### 3. Zygote:

The first cell formed after the male and female gametes fuse during fertilisation.

### II Differentiate

#### 1. Differentiate between monocotyledonous and dicotyledonous seeds.

| Ans | Monocot seed                                        | Dicot seed.                                       |
|-----|-----------------------------------------------------|---------------------------------------------------|
|     | i) seeds with one cotyledon is called monocot seed. | i) seed with two cotyledons is called dicot seed. |
|     | ii) Example : Rice, wheat, maize etc                | ii) Example: Kidney bean, pea, mango seed.        |

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### III Short answers:

1. What is seed dispersal? Why is it important?

Ans i) Seed dispersal is the scattering of seeds away from the parent plant.

ii) It prevents overcrowding and helps new plants to grow properly.

2. How can we grow a potato plant?

Ans i) Potato plants grow from the eyes (buds) of a potato.

ii) When a potato with an eye is planted in the soil it grows into a new plant.

3. What are spores? Explain reproduction by spores with examples.

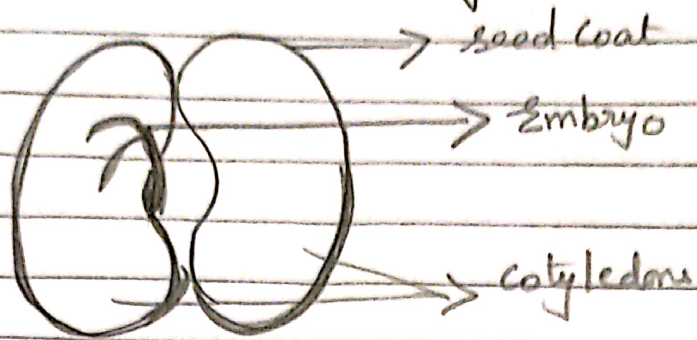
Ans i) Spores are tiny seed-like reproductive bodies.

ii) Plants like ferns and mosses reproduce through spores.

iii) In fern plants, group of spores are found in the form of sori, on the leaves.

IV Long Answer

1. Explain the structure of a seed with the help of a neat labelled diagram.



A seed contains

i) Seed coat:

This is the outer covering of the seed. It protects the embryo from damage and from drying out.

ii) Seed leaves or cotyledons:

When the seed coat is removed, the seed leaves called cotyledons can be seen. They store food for the baby plant.

iii) Embryo or baby plant:

The embryo lies between the cotyledons. It develops into the root and shoot system to form a new plant.

iv) Endosperm:

This part is found around the embryo and supplies it with nutrients during its growth.

### HOTS

1. Coconut trees are found in great numbers in the coastal areas. Give reason.

Ans. Coconuts grow on sea coasts because their seeds are dispersed by water and float to the seashore, where they grow into new plants.

## CH:6 Solids, Liquids and Gases.

### I Technical terms

#### 1. Humidity:

The amount of water vapour present in the air at a particular time.

#### 2. Solution:

A mixture formed when a substance dissolves in a liquid.

#### 3. Chlorination:

The process of adding chlorine tablets to drinking water to kill the bacteria present in it.

### II Analogy:

1. Soluble: sugar : Insoluble: chalk powder

2. Solid: Table : Liquid: Milk

### III Give one word answer:

1. The substance that dissolves in a solution: - Solute.

2. The clear water obtained after filtration. - filtrate.

3. An instrument used to measure the speed of the wind :- Anemometer.

4. The movement of cooler air from the land towards the sea during the night :- Land Breeze

#### IV Short Answers:

1. What are miscible and immiscible liquids?  
Give one example of each.

Ans Miscible liquids:

When two liquids mix completely with each other, they are called miscible liquids.  
Example: alcohol and water.

Immiscible liquids:

When two liquids do not mix completely and form separate layers, they are called immiscible liquids. Example: water and petrol.

2. How is distilled water obtained? why is it not used for drinking?

Ans i) Distilled water is obtained by heating water to form steam and then cooling the steam to collect pure water.

ii) It is not used for drinking because it does not contain essential minerals needed by the body.

V Long Answer

1. Tabulate the properties of three states of Matter.

| Features                 | Solid                                                               | Liquid                                                             | Gases                                       |
|--------------------------|---------------------------------------------------------------------|--------------------------------------------------------------------|---------------------------------------------|
| i) Molecular arrangement | The molecules are very tightly packed with no space to move around. | Molecules are loosely packed and can move around freely.           | Molecules in gases are very loosely packed. |
| ii) Shape                | Fixed shape                                                         | Liquids have no fixed shape, they take the shape of the container. | Gases have no fixed shape.                  |
| iii) Volume              | Have fixed volume.                                                  | Have fixed volume                                                  | No fixed volume                             |

VI HOTS

1. What will happen if there are no ventilators in a room?

Ans If there are no ventilators, rooms will become hot, damp and unhealthy, causing breathing problems and discomfort.

Q.