

**Important Questions for Class 7 Science Chapter 8:** Chapter 8 of Class 7 Science, Reproduction in Plants, explores how plants reproduce through different processes. It covers asexual reproduction, including budding, fragmentation, and spore formation, and sexual reproduction, involving the fusion of male and female gametes. The chapter explains pollination (self and cross-pollination) and fertilization in flowers.

It also highlights methods of seed dispersal, such as by wind, water, animals, or explosion. Key topics include the structure of flowers, vegetative propagation methods, and the importance of reproduction for survival. Understanding these concepts helps students learn about plant diversity and adaptation. Practice questions focus on definitions, examples, and life processes.

## **Important Questions for Class 7 Science Chapter 8 Overview**

Chapter 8 of Class 7 Science, Reproduction in Plants, explains the vital processes of reproduction that ensure plant survival and biodiversity. It covers asexual methods like budding and spore formation, and sexual reproduction through pollination and fertilization.

Topics such as seed dispersal by wind, water, and animals highlight plant adaptation. Understanding these concepts is essential to grasp the continuity of life and ecological balance. Important questions focus on defining terms, explaining methods, and describing processes critical to plant growth and reproduction.

## **Important Questions for Class 7 Science Chapter 8 Reproduction in Plants**

Below is the Important Questions for Class 7 Science Chapter 8 Reproduction in Plants -

**Very Short Answer Questions: 1 mark**

1. Which of the following is a vegetative part of the flower?
2. a) Pistil b) Anther c) Leaf d) Seed

**Ans:** c) Leaf

2. Which of the following is the female part of the flower?
3. a) Style b) Anther c) Filament d) Sepal

**Ans:** a) Style

3. A piece of branch containing a \_\_\_\_\_ is essential for propagation by cutting.
4. a) Bud b) Eye c) Flower d) Node

Ans: d) Node

4. Scars present on the tuber of potato are called as \_\_\_\_\_.
5. a) Stem b) Branch c) Eye d) Sapling

Ans: c) Eye

5. Propagation by leaf buds is seen in \_\_\_\_\_.
6. a) Bryophyllum b) Rose c) Onion d) Potato

Ans: a) Bryophyllum

**Short Answer Questions: 3 marks**

**Differentiate between:**

**6. Cutting and budding**

The difference between **cutting** and **budding** is as follows:

**Cutting:**

- A method of **vegetative propagation**.
- A part of the plant, such as a stem or leaf, is cut and planted in soil to grow a new plant.
- Example: Rose and Money Plant.

**Budding:**

- A type of **asexual reproduction**.
- A small outgrowth (bud) develops on the parent organism, matures, and detaches to form a new organism.
- Example: Yeast and Hydra.

**7. Budding in potato and budding in Bryophyllum**

The difference between **budding in potato** and **budding in Bryophyllum** is as follows:

**Budding in Potato:**

- Occurs through the **"eyes"** (buds) present on the surface of the potato tuber.
- Each eye can grow into a new plant when planted in soil.
- Example of **vegetative propagation** using underground stems.

### **Budding in Bryophyllum:**

- New plants grow from buds located on the **leaf margins**.
- These buds develop into small plantlets that detach and grow into new plants.
- Example of **vegetative propagation** using leaves.

### **8. Stamen and Pistil**

The difference between **Stamen** and **Pistil** is as follows:

#### **Stamen:**

- It is the **male reproductive part** of a flower.
- Consists of two parts:
- **Anther**: Produces pollen grains (male gametes).
- **Filament**: A stalk that supports the anther.
- Role: Involved in the process of pollination by transferring pollen.

#### **Pistil:**

- It is the **female reproductive part** of a flower.
- Consists of three parts:
- **Stigma**: Sticky surface to catch pollen.
- **Style**: Tube that connects stigma to the ovary.
- **Ovary**: Contains ovules, which develop into seeds after fertilization.
- Role: Involved in receiving pollen and facilitating fertilization.

### **9. Budding in potato and budding in yeast**

The difference between **budding in potato** and **budding in yeast** is as follows:

#### **Budding in Potato:**

- Occurs through the **"eyes"** (buds) on the surface of the potato tuber.
- Each eye grows into a new plant when planted in soil.
- This is a method of **vegetative propagation** in plants.
- Example: Potato tubers.

#### **Budding in Yeast:**

- Involves the formation of a small **bud** on the parent yeast cell, which grows and detaches to form a new yeast cell.
- This is a method of **asexual reproduction** in unicellular organisms.
- Example: Yeast (fungi).

### **10. Spore formation in fungus and spore formation in fern**

The difference between **spore formation in fungus** and **spore formation in fern** is as follows:

**Spore Formation in Fungus:**

- Spores are produced in structures called **sporangia**.
- These are microscopic, lightweight, and dispersed by air, water, or animals.
- Spores help fungi reproduce and spread in favorable conditions.
- Example: Rhizopus (bread mold).

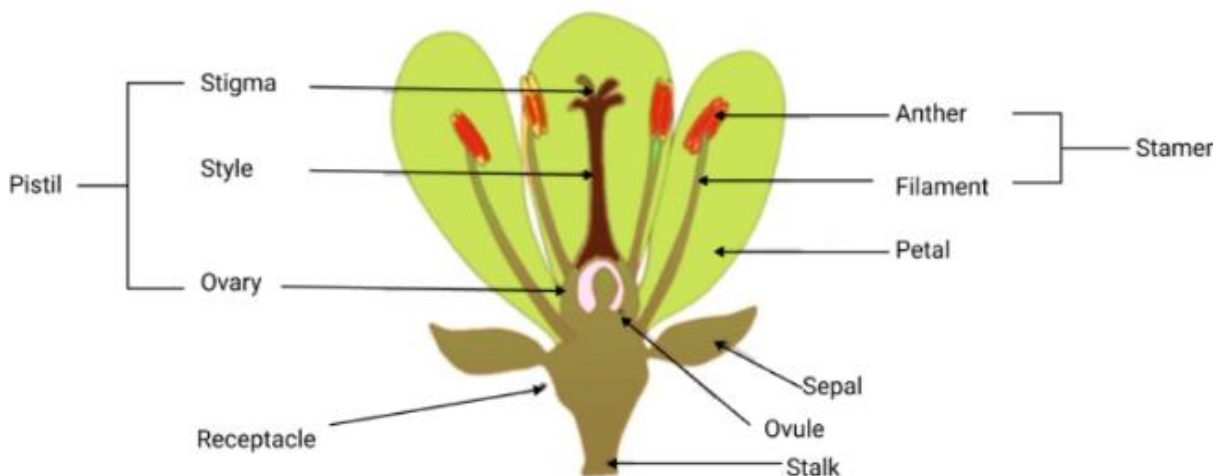
**Spore Formation in Fern:**

- Spores are produced in structures called **sporangia** located on the underside of leaves (in clusters called sori).
- Spores grow into a small, heart-shaped structure called a **prothallus**, which develops into a new fern plant.
- Example: Fern plants.

**Long Answer Questions: 5 marks**

**11. Draw and label the parts of a bisexual complete flower.**

**Ans:**



**12. Why is pollination important for sexual reproduction in plants?**

**Ans:** Sexual reproduction in plants happens when the male and female gametes combine. The male gametes are found in pollen grains, which are located in the anther of a flower, while the female gametes are inside the pistil. For fertilization to take place, the male gamete must reach the female gamete.

This happens through **pollination**, where pollen grains are transferred to the stigma of the pistil. Once the pollen grain reaches the stigma, the male gamete fuses with the female gamete in the ovary, forming a zygote. Pollination is essential for sexual reproduction in plants and can be of two types: **self-pollination** and **cross-pollination**.

**13. What are the different methods of seed dispersal and how are the seeds adapted for the same?**

Ans: Seeds dispersed to different areas for better colonization and survival. Seeds can be dispersed by different methods using different means depending on the seed's adaptation.

1. Dispersal by wind: Seeds that are dispersed by wings.

Adaption: lightweight, dry, feathered, or winged.

Example: Winged seeds of drumstick and maple, seeds of grasses and sunflowers, etc.

2. Dispersal by water: Seeds that are dispersed by water.

Adaption: light and buoyant as well as water-resistant.

Example: This can be seen in coconut which is a buoyant floating seed with an outer fibrous water-resistant coating.

3. Dispersal by animals: Such seeds are adapted to attach to the body of the animal as they graze or pass along the plants.

Adaptation: Seeds usually have spiny or hook-like structures that attach to the bodies of the animals and are then carried away to distant places.

Example: Mango, Guavas, etc.

4. Dispersal by fruit bursts: When fruits burst the seeds within are released far from the parent plant.

Example: This is seen in castor

**Q4. Explain the importance of seed dispersal.**

Ans. The process of dispersing a plant seed away from its parent plant is known as seed dispersal. There are numerous reasons why seed distribution is crucial, including:

keeps parent plants and young plants from competing for the few resources of water, sunlight, and nutrients.

Additionally, seed distribution keeps the plant from going extinct and guarantees the survival of the species.

Newer places can be invaded and colonised by plants thanks to seed dissemination.

It lessens the likelihood that the entire plant species will be wiped off by predators.

Additionally, plants adapt to new surroundings through speed dispersal.

## **Benefits of Using Important Questions for Class 7 Science Chapter 8**

Using important questions for Chapter 8 of Class 7 Science, Reproduction in Plants, offers several benefits:

**Focused Revision:** Highlights key topics like pollination, fertilization, and seed dispersal for effective preparation.

**Concept Clarity:** Reinforces understanding of asexual and sexual reproduction processes in plants.

**Exam Readiness:** Helps in practicing commonly asked questions to boost confidence.

**Time-Saving:** Reduces the need to go through the entire chapter repeatedly.

**Application-Based Learning:** Encourages thinking through practical examples and applications in nature.