

Plant Reproduction

1. What is called Reproduction?

Ans. The process by which a living organism produces more of its own kind is called Reproduction.

2. Reproduction in plants are how many types?

Ans. There are two methods of Reproduction of Plants

- a. Sexual Reproduction
- b. Asexual Reproduction

3. What are Gametes?

Ans. Reproductive cells of leaving things are called Gametes.

4. What is Zygote?

Ans. The gametes from the male plants' fuses with the gamete from the female plant forms a single cell is called Zygote.

5. What is Sexual Reproduction?

Ans. the process by which two plants produce a new individual with the help of gametes is called Sexual Reproduction.

6. What is Asexual Reproduction?

Ans. The process by which a single parent reproduces without gametes and forms a new individual is called Asexual Reproduction.

7. What are sperm cells?

Ans. The anther of each stamen (male reproductive part) has several pollen sacs that contain tiny pollen grains. The pollen grains contain the male gametes, called sperm cells.

8. What are called egg cells?

Ans. The ovary of the carpel (female reproductive part) contains one or more ovules. The ovules contain the female gametes, called egg cells.

9. What is Pollination?

Ans. Pollination is a method where pollen grains are picked from an anther, which is the male part of a flower and transferred to the flower's female part called the stigma.

To make the pollination work successfully, the pollen grains must be transferred from the same species of flower.

10. What is Pollen Tube?

Ans. The pollen grain lands on the stigma, it develops a small thin tube called the Pollen Tube.

The Pollen Tubes grows through the style to reach the ovary. This allows the sperm cell to travel from the stigma to the ovary.

11. What is called Fertilization?

Ans. The process of fusion of male and female gametes is called fertilization.

12. What are the main parts of seeds?

Ans. The main parts of seeds are:

- a. Seed Coat
- b. Seed Leaves, or Cotyledons

13. What is Seed Coat?

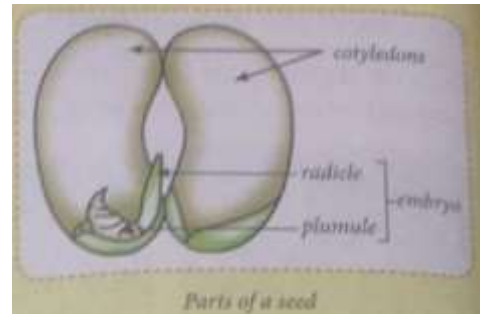
Ans. Each seed is covered with a coat protects the inner part of the seed is called Seed Coat.

14. What is Embryo?

Ans. The seed contains the baby plant which grows into plants are called **Embryo**.

15. What are Seed Leaves?

Ans. Seeds have one or two leaves are called Seed Leaves or Cotyledon.



16. Write the process of Germination of Seeds?

Ans. The process of Germination of Seeds are,

- A seed usually needs soil and the right amounts of water, air and warmth to germinate.
- At first, the seed coat softens. The root and shoot break through the seed coat and grow out of the seed to form a seedling.
- As the seedling grows, the cotyledons shrink and fall off.
- During the early stages of germination, the embryo takes nutrients from the cotyledons.
- But when the first leaves of the plant emerge, the seedling starts to make its own food.

17. What is Seed Dispersal?

Ans. If too many seeds germinate in the same area, the plants compete with each other for nutrients, sunlight, water and space. So, it is important for seeds to be transported away from the parent plant and from each other. This transportation of seeds is called seed dispersal.

Seed dispersal helps to eliminate competition and allows a greater number of new plants to survive.

18. How seeds are dispersed by wind?

Ans. Seeds that are dispersed by wind is small, light and have structures that help them to be carried away by wind.

Maple and drumstick seeds have wing-like structures and dandelion seeds have fine hairs.

19. How seeds are dispersed by water?

Ans. The seeds of plants that grow near waterbodies are mostly dispersed by water. These seeds either have air spaces inside them or a fibrous outer covering that traps air. So, the seeds are light enough to float on water. These seeds also have hard protective shells.

The seeds of coconut, lotus and water lily plants are dispersed by water.

20. How can Animals help to disperse seeds and fruits?

Ans. Animal help to disperse seeds and fruits in the following ways.

- Some plant produces fruits and seeds which have hooks, spines, thorns or stiff hair on them. These stick to the fur of the passing animal, feathers of birds, and even to our clothing. Later, the fruits or the seeds may drop off at different places.
- Some plants such as mangoes, oranges, and grapes produce juicy and fleshy fruits which are good to taste. Animals eat the fruits and throw away the seeds.
- Sometimes, along with the fruit, the seeds are also swallowed by human beings and animals. These seeds come out unharmed along with the undigested food. When the droppings of animals Fall on the soil, the seeds germinate.

21. How seeds can dispose through Explosion?

Ans. Some plants like Pea plants, Balsam, Lady's Figure etc. throw away seeds. The walls of the fruits curl and burst upon upon drying and throw out the seeds. There is a greater force with which the pods open up scattering the seeds several feet away from the parent plants.

22. What are Vegetative Parts?

Ans. The part of a plant that helps it to live and grow, such as stem, leaves or roots, are called Vegetative Parts.

23. What is Vegetative Reproduction?

Ans. The process by which a plant uses its vegetative parts to reproduce is called Vegetative Reproduction.

Vegetative Reproduction can take place from roots stem and leavers.

24. How Radish, Turnip, Carrot and Sweet Potato plants reproduce new plants.

Ans. Radish, turnip, carrot and sweet potato plants store food in their roots. These roots, when planted, grow into new plants.

25. How Potato reproduces new plants.

Ans. The stem of the potato grows under the ground and stores food. Its surface has, buds, called eyes. From which new shoots and roots grow. If the potato is cut into pieces and planted, the pieces that have eyes will grow into new plants. Such a stem is called a tuber.

26. How Onion reproduces new plants?

Ans. The stem of an onion plant is condensed and surrounded by fleshy leaves to form a bulb. When the bulb is planted, it grows into a new plant.

27. What is Stolon or Runner?

Ans. The stem of a strawberry plant grows along the surface of the soil. Roots and shoots grow to form new plants at the nodes. This type of stem is called a stolon or runner.

28. How plant reproduce new plants through leaves?

Ans. In some plants tiny plants grow along the edges of the leaves. These tiny plants fall to the ground and grow into individual plants.

Ex. Bryophyllum

29. What are Artificial Methods of Vegetative Propagation?

Ans. These methods are used to produce more plants that have useful characteristics.

Ex: Cutting is a method in which a part of the stem of the plant is cut and planted in soil. This stem grows into a new plant. This method is commonly used to propagate rose, hibiscus and sugarcane plants.

30. How Moss and Ferns reproduce new plants?

Ans. Non-flowering plants like moss and ferns reproduce using tiny reproductive structures called spores.

The spores are stored in capsules. The capsules burst when they mature and release spores. The spores grow into new plants when the conditions are suitable.

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