

chapter - 5
Plant Reproduction.

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Answer the following Question :-

1) Define fertilisation and discuss the process.

→ The fusion of the male gamete with the female gamete is called fertilisation. During fertilisation, following steps take place :-

(i) Pollen grains germinate on the stigma and pollen tubes develop. The pollen tubes grow downwards into the style.

(ii) Pollen tubes carrying male gametes enter the ovule, where egg is present.

(iii) Finally, the male gamete fuses with the female gamete. This completes the process of fertilisation.

2) Describe dispersal of seeds through water and air.

Dispersal of seeds through water :-

Seeds of plants that grow near water are generally dispersed by water. Seeds of coconut and lotus are dispersed through water.

Dispersal of seeds through air :-

Seeds that are small and light are generally dispersed by the wind. Seeds of cotton and dandelion have hair around them. These hairs help in carrying the seeds by the wind.

3) State four changes that occurs in a flower after fertilisation.

The four changes that occurs in a flower after fertilisation are:—

- The flower loses its bright colour
- The sepals, petals and stamens fall off
- The ovary wall ~~develops~~ becomes the fruit wall.
- Inside the ovary, the ovules develops into seeds.

4) How do new plants grow from stem cuttings? Discuss with the help of an example.

Some plants grow from stem. In such cases, stems having buds on them can be cut from the mother plant and planted after removing the leaves. New plants grow from the buds, For eg:- Rose, Hibiscus and Bougainvillea. These plants can be grown through cutting the stem.

5) What are spores? Mention their role.

Spores are tiny seed like structures found in some lower plants that produce new plants.

Spores are the reproductive structure of the 'lower plants' i.e. the plants that do not flower. New plants can be grown from these spores.

Q) Give Reasons for the following :-

1) Coconut trees are mostly found in coastal areas.

Coconut have a high water requirement. So it is easier for them to grow in coastal areas.

2) Seed dispersal is necessary for plants.

Dispersal of seeds is very important for the survival of plant species.

If plants grow too closely together, they have to compete for light, water and nutrients from the soil. Thus, seed dispersal allows plants to spread out and avoid competing.

3) Pollination is important before fertilisation.

In pollination, the pollen grains reach the stigma of the flower. Fertilisation in flowering plants happen through a process called pollination.

4) All seeds do not grow into new plants.

All seeds donot grow into new plants due to the following reasons :-

(i) Some of the seeds are damaged by the animals or by natural process like rotten in excessive water.

(ii) Some of them are moved by wind to that type of place or inhabited, where its germination is not possible.