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## **Chapter – 12**

### **Reproduction in Plants**

- All organisms multiply or reproduce their own kind.
  - In plants there are two modes of reproduction, asexual and sexual.
  - There are several methods of asexual reproduction such as fragmentation, budding, spore formation and vegetative propagation.
  - Sexual reproduction involves the fusion of male and female gametes.
  - In vegetative propagation new plants are produced from different vegetative parts such as leaves, stems and roots.
  - Flower is the reproductive part of a plant.
  - A flower may be unisexual with either the male or the female reproductive parts.
  - A bisexual flower has both the male and the female reproductive parts.
  - The male gametes are found inside the pollen grains and female gametes are found in the ovule.
  - Pollination is the process of transfer of pollen grains from the anther of one flower to the stigma of the same or another flower.
  - Pollination is of two types, self-pollination and cross-pollination. In self-pollination, pollen grains are transferred from the anther to the stigma of the same flower. In cross-pollination, pollen grains are transferred from the anther of one flower to the stigma of another flower of the same kind.
  - Pollination takes place in plants with the help of wind, water and insects.
  - The fusion of male and female gametes is called fertilisation.
  - Fertilised egg is called zygote. Zygote develops into an embryo.
  - Fruit is the mature ovary whereas ovule develops into a seed, which contains the developing embryo.
  - Seed dispersal is aided by wind, water and animals.
  - Seed dispersal helps the plants to
    - (i) prevent overcrowding,
    - (ii) avoid competition for sunlight, water and minerals and
    - (iii) invade new habitats.
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