

CHAPTER 12: Reproduction in Plants

- When new organism is produced from parent organisms it is called as reproduction.
 - Plant parts:
 - 1.) Vegetative parts: The part of plant which are not involved in reproduction are called vegetative plant parts. E.g.: roots, stems and leaves etc.
 - 2.) Reproductive parts: The part of plant which are involved in reproduction are called reproductive plant parts. E.g.: Flowers.
 - Mode of reproduction in plants
 - 1.) Asexual reproduction: It is the type of reproduction in which plant reproduce without the formation of seeds.
 - 2.) Sexual reproduction: It is the type of reproduction in which new young plant are produced from seeds.
 - a.) Vegetative propagation: in this type of asexual reproduction in which vegetative parts like roots, leaves assist in development of new plants.
 - b.) Cuttings: plant cutting with at least two nodes and buds can be used as a vegetative projection
 - c.) Eyes: Eyes are found on potatoes which when buried in the soil generates root and can be used in vegetative propagations.
 - d.) Budding: Yeast reproduces by budding. Buds are the outgrowth produced in yeast cells. After complete growth the bud is detached from the parent organism. This leads to formation of new daughter cell.
 - e.) Fragation: Algae use fragmentation as a mode of reproduction. The algae break in more than one or two fragments which grows into new individuals.
 - f.) Spore formation: spore is a form asexual reproduction body. Spore have resistance to High temperature and low humidity. Spores are found in funguses.
- **SEXUAL REPRODUCTION:**
 - a.) Flowers play the most important role in sexual reproduction of plant.
 - b.) Stamen: It is the male reproductive plant part in a flower.
 - c.) Pistil: It is the female reproductive plant part in a flower.
 - d.) Unisexual flower: The flower which contains either the female or the male reproductive part that is either stamen or pistil only is called Unisexual flower.
 - e.) A single plant can bear both female and male flowers or the male and female plants can be different.
 - f.) Bisexual flower: The flower which contains both the female or the male reproductive part that is both stamen and pistil in the same flower is called Bisexual flower.
 - g.) Stamen is made up of anther and filament.
 - h.) Pollen grain: they produce male gamete in the anther
 - i.) Pistil is made up of style, stigma and ovary
 - j.) Ovary generates the female gamete or ovules is known to produce the egg.
 - k.) Zygote: the male and the female gamete fuse together to form the zygote.
 - l.) Pollination: the process in which the pollen grains get transferred from the anther and reach the stigma is called as pollination.
 - m.) Wind, water and insects are carriers of pollination.

- n.)** Self-pollination: If pollination occurs in the same flower or flower from plant, it is called self-pollination.
- o.)** Cross pollination: If pollination occurs in a where pollen of a flower lands on the stigma of a flower of a different plant of the same species, is called cross-pollination.
- p.)** Fertilization: when the male and female gametes fuse to form zygote is called fertilization.
- q.)** Zygote develops embryos.
- r.)** Fruit and Seeds formation: Fruits develop from ovary. Seeds develop from the ovules.
- s.)** Seed dispersal: plants grow in different location as seeds get dispersed at different locations through the agency of air, water and insects.
- t.)** It is important that the seed are dispersed as there will competition for sunlight, water, minerals and space.