

LIFE SCIENCE

CLASS - XII

Reproduction in Organisms

1. Write the differences between sexual and asexual reproduction.

Ans.

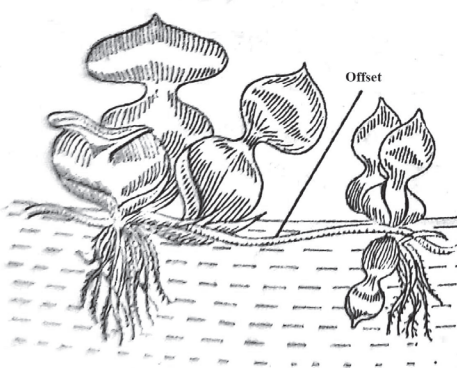
Characteristic features	Sexual reproduction	Asexual reproduction
Process & occurrence	This is a complex process occurring in the body of the higher group of organisms.	This is a simple process occurring in the body of the lower group of organisms.
Number of offspring	The number of offspring produced is less.	Large number of organisms are produced from parent cell.
Reproductive cell	In sexual reproduction gametes are formed.	Asexual reproduction is achieved by cell division or by production of spores.
Characteristics of offspring	Offspring have characters similar to parents or acquire some new characters	It produces offspring that are identical to the parent

2. What is natural vegetative reproduction of plants? Discuss any three types of vegetative reproduction of plants.

Ans. The reproductive process where any part of the plant body after getting detached from the parent plant produces a new daughter plant under favourable conditions and helps in propagation is known as natural vegetative reproduction of plant.

Three types of natural vegetative reproduction are:

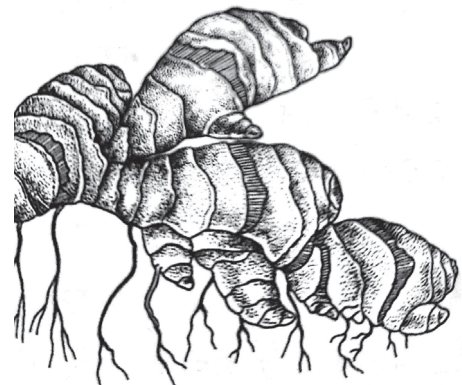
- i. **Offset:** In this type, internodes become small, thickened and diminished in size. From the node adventitious roots and leaves are formed. Internodes or offsets get detached to produce daughter plants. E.g. *Eichhornia* sp.
- ii. **Bulbil:** Food-storing inflated, multicellular axillary bud detaches from mother plant to produce daughter plant under favourable conditions. E.g. *Dioscoria* sp.
- v. **Rhizome:** This is a modified subterranean stem of the plant which stores food for future. The stem is covered by scale leaves where bud grows in the axil. Under favourable conditions new daughter plant is produced from this bud. e.g. Ginger



Offset (*Eichhornia* sp.)



Bulbil (*Dioscoria* sp.)



Rhizome (Ginger)