

# CLASS — XII (PART-1)

## REPRODUCTION IN ORGANISMS NCERT SOLUTION

1. REPRODUCTION in the organisms is essential for the perpetuation of their lineage generation after generation.
2. ♀ The sexual mode of reproduction is advantageous over asexual mode because through sexual mode offsprings produced have a recombination of genetic material of the two parents. This new combination of genes enable them to adapt and survive in the everchanging environmental condition.
3. The offsprings produced asexually are referred to as 'CLONES' because such offsprings are produced by the single parent without any gamete and syngamy. Hence they don't have any genetic alteration in them. As they are genetically identical to their male or female parent, they are considered as clones.
4. Offsprings produced sexually have better chances of survival because of having new combination of genetic material of their parents. We know that the new combination of genetic material provide them better chances of adaptation and endurance in the change environmental condition.

However, this statement is not always true. Because the new combination of genetic material in the offsprings might not always be positive. Sometimes if new combination is not suitable for the environmental condition, the organism does not survive.

5.

Progeny formed from asexual repdn. are identical to its male or female parent from which it has been born. But those produced sexually have a combination of genetic material of both of its parents. This recombination brings about some variation in them and hence siblings many a times are not alike. Sometimes these progenies may acquire the features of their maternal or paternal lineage also.

6.

Asexual Repdn.

- ⇒ The mode is uniparental
- ⇒ No gametes or sex organs are involved.
- ⇒ Progenies produced have no variation
- ⇒ Meiosis like division does not occur in case of asexual reproduction.

Sexual repdn.

- ⇒ Mode is Biparental
- ⇒ Gametes and sex organs are involved.
- ⇒ Progenies produced have variation.
- ⇒ Meiosis occurs during the course of sexual reproduction.

Vegetative repdn. is considered as asexual repdn. because progeny is produced from the vegetative part of the parent without the involvement of gamete and syngamy. ==