Reproduction in Animals

Synopsis

- Reproduction is the production of new individuals more or less similar to the parent organisms. This may be achieved by a number of means and serves to perpetuate increase of species.

- There are two main methods in which organisms give rise to new individuals - Asexual reproduction and sexual reproduction.

- Asexual reproduction is the process of producing new organism(s) from a single parent without the involvement of sex cells or gametes.

  e.g., Binary fission in amoeba, regeneration in planaria, budding in hydra.

- Sexual reproduction is the process of producing new organism(s) from two parents with the involvement of sex cells or gametes. Male sexual unit is known as male gamete or sperm while female sexual unit is termed as female gamete or ova.

- The fusion of sperm and ovum is known as fertilisation. Thus, the two major processes, i.e., formation of gametes and fusion of gametes constitute sexual reproduction.

- The reproductive organs of human beings, i.e., testes is in male and ovaries in female produce gametes and also secrete hormones like testosterone (male hormone), estrogen and progesterone (female hormones).

- Fertilisation takes place in the fallopian tube. The embryo develops in the uterus, and receives oxygen and nutrients through the placenta.

- Animals such as human beings, cows, dogs which give birth to young ones are called viviparous animals. Animals such as hen, frog, lizard which lay eggs are oviparous animals.

- The transformation from the larval stage to the adult stage in the life cycles of frog and insects is called metamorphosis.

- The cloning of animals produces offspring with genetic materials which are identical to the parent. The most famous animal clone is Dolly, the sheep.