

*Name of the student:* ..... *Date:* ...../...../.....

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## Reproduction

The process through which organisms produce their offspring is called reproduction.

- Reproduction is of two types, such as—1) Asexual and 2) Sexual.

### 1) Asexual reproduction

**Asexual reproduction** is a type of **reproduction** which does not involve the fusion of gametes or change in the number of chromosomes.

➤ The offspring that arise by **asexual reproduction** from a single cell or from a multicellular organism inherit the genes of that parent.

- Asexual reproduction is of two types, such as—1) Formation of spore and 2) Vegetative propagation

➤ Formation of a progeny from a body part is called **vegetative propagation**.

- Vegetative propagation is of two types, such as—1) Natural vegetative propagation and 2) Artificial vegetative propagation

### 2) Sexual reproduction

**Sexual reproduction** is the process in which new organisms are created, by combining the genetic information from two individuals of different sexes.

**Q. Write down three differences between asexual and sexual reproduction.**

| <b>Asexual reproduction</b> | <b>Sexual reproduction</b> |
|-----------------------------|----------------------------|
|                             |                            |
|                             |                            |
|                             |                            |

## Plant Reproduction

### ❖ Flower

Flower is a special reproductive organ of angiosperms (flowering plant) which is a completely modified shoot specially adapted for sexual reproduction.

A complete flower consists of two different parts:

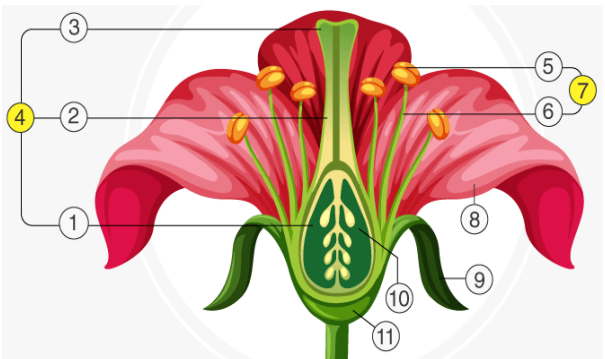
#### 1) Vegetative Part

- Thalamus or receptacle: usually round and is developed at the tip of the floral axis
- Petal: a bright-colored part of flower
- Sepal: green-colored part beneath the petals to protect rising buds

#### 2) Reproductive Part

- Stamen
  - ✓ Anther: a yellowish, sac-like structure, involved in producing and storing the pollens (where male gamete is developed)
  - ✓ Filament: a slender, threadlike object, which functions by supporting the anther
- Carpel
  - ✓ Stigma: the topmost part or receptive tip of carpels in the gynoecium of a flower
  - ✓ Style: the long tube-like slender stalk that connects stigma and the ovary
  - ✓ Ovary: the ductless reproductive gland that holds a lot of ovules (where female gamete is developed)

**Q. Write down the name of the number marked parts of the following figure.**

|   |   |
|---|---|
|  | <p>(1) ..... (7) .....</p> <p>(2) ..... (8) .....</p> <p>(3) ..... (9) .....</p> <p>(4) ..... (10) .....</p> <p>(5) ..... (11) .....</p> <p>(6) .....</p> |
|---|---|

**Q. Match Column-A with Column-B.**

| <b>Column-A</b> | <b>Column-B</b>   |
|-----------------|---|
| a) Receptacle   | Where female gamete is produced                         |
| b) Sepal        | Supports the anther                                     |
| c) Petal        | Which is penetrated by pollen tube during fertilization |
| d) Anther       | Where the other parts of the flower are attached        |
| e) Filament     | Protect the flower at budding stage                     |
| f) Stigma       | Where male gametes are produced                         |
| g) Style        | Attracts insects and animals for pollination            |
| h) Ovary        | Where pollen grain lands                                |

**Q. Why is flower important in plant reproduction? Explain.**

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**Q. Which part of directly take part in reproduction and why? Explain.**

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