# Chapter 2- Reproduction in Plants

**Multiple Choice Questions:**

**1. Put a tick mark (✓) against the correct alternative in the following statements:**

(a) Pollen is produced in the:

1. Filament

2. Style

3. Pistil

4. Anther

**Solution:** 4. Anther

(b) Reproductive whorls of a flower are:

1. Stamens and carpels

2. Sepals and petals

3. Sepals and stamens

4. Petals and carpels

**Solution:** 1. Stamens and carpels

(c) Grafting is a method of:

1. Artificial vegetative propagation

2. Sexual reproduction

3. Artificial pollination

4. Cross-pollination

**Solution:** 1. Artificial vegetative propagation

(d) Which one of the following is a false fruit?

1. Tomato

2. Apple

3. Potato

4. Pea

**Solution:** 2. Apple

**Short Answer Questions:**

**Question 1.**

Write two ways in which pollination may occur in plants.

**Solution:**

(a) Self-pollination.

(b) Cross-pollination.

**Question 2.**

Name the three agents of pollination.

**Solution:**

The three agents of pollination are:

(a) Insect

(b) Wind

(c) Water

**Question 3.**

Give two features of flowers which favour pollination by insects.

**Solution:**

Specialities of insect-pollinated flowers:

(a) These flowers are large with coloured petals to attract insects.

(b) The smell of the flower attracts insects.

**Question 4.**

Name two characteristics of flowers in which pollination occur by the wind.

**Solution:**

Special features of wind-pollinated flowers:

(a) They produce light pollen so that it is easily carried away.

(b) A large amount of pollen is produced.

**Question 5.**

What is a 'false fruit'? Give one example:

**Solution:**

The base of the flowers (thalamus) in false fruits becomes the main fleshy part of the fruit, while the ovary remains a small central part containing seeds. Example: Apple and Pear.

**Question 6.**

Name any three agencies for dispersal of seeds.

**Solution:**

a. Wind

b. Water

c. Man and animals, birds, bats, squirrels.

**Question 7**

**Fill in the blanks by selecting suitable words:**

**(unisexual, fertilisation, fruit, stamen, anther, bisexual, pollination, seed, ovary)**

**Solution:**

a. A flower that bears both the male and the female parts is known as **bisexual** flower.

b. A flower bearing only male or female parts is known as **unisexual** flower.

c. Transfer of pollen grains from the anther to the stigma is known as **pollination.**

d. Fusion of male cell with the female cell is called **fertilisation**.

e. The ovule develops into a **seed.**

f. The ovary of the flower develops into a **fruit.**

**Long Answer Questions:**

**Question 1:**

1. What is vegetative reproduction?

**Solution:**

**Vegetative reproduction:** In this method, the vegetative parts of the plants produce new plants. The vegetative part means the leaf, stem and root. Potato, mint, ginger, banana etc. are reproduced by this method.

- Vegetative propagation can occur by natural methods as well as by artificial methods
- The natural method includes reproduction by the stem, by roots and by leaves.
- The artificial method includes reproduction by cutting, layering, grafting and tissue culture.

**Question 2**

Briefly explain why a gardener prefers to grow certain plants vegetatively?

**Solution:**

Gardener prefers to grow certain plants by the vegetative method. The advantages of doing so are as follows:

1. In a shorter time, Reproduction by vegetative parts takes place.

2. New plants, thus produced, spread very fast in a small area.

3. It is a surer method.

4. All the characters of the mother plant are retained by the daughter plants.