Sexual Reproduction in Plants

A. Choose the Correct Answer:

1. What is sexual reproduction in plants?

A) The process of producing seeds without flowers

B) The formation of seeds through the fusion of male and female reproductive cells

C) The reproduction of plants through roots and stems only

D) The formation of new plants from leaves alone

2. Which part of the flower produces pollen?

A) Stigma

B) Ovary

C) Petal

D) Anther

3. What is the female reproductive part of a flower called?

A) Stamen

B) Pistil

C) Sepal

D) Petal

B. Fill in the Blanks:

1. Sexual reproduction in plants occurs through the fusion of _____ and _____ cells.
2. The _____ produces pollen grains, which contain male reproductive cells.
3. The ovary of the flower develops into a _____ after fertilization.

C. Case Study:

Riya conducted an experiment in her school garden.

- She observed that flowers have both male and female reproductive parts.
- She noticed that the stamen produces pollen, which is transferred to the stigma of the pistil during pollination.
- After pollination, fertilization takes place, forming seeds.
- Riya also learned that the ovary of the flower turns into a fruit that contains seeds.

Case Study Questions:

1. What are the male and female reproductive parts of a flower?
2. How is pollen transferred to the stigma during pollination?
3. What happens after fertilization in plants?
4. How does the ovary transform after fertilization?

D. Short Answer Questions:

1. What is sexual reproduction in plants?
2. Name the male and female reproductive parts of a flower.
3. What role does pollination play in sexual reproduction in plants?

E. Long Answer Questions:

1. Explain the process of sexual reproduction in plants with the steps of pollination and fertilization.
2. How does a flower transform into a fruit through sexual reproduction? Describe the process in detail.
3. Why is sexual reproduction important for plants? Explain with examples.