

Chapter- 2

FLOWER**QUESTION BANK****A. Objective Questions And Answers.****1. Fill in the blanks:**

- a) The flower is attached to the shoot by means of **stalk or pedicel**.
- b) The **androecium** is called the male reproductive part of the flower.
- c) The **gynoecium** is called the female reproductive part of the flower.
- d) The gynoecium is made up of the **carpel or the pistil**.
- e) The three parts of pistil are **ovary**, style and **stigma**.
- f) The ovary contains small rounded bodies called **ovules**.
- g) The fusion of male and female gametes is called **fertilization**.
- h) A **fruit** is the ripened ovary.
- i) **Hilum** is the place where the seed is attached to the fruit wall.
- J) The upper large part of the maize grain is called the **endosperm**.
- k) After the pollen grain reaches the stigma of the flower, it produces **pollen tubes**.

2. Give one word for the following.

- a) The outermost whorl of flower – **Sepals**.
- b) The second whorl of sepals in china rose – **Petals**.
- c) A flower pollinated by bats – **Guava**.
- d) The dry outer skin of fruit – **Epicarp**.
- e) The thick tough outer seed coat – **Testa**.
- f) Covering of plumule in monocotyledon – **Coleoptile**.
- g) In monocot seeds, radicle is covered by a protective covering called – **Coleorhiza**.
- h) The protein rich layer surrounding the endosperm is called – **Aleurone layer**.

B. Short Questions And Answers.**3. Name the four whorls of a flower.**

Ans: The four whorls of a flower are calyx, corolla, androecium and gynoecium.

4. What do you mean by a complete and incomplete flower?

Ans: When all the four whorls, calyx, corolla, androecium and gynoecium are present in a flower, it is said as a complete or bisexual flower and if any one whorl is missing in a flower it is said to be an incomplete flower.

5. What is the function of a flower?

Ans: The main function of flower is to produce seeds and fruits.

6. What are the agents of pollination?

Ans: Some agents of pollination are insects, wind, water and animals.

7. What happens to each part of the flower after fertilization?

Ans: After fertilization the ovary grows in to a fruit. The ovules inside the ovary develops in to seed. The sepals and petals fall off.

8. What is a false fruit? Define with example.

Ans: In some cases the thalamus of the flower develops in to a fruit and not the ovary. The ovary remains as a small central part containing the seeds. These types of fruits are called false fruits. Apple and pear are some example of false fruit.

9. What are the functions of a fruit?

- i) It protects seeds from the unfavorable environmental condition.
- ii) Fruits store food inside them.
- iii) It helps in dispersing the seeds and facilitate their germination.

C. Long Questions And Answers.

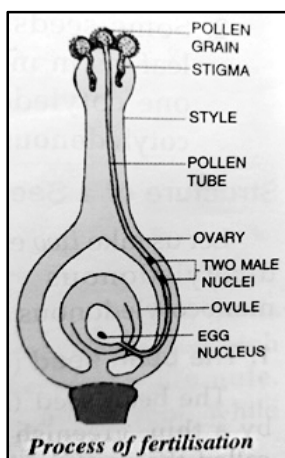
10. What are the different types of flowers?

Ans: Flowers can be divided in to two types. Bisexual flower and Unisexual flower.

Bisexual flower: The flower having both male and female reproductive parts (androecium and gynoecium) are called bisexual flowers.

Unisexual flower: The flowers having either the male reproductive part (Androecium) or female reproductive part (gynoecium) are called unisexual flowers.

11. Define fertilization. Describe the process of fertilization with neat diagram.



Ans: The fusion of male and female gametes is known as fertilization. After landing of the pollen grains on the surface of stigma they starts germinating and produce pollen tubes. One of the pollen tubes continues to develop downwards in to a style. This pollen tube carries the male gametes. This pollen tube finally reaches the ovary. When this reaches the ovule, the male gametes are released from the pollen tube and fuse with the female gametes located inside the ovule and produce a zygote. After fertilization the ovary becomes larger and develops in to a fruit and the ovule develops in to a seed.

12. Describe pericarp and its different parts.

Ans: The pericarp is the fruit wall, which develops from the wall of the ovary. It may be thick and thin depending on the kind of fruit. It is soft and fleshy in some fruits like tomato and papaya and it is dry in gram. The pericarp has three part.

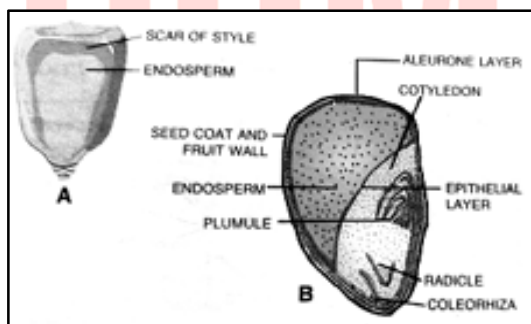
- Epicarp: This is the thin outer protective covering of the fruit.
- Mesocarp: This is the sweet, fleshy, edible middle layer of the fruit.
- Endocarp: It is the inner hard part of the fruit, which contains seeds.

13. What is the difference between a fleshy fruit and a dry fruit?

Ans: In a fleshy fruit the entire pericarp is soft and fleshy. The endocarp is hard and contains the seeds. Example- grape, tomato, papaya etc. In a dry fruit the pericarp is not pulpy and fleshy, it encloses the seeds.

Example – in a pea pod the pod is the pericarp and the pea is the seed which is enclosed within the pod.

14. With the help of suitable diagram describe the structure of a monocot seed.



Ans: The maize grain has one cotyledon, hence it is said to be a monocot seed. It is triangular in shape. The lower end of the seed is narrow and is yellowish white. The upper end of the seed is wide and is dark yellow in colour. The seed coat of the maize grain is fused with the pericarp. The upper larger part is called the endosperm. It stores the food and surrounded by a protein rich layer called Aleurone layer. The lower part of the seed is called cotyledon. It contains the embryo which is made up of the radicle and plumule.

15. Write the difference between a bean seed and a Maize grain.

Ans:

Bean Seed	Maize Grain
Dicot seed	Monocot seed
Endosperm is absent	Endosperm is present
Cotyledons store food	Endosperm stores food.
Embryo is large	Embryo is small
Seed is contained separately in a fruit.	Seed coat and the fruit wall are fused to form a grain.

16. Write short notes on the following.

- i) Radicle ii) Plumule iii) Embryo iv) Cotyledon v) Endosperm

Ans:

- i) **Radicle:** The radicle is part of embryo inside the seed which first come out during the seed germination and develops in to the root of a plant.
- ii) **Plumule:** The plumule is the portion of the plant embryo which gives rise to the first leaves and form the shoot system of the plant during germination.
- iii) **Embryo:** Embryo is the baby plant inside the seed, which contains the radicle and plumule. It is the early stage of the plant and gradually develops after germination.
- iv) **Cotyledons:** The cotyledons provide food for the embryo during the germination in dicot plants. They act as leaves and perform photosynthesis in the beginning.
- v) **Endosperm:** It is present in the monocot seed and stores food in the form of starch, which helps the seedling for growth.

