

Very Short Answer Questions

Q.1. Fungus, moss and fern reproduce by a common method of a sexual reproduction. Name the method.

[NCERT Exemplar]

Ans. They can reproduce asexually by means of spore formation.

Q.2. Boojho had the following parts of a rose plant—a leaf, roots, a branch, a flower, a bud and pollen grains. Which of them can be used to grow a new rose plant?

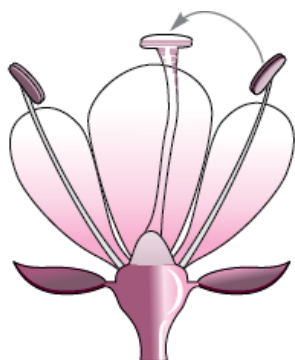
[NCERT Exemplar]

Ans. Branch

Q.3. What is pollination?

Ans. The transfer of pollen grains of a flower to the stigma of same flower or that of a different flower of the same kind is called pollination.

Q.4. Which type of pollination does the figure indicate?



[NCERT Exemplar]

Ans. It shows self-pollination.

Q.5. What is binary fission?

Ans. What is binary fission?

Q.6. One morning as Paheli strolled in her garden she noticed many small plants which were not there a week ago. She wondered where they had come from as nobody had planted them there. Explain the reason for the growth of these plants.

[NCERT Exemplar]

Ans. The seeds from the tree may have fallen below and germinated into small plants.

Q.7. What is vegetative propagation?

Ans. Vegetative propagation is defined as the production of a new individual from a body part like leaves, stems and roots.

Q.8. What is fragmentation?

Ans. The breaking of the body into two or more parts is called fragmentation. It can be seen in Spirogyra.

Q.9. Explain the term fertilisation.

Ans. The fusion of male nucleus (male gamete) with that of egg cell (female gamete) is known as fertilisation.

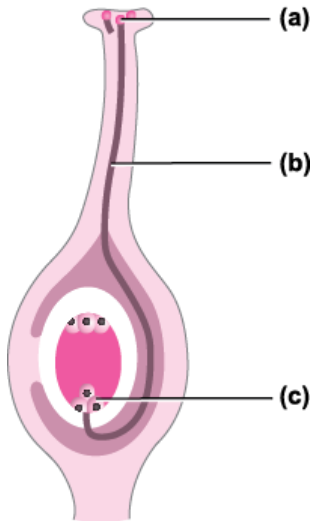
Q.10. Coconut is a large and heavy fruit. How is it adapted for dispersal by water?

[NCERT Exemplar]

Ans. Coconut fruit has spongy fibres, which help it to float in water.

Short Answer Questions

Q.1. In the diagram given in figure label the parts marked (a), (b) and (c).



[NCERT Exemplar]

Ans. (a) Pollen grain

(b) Pollen tube

(c) Zygote/egg

Q.2. When you keep food items like bread and fruits outside for a long time especially during the rainy season, you will observe a cottony growth on them.

[NCERT Exemplar]

Q. What is this growth called?

Ans. It is bread mould, a fungus.

Q. How does the growth take place?

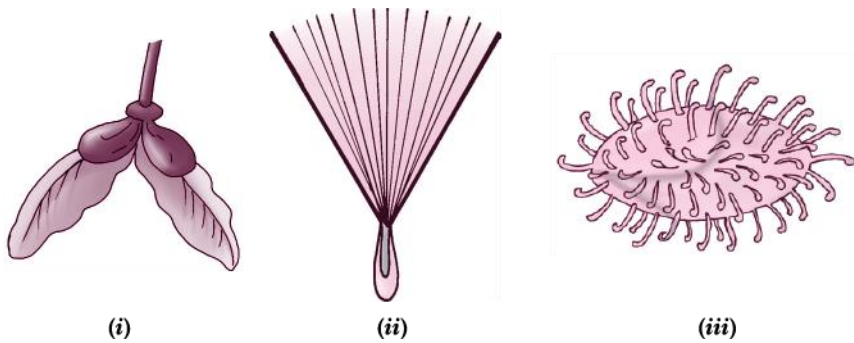
Ans. They develop from spores.

Q.3. Group the seeds given in figure (i) to (iii) according to their means of dispersion.

(a) Seed dispersed by wind

(b) Seed dispersed by water

(c) Seed dispersed by animal



[NCERT Exemplar]

Ans.

- These are dispersed by wind.
- These are dispersed by wind.
- These are dispersed by animal.

Q.4. Name the four whorls of a flower. Write the function of each.

Ans. The four whorls of a flower are: sepals which enclose the entire flower, petals which are coloured to attract insects for pollination, stamens which are the male reproductive organs and the carpels which are the female reproductive organs.

Q.5. Define reproduction. Why is it important?

Ans. Reproduction is defined as the production of new individuals by parents of same species. It is important because it replaces death by maintaining the continuity of life so that species do not die out.

Q.6. What would happen if all the seeds of a plant fall under the parent plant?

Ans. If all the seeds of a plant fall under the parent plant, it would result in overcrowding and saplings would experience scarcity of nutrients, light, air and space.

Q.7. What is dispersal? List the agents of dispersal.

Ans. Dispersal is the scattering of seeds to far away places. The agents of dispersal are wind, water, insects and animals.

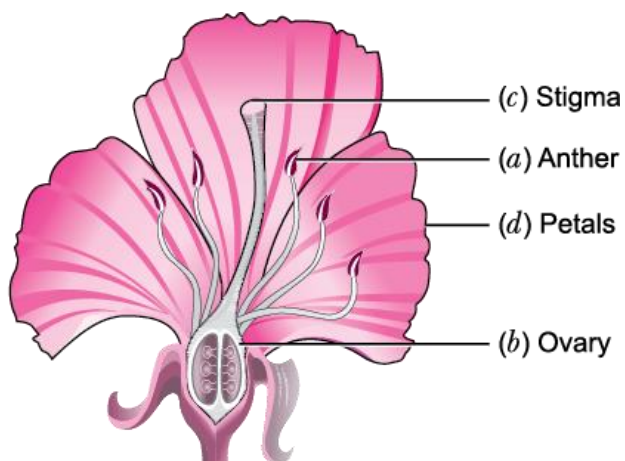
Long Answer Questions

Q.1. In the figure of a flower label the parts whose functions are given below and give their names.

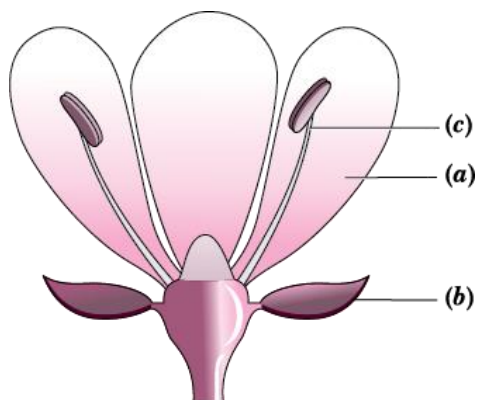
- The part which contains pollen grains.
- The part where the female gamete is formed.
- The female reproductive part where pollen grains germinate.
- The colourful part of flower which attracts insects.

[NCERT Exemplar]

Ans.

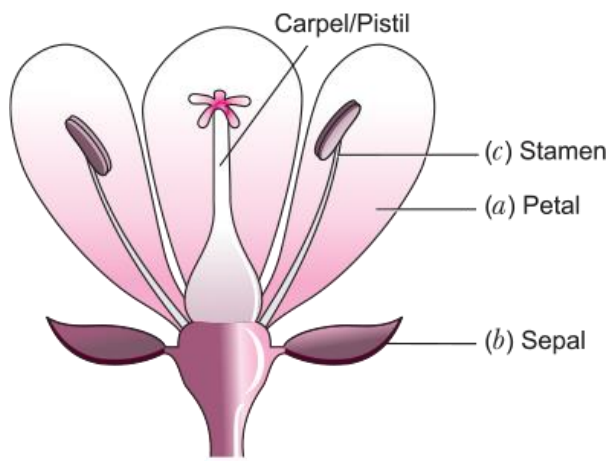


Q.2. In the diagram of a bisexual flower given as figure below, draw the missing part and label the parts marked (a), (b) and (c). Also label the missing part that you draw.



[NCERT Exemplar]

Ans.



Q.3. Write how the following seeds are dispersed.

- a. **Seeds with wings.**
- b. **Small and light seeds.**
- c. **Seeds with spines/hooks.**

[NCERT Exemplar]

Ans. (a) Dispersed by wind.

(b) Dispersed by wind.

(c) Dispersed by animal.

Q.4. Distinguish between the following.

Q. Stamen and Pistil

Ans.

S. No.	Stamen	Pistil
i.	It is the male reproductive organ of the flower.	It is the female reproductive organ of the flower.
ii.	It consists of anther and filament.	It consists of stigma, style and ovary.

Q. Unisexual flower and Bisexual flower

Ans.

S. No.	Unisexual flower	Bisexual flower
i.	These are flowers having either male or female reproductive organs.	These are flowers having both male and female reproductive organs.
ii.	For example, papaya, corn, etc.	For example, rose, brinjal, etc.

Q.5. Give reasons for the following.

Q. Insect pollinated flowers are brightly coloured and sweet smelling.

Ans. Insect pollinated flowers are brightly coloured and sweet smelling to attract insects to itself.

Q. Spores are covered by a hard covering.

Ans. Spores are covered by a hard covering to provide protection from harsh conditions.

Q. Wind pollinated flowers produce large number of pollen grains.

Ans. During wind pollination many pollen grains are lost. So to ensure that at least some pollens reach the stigma, a large number of pollen grains are produced.

Q. Hooks and spines are present in seeds or fruits dispersed by animals.

Ans. Hooks and spines help seeds and fruits to stick to the bodies of animals and be safely dispersed or transported to far off places.

Q. Seed dispersal helps the plant.

Ans. To avoid growing of the plants at one place leading to scarcity of nutrients and ensure survival of the plants, seeds are dispersed.

Q.6. What are the advantages and disadvantages of vegetative reproduction?

Ans. Advantages of vegetative reproduction

- Some of the plants such as bananas do not reproduce from seeds at all. They multiply only vegetatively.
- Vegetative reproduction is faster.
- Sometimes the seeds produced are not viable or fit that means they cannot form new plants.
- It is the embryo of the seeds that forms the new plants. If the embryo is not there or is destroyed, the new plants cannot be formed.
- The new plants formed through vegetative reproduction are exactly like the parent plants. Disadvantage of vegetative reproduction
- Since vegetative reproduction produces an exact copy of the parent, some undesired qualities of the parent plant also pass on to the plants of new generation.

HOTS (Higher Order Thinking Skills)

Q.1. Why do farmers leave space between the seeds while sowing them?

Ans. This is done to avoid overcrowding and to avoid scarcity of nutrients, light, air and space for the seeds.

Q.2. What would happen if seeds are not able to disperse?

Ans. If seeds are not able to disperse, they will clutter on one place and would not be able to grow properly because of lack of nutrients.

Q.3. Why flowers are generally so colourful and fragrant?

Ans. Flowers are generally attract insects and other living organisms for pollination.