

**Book exercise. Plant Reproduction and Agriculture**

**Checkpoints**

**Name the following**

1. The baby plant inside the seed **embryo**
2. The growth of a seed into a seedling **germination**
3. The process of scattering of seed or fruits away from the parent plant **dispersal**
4. Underground stem of onion plant **bulb**

**A. Tick the correct answer**

1. Which of the following is not a part of seed? **Flower**  
A)Seed coat B) cotyledon C) baby plant D)flower
2. Which of the following conditions is Needed for germination of a seed **all the above**  
A) water. B) air. C) warmth. D)all of these
3. The seed of fruits of which of these plants are dispersed by wind. **Cotton**  
A)cotton B)melon C)coconut D)pea
4. What is the underground stem of an onion plant called **bulb**  
A)spore B)bulb C) bulb D)add
5. Which of the following is a rabi crop **mustard**  
A)rice B)maize C)mustard D)jute

**B. Write right true or false**

1. All plans have flowers unseats. **false**
2. Plants can be grown only from seeds. **false**
3. A baby plant gets its food from the seed leaves. **true**
4. When a seed has germinated, it is called a seedling. **true**
5. Wind, water and animals act as agent of dispersal of seed. **true**

**C. From which part of these plants grow in the following plants?**

1. Rose — stem
2. Bryophyllum — leaves
3. Sweet potato — roots
4. Strawberry — stem
5. Ginger — underground stem (bud)
6. Garlic — underground stem (bulb)

**D. Write short answers**

1. What is a seed coat? What is its most important function?

**Ans:** The seed has a hard and thick covering. It is called the seed coat. It protects the seed for stop the seed court has a tiny hole in it, through which the see takes in water and air.

2. Define germination.

**Ans:** The growth of a baby plant or seedling from a seed is called germination

3. List the conditions necessary for germination to take place.

**Ans:** The seed needs the right amount of water, air and warmth to germinate.

4. Define dispersal. What are the different ways in which seats get dispersed?

**Ans:** The process of scattering of seeds or fruits away from the parent plant is called dispersal. Seeds are carried away from the parent plant too far off places by wind, water, animals or explosion of fruits.

5. What are kharif crops? Give two examples.

**Ans:** Crops that are grown from June to October are called Kharif crops or monsoon crops. Two examples of kharif crops are rice or Paddy and groundnut

### **E. Answer these questions**

1. Describe the structure of a seed. Give two examples each of seeds with 1 and 2 cotyledon.

**Ans:** Each seed has a hard and thick covering. It is called the seed coat. It protects the seed. The seed coat has a tiny hole in it, through which it takes in air and water. Under the seed coat, there are one or two cotyledon. The baby plant in the middle of the cotyledon is called the embryo. The embryo has a tiny root that grows downwards. It also has a tiny shoot that grows upwards. Seeds of plants such as gram and Pea has two cotyledon seeds of plants such as maize and wheat have only one cotyledon.

2. In favourable conditions, how does the seed grow into a healthy plant?

**Ans:** Seeds need the right amount of water, air and warmth to germinate. When all the conditions are favourable, a seed starts taking in water through the hole in the seed coat. It then begins to swell up and the seed coat burst open. As the seed germinates, the young root grows downwards and the shoot grows upwards. The baby plant uses the food stored in the cotyledon. The root starts taking in water and minerals from the soil. When the green leaves grow and get sunlight, they begin to make food by photosynthesis.

3. Why do plants have to disperse their seeds? What features of the coconut and Lotus fruit allowed them to get dispersed by water?

**Ans:** Plants cannot move from one place to another. So, if all seeds fall and germinate near the parent plant, they would not get enough sunlight, air, water, minerals and space to grow. Because of this, many seedlings would not survive. Hence, nature helps to scatter these seeds by dispersal. Coconuts are hollow from inside and are covered with rough hairs. This makes them light to float and travel in water. The Lotus fruit has a spongy part that helps it to float.

4. Apart from seeds, from which parts of a plant can new plants grow? Explain how a new plant grows from a bryophyllum plant.

**Ans:** New plants can also grow from different parts of the parent plant, such as roots, leaves or stems. In bryophyllum, new plants grow from the leaves of the parent plant. Food stored in bryophyllum leaves is at the margins. When these buds fall on the ground, they develop roots and grow into new plants.

5. What are crops? List the different factors a farmer should keep in mind to get a good harvest.

**Ans:** A plant is grown in large quantity for food, fiber, medicines and other human needs, it is called a crop.

To grow healthy crops and get a good harvest, farmers need to take the following steps

- Gather knowledge about the correct climate and season for growing a particular crop.
- Check the suitability of the soil.
- Prepare the soil well by ploughing and levelling it.
- Use ripe and healthy seed.
- Add manure and fertilizers to the soil so that the crops grow well.
- Irrigate the crop at the right time.
- Harvest the crop at the right time and store them.

F. Complete the Think and answer by yourself in the note book.

G. Complete the Do and learn in the text book