6. PLANT REPRODUCTION AND AGRICULTURE

1. Define germination.

Ans The growth of a baby plant (or seedling) from a seed is called germination.

2. Describe the structure of a seed.

Ans 1.Each seed has a hard and thick covering. It is called the seed coat. It protects the seed.

2.The seed coat has a tiny hole in it, through which it takes in air and water.

3.Under the seed coat, there are one or two cotyledons.

4.The baby plant in the middle of the cotyledons is called the embryo.

5.The embryo has a tiny root that grows downwards. It also has a tiny shoot that grows upwards.

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

Ans 1.A seed needs the right amount of water, air and warmth to germinate.

2.When all the conditions are favourable, a seed starts taking in water through the hole in the seed coat.

3.It then begins to swell up and the seed coat bursts open. As the seed germinates, the young root grows downwards and the

shoot grows upwards.

4.The baby plant uses the food stored in the cotyledons. The root starts taking in water and minerals from the soil.

5.When the green leaves grow and get sunlight, they begin to make

food by photosynthesis.

4. Define dispersal. What are the different ways in which seeds 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 to far-off places by wind, water, animals or explosion of fruits.

5. Why do plants have to disperse their seeds, What features of the coconut and lotus fruits allow them to get dispersed by water?

Ans 1.Plants cannot move from one place to another.

2.So, if all seeds fall and germinate near the parent plant, they would not get enough sunlight, air, water, minerals and space to grow. 3.Because of this, many seedlings would not survive. Hence, nature helps to scatter these seeds by dispersal.

4.Coconuts are hollow from inside and are covered with rough hair. This makes them light to float and travel in water.

5.The lotus fruit has a spongy part that helps it to float.

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

Ans 1.New plants can also grow from different parts of the parent plant, such as roots, leaves or stems.

2.In bryophyllum, new plants grow from the leaves of the parent plant. 3.Bryophyllum leaves contain buds on their margins. When these buds fall on the ground, they develop roots and grow into new plants.

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

Ans When a plant is grown in large quantity for food, fibre, 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:

* Prepare the soil well by ploughing and levelling it.
* Sow ripe and healthy seeds.
* Add manures and fertilizers to the soil so that the crops grow well.
* Irrigate the crops at the right time.
* Harvest the crops at the right time and store them.