

1. Select the correct word from the following list and fill in the blanks.

float, water, crop, nutrients, preparation.

(a) The same kind of plants grown and cultivated on a large scale at a place is called

(b) The first step before growing crops is of the soil.

(c) Damaged seeds would on top of water.

(d) For growing a crops sufficient sunlight and and from the soil are essential.

Ans. (a) crop (b) preparation (c) float (d) water, nutrients

2. Match items in Column A with those in Column B.

Column A	Column B
Kharif crops	Food for cattle
Rabi crops	Urea and super phosphate
Chemical fertilizers	Animal excreta, cow dung, urine and plant waste
Organic manure	Wheat, gram, pea
	Paddy and maize

Ans.

Column A	Column B
Kharif crops	Paddy and maize
Rabi crops	Wheat, gram, pea
Chemical fertilizers	Urea and super phosphate
Organic manure	Animal excreta, cow dung, urine and plant waste

3. Give two examples of each—

(a) Kharif crop (b) Rabi crop

Ans. (a) Kharif crop : 1. Soyabean, 2. Groundnut

(b) Rabi crop : 1. Wheat, 2. Pea

4. Write a paragraph in your own words on each of the following—

- (a) Preparation of soil (b) Sowing (c) Weeding
(d) Threshing.

(a) Preparation of soil : Preparation of soil is the first step before growing a crop. Soil is prepared to sow the seeds. It is tilled to loose the soil particles for better absorption of water and manures.

Generally, the soil is prepared for a better yield by tilling or ploughing and further adding manure and fertilizers. Levelling of the field is again important for sowing and for irrigation. Tilling is done using ploughs.

(b) Sowing : It is a process of putting seeds into the soil for germination. First of all, better and healthy seeds are selected. The tool used traditionally for sowing seeds is shaped like funnel. Nowadays, the seed drill is used for sowing with the help of tractors. This sows the seeds uniformly at equal distance and depth. This method saves time and labour.

(c) Weeding : The undesirable plants grown along with the crop are called weeds. The removal of weeds is called weeding. The weeds absorb the nutrients from the soil. So, it is necessary to remove them. The process of removal of weeds is called weeding. The chemicals which are used to remove the weeds are known as weedicides.

(d) Threshing : When the crop is harvested it is cut along with the stalk. It is then separated and the grains are removed. So this separation of grains from the chaff is called threshing. This is carried out with the help of a machine called 'combine' which is a harvester as well as a thresher. Farmers with small holdings of land do the separation of grain and chaff by winnowing.

5. Explain how fertilizers are different from manure.

Ans.

Difference between Fertilizers and Manure

S.No.	Fertilizers	Manure
1.	These are inorganic substances.	Manure naturally occurs by the decomposition of cattle dung, human waste and plants residues.
2.	Fertilizers are prepared in factories.	Manure can be prepared in fields.
3.	Fertilizers are very useful for soil but excessive use of fertilizers can destroy the soil fertility.	Manure improves soil texture and improve water holding capacity of the soil.
4.	Sometimes fertilizers give adverse effects to crops.	Manures are natural, so these are not harmful to crops.

6. What is Irrigation ? Describe two methods of irrigation which conserve water.

Ans. Irrigation : To provide appropriate water supply to crops is called irrigation.

Water conserving methods of Irrigation

(i) **Sprinkler System** : This system is more useful on the uneven land where water is available in smaller quantity. Sprinkler works as fountains. Long perpendicular pipes have holes of regular distances. These holes have rotating nozzles which sprinkle water in all directions when the water is allowed to flow through the main pipe with the help of a pump it escapes from the rotating nozzles. Sprinkler system is very useful for lawns, coffee plantation, etc.

(ii) **Drip System** : This system is used to save water as it allows the water to flow drop by drop at the roots of the plants. This system consists of a main pipe to which lateral pipes are joined. Specially prepared nozzles are attached to these lateral pipes. These nozzles

are grounded just near the roots of the plants and provide water drop by drop.

This technique is used for watering fruit plants, gardens and trees. This is best method of irrigation for places which have scarcity of water.

7. If wheat is sown in the Kharif season, what would happen ? Discuss.

Ans. Wheat crop does not require much water to grow and kharif crops are sown in rainy season. So, if we sow wheat in the kharif season, the seeds will get destroyed due to excess of water heavy rainfall.

8. Explain how soil gets affected by the continuous plantation of crops in a field.

Ans. Plants need nutrients and water to grow and they get nutrients in the form of minerals and salts from the soil. If we sow continuously in a field then the lacking of nutrients takes place in the soil and field becomes unfertile. Thus, the soil is unable to yield healthy the and good crop.

9. What are weeds ? How can we control them ?

Ans. Weeds are undesirable plants which grow naturally along with crops. Weeds compete with the crops plants for water, nutrients, space and light and hence affect the growth of the crops. Some weeds are poisonous for animals and human beings.

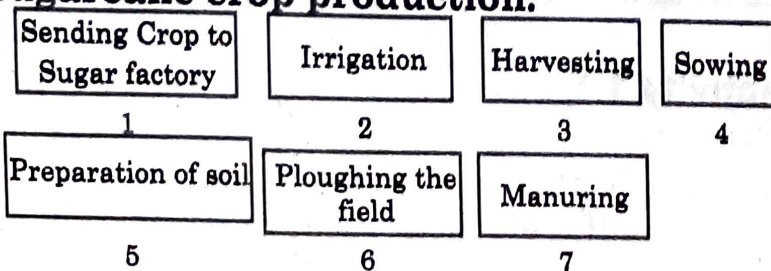
Control of weeds : We can adopt many ways to remove and control their growth.

(i) Tilling before sowing of crops helps in up rooting and killing weeds, which may then dry up and get mixed with the soil.

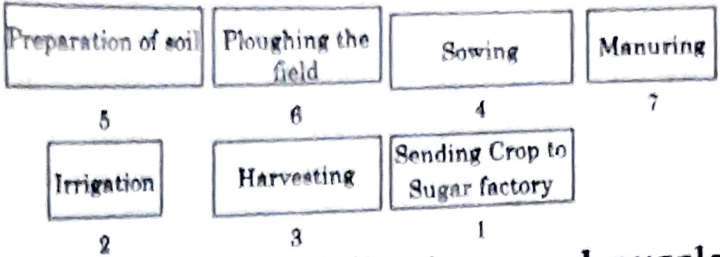
(ii) Weeding is done normally by using khurpi and mechanical machines.

(iii) Weeds are also controlled by using certain chemicals called weedicides like 2-4-D. These chemical are sprayed in the fields to kill the weeds.

10. Arrange the following boxes in proper order to make a flow chart of sugarcane crop production.



Ans.



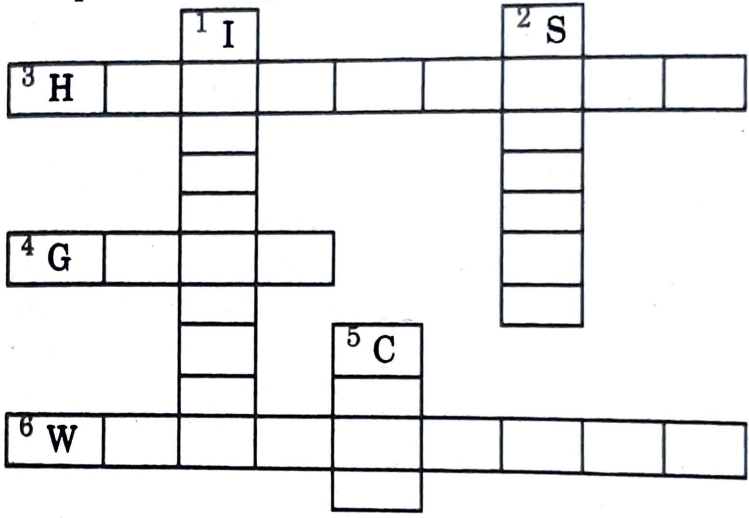
11. Complete the following word puzzle with the help of clues given below.

Down

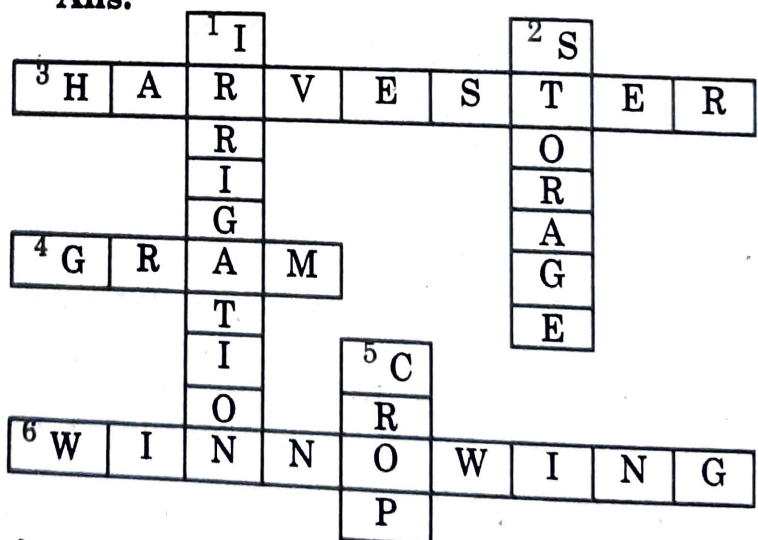
1. Providing water to the crops.
2. Keeping crop grains for a long time under proper conditions.
5. Certain plants of the same kind grown on a large scale.

Across

3. A machine used for cutting the matured crop.
4. A rabi crop that is also one of the pulses.
6. A process of separating the grain from chaff.



Ans.



Activity 1.1

Procedure :

1. Take a beaker.
2. Fill half of it with water.
3. Put a handful of wheat seeds and stir well.
4. Wait for sometime.