

St. Andrews Scots Sr. Sec. School

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Session: 2024-2025 – Answer Key

Class: VIII

Subject: Science

Chapter: Crop Production

Define these terms:

1.Agriculture – Agriculture is an applied Science that deals with the mass production of crop plants and animals useful to human beings.

2.Crop – Plants of the same kind grown at one place on a large scale are called a crop.

3.Horticulture – Horticulture is a branch of agriculture that deals with the production of vegetables, Fruits and ornamental plants.

4.Agricultural practices – Agricultural practices are activities in a particular sequence undertaken by Farmers over a period of time to cultivate a good crop.

5.Organic farming – Organic farming is the farming method which entirely depends on biological methods with the maximum use of manure, bio-fertilisers and bio-pesticides, with healthy cropping System.

PRACTICE TIME A.

1. (d) 2. (d) 3. (a) 4. (a) 5. (d) 6. (a)

B. Rewrite the wrong sentences by substituting the wrong word with the correct one:

1. Beans, peas and green gram are examples of pulses.

2. Growing fruits and vegetables is called horticulture.

3. Milk contains all vitamins except vitamin C.

4. Ploughing is done to make the soil loose to allow deeper penetration of roots.

5. Drip irrigation is used in areas where there is water shortage.

C. Very Short Answer Type Questions:

1. Ploughing and levelling.

2. Some oilseed crops are mustard, groundnut, sunflower, soyabean and coconut.

Some fibre crops are cotton, jute and hemp.

3. Cultivator is used for ploughing a field by using a tractor.



A modern-day cultivator

4. By transplantation, only healthy seedlings are planted with sufficient spacing between them. This increases crop production.

5. Drip irrigation provides water drop by drop near the roots of plants. In this way, water is not wasted at all and plants get regular supply of water.



Drip irrigation

6. Silos are tall cylindrical containers for bulk storage of grains.

D. Short Answer Type Questions:

1. By using a seed drill, seeds are sown uniformly in the furrows only. This prevents the wastage of seeds, saves time and labour.



Seed drill

2. Manuring is done to regain the fertility of soil. It also improves soil texture and helps it retain moisture.

3. Fertilisers are easily absorbed and utilised immediately by the plants. They provide specific nutrients to the crop.

4. Moat, Rahat, Dhekli, Chain pump and Swinging basket are the traditional methods of irrigation.



(i) Moat (pulley-system)



(ii) Chain pump



(iii) Dhekli



(iv) Rahat (Lever system)

5. During Green Revolution, new varieties of wheat were developed by cross breeding methods using high-yielding dwarf varieties of wheat from Mexico and Australia.

E. Long Answer Type Questions:

1. (a) The unhealthy seeds are separated from healthy seeds by soaking them in water. The healthier seeds settle down at the bottom and unhealthy seeds being hollow and lighter as they are eaten by pests, float on the surface of water.

(b) (i) Manual or Broadcasting method involves scattering of seeds by hand. The scattered seeds are later covered with soil.

(ii) Mechanical method includes sowing seeds with a seed drill. It makes furrows in the soil and allows the seeds to fall at regular distances in the furrows.

2.

S.No.	Parameters	Manure	Fertilisers
i	Nature	It is a natural organic substance.	These are inorganic salts.
ii	Preparation	It is prepared in fields by the decomposition of animal wastes, human wastes and plant residues	These are prepared in factories.

iii	Humus	It provides a lot of humus to the soil.	These do not add any humus to the soil.
iv	Amount of nutrients present	It contains less amount of essential plant nutrients.	These are rich in plant nutrients like nitrogen, phosphorus and potassium.
v	Cost	It is not expensive.	These are costly.
vi	Examples	Sunn hemp or Sesbania	Urea and potash

(b) Use of fertilisers in excess is disadvantageous because they damage the crop and pollute the soil as well as nearby waterbodies on washing by rainwater.

(c) Manure made from farm waste such as cattle dung and urine, straw, leaves, etc. is called farmyard manure.

3. Modern methods of irrigation are:

- Furrow irrigation: In this method, water runs in the field through furrows between two rows of the crop.
- Basin irrigation: In this method, the entire field is made overflow with water.
- Sprinkler irrigation: In this method, perpendicular pipes are laid at regular intervals in the field. They are joined to the main pipeline and have rotating nozzles at the top end. The water through rotating nozzles gets sprinkled over the crop plants.
- Drip irrigation: In this method, water is provided to the plants drop-by drop, near their roots.

Advantages of using modern methods of irrigation

- Modern methods of irrigation avoid wastage of water and help in water conservation.
- These methods prevent loss of water by evaporation.
- These methods ensure equal distribution of water to different parts of the field, especially where the land is uneven.

4. The removal of unwanted plants growing naturally with crop plants without harming them is called weeding. Different methods of weeding:

- Manual method: In this method, weeds are uprooted by hand.
- Mechanical method: In this method, weeds are removed by using different agricultural implements such as harrow, trowel, hoe, etc.
- Chemical method: In this method, weeds are removed by spraying weedicides such as 2, 4-D, MCPA, butachlor and paraquat on the crop plants.

- Biological method: In this method, some natural enemies of weeds are released in the crop field which feed on weeds and destroy them. For example, cochineal insect is used to eliminate prickly pear from the crop fields.

5.



(a) Sprinkler irrigation

(b) When soil is sandy or land is uneven and proper distribution of water is not possible.

(c) It distributes water evenly, saves water and prevents water logging.

6.

- If the harvested grains are to be stored for a longer period of time, they must be protected from moisture, pests, rodents, and microbes.
- Freshly harvested grains (seeds) that are not dried before storing risk becoming spoiled or infected by microorganisms, rendering them unusable or incapable of germination.
- As a result, the grains are adequately dried in the sun before being stored to lower their moisture content.
- By doing this, bacteria, fungi, and insect pests are kept at bay.
- Jute bags or metal bins are used by farmers to store crops.
- To keep them safe from rats and insects, enormous quantities of grains are stored in granaries and silos.
- For preserving grains at home, neem leaves that have been dried are utilized.

7. Animal products are used as food directly or indirectly. Milk, eggs and meat are important examples of food from animals.

Animal products too are a rich source of nutrients. The food chain is composed of exactly these animals starting with organisms that use the energy of the sun to the apex at which the organisms are predators and rely on producers.

- Milk - Cows, buffaloes, sheep, goat, and camels are a great source of milk. Milk is also called as an ideal food. It is rich in vitamins, minerals, proteins, carbohydrates and fats.

- Eggs - Chickens, ducks, geese, and quails are raised for eggs and meat. The egg is a rich source of protein and vitamin. The yolk of the egg is mostly made up of egg. It also contains *vitamins*, phosphorus, calcium and iron.
- Meat - Meat is rich in proteins, vitamins, zinc, phosphorus and iron. We get meat from goat, sheep and pigs and has a lot of fat. Meat obtained from chicken and fish and has less fat

F. HOTS Questions:

1. It is important to irrigate the crop field before sowing the seeds because seeds germinate in the presence of moisture.
2. If distance and depth are not maintained at the time of sowing of seeds, the seeds will not get sufficient amount of water and oxygen and after gemination they will not be able to get sufficient amount of light and air to grow well.
3. Crop rotation enriches the soil as nutrient used by one crop are replenished by another crop growing on the same land. For example, after growing wheat crop, growing a leguminous crop such as pea, groundnut or gram can replenish the nitrogen content of soil by its nitrogen-fixing bacterium, Rhizobium which lives in its root nodules.