

1. Organic wastes can be decomposed to form _____, which can sustainably enhance the nutrient content of the soil.

- A. compost
- B. cow dung
- C. fertiliser
- D. pesticide

Answer: (A) compost

Solution: Composting is a process in which organic wastes are decomposed naturally to form a nutrient-rich compost. It is a natural and environment-friendly process, which forms a key feature in organic farming. Organic substances like animal faeces, leaves, grass clippings, vegetables, eggshells, etc., can also be composted and used on farms.

2. Select the method(s) of irrigation which can be employed on uneven land.

- (i) Moat
- (ii) Sprinkler
- (iii) Chain Pump
- (iv) Drip System

- A. (ii) and (iv)
- B. Only (iv)
- C. (i), (ii) and (iii)
- D. (i) and (ii)

Answer: (A) (ii) and (iv)

Solution: Traditional methods of irrigation, such as moats and chain pumps, are useful only in plains where the terrain aids the flow of water into the fields. However, both sprinkler and drip systems of irrigation are very efficient, even on uneven land.

3. Which of the following is a rabi crop?

- A. Rice
- B. Mustard
- C. Soyabean
- D. Maize

Answer: (B) Mustard

Solution: Crops which are grown during the rainy season are called Kharif crops. Paddy (rice), millets and cotton are examples of Kharif crops. On the other hand, crops grown during the winter season are called rabi crops. Rabi crops include wheat, gram, and mustard.

4. Which of the following should be used by a farmer with a large farm to harvest his crops quickly and efficiently?

- A. Winnowing machine
- B. Combine

- C. Sickle
- D. Seed drill

Answer: (B) Combine

Solution: Cutting of the crop close to the ground after it is mature is called harvesting. Farmers with small farms harvest their crops manually using tools like a sickle. However, after harvesting, they need to undertake threshing and winnowing manually. Whereas farmers with huge farms cannot deploy manual labour for harvesting and threshing as it is more time-consuming. Instead, it is more efficient for them to use machines such as a combine. A combine performs the function of both harvesters as well as threshers. This saves a lot of time and manual labour.

5. In today's world, where water is a scarce resource, which of the following irrigation methods is most feasible and sustainable?

- A. Sprinkler system
- B. Drip system
- C. Tube well
- D. Chain pump

Answer: (B) Drip system

Solution: Drip irrigation is a technique in which water flows through a filter into special drip pipes. It helps in releasing water drop by drop into the soil near the roots of plants. In contrast to other types of irrigation systems, such as overhead sprinklers, water can be more precisely applied to the plant roots. If designed, installed and managed properly, this method contributes greatly to water conservation by reducing evaporation.

6. Consider the following statements about weeding and identify the **incorrect** one.

- A. Weeding is best done during tilling itself.
- B. Weeding is the process of growing weed.
- C. Weeding is the process of removal of weeds.
- D. Weeding is usually done manually or by using weedicides.

Answer: (B) Weeding is the process of growing weed.

Solution: Weeding is the process of removal of weeds (unwanted plants) in agricultural land. It is a process best done before planting and during tilling so that weeds do not mature and do not interfere with the harvesting process. Weeding can be done manually by using tools like khurpi or chemically done by using weedicides.

7. What are the important steps in the preparation of soil?

- A. Loosening and sowing
- B. Loosening and weeding
- C. Turning and sowing
- D. Turning and loosening

Answer: (D) Turning and loosening

Solution: Turning and loosening are important steps in the preparation of soil because they help in the penetration of the root deep into the soil.

8. Which of the following is not a traditional irrigation method?

- A. Moat
- B. Chain pump
- C. Lever system
- D. Drip system

Answer: (D) Drip system

Solution: Irrigation is the process in which water is supplied to plants at regular intervals for agriculture. The traditional methods of irrigation include a moat, chain pump, dhekli and rahat. Modern methods comprise the use of sprinklers and drip systems of irrigation.

9. If you were a farmer, which of the following methods would you use to separate good quality and viable grains from a heap of grains after harvest?

- A. Checking the weight of grains.
- B. Checking grains under sunlight for pores.
- C. Immersing the grains in water.
- D. Sowing seeds and waiting for germination.

Answer: (C) Immersing the grains in water.

Solution: The most appropriate and simple method of separating good quality grains from the damaged ones is by immersing all the grains in water. Doing this will cause damaged or bad grains to float up because they are hollow. The viable or good seeds, on the other hand, will sink and settle at the bottom.

10. Which of the following is used to preserve food grains at home?

- A. Spinach leaves
- B. Curry leaves
- C. Neem leaves
- D. Tulsi leaves

Answer: (C) Neem leaves

Solution: Dried neem leaves are used to preserve food grains at home to protect them from pests and microorganisms. Extracts of neem leaves and neem fruits repel more than 200 species of mites, worms and insects and hence is a convenient resource to protect grains at home.

11. Weeds are controlled by chemicals called _____.

- A. Pesticides
- B. Fungicides
- C. Weedicides
- D. Insecticides

Answer: (C) Weedicides

Solution: Weeds are controlled using chemicals called weedicides. A common example is 2,4-Dichlorophenoxyacetic acid (2,4-D). They affect only the weeds but have no effect on crops. They are diluted with water and sprayed on the fields with a sprayer.

12. Which type of irrigation is similar to rainfall?

- A. Moat
- B. Sprinkler system
- C. Rahat
- D. Drip system

Answer: (B) Sprinkler system

Solution: Sprinkler system is a type of irrigation mostly used on uneven land where sufficient water is not available. The perpendicular pipes, having rotating nozzles on top, are connected to the main pipeline at regular intervals. When water is allowed to flow through the main pipe under pressure with the help of a pump, it escapes from a rotating nozzle. It gets sprinkled on the crop as if it is raining.

13. What are the advantages of preparing the soil?

- A. All of these.
- B. Makes decomposition by microbes easier.
- C. Makes the top soil nutrient rich.
- D. Allows roots to penetrate the soil easily.

Answer: (A) All of these.

Solution: Turning and loosening soil are the two most important steps in soil preparation. The process of turning brings a deep layer of soil that is rich in nutrients to the topmost layer of topsoil. Loosening of soil allows roots to penetrate the soil easily and also helps in the growth of earthworms and microbes that, in turn, help in the formation of humus.

14. Arrange the following agricultural practices in the order in which they are followed.

- 1. Harvesting
 - 2. Sowing
 - 3. Storage
 - 4. Irrigation
 - 5. Preparation of soil
- A. 1→2→3→4→5
 - B. 5→2→4→1→3
 - C. 2→1→3→5→4
 - D. 5→3→4→1→2

Answer: (B) 5→2→4→1→3

Solution: In basic agricultural practice, the first step is to prepare the soil for the crop. This step includes tilling or ploughing. Once the soil is well prepared, sowing is done. After sowing, a continuous water supply for crop growth is provided by irrigation. When the crops are ripe, they are harvested, and the grains obtained are stored for further use.

15. The process of loosening and turning the soil is known as:

- A. Winnowing
- B. Ploughing
- C. Harvesting
- D. Threshing

Answer: (B) Ploughing

Solution: Ploughing is the process of loosening or turning the soil. It is done mainly using a plough, hoe or cultivator. Ploughing allows easy penetration of roots into the soil and provides air spaces for roots and microbes to breathe.

16. The process of drying wheat stalks in the sun and then beating them to separate the grains is called

- A. Winnowing
- B. Threshing
- C. Churning
- D. Sieving

Answer: (B) Threshing

Solution: Threshing is done by drying the stalks in the field and then beating them to separate grains. The process of beating the stalks can be done by bullocks or machines. This can also be carried out with the help of a machine called 'combine', which is, in fact, a combination of harvester and thresher.

17. Which of the following tool helps in the uniform distribution of seeds while sowing?

- A. Thresher
- B. Seed drill
- C. Funnel connected to pipes
- D. Sprinkler

Answer: (B) Seed drill

Solution: A seed drill is a sowing device that precisely positions seeds in the soil at the proper depth and then covers them. It also maintains a uniform distance between the seeds.

18. Which of the following animal is taken care of in animal husbandry?

- A. Rhino
- B. Tiger
- C. Buffalo
- D. Lion

Answer: (C) Buffalo

Solution: Buffalo is a domesticated animal which is raised for farm purposes. It provides milk and also helps in carrying out various steps of agricultural work.

19. Identify the agricultural method in which different crops are grown on a piece of land season after season.

- A. Irrigation
- B. Monoculture
- C. Crop rotation
- D. Shifting cultivation

Answer: (C) Crop rotation

Solution: Crop rotation is a method in which farmers cultivate different types of crops on a piece of land, season after season. This method helps in reducing soil erosion and increases soil fertility and crop yield.

20. Rhizobium bacteria in the root nodules of leguminous plants help in fixing:

- A. Sulphur
- B. Oxygen
- C. Nitrogen
- D. Hydrogen

Answer: (C) Nitrogen

Solution: Rhizobium bacteria in the root nodules of leguminous plants help in fixing nitrogen. Nitrogen has to be 'fixed' because plants cannot take up nitrogen directly from the atmosphere.