CBSE Test Paper 04

Chapter 15 Improvement in food Resources

1. Who is known as 'Father of white revolution' in India? **(1)**

   a. Mrs. Indira Gandhi
   b. Shri Jai Prakash Narain
   c. Dr. V. Kurein
   d. Prof M.S. swaminathan

2. Weeds affect the crop plants by **(1)**

   a. dominating the plants to grow
   b. killing of plants in field before thy grow
   c. all of these
   d. competing for various resources of crops (plants) causing low availability of nutrients

3. The unwanted plants are known as **(1)**

   a. Shrubs
   b. Grasses
   c. Weeds
   d. Seeds

4. Which one of the following yields maximum milk/year? **(1)**

   a. Holstein friesian
   b. Frieswal
   c. Sahiwal
   d. Red Sindhi

5. Which among the following is employed by farmers as an additional income-generating activity? **(1)**

   a. Bee-keeping

b. Marine fishing
c. Poultry farming
d. Inland fishing

6. What is irrigation? **(1)**
7. Name the bacteria found in root nodules of leguminous plants. **(1)**
8. Name the two factors on which food security depends. **(1)**
9. Name one bacterial and one viral disease of poultry respectively. **(1)**
10. Define pesticide. **(1)**
11. Why is organic matter important for crop production? **(3)**
12. Why is chemical method of controlling pests not considered good ? **(3)**
13. What is a GM crop? Name any one such crop which is grown in India. **(3)**
14. Describe the main irrigation systems that are adopted in India. **(5)**
15. What are weeds? Enlist the methods employed to control weeds. **(5)**

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Answers

1. c. Dr.V. Kurein
   Explanation: He is caleld so because of his initiatives and immense contribution to the dairy sector.
2. d. competing for various resources of crops (plants) causing low availability of nutrients
   Explanation: Unwanted plants which grow in the field are called weeds, e.g. Xanthium (gokhroo), Parthenium (gajar ghas), Cyperinus rotundus (motha). They compete with crops for various resources; like sunlight, water and nutrients. Thus, weeds hamper the growth of crops.
3. c. Weeds
   Explanation: Unwanted plants that grow together with the main crops are called as weeds. The process of removing/disposing of these weeds is said to be weeding. E.g Xanthium, Parthenium. Weeds grow along with the crops competing with them for light and good nutrients. Due to this, the main crop plants gets fewer nutrients, light and space for their growth.
4. a. Holstein friesian
   Explanation: Holstein Friesians are a breed of dairy cattle originating from the Dutch provinces of North Holland and Friesland, and Schleswig-Holstein in Northern Germany and Jutland. They are known as the world's highest-production dairy animals.
5. a. Bee-keeping
   Explanation: The practice of rearing honey bees for production of honey and wax is called apiculture or bee keeping. It involves minimum investment and can be an ideal source of supplementary income for farmers.
6. The process of providing water to crop plants in the fields by means of canals, wells, reservoirs, etc., is known as irrigation.

7. Rhizobium
8. Availability of food and access to it.
9. Cholera and Ranikhet (New castle disease) respectively.
10. The chemical which is used to eliminate (kill) pests is called pesticide.
11. Organic matter is important for crop production because:
    a. It helps in improving soil structure by improving the soil fertility.
    b. It helps in increasing water holding capacity of sandy soil.
    c. In clayey soil large quantities of organic matter helps in drainage and in avoiding waterlogging.
12. The chemicals used are sprayed on the crop to prevent diseases which leads to environmental pollution. Some part gets penetrated in grains which gets introduced in the food chain and is harmful to animals and human beings.
13. Crop which has been developed by introducing a new gene from a different source, to obtain the desired character, is called genetically modified (GM) crop. For example, Bt cotton which is made insect-resistant by introducing a new gene from a bacteria.
14. Different kinds of irrigation systems are adopted to supply water to agricultural lands depending on the kinds of water resources available. These include wells, canals, rivers and tanks.
    a. **Wells:** They are of two types—dug wells and tube wells. In dug wells, water is collected from water bearing strata while in tube wells water is tapped from the deeper strata. From these wells, water is lifted by pumps for irrigation.
    b. **Canals:** Canal system is usually an elaborate and extensive irrigation system. Canals receive water from one or more reservoirs or from rivers. The main canal is divided into branch canals having further distributaries to irrigate fields.
    c. **River lift systems:** In this system, water is directly drawn from the rivers for supplementing irrigation in areas lying close to rivers. This system is used in areas where canal flow is insufficient or irregular due to inadequate reservoir release.
    d. **Tanks:** Tanks are small storage reservoirs, which intercept and store the run-off of

smaller catchment areas.

Apart from the above systems, some new initiatives have been undertaken for increasing the water available for agriculture. These include rainwater harvesting system and watershed management system. This involves building small check-dams which lead to an increase in groundwater levels. These check-dams stop the rainwater from flowing away and also reduce soil erosion.

15. The unwanted plants in a cultivated field are called weeds. They compete for food, space and light with the main crop plants. They germinate and grow faster, and thus effect the quality and yield of the crop. For these reasons, weed plants need to be removed from the cultivated field in early stage of crop. The methods employed for weed control are as follows:

    a. Mechanical Method: The weed plants are removed from the field either manually or with the help of agricultural implements like uprooting or hand hoeing or weeding with khurpi, ploughing, etc.
    b. **Cultural Method:** This method includes:
        i. Proper seed bed preparation
        ii. Timely sowing of crops
        iii. Intercropping
        iv. Crop rotation
    c. **Chemical Methods:** By spraying chemicals that do not harm crop plants but destroy only the weed plants, the latter can be controlled. These chemicals are called weedicides, e.g., 2, 4-D and atrazine.
    d. **Biological Method:** As we know, some insects feed particular weeds. Thus, we use these insects as biological weed-controlling agents like the use of cochineal insect to control Opuntia weed and the use of the grass carp fish to control aquatic weeds.