WORKSHEET_100925

CHAPTER 12 IMPROVEMENT IN FOOD RESOURCES

SUBJECT: SCIENCE **MAX. MARKS : 40**

CLASS : IX **DURATION : 1½ hrs**

General Instructions:

(i). **All** questions are compulsory.

(ii). This question paper contains 2**0** questions divided into five Sections A, B, C, D and E.

(iii). **Section A** comprises of **10 MCQs** of **1 mark** each. **Section B** comprises of 4 questions of **2 marks** each. **Section C** comprises of 3 questions of **3 marks** each. **Section D** comprises of 1 question of **5 marks** each and **Section E** comprises of 2 Case Study Based Questions of **4 marks** each.

(iv). There is no overall choice.

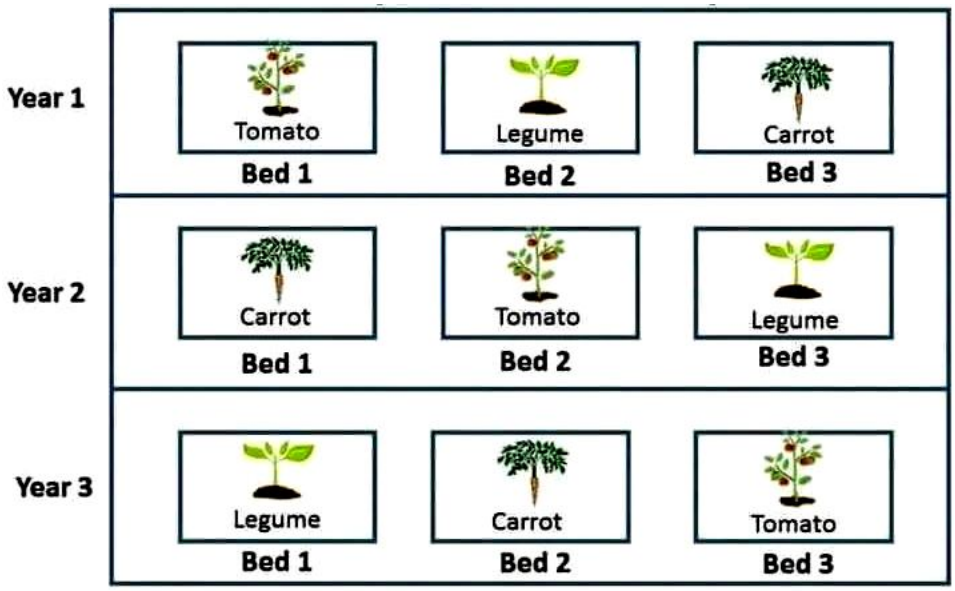
(v). Use of Calculators is not permitted

SECTION – A

Questions 1 to 10 carry 1 mark each.

1. Find out the correct sentence about manure.
(i) Manure contains large quantities of organic matter and small quantities of nutrients.
(ii) It increases the water holding capacity of sandy soil.
(iii) It helps in draining out of excess of water from clayey soil.
(iv) It excessive use pollutes environment because it is made of animal excretory waste.
(a) (i) and (iii) (b) (i) and (ii) (c) (ii) and (iii) (d) (iii) and (iv)

2. The diagram shows the crop harvesting pattern followed by a farmer. Bed 1, Bed 2 and Bed 3 are different parts of the farm.



What is the common term used for this pattern of crop harvesting?
(a) Crop rotation (b) Mixed cropping (c) Intercropping (d) Organic farming

3. To solve the food problem of the country, which among the following is necessary?
(a) Increased production and storage of food grains.
(b) Easy access of people to the food grain.
(c) People should have money to purchase the grains.
(d) All of the above

4. A farmer in town X changed the cropping pattern of the farm. Earlier the farm had only soyabean but then the farm was divided into rows of different crops. Two rows of soyabean and alternate

two rows had maize and the next two had cowpea. What would be the most likely effect of the new cropping pattern?

(a) Increase in yield (b) Degradation of land
(c) Increased growth of weeds (d) Reduced intake of nutrients by crops

5. A crop X is to be grown in a field. It is seen that Parthenium, a type of weed usually affects crop X. What measure would help to protect crop X from Parthenium?
(a) Spraying pesticides
(b) Avoiding crop rotation
(c) Burning the field before sowing the crop
(d) Delaying the sowing of crops by a few days

6. Which of these would make a crop resistant to biotic stresses? [CBSE Question Bank]
(a) Using insecticides to kill insects and other pests.
(b) Developing crop varieties that are tolerant to high soil salinity.
(c) Developing crop varieties that can grow in scarce water conditions.
(d) Growing crops in artificial set ups with fixed temperature and moisture content.

7. A soil sample has adequate water holding capacity but is deficient in phosphorous and potassium. Which of these would improve the quality of crops grown in that field?
(a) Removing weeds (b) Applying fertilisers
(c) Modifying irrigation system (d) Growing two different crops at the same time

8. Crop Y is grown only in few areas due to specific temperature requirements. To increase the productivity of crop Y, it is recommended to develop its different varieties. Which feature should be included while developing the different varieties of crop Y in order to increase its productivity?
(a) Developing varieties with strong biotic resistance.
(b) Developing varieties with less dependence on water.
(c) Developing varieties with extended maturity duration.
(d) Developing varieties adaptable to different climatic conditions.

In the following questions 9 and 10, a statement of assertion (A) is followed by a statement of Reason (R). Choose the correct answer out of the following choices.
(a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true and R is not the correct explanation of A.
(c) A is true but R is false.
(d) A is false but R is true.

9. **Assertion (A):** Some weeds produce substances toxic for the crops.
Reason (R): Chenopodium is a toxic weed.

10. **Assertion (A):** Fungicides and pesticides increase crop output.
Reason (R): Manure and fertilizers produce chemicals that improve soil fertility.

SECTION – B

Questions 11 to 14 carry 2 marks each.

11. Cultivation practices and crop yield are related to environmental condition. Explain.

OR

Which method is commonly used for improving cattle breed and why?

12. What are macronutrients and why are they so called?

13. How do biotic and abiotic factors affect crop production?

OR

What factors may be responsible for losses of grains during storage?

14. Why should preventive measures and biological control methods be preferred for protecting crops?

SECTION – C

Questions 15 to 17 carry 3 marks each.

15. (a) Why should preventive methods and biological control methods be preferred for protecting crops?
(b) Name the farming system in which only such above mentioned methods are followed.
(c) How does manure improve the soil structure of sandy and clayey soil?

16. What is genetic manipulation? How is it useful in agricultural practices?

OR

Enumerate the advantages of mixed farming.

17. What are the advantages of intercropping and crop rotation?

OR

Discuss why pesticides are used in very accurate concentration and in very appropriate manner.

SECTION – D

Questions 18 carry 5 marks each.

18. Why is crop variety improvement important in cultivation? Describe the important factors for which variety improvement is done.

OR

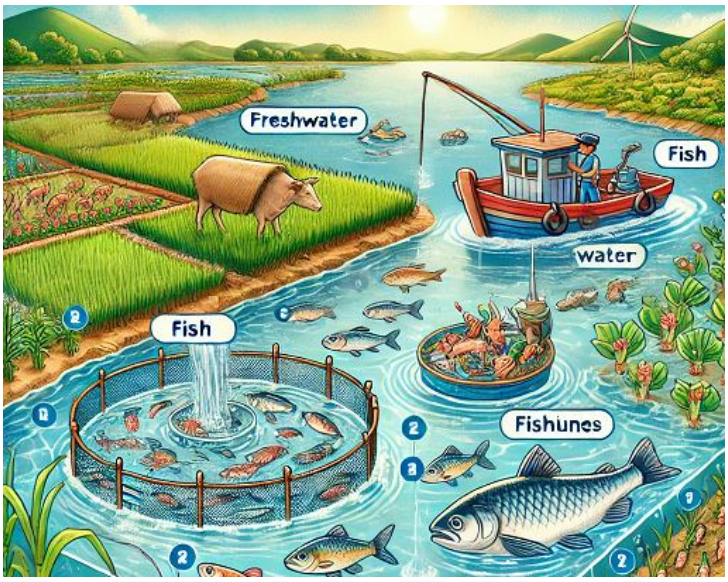
What are weeds? Enlist the methods employed to control weeds.

SECTION – E (Case Study Based Questions)

Questions 19 to 20 carry 4 marks each.

19. Read the following information and answer the questions based on information and related studied concepts.

Animal protein for our meals can be found at low cost in fish. The finned real fish as well as invertebrates like prawns and molluscs are all produced as fish. Fish can be obtained in two different methods. One comes from catching fish, a type of natural resource. The other method is cultural fishery or fish farming. The fish's water source can be either fresh or saltwater, like those found in ponds and rivers. Fish can thus be caught or raised in freshwater and marine ecosystems for use in fishing.



Fish are occasionally raised in water in paddy fields when a rice crop is also being cultivated there. Composite fish culture techniques enable more intense fish farming. In such systems, fish species which are both domestic and imported are utilised.

(a) With the help of above information can you explain, what is Blue revolution? (1)

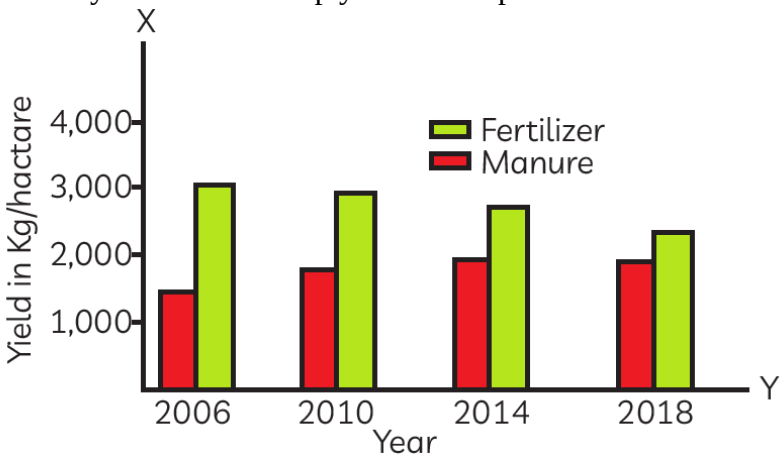
(b) Mention one merit and one demerit of the fish culture system. (2)

(c) Give examples of fish reared in culture fisheries in India. (1)

20. Read the given passage and answer the questions that follow based on the passage and related studied concepts.

Intensive farming is an agricultural system that aims to maximize yields from available land through various means, such as heavy use of pesticides and chemical fertilizers. On the other hand, organic farming is a farming system with minimal or no use of chemical fertilizers. Both the farming systems differ in the yield produced, inputs required and effect on soil characteristics like water holding capacity, soil microorganisms, aeration, etc.

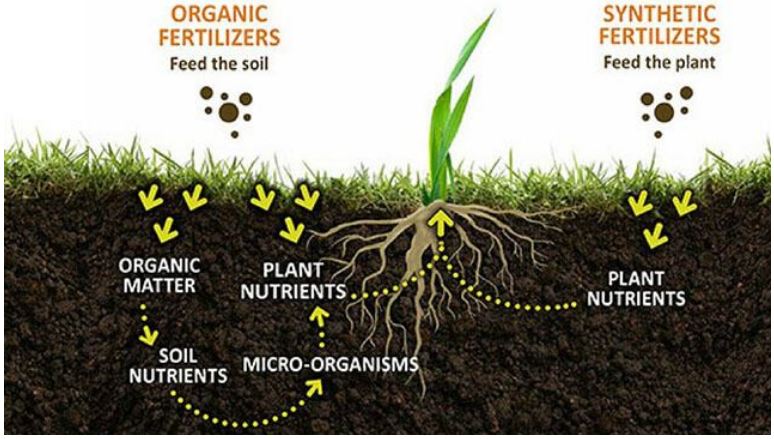
The graph given below shows the effect of organic manure and chemical fertilizers used in these two types of agriculture systems on the crop yield over a period of time.



(a) Describe the trends in crop yields between 2006 and 2018. (1)

(b) Explain the effect of adding manure on the water-holding capacity of: (i) Sandy soil (ii) Clay soil (2)

(c) The picture shows how organic manure and chemical fertilizer are used by plants. (1)



Observe the picture carefully and write your observations.