# **CHAPTER 15**





# **Improvement in Food Resources**

# **1. OBJECTIVE QUESTIONS**

- Which of the following is a good source of fodder?
  (a) Berseem
  (b) Lentil
  - (c) Sudan grass (d) Both a and c

Ans: (d) Both a and c

Berseem and sudan grass are called fodder crops. They are raised as food for livestock. Lentil is a food crop grown as rabi crop.

- **2.** The increase in food grain production after the introduction of improved varieties of crops is often referred as ......
  - (a) White Revolution (b) Green Revolution
  - (c) Yellow Revolution (d) Blue Revolution

Ans : (b) Green Revolution

The increase in food grain production after the introduction of improved varieties of crops is often referred as Green Revolution.

**3.** Silver Revolution is related to the increase in the production of

(a)	egg	(b) milk
(c)	meat	(d) wool

Ans: (a) egg

Silver revolution is related to the increase in the production of egg.

**4.** Which of the following is a protein containing rabi crop?

(a)	Peas	(b) Black gram
(c)	Green gram	(d) Pigeon pea

Ans: (a) Peas

Pea is a protein containing rabi crop whereas black gram, green gram and pigeon pea are protein containing kharif crops.

- **5.** Identify the process of preparing manure with the help of earthworms and kitchen wastes.
  - (a) Green manuring (b) Manuring
  - (c) Vermicomposting (d) Farming

Ans : (c) Vermicomposting

The process of preparing manure with the help of earthworms and kitchen wastes is called vermicomposting.

- **6.** Which of the following measures is/are necessary for proper storage of grains?
  - 1. The godowns should be clean and free from

garbage.

- 2. The gunny bags used for storing grains should be clean, dry and fumigated.
- 3. The grains should be semi-dry before storage.
- 4. The grains should only be dried under a air dryer and not under the sun.
- (a) Only 1 (b) 1 and 2
- (c) 3 and 4 (d) Only 4

**Ans**: (b) 1 and 2

The grains should be completely dried before storing. They should be dried under the sun first and then under a shade.

- **1.** The minerals required by a plant in very small quantities are called
  - (a) macronutrients (b) micronutrients
  - (c) manures (d) fertilizers

**Ans :** (b) micronutrients The minerals required by a plant in very small quantities are called micronutrients.

- 8. The method by which insect pests are exposed to fumes of chemicals without contaminating the stored food grain is called as
  - (a) spraying (b) dry storage
  - (c) cold storage (d) fumigation

Ans : (d) fumigation

When insect pests are exposed to fumes of chemicals without contaminating the stored food grain is called as fumigation.

- **9.** Identify the factor which led to the Green Revolution in India.
  - (a) Judicious use of pesticides
  - (b) Proper use of water
  - (c) Increase in land area under cultivation
  - (d) Introduction of high-yielding varieties of crops
  - Ans : (d) Introduction of high-yielding varieties of crops

Introduction of high-yielding varieties of crops led to the Green Revolution in India.

- **10.** The practice of growing two or more crops simultaneously in definite rows in the same field is called as ......
  - (a) mixed cropping (b) mixed farming
  - (c) inter cropping (d) crop rotation

Ans : (c) inter cropping

The practice of growing two or more crops simultaneously in definite rows in the same field is called as inter cropping.

- **11.** Which of the following organs of cattle is affected by worms?
  - 1. Intestine
  - Stomach 2
  - 3. Liver
  - Skin 4. (b) Only 2 (a) 1 and 2 (c) 2 and 3 (d) Only 4
  - Ans: (a) 1 and 2

The external parasites live on the skin and mainly cause skin diseases. The internal parasites like worms, affect stomach and intestine while flukes damage the liver.

12. The plants given below are similar as they are



(a) Weeds (c) Cash crops (b) Oil crops (d) Grass plants

Ans: (a) Weeds

The plants given are similar as they are weeds.

- **13.** Choose the method that involves improving crop varieties.
  - (a) Hybridization (b) Selection
  - (c) Plant breeding (d) Introduction

Ans : (c) Plant breeding

Plant breeding involves improving crop varieties.

- 14. Which high-yielding varieties of wheat were initially developed by an Indian scientist by cross-breeding the traditional varieties?
  - (a) Mexican varieties (b) American varieties
  - (c) European varieties (d) African varieties

Ans : (a) Mexican varieties

Mexican varieties of wheat were initially developed by cross breeding.

- 15. Macrobrachium rosenbergii is a
  - (a) fresh water prawn (b) marine water prawn
  - (c) fresh water fish (d) marine water fish

Ans : (a) fresh water prawn Macrobrachium rosenbergii is a fresh water prawn.

- 16. Which of the following method includes cross-breeding of genetically dissimilar organisms?
  - (a) Hybridization (b) Selection
  - (c) Introduction (d) Breeding

Ans : (a) Hybridization

Hybridization includes cross-breeding of genetically

dissimilar organisms.

- **17.** Which minerals are required by a plant in very small quantities? (b) Micronutrients
  - (a) Macronutrients

(c) Manures

(d) Fertilizers

Ans : (b) Micronutrients Micronutrients are required by a plant in very small quantities.

- **18.** Select the incorrect statement.
  - (a) Excessive use of pesticides can be harmful to environment.
  - (b) Pesticides include herbicides, insecticides and fungicides.
  - (c) Pesticides can cure animal diseases.
  - (d) Pesticides are used against plant diseases, insects and weeds.

Ans: (c) Pesticides can cure animal diseases. Pesticides are only effective against plant diseases. They cannot cure animal diseases.

- **19.** Select a term that is used for growing two or more crops at the same time in a field.
  - (a) Mixed farming (b) Mixed cropping
  - (d) Inter cropping (c) Farming

**Ans** : (b) Mixed cropping Growing two or more crops at the same time in a field is called mixed cropping.

- **20.** The technique of growing two or more different crops together in the same field is known as
  - (a) mixed cropping (b) mixed farming
  - (c) inter cropping (d) crop rotation

Ans: (a) mixed cropping

Mixed cropping is growing of two or more different crops together in the same field. For example, groundnut and sunflower/gram.

- **21.** Why is a pulse crop grown in an time interval between two cereal crops?
  - (a) To compensate for the loss of phosphate
  - (b) To compensate for the loss of water
  - (c) To compensate for the loss of sulphur
  - (d) To compensate for the loss of nitrogen

Ans : (d) To compensate for the loss of nitrogen A pulse crop grown in an time interval between two cereal crops is to compensate for the loss of nitrogen.

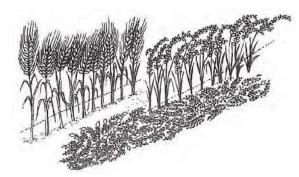
- 22. Which of the following pairs of cattle can be crossbred to obtain a hybrid variety of cattle with long lactation period and excellent resistance to diseases? (a) Jersey and Brown Swiss
  - (b) Sahiwal and Brown Swiss
  - (c) Red Sindhi and Sahiwal
  - (d) All of these

Ans: (b) Sahiwal and Brown Swiss

Exotic or foreign breeds of cattle (for example, jersey, Brown Swiss) are selected for long lactation periods, while local breeds of cattle (for example, Red Sindhi,

Sahiwal) show excellent resistance to diseases. The two can be cross-bred to obtain a hybrid variety with both the desired qualities.

**23.** Observe the given figure below and identify the cropping pattern.



(a) Mixed

(b) Inter cropping

(c) Crop rotation

(d) Intra cropping

**Ans** : (b) Inter cropping

The cropping pattern shown in the above figure is called inter cropping.

- **24.** What are the undesirable plants that grow among cultivated crops called as?
  - (a) Grasses (b) Weeds

(c) Crops (d) None of the above

Ans: (b) Weeds

The undesirable plants that grow among cultivated crops are called as weeds.

- **25.** Select the correct option which is related to improved food grain production?
  - (a) White Revolution (b) Green Revolution
  - (c) Yellow Revolution (d) Blue Revolution

**Ans :** (b) Green Revolution Green revolution is related to improvement of food grain production.

- **26.** What does 'Livestock' refers to?
  - (a) Pet animals
  - (b) Poultry and pet animals
  - (c) Domestic animals which are kept for use or profit
  - (d) None of the above

Ans : (c) Domestic animals which are kept for use or profit

'Livestock' refers to domestic animals which are kept for use or profit.

- **21.** Which one of following is more advantageous for cattle breeding?
  - (a) Inbreeding (b) Random breeding
  - (c) Controlled breeding (d) Artificial breeding

Ans: (d) Artificial breeding

Artificial breeding is more advantageous for cattle breeding. It is the process in which sperm is injected into the reproductive tract of a female. It is useful in developing breed having desirable characteristics and also helps in overcome problems of normal mating.

- **28.** What is the aim of plant breeding?
  - (a) Disease-free varieties
  - (b) High-yielding varieties
  - (c) Early-maturing varieties
  - (d) All of the above

**Ans**: (d) All of the above The aim of plant breeding are disease-free varieties, high-yielding varieties and early-maturing varieties.

- 29. Which of the following correctly defines mariculture?(a) Capturing fish from natural resources like river, sea etc.
  - (b) Culturing of fish and aquatic food in reservoirs, estuaries, etc.
  - (c) Culturing of finned fishes (mullet), shellfish (prawn), mussels, oysters etc. as well as seaweed in marine water.
  - (d) Culturing of fishes in marine water.
  - Ans : (c) Culturing of finned fishes (mullet), shellfish (prawn), mussels, oysters etc. as well as seaweed in marine water.

Culture of marine finned fish, shellfish and seaweeds is called mariculture.

- **30.** Which type of crops are tea, coffee, rubber and coconut?
  - (a) Sugar crops (b) Root crops
  - (c) Oil seed crops (d) Plantation crops

**Ans** : (d) Plantation crops Tea, coffee, rubber and coconut are plantation crops.

#### 2. FILL IN THE BLANK

- Growing two or more crops in definite row patterns is known as .......
   Ans : Inter-cropping
- Chenopodium, convolvulus, amaranthus are common ......
  Ans : Weeds
- 4. .....is an organic matter obtained from decomposition of animal and plant waste.
  Ans : Manure/compost
- Rust and smut are common disease of ......
  Ans : Wheat
- 6. Manure and fertilizers are the main sources of ......supplied to crops.Ans : Nutrients

- Iron, Manganese, boron, zinc, copper etc. are .....nutrients.
  Ans : Micro
- 8. Farm animals require proper care and management such as shelter, feeding, breeding and disease control. This is called ......

Ans : Animal husbandry

- 9.is growing of two or more crops simultaneously on the same piece of land.Ans : Mixed cropping
- 10. The growing of different crops on a piece of land in preplanned succession is called ......Ans : Crop rotation
- Method of cross-breeding between two generically dissimilar individuals is called as ......
   Ans : Hybridization
- 12. The practice of ploughing green legume-bearing plants into the soil for improving its fertility is called ......Ans : Green manuring
- 13. Rice, maize, bajra and groundnut are.....crops.Ans : Kharif
- 14. A process of preparing compost by the help of earthworms, is called ......Ans : Vermicomposting
- A legume crop does not require..... fertilizer.
  Ans : Nitrogen

#### **3. TRUE/FALSE**

- Fish may be obtained from marine and inland resources.
   Ans : True
- **2.** Crops are plants grown in large quantities for food and other needs.

Ans : True

- To increase production of fish, they can be cultured in marine and inland ecosystems.
  Ans : True
- Chana, urad, moong and matar are cereal crops.
  Ans : False

Chana, urad, moong and matar are pulse crops.

Micronutrients are needed by plants in large quantities.
 Ans : False

Micronutrients are needed by plants in small quantities.

6. The yield of crop is greater in organic farming. Ans : False

The yield of crop is greater in fertilizer farming.

Manures are commercially produced plant nutrients.
 Ans : False

Manures are produced by organic.

- 8. Vermicompost is better than compost. Ans : True
- 9. The cross between genetically dissimilar plants is called hybridization.

Ans : True

- 10. Chemicals which can exist in a gaseous state in sufficient concentration to be lethal against pests are called fumigants.Ans : True
- Weeds increase the yield of the crop.
  Ans : False
  Weeds decrease the yield of the crop.
- 12. Rust and smut of wheat are caused by bacteria.Ans : FalseRust and smut of wheat are caused by fungi.
- 13. 2, 4D is one of the most common weedicides used in India.Ans : True
- 14. Our population will be about 1.34 billion by the year 2020.Ans : True
- 15. Marine fish capture is done by fishing nets guided by echo sounders and satellites.Ans : True
- **16.** Crops are plants grown by man in a field. **Ans :** True
- Rabi crops are grown in rainy season.
  Ans : False
  Rabi crops are grown in winter.
  - Hybrid is an individual or a variety obtain
- 18. Hybrid is an individual or a variety obtained by crossbreeding two genetically dissimilar plants or animals. Ans : True
- **19.** Poultry farming is done to raise domestic fowls. **Ans :** True
- 20. Kharif crops are grown in winter season. Ans : False

Kharif crops are grown in rainy season.

## 4. MATCHING QUESTIONS

**DIRECTION :** Each question contains statements given in two columns which have to be matched. Statements (A, B, C, D) in column-I have to be matched with statements (p, q, r, s) in column II.

1.

Column I		Column II	
(A)	Micronutrient	(p)	Soyabean
(B)	Kharif crop	(q)	Bee
(C)	Rabi crop	(r)	Wheat
(D)	Apis mellifera	(s)	Molybdenum

	А	В	С	D
(a)	s	р	r	q
(b)	s	р	q	r
(c)	q	р	S	r
(d)	r	S	q	р

Ans: (a) A-s, B-p, C-r, D-q

2.

Colu	mn I		mn II bation period)
(A)	Ploughing	(p)	Cow dung
(B)	Manure	(q)	Plough
(C)	Irrigation	(r)	Khurpi
(D)	Weeding	(s)	Dhekli

	А	В	С	D
(a)	S	р	r	q
(b)	S	р	q	r
(c)	q	р	s	r
(d)	r	s	q	р

Ans: (c) A-q, B-p, C-s, D-r

3.

Colu	mn I	Colu	mn II
(A)	Urea	(p) Harvesting and threshing	
(B)	Combine	(q)	Sowing of seeds
(C)	Seed drills	(r)	Sprinklers
(D)	Irrigation	(s)	Fertilizers

	А	В	С	D
(a)	s	р	r	q
(b)	s	р	q	r
(c)	q	р	S	r

	А	В	С	D
(d)	r	S	q	р

**Ans** : (b) A-s, B-p, C-q, D-r

4.

5.

Colu	Column I		mn II
(A)	Marine fish	(p)	Carp culture
(B)	Fresh water fish	(q)	Apiculture
(C)	Bee keeping	(r)	Mariculture
(D)	Composite fish	(s)	Aquaculture

	А	В	С	D
(a)	S	р	r	q
(b) (c) (d)	S	р	q	r
(c)	q	р	S	r
(d)	r	S	q	р

Ans: (d) A-r, B-s, C-q, D-p

Column I		Column II	
(A)	Green revolution	(p) Pulses	
(B)	Blue revolution	(q)	Food grains
(C)	Yellow revolution	(r)	Fish production
(D)	Golden revolution	(s)	Oil seeds

	А	В	С	D
(a)	q	r	S	р
(b)	р	q	r	S
(c)	S	р	q	r
(d)	r	S	q	р

Ans: (a) A-q, B-r, C-s, D-p

## 5. ASSERTION AND REASON

**DIRECTION :** In each of the following questions, a statement of Assertion is given and a corresponding statement of Reason is given just below it. Of the statements, given below, mark the correct answer as:

- (a) Both assertion and reason are true and reason is the correct explanation of assertion.
- (b) Both assertion and reason are true but reason is not the correct explanation of assertion.
- (c) Assertion is true but reason is false.
- (d) Both Assertion and Reason are false.
- 1. Assertion : Inter cropping prevents pests. Reason : Plant pests can be controlled biologically by their natural parasites and pathogens.
  - **Ans :** (b) Both assertion and reason are true but reason is not the correct explanation of assertion.

Inter cropping keeps the population of insects at low level. In inter cropping, the pest-susceptible crop is grown along with other crops which are repellent to pests. Plant pests are controlled biologically through the means of their natural parasites and pathogens. For example, Bacillus thuringiensis can control cotton bollworm.

**2.** Assertion : Large schools of fish are located using radio signals.

Reason : Radio signals help in increasing the fish yield.

**Ans :** (d) Both Assertion and Reason are false. Large schools of fish are located using satellites and echosounders. This helps in increasing the yield as large number of fish can be caught at the same time. Radio signals are not used for catching fish.

**3.** Assertion : Fish and few other varieties of aquatic animals are used as food.

**Reason :** Fish and other varieties of sea food constitute good source of protein.

**Ans** : (a) Both assertion and reason are true and reason is the correct explanation of assertion.

Fish and other sea foods are used as food by a large section of the population, particularly by those living in coastal areas. Fish and sea food contain large amounts or protein.

**4.** Assertion : Usage of manure is advantageous for our environment.

**Reason :** Manure contains chemical substances like nitrogen, phosphorus and potassium.

Ans : (c) Assertion is true but reason is false.

Usage of manure is advantageous for our environment as manure contains large quantities of organic matter. It is prepared by decomposition of animal excreta and plant wastes. It helps in enriching the soil with nutrients and organic matter, increasing soil fertility and its water holding capacity. Manure do not contain chemical substances. Fertilizers contain chemical substances like nitrogen, phosphorus and potassium.

**5.** Assertion : Proper cleaning for cows and buffaloes is required.

**Reason :** Proper cleaning maintains the health of animals and also helps in clean milk production.

**Ans** : (a) Both assertion and reason are true and reason is the correct explanation of assertion.

Animals like cows and buffaloes require proper and regular cleaning to remove dirt and loose hair present on their body. This helps in maintaining the health of the animal and also helps in obtaining clean milk from them.

**6.** Assertion : To replenish the lost nutrients in the soil, quick acting, handy nutrients are applied in the form of fertilizers.

**Reason :** Chemical fertilizer contains the necessary plant nutrients.

Ans : (a) Both assertion and reason are true and reason is the correct explanation of assertion.Fertilizers are inorganic or organic compounds

containing one or more essential plant nutrients which are used for increasing the fertility of soil. They are manufactured commercially from chemicals and are marketed in concentrated form.

**1.** Assertion : Fungicides act against fungal pathogens. **Reason :** Fungicides are not harmful to human beings.

**Ans :** (c) Assertion is true but reason is false. Fungicides are chemicals which are effective against fungal pathogens. Fungicides are divided into two major types, inorganic and organic. Most inorganic fungicides are harmful to other living beings including humans.

 Assertion : Honey bees are nuisance to farmers. Reason : Bees destroy the crops to fulfil their nutritional requirements.

**Ans :** (d) Both Assertion and Reason are false. Honey bees help farmers as they are pollinators of many crop species. Bees do not destroy the crops rather suck the nectar from the flower and make honey from it which is food for them.

**9.** Assertion : Vaccinations are given to farm animals. **Reason :** Vaccinations protect the farm animals from a number of diseases caused due to virus and bacteria.

Ans: (a) Both assertion and reason are true and reason is the correct explanation of assertion.Farm animals are given vaccinations to protect them from major viral and bacterial diseases, which can even cause death of animals.

 Assertion : Fumigation of the grains using chemicals is done before storage in warehouses.
 Reason : Fumigation gives a nice colour to the grains.

**Ans :** (c) Assertion is true but reason is false. Fumigation of the grains using chemicals is done before storage in warehouses to protect them from pests like insects, rodents, fungi, mites and bacteria. It does not give a nice colour to the grains.