

Short Answer Type Questions – II

[3 marks]

Q. 1. What mineral nutrients are supplied to the plants by air, water and soil?

Ans. Air supplies two nutrients to plants namely carbon and oxygen. Water supplies hydrogen and soil supplies thirteen nutrient elements to the plants. Among these thirteen nutrients, six are macronutrients and the other seven nutrients are micronutrients. Macronutrients are nitrogen, phosphorus, potassium, calcium, magnesium and sulphur while the micronutrients are iron, manganese, boron, zinc, copper, molybdenum and chlorine.

Q. 2. Why should pesticides be used judiciously?

Ans. Pesticides are the chemicals that are used to control weeds, insects, rodents, fungi as well as diseases of plants. Their excessive use causes environmental pollution. They reach the water resources and affect the aquatic flora and fauna. These harmful chemicals reach the bodies of birds, animals and human beings through various food chains and are thus, harmful to all depending on their concentration in the body.

Q. 3. What do you understand by organic farming?

Ans. Organic farming is a farming system in which there is minimal or no use of chemicals such as fertilisers, herbicides, pesticides, etc. There is maximum input of organic manure, recycled farm wastes, i. e., straw and livestock excreta, use of bio-agents such as culture of blue green algae in preparation of biofertilisers. Also, neem leaves or turmeric is used specifically in grain storage which act as biopesticides. It employs healthy cropping systems (mixed cropping, intercropping and crop rotation).

Q. 4. List out some useful traits in improved crop?

Ans. Some useful traits in improved crops are:

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| (i) Higher yield of crop | (ii) Improved quality of crop |
| (iii) Biotic and abiotic resistance | (iv) Change in maturity duration |
| (v) Wider adaptability and | (vi) Desirable agronomic characteristics. |

Q. 5. What are pathogens? Name any two plant diseases caused by pathogens.

Ans. The disease-causing microorganisms like bacteria, fungi and viruses are called pathogens. They reach the plants through water, air, soil as well as seeds. Two plant diseases caused by pathogens are rust in wheat and blast in paddy/stem rot in pigeon pea.

Q. 6. What are the types of food requirements of dairy animals? Why do external and internal parasites live on and in the cattle can be fatal?

Ans. They are two types of food requirements of dairy animals:

(i) Maintenance requirement, which is the food required to support the animal to live a health life.

(ii) Milk producing requirement, which is the food required during the lactation period. The external parasites live on skin and mainly cause skin diseases. The internal parasites like worms, affect stomach and intestine while flukes damage liver.

Q. 7. Write the names and the average yield of the three important breeds of buffaloes of our country with high yield of milk.

Ans. (a) Murrah: It is the original breed of Haryana and Punjab. The average yield of milk is 1800-2560 litres during lactation period.

(b) Mehsana: This breed belongs to Gujarat, specially Mehsana and Vadodara districts. Average yield is about 1200-2500 litres during lactation period.

(c) Surti: These are natives of Kaira and Vadodara districts of Gujarat. The milk production during lactation period is about 1600-1800 litres.

Q. 8. Which factors should be taken into consideration for fish culture?

Ans. The three important factors to be considered for fish culture are:

(a) Topography, i. e., location of pond.

(b) Water resources and their quality.

(c) Soil quality.

Q. 9. What do you understand by humane farming?

Ans. It means providing proper and clean shelter facilities to cattle for their health as well as for the production of clean milk. The animals are brushed to remove dirt and loose hair. They should be sheltered in well-ventilated sheds with roofs so that they are protected from rain, heat and cold. Also, the floor of the cattle shed needs to be sloping so that water logging does not happen and it remains dry.

Q. 10. Name the indigenous fowls of India. Which among them is the most popular?

Ans. Indigenous fowl varieties of India are:

(a) Aseel (b) Ghagus

(c) Chittagong (d) Busra

Of these, Aseel is the most popular, which provides high yield of meat but is a poor egg layer.

Q. 11. What are the important precautions that should be taken in poultry farming?

Ans. In poultry farming the following precautions should be taken:

- (a) Proper poultry feed.
- (b) Proper vaccination of birds.
- (c) Prevention and control of diseases and pests.
- (d) Isolation of diseased birds.
- (e) Maintenance of optimum temperature and hygienic conditions in housing.

Q. 12. What are poultry diseases and how can they be prevented?

Ans. Poultry fowl suffer from a variety of diseases caused by virus (Dermatitis), bacteria (Tuberculosis), fungi (Aspergillosis), like worms, mites as well as from nutritional deficiencies.

These necessitate proper cleaning, sanitation and spraying of disinfectant at regular intervals.

Appropriate vaccination can also prevent the occurrence of infectious diseases and reduce the loss of poultry during an outbreak of a disease.'

Q. 13. why is animal husbandry essential?

Ans. Animal husbandry is essential because of the following reasons:

- (a) To increase milk production. It also increases the production of various milk products like butter and cheese.
- (b) To increase egg and meat production which are highly nutritious.
- (c) To increase fish production.
- (d) For the proper utilisation of animal wastes.

Q. 14. What are the advantages of beekeeping?

Ans. Following are the main advantages of beekeeping:

- (a) Along with getting honey on a commercial scale, other products like wax, royal jelly and bee venom are also obtained from beekeeping.
- (b) Beekeeping requires low investments due to which farmers, along with agriculture also do beekeeping to generate additional income.
- (c) It also helps in cross-pollination as pollens are transferred from one flower to another by the bees while collecting nectar.

Q. 15. Name two infectious diseases each of cows, poultry and fishes.

Ans. (a) Cows - Anthrax and Foot and mouth disease

(b) Poultry - Ranikhet and Salmonellosis

(c) Fishes- Viral Hemorrhagic Septicemia (VHS) and Infectious Pancreatic Necrosis (IPN)

Q. 16. How is fish meat advantageous than meat of other animals?

Ans. Fish meat is considered advantageous than the meat of other animals because:

(a) It is rich in proteins (13-20 per cent) and has less fats.

(b) It is a rich source of vitamin A and D.

(c) It is rich in iodine that is essential for thyroxine formation.

(d) It is more easily digestible than the meat of other animals.

Q. 17. What are the main elements of animal husbandry?

Ans. The main elements of animal husbandry are:

(a) Proper feeding of animals.

(b) Providing freshwater to animals.

(c) Providing safe and hygienic shelter to animals.

(d) Ensuring proper health of animals and protection against diseases.

(e) Proper breeding of animals.

Q. 18. Enumerate the advantages of mixed farming.

Ans. Following are the main advantages of mixed farming:

(a) Farmyard manure is made available from livestock which is used again in agricultural farms.

(b) Organic waste materials like straw, husks and chaffs of grains, household kitchen waste, etc., are converted into human food through the agency of cattle, sheep, poultry, pigs, etc., as per the choice of farmer.

(c) It provides work to all the members of a family throughout the year, thus providing subsidiary occupation without the need of employing special labour.

(d) Adopting exact combination in mixed farming, income can be increased, e. g., the number of animals can be increased (as per the food/crop available) to enhance milk production.

Q. 19. Give the merits and demerits of fish culture.

Ans. Demerits: (i) Threat to biodiversity, (ii) only economically important and valued fishes will be cultured.

'Merits: (i) Large amount of desired fishes can be obtained in small area, (ii) Increased quality of food as fishes are cheaper source of protein.

Q. 20. Discuss why pesticides are used in very accurate concentration and in very appropriate manner.

Ans. Pesticides are used in very accurate concentration and in a very appropriate manner because if used in excess it

- (a) harms the soil and causes loss of fertility,
- (b) checks the replenishment of organic matter,
- (c) kills the microorganism of soil,
- (d) causes air, water and soil pollution.

Q. 21. (a) Give any three preventive measures for pest control.

(b) What preventive and control measures are used before grains are stored for future use?

Ans. (a) The three important preventive measures for pest control are:

- (i) Employing crop rotation.
- (ii) Use of pest-resistant varieties.
- (iii) Employing optimum time of sowing the crops.

(b) Preventive and control measures are used before grains are stored for future use, which include strict cleaning of the produce before storage, proper drying of the produce first in sunlight and then in shade, and fumigations by using chemicals that kill pests.