Improvement in Food Resources

Case Study Based Questions

Case Study 1

Kharif and Rabi refer to two cropping patterns that a lot of Asian countries adopt in accordance with the monsoon. The cropping season of Kharif crops begins with the commencement of monsoon and ends when it gets over.

Alternatively, Rabi crops grow in winter. In other words, farmers sow them at the end of monsoon and harvest them before the onset of the summer season. Kharif crops need a hot and wet climate while Rabi crops require a cold and dry climate.

Read the given passage carefully and give the answer of the following questions:

Q1. The crops sown in October-November and harvested in March-April are called:

a. Rabi crops   b. Kharif crops

c. Zaid crops   d. Fodder crops

Q2. What kind of weather do Kharif crops require?

a. Hot and dry   b. Hot and wet

c. Cold and wet   d. Cold and dry

Q3. Choose the correct combination of Rabi crops.

a. Wheat, green gram, mustard, cotton

b. Paddy, pea, mustard, linseed

c. Maize, gram, soyabean, peas

d. Wheat, gram, mustard, linseed

Q4. Which of the following is a protein containing Kharif crop?

a. Green gram

b. Pigeon pea

c. Black gram

d. All of these

Q5. Which of the following is correctly matched?

a.

Kharif Crop

b.

Rabi Crop

c.

Rabi Crop

d.

Kharif Crop

Solutions

1. (a) Rabi crops

2. (b) Hot and wet

3. (d) Wheat, gram, mustard, linseed

4. (d) All of these

5. (a)

Kharif Crop

Case Study 2

Cattle farming involve rearing and management of two types of animals, one group for food requirements like milk and other for labour purposes like tilling, irrigation and carting. Animals which provide milk are called milch animals whereas animals which are used for labour are called drought animals.

Read the given passage carefully and give the answer of the following questions:

Q1. Select the incorrect statement(s) about proper cattle management.

(i) Proper cleaning and shelter facilities are required.

(ii) Cattle feed should only include roughage.

(iii) Animals should be sheltered under well-ventilated roofed sheds.

(iv) The floor of the cattle shed needs to be sloping, so that it facilitates cleaning.

a. (i) and (ii)   b. Only (ii)

c. (i), (iii) and (iv)   d. (i), (ii), (iii) and (iv)

Q2. Which of the following breeds of cow shows excellent resistance to diseases?

a. Red Sindhi   b. Sahiwal

c. Both a. and b.   d. Brown Swiss

Q3. Which of the following organs of cattle is affected by worms?

(i) Intestine   **(iii) Liver**

(ii) Stomach   **(iv) Skin**

a. (i) and (ii)   b. Only (ii)

c. (ii) and (iii)   d. Only (iv)

Q4. Milk production in cattle depends on:

a. duration of lactation period

b. food type

c. breed

d. All of the above

Q5. Select the correct statement(s) about concentrates that are added in cattle feed.

(i) They are largely fibre.

(ii) They are low in fibre and contain relatively high levels of proteins and other nutrients.

(iii) They protect the cattle from major viral and bacterial diseases.

(iv) They promote milk output in them.

a. Only (i)   b. Only (ii)

c. (i), (iii) and (iv)   d. (iii) and (iv)

Solutions

1. (b) Only (ii)

Cattle feed includes roughage and concentrates.

2. (c) Both a. and b.

3. (a) (i) and (ii)

4. (d) All of the above

5. (b) Only (ii)

Case Study 3

There are two ways of obtaining fish for our food. One is from natural resources, which is called capture fishing. The other way is by fish farming, which is called culture fishery. Fishery is further divided into inland fishery and marine fishery. In inland fishery, fishing is done in freshwater resources such as canals, ponds, etc., and brackish water resources such as lagoons. Marine fishery consists of fishing in sea water along the coastline and the deep seas beyond it. Some marine fishes of high economic values are mullets, bhetki, shellfish such as prawns and oysters.

Read the given passage carefully and give the answer of the following questions:

Q1. Differentiate between capture fishing and culture fishery.

Q2. Differentiate between inland fishery and marine fishery.

Q3. Mention the names of some marine fish of high economic value.

Q4. Give two examples of shellfishes.

Q5. How does catla differ from mrigal?

Solutions

1.

Capture fishing	Culture fishery
It is a method of obtaining fishes from natural resources.	It is a method of obtaining fishes from fish farming.

2. Inland fishery is the rearing of fish in freshwater and brackish water resources.
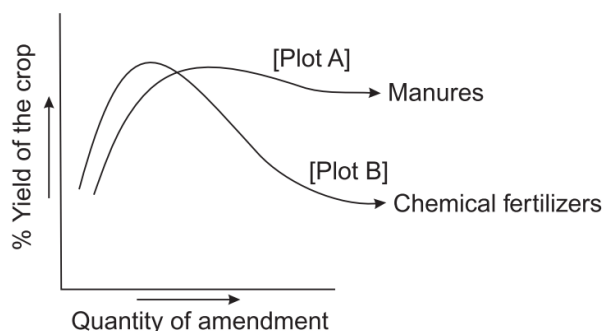
Marine fishery is the rearing of fish in sea water.

3. Mullets, prawns, bhetki, etc.

4. Prawns and Molluscs.

5. Catla is a surface feeder while mrigal is a bottom feeder.

Case Study 4

The figure given below shows two crop fields (plot A and plot B) that have been treated by manures and chemical fertilizers respectively, keeping other environmental factors same. Answer the questions that follow:

Read the given passage carefully and give the answer of the following questions:

Q1. Why does plot B show sudden increase and then gradual decrease in yield?

Q2. Why is the highest peak in plot A graph slightly delayed?

Q3. What is the reason for the different pattern of the two graphs?

Q4. Name the nutrients which are supplied by green manure to the soil.

Q5. How is the use of manure particularly useful for sandy soils?

Solutions

1. There is a sudden increase in yield due to the release of nutrients in high quality by chemical fertilizers.

The gradual decrease may be due to continuous use of chemicals which decreases soil fertility.

2. It shows that the manures supply nutrients to the soil at a slow rate.

3. The different pattern of the two graphs indicates that the type of fertilizer (natural or chemical) used directly affects the quality and quantity of the crops and their yield.

4. Nitrogen and phosphorus.

5. Manure increases the water holding capacity in sandy soils.