


(REVISED EDITION)
Chapter No: 6
Food production and management
I. Name the Following:

1. Five requirements essential for obtaining good crop production.

Ans:- Five requirements essential for obtaining good crop production are:

- I. Right kind of soil
- II. Good quality seeds
- III. Required amount of water
- IV. Protection from weeds
- V. Proper implements.

2. Two types of fertilizers:

Ans:- Nitrogen and Potash fertilizers are two types of fertilizers.

3. Some chemicals used to protect crops from insects, pests and weeds.

Ans. Some chemicals used to protect crops from insects, pests and weeds are:

- Insecticides such as malathion, dimecron, and polythion (Insects)
- Pesticides such as parathion, malathion, BHC (Benzene Hexachloride) (Pests)
- Weedicides such as simazine (Weeds).

4. Some animal products.

Ans:- Some animal products are Milk, egg, meat, honey, fish oil.

5. Members of a colony of a bee.

- Workers; which are sterile females
- Drones; which are fertile males
- A queen which is a fertile female.

II. Fill in the blanks.

1. A **weedicide** is used to remove the weeds from the soil.
2. A **clod crusher** is used to trowel the soil by breaking the lumps of soil after preliminary ploughing.
3. Kharif crops are sown during the months of **June and July**.
4. **Paddy** seeds are not sown directly into the soil.
5. Rabi crops are harvested during the months of **March and April**.
6. The practice of taking the seedlings from the nursery to the field is known as **transplanting** field.
7. Pearls are used in **jewellery**.
8. Honey contains **17%** water and **78%** sugar with minerals.
9. The hen-houses are called **pens**.
10. Murrah Jaffarabadi are well known breeds of **buffaloes**.


III. Answer the following figure in only one word or in figure:

1. What is the process of turning and loosening the soil called?

Ans:- Tilling or Ploughing.

2. Which implement is used for tilling soil?

Ans:- Plough

3. Which implement is used for breaking up the large lumps of soil?

Ans:- Clod Crusher.

4. What is the implement used for sowing called?

Ans:- Seed Drill and Broadcaster

5. What is the top part of the drill called?

6. What is an egg-laying bird called?

Ans:- Brood Hen

7. Name the members of the bee colony.

Ans:- Workers, Drones and Queen.

8. Which material is used to cover the floor of a hen-house?

Ans:- Straw.

9. Which is the common food of poultry chicken?

Ans: Grains, cereals, died insects etc.

10. Which bee is responsible for laying eggs?

Ans:- Queen bee.

IV. Give the scientific reasons for the following:

1. Grains, pulses, vegetables and fruits should be used in our daily life?

Ans:- Our body needs essential elements for proper growth and maintenance. These elements can be obtained from grains, pulses, vegetables and fruits. These elements together make a balanced diet which is essential to make our body healthy.

2. The soil should be loosened before seeds are sown?

Ans:- The soil should be loosened before seeds are sown so that to ventilate the roots and roots of the young plant can penetrate it easily.



3. Seeds should be sown at a proper depth in the soil?

Ans:- Seeds should be sown at a proper depth in the soil so that they can germinate more easily.

4. Fruits and vegetation should be washed thoroughly before eating?

Ans:- Fruits and vegetation should be washed thoroughly before eating because they have a coating of pesticides or certain chemicals that can be harmful for us.

5. Grains are dried thoroughly before they are stored?

Ans:- Grains should be dried before they are stored because wet or moist seeds spoil when kept in storage places.

V. Answer the following questions:

QNo1. What are the requirements of farming which would lead to high yields of crops?

Ans:- Following are the requirements of farming to get the high yield crops:

- I. The field should be open so that sunlight and air are abundantly available.
- II. The field should be protected from cattle and other domestic animals that may destroy crops.
- III. The soil should be tilled before sowing seeds to ventilate the roots and roots of the young plant can penetrate it easily.
- IV. The right amount of water should be available.
- V. The soil should contain sufficient amount of nutrients for the healthy growth of plants.
- VI. Unwanted plants (weeds) should be removed from the soil so that the main plant gets enough nutrients.

QNo2. What is tilling? How is it done?

Ans:- Loosening or turning over of soil by a plough before sowing seeds is called tilling. It is done by a plough made of wood and iron driven by animals. Tractors are also used for tilling the fields.

QNo3. Write a short note on the process of sowing?

Ans:- The process of sowing of seeds starts after the land is fully prepared for sowing. Sowing is done by two methods.

1. First method is broadcasting, by which seeds are sown by hand or by a broadcaster.
2. The second method of sowing is by using seed drills. The seed drill consists of a vertical tube with a seed bowl which is tied to a plough. The farmer drops the seeds into the bowl while ploughing.



QNo4. What are manures? Discuss their important types?

Ans:- Manures are organic materials which supply all the elements a plant needs in small elements. The manures add organic matter to the soil which increases water-holding capacity in sandy soil and drainage in clayey soil. Important Types of Manures are described as under:

Farmyard Manure (FYM):-

It is the most valuable manure made from the organic matter such as remnants of straw, leaves and excreta of cattle. It is commonly applied to the soil to make it fertile and soft.

Green Manure:-

It is made from the leaves of green plants. This improves the physical structure as well as soil fertility.

Compost Manure: It is a rotten mixture of all the cattle shed wastes and all the available refuse.

QNo5. What is a fertilizer? Explain its importance.

Ans:- A fertilizer is an inorganic material mainly used to increase the essential elements in the soil. For example, nitrogen, phosphate and potash.

QNo6. What are broadcasting and transplanting?

Ans:- The method by which seeds are sown by hand or by a broadcaster is known as broadcasting. The practice of taking the seedlings from the nursery to the main field is known as transplanting.

QNo7. What is the difference between manure and fertilizer?

Ans:- Manures are organic materials of decomposed leaves, straw and animal excreta while as fertilizers are inorganic materials of certain chemicals like nitrogen, phosphorus and potassium.

QNo8. Why are weeds harmful? What is used to remove them?

Ans:- Weeds are harmful because they grow around the crops and use their nutrients as their food for growth, thus reduce the growth and yield of crops. Weeds are removed either manually or by spraying weedicides like simazine or 2, 4-D (2, 4-dichlorophenoxy acetic acid).

QNo9. What are insecticides? Give examples.

Ans. Insecticides are insect killing chemicals to protect crops from harmful insects. For example, malathion, dimecron and polythion.

QNo10. How do insecticides protect crops?

Ans. Insecticides protect plants by killing insects or pests as well as their larvae around crops without affecting crops.



QNo11. Which are the two main seasons in India for cultivating crops?

Ans:- In India there are two main seasons for cultivating crops: Kharif season in which crop is sown in June and July and harvested after monsoon season, and Rabi season, in which crop is sown in October to December and harvested in March or April.

QNo12. Name some harvest festivals of India?

Ans:- Some harvest festivals of India are:

- Pongal
- Baisakhi
- Holi
- Nabanya
- Bihu

QNo13. Name four factors responsible for the improvements of crops.

Ans:- Plant breeding, Soil improvement, Protection from pests and weeds and Storage are the four factors responsible for the improvements of crops.

QNo14. Write short note on the process of harvesting.

Ans:- Harvesting is the process of cutting and collecting the matured crop from the fields. This may be done either by hand or with a sickle or with machines known as combines or harvesters.

QNo15. Why does a farmer rotate crops in the field?

Ans:- A farmer rotate crops in the field because rotation of crops add minerals to the soil. It makes the soil more fertile to produce more crop yield.

QNo16. What do you understand by mixed crops?

Ans:- In agriculture, multiple cropping or mixed cropping is the practice of growing two or more crops in the same piece of land during one growing season instead of just one crop. It is a form of polyculture or co-cultivation. For example wheat, gram, and mustard are grown as mixed crops mostly in northern India because it has few advantages like the loss of soil nitrogen is replenished by gram which fixes atmospheric nitrogen and if the wheat crop does not succeed, the farmer gets some return from gram and mustard.

QNo17. Why are fields sometimes allowed to remain fallow?

Ans:- Fields are sometimes allowed to remain fallow to increase the humus and micro-organisms in the soil so that to replenish the nutrients of the soil.

QNo18. List the importance of fish in our lives.

Ans:- Fish provides proteins. Its oil is used for many purposes. Fish is used to cure many diseases.



QNo19. What is the nutrient value of honey?

Ans. Honey contains 17% water and 78% Of sugar with minerals and enzymes which help in digestion of food.

QNo20. How are domesticated animals useful to us?

Ans:- Domesticated animals are useful to us because they provide many things for our day to day life. Such as, Cows, goats, sheep etc. provide milk and meat. Horses and camels are used to carry loads. Hens provide eggs and meat.



Chapter No: 7

Combustion and flame

QNo1. List conditions under which combustion can take place.

Ans:- Conditions necessary for combustion are:

- I. Presence of a combustible substance.
- II. Attainment of ignition temperature.
- III. Proper supply of air to provide oxygen.

QNo2. Fill in the blanks.

- (a) Burning of wood and coal causes **pollution** of air.
- (b) A liquid fuel used in homes is **kerosene**.
- (c) Fuel must be heated to its **ignition temperature** before it starts burning.
- (d) Fire produced by oil cannot be controlled by **water**.

QNo3. Explain how the use of CNG in automobiles has reduced pollution in our cities.

Ans:- The use of CNG in place of petrol and diesel reduce pollutions in following ways:

- I. It produces less carbon monoxide gas.
- II. It produces less carbon dioxide gas.
- III. It produces lesser amount of sulphur dioxide and nitrogen dioxide which cause acid rain.
- IV. No residue remains after combustion.

QNo4. Compare LPG and wood as fuels.

Ans:- Difference between LPG and wood as fuel is given as under:

LPG	Wood
It is a gaseous fuel	It is a solid fuel
It does not produce smoke	It produces smoke
It's calorific value is more	It's calorific value is less
It is easily stored in cylinders	It requires more space to store
It does not cause air pollution	It causes air pollution



QNo5. Give reasons:

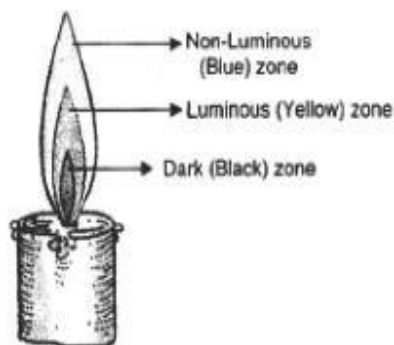
- Water is not used to control fires involving electrical equipment.
- LPG is a better domestic fuel than wood.
- Paper by itself catches fire easily whereas a piece of paper wrapped around an aluminum pipe does not.

Ans.

- Water (impure containing ions) is a good conductor of electricity. It conducts electricity and may result in electric shock.
- LPG has more calorific value and produces no pollution. So it is better domestic fuel than wood.
- The ignition temperature of paper is less, so it catches fire easily. It does not catch fire when wrapped around aluminium pipe because aluminium absorbs the heat, so paper does not attain its ignition temperature.

Q.6. Make a labelled diagram of candle flame.

Ans.



Different zones of Candle flame

QNo7. Name the unit in which the calorific value of a fuel is expressed.

Ans. The unit in which the calorific value of a fuel is expressed is Kilojoules per kg (kJ/kg)

QNo8. Explain how CO₂ is able to control fires.

Ans:- CO₂ is able to control fires by the given conditions:

- CO₂ forms a blanket around fire due to which supply of air is stopped.
- CO₂ also brings down the temperature of the fuel.

QNo9. It is difficult to burn a heap of green leaves but dry leaves catch fire easily. Explain.

Ans:- The green leaves contain some water due to which the ignition temperature of leaves increases and they do not catch fire easily while dry leaves have no water, so they catch fire easily.



QNo10. Which zone of a flame does a goldsmith use for melting gold and silver and why?

Ans:- A goldsmith uses the outer zone (non-luminous zone) of a candle flame to melt gold and silver because it is the hottest zone and has more temperature.

QNo11. In an experiment 4.5 kg of a fuel was completely burnt. The heat produced was measured to be 180,000 kJ. Calculate the calorific value of the fuel.

Ans:- Total mass of fuel = 4.5 kg

Total heat produced = 180,000 kJ

Heat produced by burning 1 kg of fuel = $180,000 \text{ kJ} / 4.5 \text{ kg} = 40,000 \text{ kJ/kg}$.

So, calorific value of fuel = 40,000 kJ/kg.

QNo12. Can the process of rusting be called combustion? Discuss.

Ans:- The process of rusting cannot be called combustion because in this process no heat and light is produced. Due to this reason iron is not considered as combustible substance.

QNo13. Abida and Ramesh were doing an experiment in which water was to be heated in a beaker. Abida kept the beaker near the wick in the yellow part of the candle flame. Ramesh kept the beaker in the outermost part of the flame. Whose water will get heated in a shorter time?

Ans:- The water heated by Ramesh will get heated in a shorter time because he kept his beaker near the hottest zone of the flame.


Chapter No: 17
Some natural phenomena

Select the correct option in questions 1 and 2.

QNo1. Which of the following cannot be charged easily by friction?

- (a) A plastic scale (b) A copper rod (c) A inflated balloon
(d) A woolen cloth.

Ans:- (b) A copper rod.

QNo2. When a glass rod is rubbed with a piece of silk cloth the rod:

- (a) And the cloth both acquire positive charge.
(b) Becomes positively charged while the cloth has a negative charge.
(c) And the cloth both acquire negative charge.
(d) Becomes negatively charged while the cloth has a positive charge.

Ans:- (b) Becomes positively charged while the cloth has a negative charge.

QNo3. Write 'T' against true and 'F' against false in the following statements:

- (a) Like charges attract each other **false**
A charged glass rod attracts a charged plastic straw **true**
(b) Lightning conductor cannot protect a building from lightning **false**
(c) Earthquakes can be predicted in advance **false**

QNo4. Sometimes a crackling sound is heard while taking off sweater during winters. Explain.

Ans:- The electric discharge takes place between body and sweater. At the time of electric discharge some energy is released. In this case energy is released in the form of cracking sound.

QNo5. Explain why a charged body loses its charge if we touch it with our hand.

Ans:- When we touch a charged body, it loses its charge, due to the process of earthing. Our body is a good conductor of electricity. It transfers the charges to the earth.

QNo6. Name the scale on which the destructive energy of an earthquake is measured. An earthquake measures 3 on this scale. Would it be recorded by a seismograph? Is it likely to cause much damage?

Ans:- The scale used to measure earthquake is Richter Scale. Yes, it would be recorded by a seismograph. The earthquake with magnitude of 3 on Richter Scale is not likely to cause much damage.

QNo7. Suggest three measures to protect ourselves from lightning.

Ans:- Three measures of protection are:

- I. Stay under covered area or inside the room.
- II. We should not use TV or phone during lightning.
- III. We should not take bath during lightning.

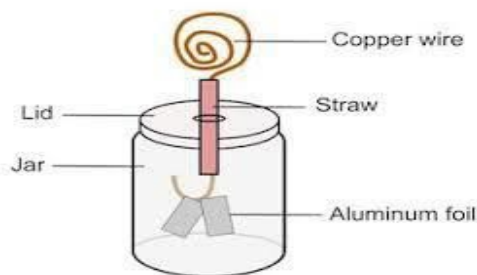


QNo8. Explain why a charged balloon is repelled by another charged balloon whereas an uncharged balloon is attracted by another charged balloon.

Ans:- A charged balloon is repelled by another charged balloon because both the balloons contain same type of charges. We know that like charges repel each other. A balloon is charged while other is uncharged so they have no same charge. Therefore charged balloon attracts uncharged balloon.

QNo9. Describe with the help of a diagram an instrument which can be used to detect a charged body.

Ans:- An electroscope is used to detect that a body is charged or not. It works on the principle that like charges repel while unlike charges attract each other. When the metal strips repel each other proves that the body is charged because repulsion is the sure test to detect that a body is charged or not.



A simple electroscope

QNo10. List three states in India where earthquakes are more likely to strike.

Ans:- The three states in India where earthquakes are more likely to strike are

- I. Kashmir
- II. Rajasthan
- III. Gujarat

QNo11. Suppose you are outside your home and earthquake strikes. What precautions would you take to protect yourself?

Ans:- when we are outside our home and the earthquake strikes, following are the measures that we should follow to protect ourselves:

- I. We should move to an open space.
- II. We should not take shelter under trees or buildings:
- III. If we are driving, we should slow down the vehicle and move slowly away from that area to a clear spot.

**HOLY FAITH PRESENTATION SCHOOL**

RAWALPORA SRINAGAR KASHMIR

Unit-III

(Class 8th - Science)

QNo12. The weather department has predicted that a thunderstorm is likely to occur on a certain day. Suppose you have to go out on that day. Would you carry an umbrella Explain?

Ans:- No, we will not take an umbrella at the time of thunderstorm. Taking umbrella will increase the risk of lightning. The wide objects are more prone to lightning strike.