पुना International School

Shree Swaminarayan Gurukul, Zundal

Class -VIII

Science

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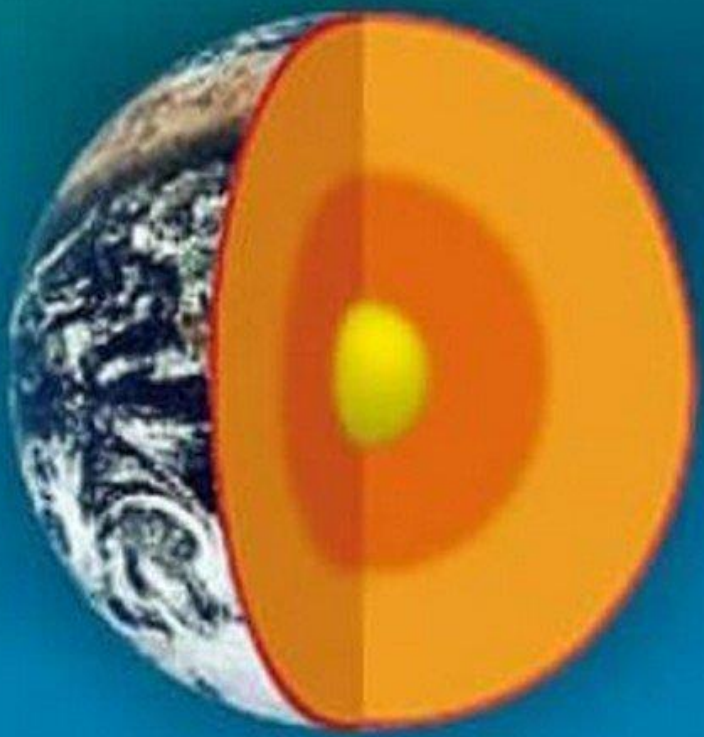
Year- 2020-21

SCIENCE

Textbook for Class VIII



Science

Class VIII

NCERT

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Chapter – 1

Crop Production and Management

❖ key words :-

1] Fertiliser: The inorganic compounds containing nutrients such as nitrogen, potassium and phosphorus. They are made in the factories. Example: Urea, ammonium sulphate, potash, etc.

2] Manure: A natural substance prepared from decomposition of plant and animal wastes (cow dung, animal bones, dead leaves, dead insects and vegetable wastes) by the action of microbes.

3] Irrigation : Supply of water to crops at appropriate intervals is called irrigation.

Method of Irrigation:

(a) Tradition methods of Irrigation: Moat, Chain pump, Dheki, Rahat.

(b) Modern methods of Irrigation: Sprinkler system, Drip system.

4] Harvesting: Harvesting is the cutting of the mature crop manually or by machines.

❖ Extra Questions:-

❖ Very short Answer Questions

1. Pick out the odd one from the following words given in the box and give reason
for it.
Plough, Seed Drill, Hoe, Chain Pump, Sickle
Ans. Seed drill, because it is a modern agricultural implement unlike the others which are
all traditional tools.

2. If you are given a dry piece of land for cultivation what will you do before sowing the seeds?
Ans. The field will be watered, tilled and ploughed before sowing seeds because seed require moisturous environment.

3. Name the tool used with a tractor for sowing seeds in a field.
Ans. Seed drill.

4.Name the practice followed for large scale rearing of farm animals.
Ans. Animal husbandry.

- **Short Answer Questions:-**

1. Which activity of the farmer can promote growth of earthworms and microbes in the field?
Ans. Loosening the soil/maintaining high moisture levels in soil.
Addition of manure
Plowing is a farming execute utilized for cutting, lifting, turning over, and partly pummeling soil.
2. During which months do farmers grow mustard in India?
Ans. Seed of mustard germinates at a low soil temperature of 40^0F. Therefore, cultivation of mustard is done during winter season which ranges in our country from October to March.

3. What are organic foods?

Ans. Organic foods refers to those food stuffs that are produced without the use of any synthetic method including use of pesticides,fertilisers, sewage sludge .

organic foods are also usually not processed using irradiation, industrial solvents or synthetic food additives.

Organic animal food products like meat, poultry, eggs, and dairy products are obtained from animals without the use of any antibiotics or growth hormones.

Fig. Packed Organic Food

❖ **Long Answer Questions:-**

1. As a part of eco-club activity students were asked to raise a kitchen garden in the school premises. They were provided with some materials given in the box. List the other materials you would require. How will you plan the garden? Write the steps.

khurpi, water-can, spade, shovel

Ans. The following items are required – seeds and seedlings of vegetable plants from nursery, kitchen waste, water.

Steps for raising the garden:

1. Kitchen waste will be collected and composted in a pit.

2. A patch of land will be identified for the garden.

3. Soil will be dug up and levelled with the help of a spade.

4. Sowing of seeds / transplanting of seedlings.

5. Select seeds/seedlings as per the season. Water the plants regularly with a water-can.

6. Compost will be applied.

7. Weeds will be removed periodically with the help of Khurpi.

Exercises:-

1. Select the correct word from the following list and fill the blanks.
float, water, crop, nutrients, preparation
(a) The same kind of plants grown and cultivated on a large scale at a place is called _.
(b) The first step before growing crop is _____ of soil.
(c) Damaged seeds would _____ on top of water.
(d) For growing crop, sufficient sunlight and _____ and _____ and from the soil are essential.
Ans. Select the correct word from the following list and fill the blanks.
Float, water, crop, nutrients, preparation

(a) The same kind of plants grown and cultivated on a large scale at a place is called crop.
(b) The first step before growing crop is preparation of soil.
(c) Damaged seeds would float on top of water.
(d) For growing crop, sufficient sunlight and water and nutrients from the soil are essential.

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2. Match items in column A with those in column B.

A	B
(i) Kharif crop	(a) Food for cattle
(ii) Rabi crops	(b) Urea and super phosphate
(iii) Chemical fertilsers	(c) Animal excreta, cow dung, urine and Plant wastes.
(iv) Organic manure	(d) Wheat, gram, pea
	(e) Paddy and maize.

Ans. AB

A	B
(i)	(e)
(ii)	(d)
(iii)	(b)
(iv)	(c)

3. Give two examples of each.
(a) Kharif crop
(b) Rabi crop
Ans. (a) Paddy and maize.
(b) Wheat and pea.

4. Write a paragraph in your own words on each of the following.
(a) Preparation of soil (b) Sowing (c) Weeding (d) Threshing
Ans. (a) Preparation of soil:- It is the first step before growing a crop. One of the most important tasks in agriculture is to turn the soil and loosen it. The softening of soil allows the deep penetration of roots into soil. The soil preparation includes ploughing, levelling and manuring. Ploughing is done with the help of plough or tractor. Levelling is done by leveller to break the crumbs with a plank..
(b) Sowing: - The process of broadcasting seeds in soil to grow crop is called sowing. Sowing is done with the help of seed drill or traditional tool. The healthy

seed is selected for proper growth. The distance between seeds must be sufficient for proper growth.
(c) Weeding: - The unwanted plants that grow along with the main crop and compete with crop for light, food and other substance are called weeds. Removal of these unwanted plants is called weeding. Weeding is done by different ways which include manual removal, seed drill and weedicides.
(d) Threshing: - In harvested crop, the grain seeds are separated from chaff. This process is called threshing. This is carried out by using a machine called "Combine".

5. Explain how fertilsers are different from manure.
Ans. Manure is an organic substance obtained from the decomposition of plant or animal wastes but fertilsers are inorganic substance prepared in factories. Fertilsers are rich in nutrients but manure has relatively less nutrients. Manure do not harm the soil if used in greater quantity but fertilsers may harm the plants as well as soil. Manure is cheap and mostly prepared by farmers itself on the other hand fertilsers are costly and prepared in factories using chemicals.

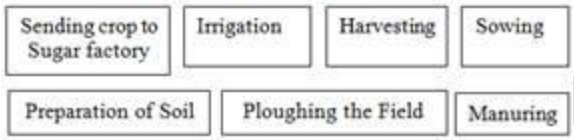
6. What is irrigation? Describe two methods of irrigation which conserve water.
Ans. The supply of water to crops at different intervals is called irrigation. The time and frequency of irrigation differ from crop to crop, soil to soil and season to season. The main sources of irrigation are wells, tube wells, ponds, lakes, rivers, dams and canals. Irrigation is essential for proper growth of plants as without water no physiological activity is possible in living beings. The two methods of irrigation which conserve water are-
(a) Sprinkler system- This system is useful in uneven land where sufficient water is not available. The perpendicular pipes having rotating nozzles on top are joined to the main pipeline at regular intervals. When water flows through this pipe at high pressure, it escapes through the nozzles and sprinkle in all directions.
(b) Drip system- In this system water falls drop by drop just at the position of roots. It is mainly used for watering fruit plants, gardens and trees. In this method water is not wasted at all. It is mainly used in water deficient areas.

7. If wheat is sown in the Kharif season. What would happen? Discuss.
Ans. Kharif crops need lot of rainfall, whereas wheat needs winter season and not heavy rainfall. So, if wheat were sown in Kharif season, the crops will get damaged due to heavy rainfall and water logging in the field.

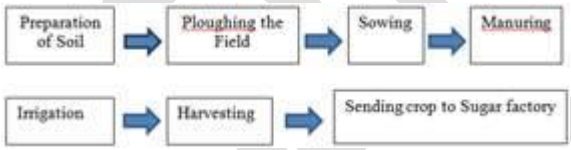
8. Explain how soil gets affected by the continuous plantation of crop in a field.
Ans. Continuous growing of crops makes the soil poorer in certain nutrients. To avoid this, a method of crop-rotation is adopted, which maintains the nutrients of the soil intact.

9. What are weeds? How can we control them?
Ans. The undesirable plants in the field are called weeds. These have to be removed, otherwise our own crop plants may not get sufficient water, nutrients, space and light. So, they are removed either by manual method or by using weedicides.
The manual removal includes physical removal of weeds by uprooting or cutting them close to the ground from time to time. This is done with the help of a khurpi or harrow.
By using weedicides also, we can remove weeds. These weedicides only damage weeds and do not harm crops.

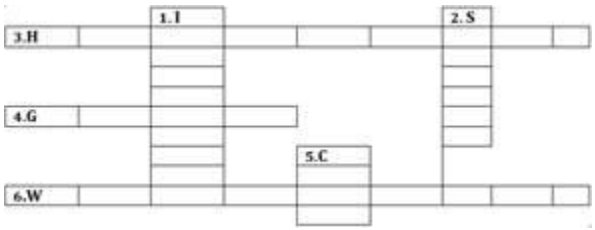
10. Arrange the following boxes in proper order to make a flow chart of sugarcane crop production.



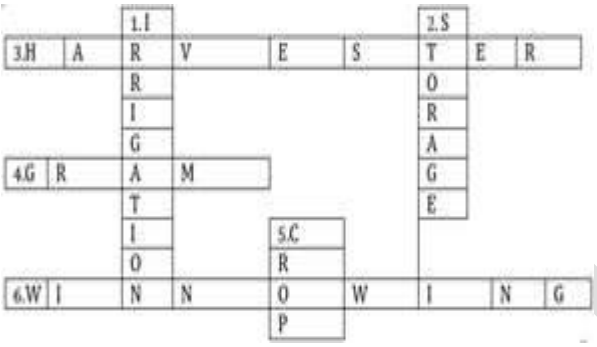
Ans.



11. Complete the following words puzzle with the help of clues given below.
DOWN
1. Providing water to the crops.
2. Keeping crop grains for a long time under proper conditions.
5. Certain plants of the same kind grown on a large scale.
ACROSS
3. A machine used for cutting the matured crop.
4. A rabi crop that is also one of the pulses.
6. A process of separating the grain from chaff.


1.I
2.S
3.H
4.G
5.C
6.W

Ans.


1.I
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R O
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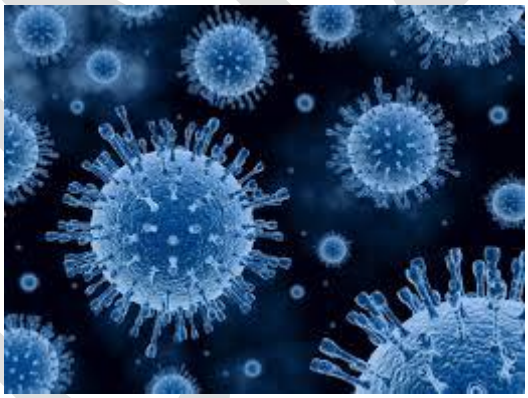
G A
4.G R A M G
T E
I 5.C
O R
6.W I N N O W I N G
P

Chapter – 2
Micro-organisms: Friend and Foe

❖ **key words :-**

1. microorganism :-A **microorganism** or **microbe** is an organism that is so small that it is microscopic (invisible to the naked eye). **Microorganisms** are often illustrated using single-celled, or unicellular organisms; however, some unicellular protists are visible to the naked eye, and some multicellular species are microscopic.

2. virus :-A **virus** is a small infectious agent that replicates only inside the living cells of an organism. **Viruses** can infect all types of life forms, from animals and plants to microorganisms, including bacteria and archaea.



3. Antibodies:- Antibodies (also called immunoglobulins) are large Y-shaped proteins. They are found in the blood or other body fluids of vertebrates. They are the key element in the adaptive immune system. The **antibody** recognizes a unique part of the foreign target called an antigen.

❖ **Extra Questions:-**

❖ **Very short Answer Questions:-**

1. Name one commercial use of yeast.

Ans. Making bread.

2. Name the process in yeast that converts sugars into alcohol.

Ans. Fermentation

3. In the soil, which nutrient is enriched by blue-green algae (cyanobacteria)?

Ans. Nitrogen

4. Why should we avoid standing close to a tuberculosis patient while he/she is coughing?

Ans. Tuberculosis is an air-borne disease which easily spreads when the infected person coughs.

- **Short Answer Questions:-**

1.Name two diseases that are caused by virus.
Ans. Polio and Chicken pox

2.Write one important characteristic of virus.

Ans. Virus can reproduce only inside the cells of a living cell.

3. Match the microorganisms given in the Column A to the group to which they belong in Column B.

Column A	Column B
(a) Lactobacillus	(i) Algae
(b) Aspergillus	(ii) Protozoa
(c) Spirogyra	(iii) Fungi
(d) Paramecium	(iv) Bacteria

Ans.(a)-(iv), (b)-(iii), (c)-(i), (d)-(ii)

- **Long Answer Questions:-**

1. How can we prevent the following diseases?

(a) Cholera
(b) Typhoid
(c) Hepatitis A

Ans.(a) Cholera: By drinking boiled water, cooking food well, eating covered food and keeping our surroundings clean.

(b) Typhoid: Eating properly cooked food, drinking boiled food, getting vaccinated against the disease.

(c) Hepatitis A: Drinking boiled water, washing hands thoroughly after using rest room and getting vaccinated against the disease.

2. Complete the following cycle given as Fig. by filling the blanks (a), (b), (c) (d)

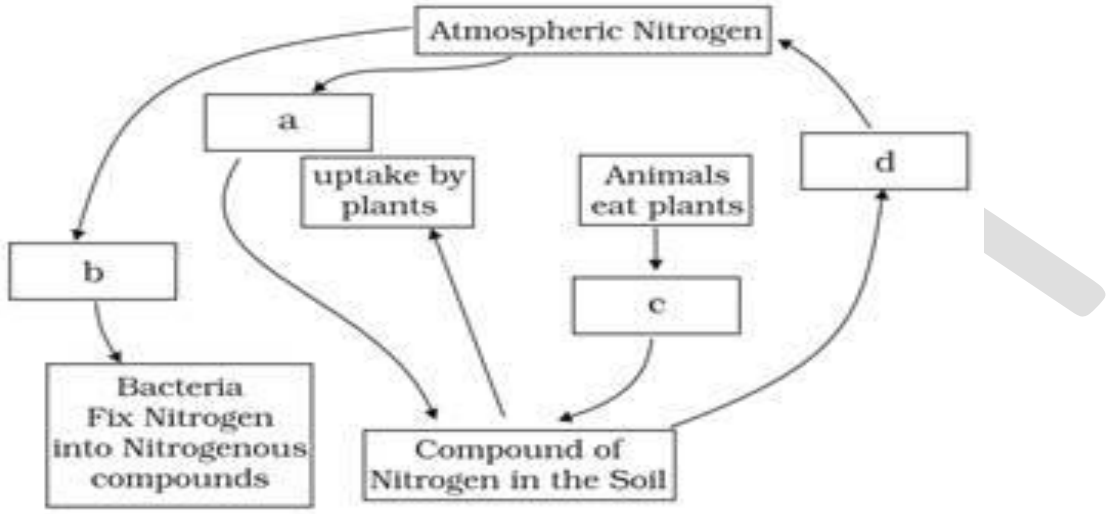


Fig. 2.4

Ans.(a) Lightning fixes nitrogen.
(b) Nitrogen fixing bacteria and blue green algae fix atmospheric nitrogen.
(c) Nitrogenous waste from excretion and death.
(d) Bacteria turn compounds of nitrogen into gaseous nitrogen.

Exercises:-

1. Fill in the blanks.

(a) Microorganisms can be seen with the help of a_____.

(b) Blue-green algae fix _____ directly from air to enhance fertility of soil.

(c) Alcohol is produced with the help of _____.

(d) Cholera is caused by _____.

Ans. Fill in the blanks.

(a) Microorganisms can be seen with the help of a **microscope**.

(b) Blue-green algae fix **nitrogen** directly from air to enhance fertility of soil.

(c) Alcohol is produced with the help of **yeast**.

(d) Cholera is caused by **a bacteria**.

2. Tick the correct answer.

(a) Yeast is used in the production of

(i) Sugar **(iii) hydrochloric acid**
(ii) alcohol **(iv) oxygen**

(b) The following is an antibiotic

(i) Sodium bicarbonate **(iii) Alcohol**
(ii) Streptomycin **(iv) Yeast**

(c) Carrier of malaria-causing protozoan is

(i) Female Anopheles mosquito **(iii) housefly**
(ii) cockroach **(iv) butterfly**

(d) The most common carrier of communicable diseases is

(i) ant **(iii) dragonfly**
(ii) housefly **(iv) spider**

(e) The bread or idli dough rises because of

(i) heat **(iii) growth of yeast cells**
(ii) grinding **(iv) kneading**

(f) The process of conversion of sugar into alcohol is called

(i) nitrogen fixation **(iii) fermentation**
(ii) moulding **(iv) infection.**

Ans. (a) (ii) alcohol.

(b) (ii) Streptomycin

(c) (i) female anopheles mosquito

(d) (ii) housefly

(e) (iii) growth of yeast cells

(f) (iii) fermentation.

3. Match the organisms in Column A with their action in Column B.

A	B
(i) Bacteria	**(a) Fixing nitrogen**
(ii) Rhizobium	**(b) Setting curd**
(iii) Lactobacillus	**(c) Baking bread**
(iv) Yeast	**(d) Causing malaria**
(v) A protozoan	**(e) Causing cholera**
(vi) A virus	**(f) Causing AIDS**
	(g) Producing antibodies

Ans. Match the following:-

Column A	Column B
(i) **Bacteria**	(e)**Causing cholera**
(ii) **Rhizobium**	(a)**Fixing nitrogen**
(iii) **Lactobacillus**	(b)**Setting curd**
(iv) **Yeast**	(c) **Baking bread**
(v) **A protozoan**	(d)**Causing malaria**
(vi) **A virus**	(f) **Causing AIDS**

4. Can microorganisms be seen with the naked eyes? If not, how can they be seen?

Ans. Microorganisms are too small so they cannot be seen with naked eye. They can be seen with the help of a magnifying glass or microscope.

5. What are the major groups of microorganisms?

Ans. The major groups of microorganisms are:

- **Bacteria:** They are single celled disease causing microorganisms. They can be spiral or rodshaped.
- **Fungi:** They are mostly multicellular disease causing microbes. Bread moulds are common examples of fungi.
- **Protozoa:** They mainly include organisms such as Amoeba, Plasmodium,etc. They can be unicellular or multicellular.
- **Virus:** Viruses are disease causing microbes that reproduce only inside the host organism.
- **Algae:** They include multicellular, photosynthetic organisms such as Spirogyra, Chlamydomonas, etc.

6. Name the microorganisms which can fix atmospheric nitrogen in the soil.

Ans. The microorganisms which can fix atmospheric nitrogen are Rhizobium, Azatobactor, Blue green algae etc.

7. Write 10 lines on the usefulness of microorganisms in our lives.
Ans. The usefulness of microorganisms are as follows:

- Lactobacillus is used to form curd from milk.
- Rhizobium present in the roots of pulse plants fix nitrogen from air and supply nitrogen compounds to the pulse plants.
- Microorganisms are also used in winemaking, baking, pickling, and other food making processes.
- Alcoholic fermentation by yeast is widely used in the preparation of wine and bread.
- Microbes are used to reduce pollution. For example, decomposers such as bacteria and fungi break down dead bodies and excreta to form inorganic compounds, which can be absorbed by plants.

- Microbes also play an important role in the preparation of medicines. Antibiotics are chemicals produced by microorganisms to kill bacteria. Penicillin is an antibiotic made from Penicilium.
- Bacteria present in our intestine helps in proper digestion and release Vitamin B which is absorbed by intestine.
- Many vaccines are prepared from microorganisms. These vaccines are given to children to protect them from disease.
- Certain microbes are also used in the biological treatment of sewage and industrial effluents.
- Yeast is used in making idlis, bread, pastries and cakes.

8. Write a short paragraph on the harms caused by microorganisms?

Ans. Microorganisms cause diseases in animals. For example, in humans, bacteria cause diseases such as tuberculosis, cholera, typhoid, etc. In cattle, the foot and mouth

disease is caused by a virus. Also, several microbes cause diseases in plants. For example, the productivity of wheat, orange, apple, etc. is reduced due to microbial diseases in plants. Certain microbes, on entering into our body, produce toxic substances. This leads to food poisoning. Some microorganisms such as fungus spoil our food. For example, bread when left unused under moist conditions gets spoilt by fungus, producing a white cottonlike growth on the bread.

9. What are antibiotics? What precautions must be taken while taking antibiotics?

Ans. The medicines that kill or stop the growth of the disease-causing microorganism are called antibiotic. Streptomycin, tetracycline, erythromycin etc. are common antibiotics. They are manufactured by growing specific micro-organisms and are used to cure a variety of diseases.

Following precautions must be taken in using antibiotics-

- These medicines should be taken only on the advice of a qualified doctor.
- One must finish the course prescribed by the doctor.
- If anybody takes antibiotics when not needed, his or her body may develop resistance against that antibiotic.

Chapter – 3

Synthetic Fibres and Plastics

❖ key words :-

(i) **Rayon:** It is made from cellulose obtained from wood pulp. It is used to make containers, car upholstery, etc.

(ii) **Nylon:** A polyamide made from petroleum. It is lightweight, strong and durable. The fabric allows easy evaporation and dries quickly. It is used in parachutes, flak vest, combat uniforms, tires, etc.

(iii) **Polyester:** A versatile and important man-made fabric. It has an outstanding characteristic of resisting wrinkle and springing back into its crisp, smooth shape. It is strong and soft. It is used in dresses, suits, rainwear, etc.

(iv) **Acrylic:** A fibre similar to that of wool and is used to make sweater, blankets, shawls, etc. It is lightweight, soft and warm. Also it is cheaper than natural wool. It is resistant to chemicals, moths and sunlight. Therefore, they are widely in use nowadays

(v) Plastics: Like synthetic fibres, plastic is also a polymer. Some plastics have a linear arrangement of the units and some have a cross-linked arrangement of the units. Examples: Polythene. Today, life without plastics cannot be imagined. Be it home, or outside, plastic is every where.

- **Extra Questions:-**
- **Very short Answer Questions:-**

1. Cotton is a natural polymer. What is its chemical name?

Ans. Cellulose

2. A synthetic fiber which looks like silk is obtained by chemical treatment of wood pulp. It is, therefore, known as artificial silk. What is its common name?

Ans. Rayon

3. Terrycot is made by mixing two types of fibres. Write the names of the fibres.

Ans. Terylene and cotton.

- **short Answer Questions:-**

1. A bucket made of plastic does not rust like a bucket made of iron. Why?

Ans. Plastic is a non-reactive material. It does not react with air and water and thus does not rust.

2. Rohit took with him some nylon ropes, when he was going for rock climbing. Can you tell why he selected nylon ropes instead of ropes made of cotton or jute?

Ans. Nylon ropes are strong, elastic and lighter as compared to cotton and jute ropes.

3. Why is it not advisable to burn plastic and synthetic fabrics?

Ans. Burning of plastic and synthetic fabrics produces lots of poisonous gases causing air pollution.

4. Plastic is used for making a large variety of articles of daily use and these articles are very attractive. But it is advised to avoid the use of plastic as far as possible. Why?

Ans. It is advised to avoid the use of plastic as far as possible as plastis is non biodegradable material which causes environmental problems and health risks.

- **Long Answer Questions:-**

1. Write the importance of synthetic polymers in our life.

Ans. Synthetic polymers have become very important in our lives. They are used in clothing, home furnishings, industrial use etc. Synthetic polymer like rayon, nylon, polyester are used for making clothes and accessories.

Nylons for making umbrellas, leegings, raincoats, curtains etc

Polyester are used fir making sarees , shirts and polyester when combined with natural fibres makes wrinkle free fabric which is very much on demand these days.

PET (Polyethylene terepthanene) a type of polyester are used fo making bottles and containers which are durable, flexible, light weight and also relatively inexpensive.

Plastics also a type of polymer are widely used material today. They are used in making electrical and electronic components, parts of vehicles, packaging industries,toys etc

Terylene a variety of polyester are also used to make fabric by mixing with other fabrics.

Exercises:-

1. Explain why some fibres are called synthetic.
Ans: Since man-made fibres are obtained by the synthesis of petrochemicals, so they are called synthetic fibres.

2. Mark (✓) the correct answers :
Rayon is different from synthetic fibres because
(a) It has a silk like appearance.
(b) It is obtained from wood pulp.
(c) Its fibres can also be woven like those of natural fibres.

Ans: (b) it is obtained from wood pulp.

3. Fill in the blanks with appropriate words :
(a) Synthetic fibres are also called _____ or _____ fibres.
(b) Synthetic fibres are synthesized from raw material called _____
(c) Like synthetic fibres, plastic is also a _____ .

Ans: (a) Synthetic fibres are also called **artificial** or **man-made** fibres.
(b) Synthetic fibres are synthesized from raw material called **polymer**.
(c) Like synthetic fibres, plastic is also a **petrochemicals**.

4. Give examples which indicate that nylon fibres are very strong.
Ans: They are used to make parachutes and ropes for rock climbing.

5. Explain why plastic containers are favored for storing food.

Ans: The main advantages of using plastic for storing food are -
a. Plastic has light weight.
b. Good strength.
c. Easy to handle.

6. Explain the difference between thermoplastic and thermosetting plastics.

Ans:

Thermoplastic	Thermosetting plastics
(i) These are the plastics which become soft on heating; they can be melted repeatedly by heating.	(i) These are the plastics which do not become soft on being exposed to moderately high temperatures.
(ii) These are used for making toys, combs and various types of containers.	(ii) Used for making electrical switches and handles of various utensils.
(iii) Ex- polythene, PVC, polystyrene, etc.	(iii) Ex- Bakelite, melamine etc.

---

7. Explain why the following are made of thermosetting plastics.

(a) Saucepan handles
(b) Electric plug/ switches /plug boards

Ans: (a) Saucepan Handles: Saucepan handles are made from the thermosetting plastics because these are bad conductors of heat. They do not bend or deform on heating.

(b) Electric plug/Switches/Plug Boards: Electric plug/switches/plug boards are made from thermosetting plastics because thermosetting plastics are bad conductor of heat and electricity also. Hence it is used to make such articles.

8. Categorize the materials of the following products into 'can be recycled' and 'cannot be recycled'.

Telephone instruments, plastic toys, cooker handles, carry bags, ball point pens, plastic bowls, plastic covering on electrical wires, plastic chairs, electrical switches.

Ans.

Cannot be recycled	Can be recycled
Telephone instruments	Plastic toys
Cooker handles	Plastic chairs
Electrical switches	Carry bags
	Plastic covering on electrical wires
	Ball point pens
	Plastic bowls

9. Rana wants to buy shirts for summer. Should he buy cotton shirts or shirts made from synthetic material? Advise Rana, giving your reason.

Ans. Cotton is a good absorber of water. So it can absorb sweat produced by the body and exposes it to the environment. The sweat therefore evaporates which cools the body. But clothes made from synthetic material cannot absorb sweat and therefore cannot produce the cooling effect of cotton. Hence, Rana should buy cotton shirts.

10. Give examples to show that plastics are non-corrosive in nature.

Ans. Plastics are non-reactive in nature, even with strong chemicals. Hence, they don't get corroded and are therefore non-corrosive in nature.

For example:

(1) Phenyl or acids, used for household work are stored in plastic bottles.

(2) Buckets, bottles etc. don't react with water stored in them.

11.Should the handle and bristles of a toothbrush be made of the same material? Explain your answer.

Ans. No.

In a toothbrush, the handle should be hard and strong, so that it doesn't break while bristles should be soft and flexible. Hence, handle should be made up of plastic while bristles should be made from nylon.

12. 'Avoid plastics as far as possible'. Comment on this advice.

Ans. Due to the following reasons, plastics should be avoided:

(1)They are non-biodegradable. Hence, they take hundreds of years to decompose.

(2)If they are burnt, poisonous gases are released which pollute the environment.

(3)Plastic dumps in the oceans affect marine life and can cause death of marine animals.
(4)Plastic dumps on land can also be fatal. Animals can swallow them and the plastic can choke their respiratory system.

13.Match the terms of column A correctly with the phrases given in column B.

A		B
Polyester	(a)	Prepared by using wood pulp
Teflon	(b)	Used for making parachutes and stockings
Rayon	(c)	Used to make non-stick cookware
Nylon	(d)	Fabrics do not wrinkle easily

Ans.

(i)	Polyester	(d)	Fabrics do not wrinkle easily

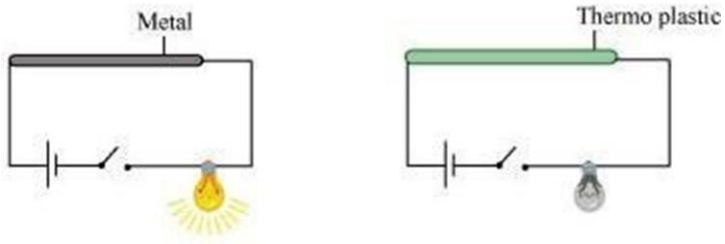
(ii)	Teflon	(c)	Used to make non-stick cookware
(iii)	Rayon	(a)	Prepared by using wood pulp
(iv)	Nylon	(b)	Used for making parachutes and stockings

14.'Manufacturing synthetic fibres is actually helping conservation of forests'. Comment.

Ans. Natural fibres are mainly obtained from plants and trees. Hence, to obtain them, we need to cut down trees which eventually leads to deforestation. But synthetic fibres are made using petrochemicals. Therefore, there will be no need of deforestation. So we can say that 'Manufacturing synthetic fibres is actually helping conservation of forests'.

15. Describe an activity to show that thermoplastic is a poor conductor of electricity.

Ans. To show that thermoplastics are bad conductor of electricity, we can design a circuit with some wires, bulb, battery, a metal piece and a PVC pipe (PVC is a thermoplastic material) as shown in the figures.



In the first case, we will have a metal piece as shown in the figure. We can notice that the bulb will glow.

While in the second case, we will use a PVC pipe instead of a metal piece. We will notice that the bulb will not glow this time.

Hence, from this experiment we can say that “Thermoplastics are bad conductor of electricity”.