



SOLUTION WONDER OF SCIENCE

5

1. Reproduction in Plants

A. Multiple Choice Questions (MCQ) :

Tick (✓) the correct answer :

1. (a) plants 2. (c) germination 3. (b) stem 4. (c) hills 5. (a) farms

B. Answer the following questions :

1. What is reproduction ?

Ans. Reproduction is a process by which the living organisms produce off spring of their own kind.

2. Write down the names of any two fertilizers.

Ans. The names of two fertilizers are :

- (i) Urea (ii) Ammonium Sulphate

3. Explain the structure of seed.

Ans. A seed has 3 main parts :

- (i) Seed coat (ii) Seed leaves (iii) Embryo

✿ Seed coat is the outer covering of seed. It protects the inner parts.

✿ Seed leaves are present inside the seed. These are also called cotyledons.

✿ Embryo or body plant is present in the seed. Which develops into a new plant.

4. Explain the dispersal of seeds by animals.

Ans. Man and Animals eat certain fruits and throw away the seeds. Some seeds with hooks and spike stick to the hairy skin of animals and are carried elsewhere. Birds and animals swallow some seeds which later on come out unharmed by the droppings.

5. What is vegetative propagation ?

Ans. Plants reproduce through leaf, stem, roots etc. This type of reproduction is known as vegetative propagation.

6. What is germination of seeds ?

Ans. The development of seeds into seedling is called germination. Seeds germinate in the soil and grow into new plants.

C. Fill in the blanks with the words given below :

1. medicines 2. stem 3. wind 4. germinate 5. climate 6. dry

D. Write true or false :

1. Flase 2. True 3. True 4. True 5. True 6. False

E. **Tick the correct answer :**

1. different 2. rich 3. completely 4. unequal 5. Plants

F. **Divide the classroom into 5 groups. Tell each group to collect different seeds and paste it in their scrap book.**

Ans. Do yourself.

G. **Write down the five disadvantages of cutting down the trees.**

Ans. Disadvantages of cutting down the trees are :

1. Soil erosion.
2. Increased temperature.
3. Harmful effect of ultraviolet rays.
4. Decreased amount of oxygen in atmosphere.
5. Loss of wildlife or birds.

2.

Animal Life

A. **Multiple Choice Questions (MCQ) :**

Tick (✓) the correct answer :

1. (a) body 2. (c) shell 3. (b) reptiles 4. (a) dead 5. (c) oxygen

B. **Answer the following questions :**

1. **Define a habitat.**

Ans. The area where a particular animal lives naturally is called its habitat.

2. **Write the names of three mammals.**

Ans. The names of three mammals are Cow, Buffalo, goat.

3. **How do the following animals breathe—fish and mammals?**

Ans. Fish breathe through gills and Mammals breathe with the help of lungs.

4. **What is the movement in animals called ? Explain the movement of any one animal.**

Ans. The movement in animals is called locomotion.

Mammals—Mammals have four limbs, the two limbs in the front and two at the back. These pairs help them to walk, run each and climb.

5. **Define a shell.**

Ans. Shell is the hard and strong covering which is generally found in land and ocean animals like snail, turtle etc. A shell protects the animal from the enemies.

6. **What is migration ? Name any two migrating birds.**

Ans. Animals move from one region to another region due to climatic changes, their seasonal movement is called migration.

The names of 2 migrating birds are :

- (i) Siberian Crane (ii) Arctic Turn.

C. **Fill in the blanks with the words given below :**

1. living 2. warm 3. Oxygen 4. Butterflies 5. Herbivores 6. Arctic turn

D. **Write true or false:**

1. Flase 2. True 3. False 4. True 5. True 6. True

E. **Tick the correct answer :**

1. many 2. woollen 3. blunt 4. oxygen 5. two

F. Divide the classroom into 5 groups. Tell each group to collect the pictures and paste them in their scrap book.

Do yourself.

G. Write down the five advantages afforestation.

Ans. The advantages of afforestation are :

1. Rains are more obvious.
2. Wildlife is preserved.
3. It helps to control acid rain.
4. It increases greenery
5. It brings rain in proper time.

3.

Bones and Muscles

A. Multiple Choice Questions (MCQ) :

Tick (✓) the correct answer :

1. (b) human 2. (c) skin 3. (b) back 4. (c) voice 5. (b) food

B. Answer the following questions :

1. Give three main functions of the skeleton.

Ans. 1. The three main functions of skeleton are :

- (a) The skeleton gives shape to our body.
- (b) The skeleton gives strength to our body.
- (c) They also protect our internal organs.

2. What are three different types of joints ?

Ans. The three different types of joint are :

- (i) **Ball and socket joint**—This kind of joint helps in various movements.
- (ii) **Hinge joint**—Movements of this kind of joint are only for the forward and backward direction.
- (iii) **Sliding joint**—In this joint, one bone slides over another, the wrist joint is an example of this joint.

3. Name the different types of muscles.

Ans. The three different types of Muscles are :

- (i) **Voluntary**—These are the muscles attached to our skeleton and are under our control.
- (ii) **Involuntary Muscles**—Muscles that are not under our control.
- (iii) **Cardiac**—These muscles are found in the heart.

4. What is a digestive system ?

Ans. The process of breaking of food into simpler and soluble form is called digestion; and the organs which help in doing so constitute digestive system.

5. What are the main parts of skeleton ?

Ans. The main parts of skeleton are:

- (i) The skull
- (ii) The Backbone
- (iii) The limbs
- (iv) The Girdles

6. What is a rib cage ?

Ans. Our Rib cage is made of 12 paired bones. It forms part of the body's respiratory system and helps in expansion of the chest cavity so, that the lungs can expand and breathe in oxygen.

C. Fill in the blanks with the words given below :

1. cranium 2. limbs 3. skull 4. mucus 5. skull 6. posture

D. Write true or false :

1. True 2. False 3. False 4. True 5. False 6. True

E. Tick the correct answer :

1. alveoli 2. complex 3. long 4. bone 5. skull

F. Do yourself.

G. Do yourself.

H. Do yourself.

4.

Nervous System

A. Multiple Choice Questions (MCQ):

Tick (✓) the correct answer :

1. (b) brain 2. (c) three 3. (a) three 4. (c) ears 5. (b) sense

B. Answer the following questions :

1. Mention the different parts of a brain and their function.

Ans. The different parts of brain and its function are as follows :

(i) **Cerebrum**—It helps us to remember and learn. It also controls the function of sense organs.

(ii) **Cerebellum**—Its controls the muscles activity and maintains balance of our body and keeps it in an upright position.

(iii) **Medulla**—It controls involuntary actions such as breathing and heart beating.

2. Name the outer part of the ear that controls sounds.

Ans. The auricle (pinna) is the outer part of the ear that controls sound.

3. What is a cornea ?

Ans. The circular transparent area at the front part of the eye is called the cornea.

4. What is a spinal cord ?

Ans. The spinal cord is shaped like a tube. It starts from the medulla and goes down the middle of your back. It is protected by the vertebrae of our spine.

5. What are reflex actions ?

Ans. The actions which are automatic and do not need thinking are called Reflex actions.

6. How can you take care of the following—(i) eyes, (ii) ears (iii) nose

Ans. We can take care of eyes by following ways :

(i) Do not read in the moving vehicles.

(ii) Sit 6-9 feet away from the T.V. set.

We can take care of ear by following ways :

(i) Do not let water enter your ears while bathing

(ii) Never listen to music for more than 2 hours continuously.

We can take care of nose by following ways—

(i) Do not pick your nose with fingers or nails.

(ii) Inhale steam to clear a blocked nose.

C. Fill in the blanks with the words given below :

1. Brain 2. iris 3. cerebrum 4. medulla 5. fibres 6. skin

D. Write true or false :

1. True 2. True 3. False 4. False 5. True 6. False

E. Tick the correct answer :

1. nervous 2. longest 3. Spinal cord 4. read 5. nose

F. Pick the odd one out by choosing the incorrect option :

1. Nose 2. Brain 3. Marrow 4. Unmixed nerves

G. Do yourself.

5.

Air and Water

A. Multiple Choice Questions (MCQ) :

Tick (✓) the correct answer :

1. (c) gases 2. (a) live 3. (b) rain 4. (a) thick 5. (c) evaporation

B. Answer the following questions :

1. What is atmosphere ?

Ans. Our earth is covered by a thick layer of gases like a blanket which protects us from harmful solar rays. It is called Atmosphere.

2. Name the different layers of atmosphere.

Ans. The different layers of atmosphere are as follows :

(i) Troposphere (ii) Stratosphere
(iii) Mesosphere (iv) Thermosphere
(v) Exosphere

3. How will you show that air has pressure ?

Ans. Apparatus required : Glass filled water, cardboard.

Step 1. We cover the mouth of the glass with a stiff cardboard.

No air bubble should be there in the water.

Step 2. Now we press the cardboard with our hand and invert the glass and remove the hand from the cardboard.

Even though the water tries to push the cardboard, the air outside pushes the cardboard with greater force from below. This shows that air has pressure.

4. Name the methods of separating insoluble impurities from water.

Ans. Sedimentation and Filtration are the methods of separating insoluble impurities from water.

5. How will you remove the soluble impurities from water ?

Ans. By Evaporation and Distillation we remove the soluble impurities from water.

6. How can we purify the drinking water ?

Ans. We can purify the drinking water by following ways :

(i) Water can be disinfected with a very small quantity of chlorine gas that kills Bacteria.
(ii) Water can be used for drinking purpose by boiling. Boiling water for 20 minutes is enough to kill germs.

C. Fill in the blanks with the words given below :

1. liquid 2. Atmosphere 3. evaporation 4. insoluble 5. germs 6. atmosphere

D. Write true or false :

1. True 2. True 3. True 4. False 5. True 6. True

- E. Do yourself.
- F. Do yourself.
- G. Do yourself.
- H. Do yourself.
- I. Do yourself.

6.

Soil

A. Multiple Choice Questions (MCQ) :

Tick (✓) the correct answer :

1. (a) natural 2. (b) air 3. (c) living 4. (a) soil 5. (c) trees

B. Answer the following questions :

1. How is soil formed ?

Ans. Soil has been formed by weathering of rocks due to sunlight, rainfall and wind which have led to these rocks being broken down to form one of the constituents of soils.

2. What is Humus ?

Ans. Humus is formed by decayed plants and animals. It is the most fertile layer and plants grow well in this layer.

3. Explain the different layers of soil.

Ans. Soil is made up of three layers. The top layer of soil is loose and dark. It is called top soil. Below the top soil a light coloured layer is present. This is called sub-soil. The bottom layer of soil is bedrock.

4. What is contour farming and terrace farming ?

Ans. Contour Farming—If the fields happen to be on sloping ground, their ploughing should be done across the slope. Thus they save the fertile soil from erosion, the circular furrows catch and hold water and prevent soil erosion.

Terrace farming—In hilly regions there is no flat fields. So small fields are made on hills just like a stair case.

5. Explain the uses of the soil.

Ans. The uses of soil are as follows :

(i) It helps plants to grow.

(ii) It is also important for animals and insects as they directly or indirectly depend upon the soil.

(iii) Crops grow well in the top soil.

6. What do you understand by soil conservation ?

Ans. Protecting soil from the hazards of soil erosion is known as soil conservation. Afforestation, minimizing the use of cattle etc are few measures which can help in soil conservation.

C. Fill in the blanks with the words given below :

1. top 2. three 3. flood 4. Humus 5. Protecting 6. erosion

D. Write true or false :

1. True 2. True 3. False 4. True 5. False 6. True

E. Explain the following :

1. Top soil

Ans. 1. Top soil—The top soil is loose and dark.

2. Terrace Farming

Ans. Terrace Farming—In hilly regions there is no flat fields, so small fields are on hills just like a stair case.

3. Sub soil
Ans. Sub-soil—Below the top soil a light coloured layer is present. It is called sub-soil.
 4. Bed rock
Ans. Bedrock—The bottom layer of the soil is Bedrock.
 5. Dams and Bunds
Ans. Dams and Bunds—Soil erosion can be restricted also by constructing bunds all around the field. Bunds are very helpful restriction of soil erosion by rain water.
- F. Do yourself.
G. Do yourself.

7.

Rocks and Minerals

A. Multiple Choice Questions (MCQ) :

Tick (✓) the correct answer :

1. (a) marble 2. (b) non-metallic 3. (c) pumice 4. (b) magma 5. (a) oldest

B. Answer the following questions :

1. **How are igneous rocks formed ? Explain.**

Ans. Igneous rocks are formed by the cooling and hardening of liquid or molten rock materials called magma.

It rises because it is less dense than the rocks from which it was created. The magma cools down to form rock. When volcanoes erupt, magma comes out.

2. **What are metamorphic rocks ? Name any three of them.**

Ans. Metamorphic rocks are formed deep inside the earth where high temperature and heat can change the rocks into metamorphic rock. It begins to form at 12-16 km beneath the earth surface.

The three metamorphic rocks are:

- (i) Marble (ii) Slate (iii) Gneiss.

3. **What are mica and marble used for ?**

Ans. Mica—Mica is used in paints and in electrical equipments.

Marble—It is used for making statue, building etc.

4. **What are metallic minerals ?**

Ans. Iron, copper, silver, gold etc/are metallic minerals these are used to make utensils machines, coins etc.

5. **How are sedimentary rocks formed ?**

Ans. Sedimentary Rocks are made up of mud pebbles, sand and clay remains of animals and gravel etc. Water, wind and ice carry away pieces of these material and deposit them in water bodies in layers. With the course of time layers upon layers pile up and cemented together and form soil hard rock called sedimentary rocks.

6. **What are coal and petroleum ?**

Ans. Petroleum— Crude oil is also called **Petroleum** and is dark sticky liquid.

Coal—Coal is a rock formed from the remains of plants.

C. Fill in the blanks with the words given below :

1. lava 2. black 3. Minerals 4. Shale 5. white 6. Latin

D. Write true or false :

1. True 2. True 3. True 4. True 5. False 6. True

E. Write two examples of each :

- | | | |
|----------------------|----------|--------|
| 1. Igneous rocks | Granite, | Pumice |
| 2. Metamorphic rocks | Marble, | Slate |
| 3. Metallic rocks | Iron, | Copper |

4. Non-metallic rocks Coal, Petroleum
 5. Sedimentary rocks Sandstone, Lime stone
- F. Do yourself.
 G. Do yourself.

8. Good Health and Diseases

A. Multiple Choice Questions (MCQ) :

Tick (✓) the correct answer :

1. (b) health 2. (c) seven 3. (a) fat 4. (b) goitre 5. (c) air

B. Answer the following questions :

1. What is balanced diet ?

Ans. A diet that contains adequate amount of different nutrients, required for the healthy functioning of the body is called the balanced diet.

2. Write the names of communicable and non-communicable diseases.

Ans. (i) Communicable diseases—These are those that can spread one person to another.

e.g.—Cholera, Malaria, flue, etc.

(ii) Non-Communicable diseases—These are those that cannot be spread one person to another.

e.g.—Heart attack, jaundice, diabetes etc.

3. Explain fungi and protozoa.

Ans. Fungi—Fungus is a kind of living organism. Yeasts, moulds and mushrooms are types of fungi.

Protozoa—Protozoa are tiny single celled germs which are much longer than Bacteria they live in water.

4. Explain the non-communicable diseases.

Ans. Non-Communicable diseases—Those diseases which do not pass from the affected person to a healthy person are called non-communicable diseases.

e.g.—Heart attack, Jaundice etc.

5. What is vaccination and how does it help in preventing diseases ?

Ans. People especially children are given injection called vaccination. Vaccination is an effective method of preventing on against diseases like polio, cholera, small-pox etc.

6. What is a disease ? Explain different types of diseases.

Ans. Disease is a state of unhealthy condition of the body in which one or more part are effective and the body does not work normally—

Two types of diseases are—

(i) Communicable—Disease which can pass one person to another. e.g.—Malaria, flue

(ii) Non-communication—Disease which cannot pass one person to another. e.g.—Heart attack, Jaundice.

C. Fill in the blanks with the words given below :

1. clean 2. healthy 3. Rest 4. Germs 5. digestion 6. protein

D. Write true or false :

1. True 2. True 3. False 4. False 5. True 6. True

E. Explain the following terms :

1. **Balanced diet** : A diet that contains adequate amount of different nutrients required for healthy functioning of the body.

2. **Fibres**—Fibre helps fill you up and aids with proper digestion. It is primarily concerned with keeping your cholesterol level in check.
3. **Beri-Beri**—Lack of Vitamin B causes a disease known as Beri-Beri.
4. **Goitre**—It is caused by deficiency of Iodine. Goitre a gland in neck region swells.
5. **Rest**—Rest is also important for good health. We need rest to resume our work with the same efficiency.

F. Match the following :

- | | |
|-----------------|------------------------|
| 1. Vitamin A | night blindness |
| 2. Malaria | a communicable disease |
| 3. Fat | a nutrient |
| 4. Vitamin C | amla |
| 5. Chlorination | clean water |

- G.** Do yourself.

9.

Safety and First Aid

A. Multiple Choice Questions (MCQ) :

Tick (✓) the correct answer :

1. (b) safe 2. (b) nose 3. (a) fracture 4. (c) pain 5. (b) sprain

B. Answer the following questions :

1. How do accidents occur ?

Ans. Accidents may happen at any place, time without warning us. Accidents mostly occur when we show carelessness or we avoid safety rules.

2. What first aid will you give to the victim of a snake bite ?

Ans. A tourniquet fast above the bite to slow down the poison flow towards the heart. This will help to slow down the spread of the poison.

3. What is a fracture ?

Ans. A crack or break in the bone is called Fracture. A fracture is very painful.

4. What is nose bleeding ? How can it be stopped ?

Ans. Nose bleeding is very common among children during summer when the days are very hot. It is due to the rupturing of the walls of the blood vessels.

It can be stopped by pressing the nose on bleeding. Put the sides between the thumb and the forefinger for a few minutes.

5. Write any four safety measures you should follow on road.

Ans. The four safety measures we should follow on road are as follows:

- (i) Always walk on the footpath.
- (ii) Never try to get into a moving bus.
- (iii) Always cross the road at zebra crossing.
- (iv) Never stand on the foot board of a moving bus.

6. Write any four safety measures you should follow in the kitchen.

Ans. The four safety measures we should follow in the kitchen are as follows :

- (i) Loose clothing should not be worn during cooking.
- (ii) Cords of electric should be kept away from the sink and stove.
- (iii) Hot liquid should be kept out of children's reach.
- (iv) Check the gas cylinder regularly.

C. Fill in the blanks with the words given below :

1. zebra 2. dangerous 3. Accidents 4. move 5. First aid 6. painful

D. Write true or false:

1. True 2. False 3. False 4. True 5. False 6. True

E. Write the two precautions of each :

Ans. Precautions are given in each case.

1. Fire :

- (i) fire extinguishers in the house or car to handle small fires.
- (ii) In case of fire—Don't hide, go outside if fire is scanty.

2. Snake bite :

- (i) Do not move the person.
- (ii) Immediately rush the victim to doctor.

3. Fracture :

- (i) Keep the injured part straight.
- (ii) Support it with a strip of wood with a pad of cloth or cotton.

4. Cat Scratches

- (i) Wash away all dirt around the wound.
- (ii) Clean the affected area with cotton wool soaked in an antiseptic lotion.

5. Sprain

- (i) Keep on applying ice-packs or ice-cubes on the injured joint till the swelling subsides.

F. Match the following :

- | | |
|---------------|---|
| 1. Burnol | burn |
| 2. Tourniquet | tight bandage to control the heavy blood flow |
| 3. Rabbits | dog bite |
| 4. Dettol | to prevent infection |
| 5. Fracture | crack in a bone |

G. Do yourself.

H. Do yourself.

I. Do yourself.

10.

Matter and Material

A. Multiple Choice Questions (MCQ) :

Tick (✓) the correct answer :

1. (a) tiny 2. (c) hard 3. (a) liquid 4. (b) molecule 5. (b) differs

B. Answer the following questions :

1. What is a matter ?

Ans. Anything which occupies space and has mass is called matter.
Matter is made up of tiny particles called molecules.

2. What are molecules ? Explain with examples.

Ans. All matters whether in the state of solid, liquid or gas are made up of small and tiny particles called Molecules.

e.g.— Water Oxygen (O_2), Hydrogen (H_2) etc.

3. What is a physical change ? Give example.

Ans. Physical change is a temporary change that happens in the state of matter. This change can be reversed.

e.g.—Water into ice, and ice into water.

4. What is a chemical change ? Give two real examples.

Ans. Chemical change is a permanent change. It means we cannot get the matter in its original form after it involves a chemical change.

e.g.—Two examples of chemical change.

- (i) When we burn a piece of paper, we get ash.
- (ii) Rusting of iron.

5. What are the different states of matter?

Ans. There are three states of matter :

- (i) **Solid**—Solid is a substance that is generally hard. It has definite shape and size.
- (ii) **Liquid**—Liquid is a substance that occupies space and has weight. It has no definite shape, but it has a definite volume.
- (iii) **Gas**—Gas is a substance that has neither definite shape nor definite volume.

6. Explain the change in state of matter.

Ans. Matter changes its form under certain conditions like heating or cooling.

Matter changes its state from solid to liquid or to a gas because of the change in the molecules.

- (i) Solid into liquid. e.g.—Ice into water.
- (ii) Liquid into vapour. e.g.—Water into vapours.
- (iii) Liquid into solid—Water into ice.

C. Fill in the blanks with the words given below:

1. Matter 2. material 3. Physical 4. Atoms 5. Gold 6. Liquid

D. Write true or false :

1. False 2. True 3. True 4. True 5. True 6. True

E. Mention whether the following changes are physical or chemical :

- 1. Melting of Ice Physical
- 2. Rusting of iron Chemical
- 3. Burning of paper Chemical
- 4. Changing wheat into bread Chemical
- 5. Changing of ice into water Physical

F. Put the words in the correct column below :

- Solid** Sand, ice, metal, wood, glass, jelly
Liquid Milk, coffee, water, lemonade, custard
Gas Steam, helium, oxygen, air

G. Do yourself.

11.

Work, Force and Energy

A. Multiple Choice Questions (MCQ) :

Tick (✓) the correct answer :

1. (b) force 2. (c) three 3. (c) move 4. (a) water 5. (b) source

B. Answer the following questions :

1. What is a lever ?

Ans. A rigid bar resting on a pivot, used to move a heavy load with one end when pressure is applied to the other. The tools generally used in our daily life like scissors, screw drivers, pliers, bottle openers, hammers etc. are **levers**.

2. **What are the fixed and the movable pulleys ?**

Ans. Fixed Pulley—It changes only the direction of the force but does not move up or down with the load. e.g.—Pulleys used for drawing water from wells.

Movable Pulley—A movable pulley does not change the direction of effort but it moves with the load.

e.g.—Pulleys used in heavy machines.

3. **For what purpose do we use wheel and the axle arrangement ?**

Ans. We use wheel and the axle arrangement is in most big machines. Sewing machines etc.

4. **What is a machine ? Write two ways in which a simple machine helps us.**

Ans. Any device or tool that uses force is called a machine :

The two ways in which simple machines help us are:

(i) By using Lever (ii) By using Screw

5. **How does a pulley make our work easier ?**

Ans. A pulley is a wheel and an axle which supports movements of a cable (or rope) along with its circumference.

It is used to lift heavy loads.

6. **How does an inclined plane help us ?**

Ans. An inclined plane helps us in many ways. A sloping wheelchair, ramp in a hospital make it easier to carry stretchers and patients who cannot climb stairs. Ramps are used to load and unload goods from trucks.

C. **Fill in the blanks with the words given below :**

1. moving 2. screw 3. chemical 4. water 5. heat 6. object

D. **Write true or false :**

1. False 2. False 3. True 4. False 5. True 6. True

E. **Write two examples for each of the following :**

1. Screw	Bolts	Pen cap
2. Pulley	Fly wheel	Free wheel
3. Wedges	Hand axle	Knife
4. Solar energy	Solar heater	Calculator
5. Heat energy	Steam engines	Heater

F. **Explain the following :**

1. **Lever**—The tools generally used in our daily life like scissors, screw driver etc.

2. **Inclined plane**—An inclined plane is a flat surface that is higher on one end. Inclined planes make the work of moving things easier.

3. **Gravitational force**—The force which the earth exerts on all objects. It is the force of attraction.

4. **Frictional force**—The force which acts between two surfaces in contact and moves to opposite direction is called frictional force.

5. **Geothermal energy**—The heat stored inside the earth is also a source of energy. This is called geothermal energy.

G. Do yourself.

12.

Our Environment

A. **Multiple Choice Questions (MCQ) :**

Tick (✓) the correct answer :

1. (c) air 2. (b) decomposers 3. (a) herbivorous 4. (a) water 5. (b) land

B. Answer the following questions :

1. What is environment ?

Ans. Everything which surrounds us and affects us is called our environment.

2. Define pollution. Name the different types of pollution.

Ans. Unwanted and harmful changes in the environment by human activities is called pollution.

Types of pollution :

1. Air Pollution
2. Water Pollution
3. Land Pollution
4. Noise Pollution

3. What are the causes of air pollution ?

Ans. Air is polluted by multiple causes. Air is polluted by emission of vehicles, combustion of fossil fuel, dust and dirt, deforestation, pollution, from factories and household pollution.

Ans. Smoke is the main pollutant which causes the major air pollution.

5. What is green house effect ? Explain.

Ans Green house effect means warming the environment. When the sun rays reach on earth, it is absorbed by it and a part is reflected back into space. The trapped radiation by the atmosphere further warms the earth, causing green house effect.

6. What is global warming ?

Ans. Green house gases in the atmosphere trap the heat of the sun and there is a rise in temperature on the earth this is called **global warming**.

C. Fill in the blanks with the words given below :

1. air 2. water 3. omnivorous 4. earth 5. noise 6. resource

D. Write true or false :

1. False 2. True 3. True 4. False 5. True 6. False

E. Match the following :

- | | |
|-----------------------|----------------|
| 1. Light and energy | The sun |
| 2. Landfills | Land pollution |
| 3. Biotic components | Living things |
| 4. Decomposers | Bacteria |
| 5. Study of ecosystem | Ecology |

F. Explain the following :

1. **Water Pollution**—Polluting of water due to human activities and some other factors is called water pollution.
2. **Pollutants**—The material responsible for pollution are called pollutants.
3. **Landfills**—Landfills cause land and air pollution.
4. **Greenhouse effect**—The trapping of the sun's warmth in a lower atmosphere further warms the earth, which is called green house effect.
5. **Noise Pollution**—When the level of noise starts affecting our health, it is termed as noise pollution.

G. Do yourself.

A. Multiple Choice Questions (MCQ) :

Tick (✓) the correct answer :

1. (b) precious 2. (c) lava 3. (a) Japan 4. (c) water 5. (c) rain

B. Answer the following questions :**1. What is an earthquake ?**

Ans. Earthquake is the sudden shaking of the ground caused by the movements or vibrations deep inside the earth, these vibrations release great energy and cause that part of the earth to quiver.

2. What is a cyclone ?

Ans. A cyclone is very strong wind accompanied with very heavy cyclones. Cyclone destroys buildings, trees etc. It originates in seas.

3. What is a volcano ? How do the volcanoes erupt ?

Ans. A volcano is an opening in the earth surface which allow hot, molten rock, ash and gases to escape from below the surface.

Lava spread over the land sometimes covering an entire region.

4. What is a drought ? What conditions are cause the drought ?

Ans. If a particular area has no rain or less rain then normal for long period is called drought.

Hot dry winds, high temperature and evaporation of moisture from the ground can result in condition of Drought.

5. How does tsunami affect the human life ?

Ans. Tsunami affect the human life in the following ways :

(i) It causes huge loss of life and property.

(ii) Transportation and communication get affected in a big way as electric wires get snapped and roads get flooded.

6. What is a landslide ?

Ans. Landslide is sliding of land bitch is mostly caused by rain water. Landslids causes property damage, injury and death and it adversely affects a variety of resources.

C. Fill in the blanks with the words given below :

1. harbor wave 2. seismograph 3. accurate 4. volcanoes 5. floods 6. tsunamis

D. Write true or false :

1. False 2. True 3. False 4. True 5. True 6. True

E. Match the following :

- | | |
|---------------|-----------------|
| 1. Lava | Volcanoes |
| 2. Earthquake | Richter scale |
| 3. Flood | Excessive water |
| 4. Storm | Strong wind |
| 5. Tsunami | Huge waves |

F. Explain the following :

- Tsunami**—A tsunami is a huge cluster of waves caused by either an under water earthquake or volcanic eruption.
- Richter scale**—The intensity of an earth-quake is measured on the Richter Scale.
- Lava**—Lava is molten rock which come up by the vocanic eruption.
- Seismograph**—The instrument of measuring the earthquake is called seismograph.

5. **Tornado**—A tornado is a violent rotating column of air extending from a thunderstorm to the ground.

G. Do yourself.

14.

Our Closest Neighbour: Moon

A. **Multiple Choice Questions (MCQ) :**

Tick (✓) the correct answer :

1. (c) earth 2. (a) first 3. (c) 24 4. (a) uneven 5. (b) two

B. **Answer the following questions :**

1. **What is a natural satellite ?**

Ans. A natural satellite in any celestial body in space that orbits around a larger body. Moons are called natural satellites because they orbit planets.

2. **What is lunar eclipse ?**

Ans. An eclipse of the moon is called lunar eclipse.

3. **What is solar eclipse ?**

Ans. An eclipse of the sun is called solar eclipse.

4. **Explain the surface of the moon.**

Ans. The surface of the moon is rough and uneven. It has flat black plains, high mountains and thousands of big, round hollows called Craters. These craters differ in size and depth.

5. **Describe the phases of moon.**

Ans. Every night the moon appears to change its shape. On full-moon day, it looks like a full disc of light. After few days, only a part of the moon is seen. On new-moon day, we do not see the moon at all. After new-moon day, the size of the moon appears to increase again.

C. **Fill in the blanks with the words given below :**

1. Planets 2. 17 March 3. solar 4. lunar 5. Russian 6. moon

D. **Write true or false :**

1. False 2. True 3. True 4. False 5. True 6. True

E. **Match the following :**

1. Rakesh Sharma	April 1984
2. Kalpana Chawla	17 March 1962
3. Sunita Williams	10 Sept 1965
4. Tides	Gravitational Pull
5. The moon	Natural Satellite

F. **Explain the following :**

1. **Sputnik**—I—It was the first man made satellites. The Soviet Union launched it on 4 October 1957.

2. **Craters**—The moon has thousands of big round hollows called Craters.

3. **Tides**—The rise and fall of water in sea or in ocean is called tides.

4. **Rakesh Sharma**—He is first Indian astronaut who was sent into space. He was born on 13 January 1949 in Patiala.

5. **Kalpana Chawla**—She was born on 17 March 1962 in Karnal, Haryana. She is first female of Indian origin to go to space.

G. Do yourself.
