

# Natural Science

5

## Chapter-1 Growing Plants

### Section-A

#### A. Oral Questions :

1. Plants give us fruits and vegetables, medicines, wood, cotton, tea, grain and pulses, oxygen to breathe and fibres for weaving cloths.
2. The thick outer covering of the seed is called seed coat.
3. The lotus fruit has a spongy part and the coconut has thick fibre coat, which make them light and also enable them to float on water.
4. Birds, insects, squirrels, moles etc. damage the crops and make a huge loss. Therefore, the crops need protection from them before and after harvesting. So, that farmers need to spray insecticides on crops from being damaged.

#### B. Science Quiz :

1. Onion, Ginger are the plants that grow from their underground stems.
2. Rose and cotton are the plants that grow from their stems.
3. There is a storage of food for baby plant in seed leaves called cotyledons.
4. Crops that are grown in the rainy season (from June to October) are called Kharif crops. For example : Rice, Maize, Cotton etc.
5. Crops that are grown during winter season (from November to April) are called Rabi crops. For example : Wheat, Gram, Pea etc.

#### C. Worksheet (Class Test/Paper-Pencil Test) :

##### 1. Multiple Choice Questions : (MCQs)

- (a) (i) animals, (b) (ii) man, (c) (i) mushroom, (d) (i) ploughing

##### 2. Circle the odd one :

- (a) Fern (b) Balsam (c) Cotton seed

##### 3. Fill in the blanks :

- (a) plants (b) cotyledons (c) explosion  
(d) manuring

##### 4. Identify the pictures and write their names in the spaces provided :

- (a) New plant  
(b) Hiptage (seed)  
(c) Xanthium (seed)

#### 5. Match the following :

##### Column A

- Growth of baby plant  
Kharif Crop  
Rabi Crop  
Dispersal by Wind  
Baby Plant  
Dispersal by Animal

##### Column B

- Germination  
Rice  
Wheat  
Madar  
Seedling  
Xanthium

### Section-B

#### A. Multiple Choice Questions (Scientific/ Practical Skills)

1. (b) cotyledons, 2. (c) both of them

#### B. Very Short Answer Questions :

1. After the process of Germination the seeds grow into new plants.
2. Apple and mango seeds are dispersed by animals.

#### C. Short Answer Questions :

1. Plants cannot move on their own. So that the nature has provided some methods by which the seeds of plants get scattered to remote areas. The scattering of seeds away from the mother plant is known as "Dispersal of Seeds".
2. The process of growing new plants from their roots, stems and leaves is called as "vegetative propagation".

#### D. Long Answer Questions :

1. Crops which are grown in the rainy season (from June to October) are called Kharif crops. Rice, maize and cotton are Kharif crops. Cultivation of these crops depends on the monsoon rains. Crops that are grown during winter season (from November to April) are called Rabi crops. Wheat, Gram and Pea are the example of Rabi crops. Cultivation of these crops do not depend on the monsoon rains.
2. Some plants have very light seeds. They are having wing on hair on such seeds. When wind blows, they are easily taken away from the parent plants. Madar, Hiptage and Cotton are the examples of seeds which are dispersed by wind and the lotus fruit has a spongy part and the coconut has thick fibre coat, which makes them light and also enable them to float on water. So that a coconut falling from a tree into water, floats with the water waves to distant places.

## Chapter-2 Health and Hygiene

### Section-A

#### A. Oral Questions :

1. We should eat balance diet for our health and proper functioning of body.
2. There are two types of diseases, i.e., non communicable and communicable.
3. Regular exercise keeping ourself healthy and fit. It also improves the working of nervous system by supplying more oxygen to the brain.

#### B. Science Quiz :

1. The main components of food are: nutrients, fats, protein, vitamins, minerals and carbohydrates.
2. Cholera and plague are the diseases which spread through direct contact.
3. Deficiency of Vitamin A cause the disease called Beri-Beri.

#### C. Worksheet (Class Test/Paper-Pencil Test) :

##### 1. Multiple Choice Questions : (MCQs)

- (a) (i) proteins,
- (b) (iii) common cold,
- (c) (ii) vitamin C,
- (d) (ii) direct contact

##### 2. Circle the odd one :

- (a) Iron (b) Whooping cough (c) AIDS

##### 3. Fill in the blanks :

- (a) Diabetes
- (b) Fats
- (c) Vitamin
- (d) Non-communicable
- (e) Clean

##### 4. Identify the following pictures and write the disease they are suffering from :

Measles, Marasmus, Chicken Pox

### Section-B

#### A. Multiple Choice Questions : (MCQs)

1. (a) goitre, 2. (c) marasmus

#### B. Very Short Answer Questions :

1. We need proper food, regular exercise, sufficient rest, hygiene and protection from disease to stay healthy.
2. Cereals and pulses are the sources of carbohydrates.

#### C. Short Answer Questions :

1. Minerals are essential to keep our body healthy. They strengthen the bones and maintain a normal heartbeat. Because of lack of Iron in our body we need minerals in our diet.
2. For developing immunity against a disease into the child's body vaccination is necessary.

#### D. Long Answer Questions :

1. The disease which spread from one person to another are called communicable diseases. These diseases are caused by micro organisms called Germs. Examples of Communicable disease are cholera, malaria, dysentery, polio, chicken pox, AIDS, tuberculosis, typhoid, plague, meningitis etc. Communicable disease spread through Air, infected food and water, Direct contact and insects.
2. (a) **Air**—Diphtheria, Common cold  
(b) **Infected Food and Water**—Cholera, Diarrhoea.  
(c) **Direct Contact**—Chicken Pox, Ringworm.

## Chapter-3 Safety and First Aid

### Section-A

#### A. Oral Questions :

1. Main reason of accident occur due to our carelessness and negligence.
2. Electrical faults, Gas leakage in kitchen, Unsafe use of articles like match sticks, petrolmax, candles, Kerosene and fire crackers are the causes of fire accidents.
3. Being negligent and careless on the road can make serious accident. So, that we should strictly follow the traffic rules while walking and driving on road for our safety.
4. In case an accident happens, the injured person must be given an immediate medical aid before he is taken to the hospital. This immediate help is called first aid.

#### B. Science Quiz :

1. We should not use lighter, match box or operate any electrical switch if there are gas leakage. We should also open all the doors and windows of the kitchen at once so that

gas flows out and there will be no chances remains for happening fire accident.

2. Fire extinguishers is the device which can be use to put fire out.
3. When the fire is caused because of an electric short-circuit, we can extinguish it by throwing sand over it. We should also switch off the main supply immediately to prevent the spread of fire.
4. Rabies are the disease caused by the biting of animals like dogs, cats and monkeys.

**C. Worksheet (Class Test/Paper-Pencil Test) :**

1. **Multiple Choice Questions : (MCQs)**  
(a) (i) sling, (b) (ii) fracture, (c) (iii) water, (d) (ii) splint
2. **Circle the odd one :**  
(a) Water (b) Pillow
3. **Fill in the blanks :**  
(a) First aid (b) Sling (c) Sand (d) Carelessness

**Section-B**

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

1. (a) sand 2. (b) above the bite

**B. Very Short Answer Questions :**

1. We should use zebra-crossing to cross the road.
2. Rabies is the disease caused by a dog bite.
3. We should dial '101' to call the fire brigade.

**C. Short Answer Questions :**

1. For not being negligent and careless we should strictly follow the traffic rules. Because negligence and carelessness can be a big reason for cause of serious accidents.
2. The immediate help given to an injured person at home is called first aid.
3. Rabies is a disease which is caused by a dog, cats and monkeys bite.

**D. Long Answer Questions :**

1. The rules to be observed to keep ourselves safe from fire accidents are :
  - (i) We should handle match box, candles and gas stove etc. very carefully.
  - (ii) We should avoid nylon clothes and synthetic clothes while cooking food or lighting crackers.
  - (iii) Electrical wiring should be thorough by checked after certain period.
  - (iv) We should not use lighter, match box or

operate any electrical switch if there is any gas leakage. We should open all the doors and windows of the kitchen at once so that the gas flows out.

2. When there is a fracture in the leg, we should tie a splint around the fractured leg. The patient should never be allowed to move his/her leg at all. Take a magazine, piece of cardboard or wood or a pillow and tie it around the fractured part. This acts as a splint and checks the movement of the broken bone.

**3. First aid for dog bite are :**

- First we should wash the bitten part with soap and water so that germs are removed.
- Thereafter we should apply an antiseptic cream on the wound so as to prevent infection.
- At the end we should take the victim to the doctor to give anti-rabies injections.

**Chapter-4  
Solids, Liquids and Gases**

**Section-A**

**A. Oral Questions :**

1. Any thing that has mass and occupies space is called matter.
2. Matters are made up of very tiny particles, called molecules.
3. While there is heating or cooling matter can change from one form to another.

**B. Science Quiz :**

1. Solid like book, chair etc. are the matter having fixed shape and volume.
2. Liquid like juice, milk etc. are the matters having fixed volume but not having fixed shape.
3. Gas are the matter in which the force of attraction between the molecules is very weak.

**C. Worksheet (Class Test/Paper-Pencil Test) :**

**1. Multiple Choice Questions : (MCQs)**

- (a) (iii) solids,
- (b) (i) microscope,
- (c) (ii) water vapour,
- (d) (i) expands

**2. Circle the odd one :**

(a) nitrogen (b) condensation (c) milk

**3. Fill in the blanks :**

- (a) Solids
- (b) Liquids
- (c) Cool
- (d) Contraction
- (e) Molecules

**4. Identify the following pictures and write their states in the given space :**

Solid, Liquid, Gas

**5. Complete the following table :**

Properties	Solid	Liquid	Gas
(i) Fixed shape	✓	×	×
(ii) Fixed volume	✓	✓	×
(iii) Can flow	×	✓	✓
(iv) Can be compressed	×	✓	✓
(v) Molecules very tightly packed	✓	✓	×
(vi) Force of attraction between the molecules is very weak.	×	✓	✓

**6. Match the Columns :**

Column A	Column B
Cold Water	(C)
Air	(B)
Wooden Chair	(A)

**Section-B**

**A. Multiple Choice Questions : (Scientific/ Practical Skills)**

1. (c) gas, 2. (a) expands

**B. Very Short Answer Questions :**

1. The process of heating of water and changes into water vapour is called evaporation.
2. The process of cooling of steam and change into form of water again is called condensation.
3. In the process of freezing when we cool water, the movement of its particles slow down and they become so close to each other and it will change in the form of ice.

**C. Short Answer Questions :**

1. Liquids do not have fixed shape, but have a fixed volume. Liquids can flow.
2. Gas can be easily flow. The force of attraction in Gas between the molecules is very weak.

3. When we heat a substance then it will expand in its size. This increases in the size of matter also.

**D. Long Answer Questions :**

1. Ice is solid when it is kept in a warm place, the movement of water particles in ice become fast. Under this process the particles become free from rigid form, become loosely packed and ice will be change in form of water through the process of melting.
2. When there is heating of water, it changes into water vapour. This is because on heating, the particles start moving so rapidly that they become free and escape into the air in the form of water vapour where they can move much more freely.

**Chapter-5**  
**Rocks, Minerals And Soil**

**Section-A**

**A. Oral Questions :**

1. When a volcano erupts, this magma flows out onto the surface of the earth. The magma flowing on the surface of the earth is called lava. This lava cools down and in due course solidifies to form igneous rocks.
2. There are layers of rocks under the soil and sand. When we closely see a piece of rock with a magnifying glass, we find that it is made up of very tiny grains. These tiny grains are called minerals.
3. Coal, petrol, diesel, kerosene, LPG, CNG etc. are fuels, which we use in our everyday life.

**B. Science Quiz :**

1. When a volcano erupts, magma flows out onto the surface of the earth. The magma flowing on the surface of the earth is called lava.
2. Quartz is the mineral which is found in sandstone.
3. Petroleum is also called black gold.

**C. Worksheet (Class Test/Paper-Pencil Test) :**

1. **Multiple Choice Questions : (MCQs)**  
(a) (i) basalt, (b) (ii) marble, (c) (i) LPG, (d) (i) topsoil
2. **Circle the odd one :**  
(a) Bed rocks (b) Calamine (c) Pumice

**3. Fill in the blanks :**

- (a) slate
- (b) minerals
- (c) soil
- (d) weathering
- (e) rocks

**4. Write True or False :**

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

**5. Identify the following pictures and write the rocks from which they are made :**

Metamorphic rock, Sedimentary rocks, Igneous rocks

**Section-B**

**A. Multiple Choice Questions (Scientific/ Practical Skills)**

1. (b) Fire, 2. (a) limestone rock

**B. Very Short Answer Questions :**

1. The Red Fort and Castle museum are the examples of sedimentary rocks.
2. The Taj Mahal and the Washington Monument are the examples of metamorphic rocks.

**C. Short Answer Questions :**

1. Topsoil, Subsoil and bedrock are the three layers of the soil.
2. Coal is a sedimentary rock formed from the remains of plants buried millions of years ago. It is on account of high temperature and pressure inside the earth, these remains of plants turn into coal.

**D. Long Answer Questions :**

1. **We get metals from Rocks :** Iron, aluminium, copper and zinc are the metals which we get from hematite, bauxite, copper pyrites and calamine ores respectively.

**We get fuels from rocks and minerals :**

Fuels like coal, petrol, diesel, kerosene, LPG and CNG etc. are fuels which we get from rocks and minerals.

**We get Gemstones from rocks :** Gemstones like diamonds, rubies, emeralds and sapphires which we get from rocks.

2. **Process of Formation of Soil :** Formation of soil takes place when rocks break down into tiny pieces on account of the repeated heating and cooling by the sun, rains and winds. This is called weathering. When there is rain fall, water seeps into the cracks in rocks and remains there. In cold weather, it

freezes, exerts pressure and breaks the rocks. This continuous weathering over thousands of years breaks the rocks into tiny pieces of sand. This causes the formation of soil. It is a continuous process.

**Chapter-6  
Wonderful Animals**

**Section-A**

**A. Oral Questions :**

1. Animals can be seen almost everywhere : Like in deserts, polar regions, oceans, air and mountains.
2. The surrounding in which an animal naturally lives is called its habitat. For example : Forest is the habitats of lion, monkeys, snakes.
3. Nature has given the animals a body covering that helps them living in a particular habitat. Their body covering saves them from hot and cold weather and also keep safe from hunting by other animals.

**B. Science Quiz :**

1. The forests, deserts, polar regions, high mountains, oceans and fresh water are the main habitats for animals.
2. Desert are dry and hot habitat.
3. Polar bear, seal and penguins are mainly found in polar regions.

**C. Worksheet (Class Test/Paper-Pencil Test) :**

**1. Multiple Choice Questions : (MCQs)**

- (a) (ii) burrow,
- (b) (iii) deserts,
- (c) (i) Amphibians,
- (d) (ii) omnivores

**2. Circle the odd one :**

- (a) Rabbit (b) Frog (c) Bug

**3. Fill in the blanks :**

- (a) deserts
- (b) polar regions
- (c) salty
- (d) fins
- (e) limbs

**4. Identify the animals in the pictures and write their names in the space provided :**

Penguins, A Grasshopper, Tortoise

### Section-B

#### A. Multiple Choice Questions: (Scientific/ Practical Skills)

1. (a) Wings, 2. (c) Chameleon

#### B. Very Short Answer Questions :

1. Sheep and bear are the animals having wool and fur to cover their bodies.
2. Fishes and snakes are the animals having scales on their bodies.

#### C. Short Answer Questions :

1. A shell is a hard outer layer on the body of some animals. Their shell protects them when they are in danger.
2. Fishes, frogs and salamander are found in fresh water. Frog and salamander can live both on land and water. They are called amphibians.

#### D. Long Answer Questions :

1. On the basis of animals feeding habits, we can divide different animals into three types :  
**(i) Herbivorous Animals :** Animals that eat only plants are known as herbivores or herbivorous animals. Cows, sheep, goat and deer are herbivores.

**(ii) Carnivorous Animals :** The animals that eat flesh of other animals are called carnivores or carnivorous animals. Lion, Tiger, and Wolf are the examples of carnivores.

**(iii) Omnivorous Animals :** The animals that eat both plants and animals are known as omnivores or omnivorous animals. Human being, bear and crow are the examples of omnivores.

2. Some Animals like tiger, zebra and grasshopper have their special body covering. They can merge their body covering with the surrounding they are living in. This feature is called camouflage and these animals are called camouflaging animals. Camouflage makes animals difficult to spot. It also protects them from other hunting animals and poaching. There are some animals like chameleon which can even change their colour to match the surroundings.

## Chapter-7 Skeletal System and Nervous System

### Section-A

#### A. Oral Questions :

1. A group of organs that work together to perform a particular job for the body is called an organ system.
2. The structure formed by all the bones in a human being or animal body is called skeleton.
3. Skull is the part of our body which protects our brain.

#### B. Science Quiz :

1. ribs are thin and curved bones, making a cage round our chest. This cage of bone is called rib cage which protects our heart and lungs.
2. In our skeleton there are 12 pairs of ribs in the ribs cage. The last two pairs of ribs are free and called floating ribs.
3. The three main parts of nervous system are nerves, brain and spinal cord.

#### C. Work Sheet (Class Test/Paper-Pencil Test) :

##### 1. Multiple Choice Questions : (MCQs)

- (a) (i) 206, (b) (i) Hinge, (c) (ii) Wrist, (d) (i) spinal cord

##### 2. Circle the odd one :

- (a) Shoulder (b) Tongue (c) Lever

##### 3. Fill in the blanks :

- (a) muscles (b) tendons (c) cerebrum

##### 4. Identify the following pictures and write their names in the spaces provided :

Brain, Skull, Rib Cage

### Section-B

#### A. Multiple Choice Questions (Scientific/ Practical Skills)

1. (a) Rib cage,
2. (a) Hinge joints

#### B. Very Short Answer Questions :

1. Three types of muscles in our body are :  
(i) Voluntary muscles, (ii) Involuntary muscles, (iii) Cardiac muscles
2. Three main parts of our nervous system are :  
nerves, brain and spinal cord.

### C. Short Answer Questions :

1. There are two pairs of limbs in our skeleton : (a) Fore limbs or arms, (b) Hind limbs or legs. The fore limbs are used for doing various tasks, such as writing, lifting and pulling the objects. The Hind limbs are used by us for walking and running.
2. Our skeleton system performs the following functions :
  - (i) it gives shape and support to our body.
  - (ii) it provides protection to the delicate internal organs like brain, spinal cord, heart and lungs.
  - (iii) it helps in the movement of our body with the help of muscles.

### D. Long Answer Questions :

1. The muscles which are under our control are known as voluntary muscles. Muscles in our arms and legs are voluntary muscles.
2. The organs connecting us to the outer world are known as sense organs. Eyes, nose, ears, tongue and skin are five sense organs which helping to see, smell, hear, taste and touch.

## Chapter-8 Force, Work And Energy

### Section-A

#### A. Oral Questions :

1. In our everyday life, we perform many actions. In case we have to move an object, we either pull or push it. Thus, we all need force in our life.
2. Ripe fruit always fall to the earth because our earth exerts a force on every object. This force attracts objects towards the centre of the earth.
3. In the performance of every activity like playing reading and sleeping, we need energy. Because the ability to do work is called energy.

#### B. Science Quiz :

1. The two kind of force are : (i) Magnetic force and (ii) electrostatic force.
2. Electric energy is used to run appliances like television and washing machine.
3. A pulley is a wheel with a groove in its trim.

### C. Work Sheet (Class Test/Paper-Pencil Test) :

#### 1. Multiple Choice Questions : (MCQs)

- (a) (ii) heat energy, (b) (i) lever, (c) (i) lever

#### 2. Circle the odd one :

- (a) pulley (b) screw (c) see saw

#### 3. Fill in the blanks :

- (a) opposite, (b) easy, (c) kinetic, (d) wedge, (e) inclined plane.

#### 4. Match the columns :

- |                    |                      |
|--------------------|----------------------|
| 1. Class two lever | (c) A nut cracker    |
| 2. Wheel and axle  | (d) Car steering     |
| 3. Inclined plane  | (a) A slopping plane |
| 4. Screw           | (b) Screw jack       |

### Section-B

#### A. Multiple Choice Questions : (MCQs)

1. (b) Potential energy, 2. (b) wedge

#### B. Very Short Answer Questions :

1. A force that slows down the movement of objects across a surface is known as force of frictions.
2. A simple machine is a device that makes our work easier and faster.

#### C. Short Answer Questions :

1. The two effects of force are :
  - (i) Stopping of a moving object
  - (ii) Moving of a stationary object
2. A simple machine is a device that makes our easier and faster. Scissors, knives, tweezers and tongs are some examples of simple machine.

#### D. Long Answer Questions :

1. We may say that work is said to be done only when the applied force results in a change in the position of the object in the direction of the applied force.

We may more clearly understand through this example. If we push a chair and it moves in the direction of applied force then work is done. If we push a truck will all of our force, there is no change in its position, hence, no work is done.

2. (a) **Screw** : A screw appears like a nail with grooves cut into it. There is also a winding edge called a thread. The screw can tightly hold things together with a screw jack.

(b) **Wheel and Axle** : This simple machine has a wheel and a rod called axle. Wheel and axle rotate together. Some of the



examples of wheel and axle are screw driver, car steering and tap.

(c) **Wedge** : It is V-shaped piece usually made of metal. There are also two inclined planes put together to form a sharp edge. An axe, blade and knife are the examples of wedge. A wedge is used to cut and split things.

## Chapter-9 Essential For Life : Air And Water

### Section-A

#### A. Oral Questions :

1. Air is essential for our survival because we use it to breathe.
2. We should drink pure water because it helps to make our body fit and healthy and dirty water can harm our body and spread diseases.
3. Carbon dioxide gas is used by the green plants to make their food.

#### B. Science Quiz :

1. Important sources of water are rivers, ponds, lakes and rain.
2. The atmosphere extends to a height of around 300 km above the earth's surface.
3. Oxygen is the gas that helps in the process of burning.

#### C. 1. Multiple Choice Questions : (MCQs)

- (a) (iii) Oxygen, (b) (i) Sand
2. **Circle the odd one :**  
(a) nitrogen sand carbon-di-oxide  
(b) Evaporation Distillation Sedimentation  
(c) Sand Mud Vapour
3. **Fill in the blanks :**  
(a) Filtration  
(b) Chlorine  
(c) Rocks  
(d) Water

#### 4. Identifying the process in the given pictures and write their names in the space provided :

Decantation, Filtration, Sedimentation

### Section-B

#### A. Multiple Choice Questions (Scientific/ Practical Skills)

1. (c) both, 2. (d) filtration

#### B. Very Short Answer Questions :

1. Nitrogen, Oxygen, Ozone, Carbon-dioxide and Neon, argon etc. are the gases present in the atmosphere.
2. Barometer is the instrument which is used to measure atmospheric pressure.

#### C. Short Answer Questions :

1. There are two types of impurities present in water :  
(a) soluble impurities (b) insoluble impurities
2. When the impurities settle down, neat and clean water remains above the layer of impurities. This is known as sedimentation.

#### D. Long Answer Questions :

1. Take an empty glass and a bucket half filled with water.

Put the glass into the bucket of water in an inverted position. We are required to do this very quickly and forcefully. We have to keep the glass straight and put inside in an inverted position.

We see that the water does not enter the inverted glass.

When we tilt the glass held in water, we can see that the air present in the glass moves out in the form of air bubbles. As the air from the glass escapes, water starts entering the glass. This proves that the glass appearing to be empty to us is in fact filled with air. Thus it proves that air occupies space.

2. **Filtration** : We use the filtration method to separate water from insoluble impurities, such as mud and sand by using a filter paper.

**Method** : In order to filter a mixture of water and sand, we need a cone of filter paper and keep it inside a funnel. The mixture is poured into the funnel. We will see that the sand does not pass through the filter paper and remains behind on the filter paper. This is called residue.

The water passes through the filter paper and is collected in the flask below the funnel. This is called filtrate. This process of purifying water is called filtration.

## Chapter-10 Earth, Sun And Moon

### Section-A

#### A. Oral Questions :

1. The branch of science in which we study about the heavenly bodies is known as astronomy.
2. Life does not exist on moon because there is no air or atmosphere.
3. We have successfully launched a number of man made satellites into the space. These satellites revolve around the earth. They are known as artificial satellites.

#### B. Science Quiz :

1. The four planets are : Mercury, Venus, Earth, Mars.
2. Venus takes about 224 days to revolve around the sun.
3. Two types of eclipse are : Lunar eclipse and solar eclipse.

#### C. Work Sheet (Class Test/Paper-Pencil Test) :

1. **Multiple Choice Questions : (MCQs)**  
(a) (ii) 60, (b) (i) Jupiter, (c) (i) New Moon
2. **Circle the odd one :**  
(a) Moon (b) Eclipse (c) Solar Eclipse
3. **Fill in the blanks :**  
(a) Celestial bodies  
(b) Sun  
(c) Artificial satellites  
(d) Lunar elipse  
(e) Uranus
4. **Identify the pictures and write their names in the spaces provided :**  
Moon's surface, Kalpna Chawla, Satellites

### Section-B

#### A. Multiple Choice Questions : (Scientific/ Practical Skills)

1. (a) Lunar Eclipse, 2. (a) Gibbous Moon

#### B. Very Short Answer Questions :

1. Sun is the star nearest to the earth.
2. New moon and crescent moon are the phases of moon.

#### C. Short Answer Questions :

1. The atmosphere and water that we have on earth. Make life possible on the earth.
2. The sun and other heavenly bodies such as planets, comets, asteroids and satellites of planets form our solar system.

#### D. Long Answer Questions :

1. The structure of the earth is like an egg. At its centre is a yolk of metal, called core, which is surrounded by soft rocks called mantle and an outer shell of hard rocks called crust.  
**Crust :** The outer most layer of the earth is called crust. The thickness of the crust varies from place to place. It varies from 6 to 11 km under oceans. However, under high mountains, it is about 70 km thick. It is made up of rocks. It contains continents and ocean. Life exists on the crust.

**Mantle :** The middle layer existing between the crust and the core of the earth is called mantle. It is partially molten layer and is about 2900 km thick. It contains plenty of iron and magnesium.

**Solar Eclipse :** When the moon comes between the sun and the earth, the shadow of the moon is cast on the earth. In this condition, the people in certain parts of the earth cannot see the sun at all or see it only partially for sometime. This is called solar eclipse.

When the moon fully hides the sun, it is called total solar eclipse. In such a situation, no sunlight reaches the earth and it becomes dark everywhere even during the day time. When the sun is partially hidden by the moon, it is called solar eclipse.

## Chapter-11 Volcanoes, Earth Quakes And Tidal Waves

### Section-A

#### A. Oral Questions :

1. Volcano, Earthquake, Tsunami is the examples of natural disaster.
2. At present there are around 500 active volcanoes in the world and majority of them exist around the pacific ocean. So that it is called pacific Ring of fire.
3. The name of three types of volcanoes are : active volcanoes, dormant volcanoes and extinct volcanoes.

#### B. Science Quiz :

1. Two most active volcanoes are Mount Vesuvius and Mount Fuji.

2. The in the top of a mountain through which hot gases and lava comes out is called crater.

**C. Work Sheet (Class Test/Paper-Pencil Test)**

**1. Multiple Choice Questions : (MCQs)**

- (a) (iii) hunger, (b) (ii) Barren Island, (c) (ii) Epicentre, (d) (ii) dormant

**2. Circle the odd one :**

- (a) Mount Fuji (b) Earthquake (c) Active Volcano

**3. Fill in the blanks :**

- (a) lava  
(b) three  
(c) tsunami  
(d) tidal waves  
(e) 800

**4. Recognise the following pictures and write their names in the spaces provided :**

Volcano, Tsunami, Earthquake

**Section-B**

**A. Multiple Choice Questions (Scientific/ Practical Skills)**

1. (a) magma,  
2. (c) extinct volcano

**B. Very Short Answer Questions :**

1. When there is sudden shaking of a part of the earth's surface, that is called an earthquake.  
2. Seismograph is the instrument which is used in the measurement of intensity, direction and duration of an earthquake.

**C. Short Answer Questions :**

1. Volcanoes which erupt regularly or have erupted in the recent past and may erupt any time in future are called active volcanoes.  
2. Mount Vesuvius and Mount Fuji are two very popular and most active volcanoes.  
3. **Effects of Earthquake :**  
• Many building, hospitals, schools etc. are destroyed due to it.  
• Lots of people lose their money and property.

**D. Long Answer Questions :**

1. Earth's core or centre of the earth contains molten rock. Volcanoes are cracks in the earth's crust through which this molten rock and several other gases and ash come out. This not molten rock inside the earth

is known as magma, but when it flows on the surface of the earth, it is known as lava. Volcano usually exist in the form of conical mountains we may divide volcanoes in three types : active, dormant and extinct.

Those volcanoes that erupt regularly or have erupted in the recent past and may erupt any time in future are called active volcanoes. Mount Vesuvius and Mount Fuji are two very popular and most active volcanoes.

Those volcanoes which are current not erupting but they may erupt any time in future are called dormant volcanoes.

Those volcanoes that have stopped erupting because they no longer have a lava supply are called extinct volcanoes. Many extinct volcanoes are found on the Hawaii Island.

2. Tsunamis are also known as tidal waves. However, they have nothing to do with tides. Tsunamis are called tidal waves for the reason that they look like high tides. Landslides, undersea earthquakes, volcanic eruptions etc. cause tidal waves or tsunamis. Huge amount of water moves at a ferocious speed in tidal waves. The speed of water may reach up to 800 km/hr. When water reaches the land with such a great speed, it assumes the shape of gigantic waves. These waves are the cause of great destruction to life and property. In 2004, the Tsunami was caused by an earthquake in the Indian Ocean killing more than 2 lakh people in India, Sri Lanka and Indonesia.

**Chapter-12  
Our Environment**

**Section-A**

**A. Oral Questions :**

1. Addition of harmful substances in the environment is known as pollution.  
2. The harmful toxic substances causing pollution are known as pollutants.  
3. Glass House is such a house which is constructed by panels of glass. Glass panels permit sunrays and heat to pass through the glass house.

**B. Science Quiz :**

1. Four types of pollutions are Air pollution,

Water pollution, Noise pollution, and Land pollution (Soil pollution).

2. Carbon-dioxide producing green house effect.
3. Green house are used to grow plants such as Tomatoes and Tropical flowers. A green house stays warm inside, even during the winter.

**C. Worksheet (Class Test/Paper-Pencil Test) :**

**1. Multiple Choice Questions : (MCQs)**

(a) (ii) both, (b) (iii) Forest area.

**2. Fill in the blanks :**

(a) Air (b) Carbon dioxide

**Section-B**

**A. Multiple Choice Questions : (Scientific/ Practical Skills)**

1. (a) Pollution 2. (c) Environment

**B. Very Short Answer Questions :**

1. Man is the only creature who pollute the environment.
2. Greenhouse effect directly affects the climatic pattern. As a result, flooding of coastal cities and islands might occur.

**C. Short Answer Questions :**

1. All living and non-living things in our surrounding from environment. Air, water, land, plants and animals all are the essentials parts of our environment.
2. The heating of the Earth's atmosphere on account of the trapping of heat energy reflected from the earth's surface by carbon-dioxide and other gases in the atmosphere is known as green house effect.

**D. Long Answer Questions :**

1. Human activities such as burning of fossil fuels by motor vehicles and industries and cutting and burning of forest release a lot of carbon-dioxide which has increased green house effect.
2. Two measures which we may take to check the global warming are :
  - (i) Devising renewable sources of energy like solar energy, wind energy etc.
  - (ii) Growth of forest areas to utilise carbon dioxide by plants during photosynthesis.

**Skill Test-1**

**Section-A**

**A. Multiple Choice Questions (MCQs)**

**Scientific Practical Skills :**

1. (ii) Crop, 2. (ii) DPT Vaccine, 3. (i) Magma

**B. Very Short Answer Questions :**

1. Plants like Rose, Hibiscus, Cotton and Sugarcane have buds on their stem.
2. Dengue is a disease caused by the biting of Aedes mosquitoes.
3. Edward Jenner, a British Doctor invented a vaccine to prevent small pox.
4. Limestone is the rock formed when layers of clay harden.
5. Petroleum (Crude Oil) is called as black gold.

**C. Short Answer Questions :**

1. Birds, insects, squirrels, moles, etc. damage the crops and thus, cause huge loss. Therefore, the crops need protection from them before and after harvesting. The farmers have to spray pesticides and insecticides to protect crops from being damaged. Grains and seeds should be stored properly after harvesting the crops.
2. When we are sick, we don't feel good in the doing of any work. A disease is a condition in which our body or a part of it does not function properly.
3. The molecules are not very close to each other on account of weak force of attraction between them. This cause the liquid can flow.

**D. Long Answer Questions :**

1. Minerals are underground natural resources. Some of the minerals are simple substances and some are complex substances. Rocks are formed of minerals. Gypsum and mica are the examples of non metallic minerals. Gold, Silver, Copper, Iron, Aluminium are the examples of metallic minerals.
2. Different animals live in different habitats. The surrounding in which an animal naturally lives is called its habitat. Every animal makes its home within its habitat. For example forest is the habitat of numerous animals such as lion, monkey and snakes but they live at different places in the forest.

Lion lives in a den, monkey lives on a tree etc. The forests, deserts, polar regions, high mountains, oceans and fresh water are the main habitats for animals.

### Skill Test-2

#### A. Multiple Choice Questions : (MCQs)

1. (i) Force, 2. (ii) magma, 3. (ii) Astronomers

#### B. Very Short Answer Questions :

1. A simple machine is a device that makes our work easier and faster. Scissors, knives, tweezers and tongs are some examples of simple machine.
2. Staple machine is the example of third class lever.
3. Mercury is the smallest planet in the solar system.
4. Mantle is the layer of the earth which is existing between the crust and the core of the earth.
5. Mount Fuji is the name of an active volcano.

#### C. Short Answer Questions :

1. A simple machine that has a sloping surface is known as an inclined plane. Sloping wooden plants, ramps and slides etc. the examples of inclined plane.
2. The heating of the Earth's atmosphere on account of the trapping of heat energy reflected from the earth's surface by carbon dioxide and other gases in the atmosphere is known as greenhouse effect.

#### D. Long Answer Questions :

1. The can remove the soluble impurities by adopting this method :

**Evaporation :** In this method of evaporation, we need to heat the solution containing soluble impurities like salt. After some time, water will become evaporated and the impurities will remain behind.

2. Three measures to check global warming are :

- (i) Lesser use of Fossil Fuels.
- (ii) Devising renewable sources of energy like solar energy, wind energy etc.
- (iii) Growth of forest are as to utilise carbon dioxide by plants during photosynthesis.

### Modes Test Paper-1

#### A. Tick the correct answer :

1. (a) moist skin, 2. (c) top soil, 3. (b) petroleum, 4. (c) condensation, 5. (c) direct contact, 6. (a) wind, 7. (a) vitamin A

#### B. Fill in the blanks with the help of given words :

1. Polar regions, 2. Water, 3. Mica, 4. Subsoil, 5. Camel, 6. Seafood, 7. Rabi

#### C. Match the followings :

Column A	Column B
1. Migration	(d) locusts
2. Sandstone	(c) sedimentary rock
3. Goitre	(d) deficiency of Iodine
4. Frogs	(b) webbed feet
5. Seal	(c) flippers

#### D. Very Short Answer Questions :

1. Blade is a thing which should be kept out of the reach of children.
2. The increase in the size of matter is known as expansion of matter.
3. Fern and mushroom are such plants who produce spores.
4. Minerals and Vitamins are the components of food is called protective food.
5. Chiknpox is the disease which spreads through direct contact.
6. Freezing is an example of physical change.
7. The centre of the earth is made of hot molten rock called magma.
8. Sugarcane and cotton are the two Kharif crops.
9. Whales and Dolphin are the two aquatic mammals.
10. Insects like spiders, centipedes, millipedes, scorpions, cockroaches etc. are the insects which is having many legs.

#### E. Short Answer Questions :

1. Gypsum and mica are the examples of non-metallic minerals. Gold and Silver are the examples of metallic minerals.
2. Where seeds get sufficient water, air and sunlight, they grow into new plants. The growth of a baby from a seed is called germination.
3. In case the burn is caused by a chemical like acid, wash the affected area with plenty of water to remove the chemical. Thereafter,

first aid should be given.

4. Some animals like tiger, zebra, grasshopper can merge their body covering with the surrounding they are living in. This feature is called camouflage and these animals are called camouflaging animals.
5. Five main nutrients of food are carbohydrates, fats, protein, vitamins and minerals.

**F. Long Answer Questions :**

1. Structure of seed include seed coat and seed leaves. There is a thick outer covering of the seed which is called seed coat. It protects the seeds. There is a tiny hole on one side. This hole allows water to enter inside the seed. There is a storage of food for baby plant in seed leaves called cotyledons. The baby plants exists between cotyledons. Cotyledons protect the baby plant. There are two cotyledons in seeds like gram and beans there is only one cotyledons in seeds like rice and wheat.
2. A properly maintained hygiene ensures cleanliness and good health and helps us in preventing diseases. There are some steps to maintain hygiene as followings :
  - (i) We should keep our food properly covered.
  - (ii) We should bath daily to remove dust etc. from our body.
  - (iii) We should essentially wash our hands with soap and water before eating food.
3. Formation of soil takes place when rocks break down into tiny pieces on account of the repeated heating and cooling by the sun, rain and winds. This is called weathering. When there is rain fall, water seeps in to the cracks in rocks and remains there. In cold weather, it freezes, exerts pressure and breaths the rocks. This continuous weathering over thousands of years breaks the rocks into tiny pieces of sand. This cause the formation of soil. It is a continuous process.

**G. Label the following pictures :**

Outside : (i) Seed coat  
Of seed : (ii) Tiny hole  
Inside : (i) Seed leaves (Cotyledons)  
Of seed : (ii) Baby plant

**Modes Test Paper-2**

**A. Tick (✓) the correct answers :**

1. (b) crescent moon, 2. (c) Kalpana Chawla,
3. (c) alum, 4. (c) carbon-dioxide, 5. (c) solar,
6. (c) Skin, 7. (b) hip.

**B. Fill in the blanks with the help of given words :**

1. humidity, 2. lunar eclipse, 3. cardiac, 4. potential, 5. floating, 6. Mount Fuji, 7. Nitrogen oxide.

**C. Match the following :**

**Column A Column B**

- |                         |                 |
|-------------------------|-----------------|
| 1. Extinct Volcano      | Hawaiian Island |
| 2. Artificial Satellite | EDUSAT          |
| 3. Force                | push or pull    |
| 4. Eyes                 | optic nerves    |
| 5. Earth Quack          | treamors        |

**D. Very Short Answer Questions :**

1. Diarrhoea and Amoebiasis is most prevalent disease caused by polluted water.
2. Corebrum controls our sense organs.
3. Wind energy is used to generate electricity by using a wind mill.

**E. Long Answer Questions :**

1. Take an empty glass bottle. Now, dip the open mouth of the bottle in to a bucket filled with water. We will notice that water does not enter into the bottle when it is an inverted position as there is no space for air to escape. This activity shows that air occupies space.
2. Our ears are the sense organs of hearing. We can hear different sounds with the help of our ears only. They also help us to keep our balance.
3. The structure of the earth is like an egg. At its centre is a yolk of mental, called core, which is surrounded by soft rocks called mantie and an outer shell of hard rocks are called crust. The outer most layer of the earth is called crust. The middle layer existing between the crust and core of the earth is called mantle. Core is the centre of the earth. It is divided into two parts as outer core and inner core.

**E. Label the following pictures :**

Chest bone, Ribs, Back bone, Floating ribs  
**Answers :** 1. (b), 2. (c), 3. (A), 4. (c), 5. (c), 6. (A), 7. (b), 8. (A), 9. (c), 10. (B), 11. (c), 12. (A), 13. (c). ●