

**LN-9 THE LIVING ORGANISMS AND THEIR SURROUNDINGS**

I. Hots:

1. Why are the animals living on mountains have thick skin or fur on their body?

Ans: Thick skin or fur on their body to protect them from cold.

2. Why are the green plants called autotrophs?

Ans: Because they prepare their own food auto means self, trophs means prepares food.

3. What happens to desert animals like rats and snakes which do not have long legs like the camel?

Desert animals stay in burrows during day to keep away from intense heat and come out during night when it is cooler.

4. When a lion jump, what is the function of its tail?

Ans: When a lion jump its tail maintain the body balance.

II. Answer in detail:

1. Explain in detail about the different types of adaptations.

Adaptation:

The presence of features or certain habits which help an organism to live in a particular habitat or environment is called adaptation.

Types of Adaptation:

\*Terrestrial habitats \*Aquatic habitats \*Arboreal habitats

i) Terrestrial habitats:

Terrestrial habitats consists of habitats on land like forests, grasslands, deserts and mountains. Organisms that live on land are Cow, Horse, Lion, Camel and Tiger are Terrestrial organisms.

ii) Aquatic habitats:

Aquatic habitats include habitats in water like ponds, lakes, rivers and oceans.

iii) Arboreal habitats:

Arboreal habitats include habitats on trees. Organisms that live on trees like monkeys and squirrels are arboreal organisms.

**LN-10 MOTION AND MEASUREMENT OF DISTANCES**

I. Hots:

1. Why a measuring tape is used by a tailor for taking measurements and not a metre scale or metre rod?

Ans: Because a metre scale or metre rod is not flexible to measure a body. We can take accurate measurement by using only the measuring tape.

2. Which water transport will use wind energy?

Ans: Sailing yacht.

3. What is a speciality of Supersonic Planes?

Ans: These airplanes have a speed greater than that of sound.

4. What are all the objects showing more than one type of motion?

Ans: Sewing Machine, Automobile, Motion of Earth, etc.,

**II. Answer in Detail:**

1. Write a short note on types of motion:

The various types of motion are:

Rectilinear motion:

Motion of a body along a straight line only in one direction is called rectilinear motion.

Eg: An apple falling from a tree, motion of a car on the road.

Random motion:

Motion of the body changes its direction in an irregular manner is called random motion.

Eg: A train moving on a curved track, a butterfly flying in a garden.

Circular motion:

Motion of a body along a circular path is called circular motion.

Eg: Moving fan and wind mill, movement of the earth around the sun.

**LN.11 LIGHT SHADOWS AND REFLECTION**

I. Hots:

1. Why is 'AMBULANCE' written as 'AMBULANCE' in vehicles used to transport patients?

Ans: Because mirror shows Lateral inversion. So a driver can look in the rear view mirror and read it as AMBULANCE and give way for the vehicle.

2. Mirror is a smooth surface.

3. Which acts as a screen in a pinhole camera?

Ans: Tracing Paper.

4. Wood are non – luminous at room temperature become luminous on **strong heating**.

5. You cannot see shadows in dark. Why?

Because shadow is formed when light is made to fall on an opaque object.

II. Answer in Detail:

1. Define transparent, translucent and opaque with examples.

Transparent objects:

The materials which allow the light completely to pass through them are called transparent objects.

Eg: Glass, Clear water.

Translucent objects:

The materials which partially allow the light to pass through them are called translucent objects.

Eg: Wax paper, Butter paper.

Opaque objects:

The materials which do not allow the light to pass through them are called opaque objects.

Eg: Wood, ,Wall.

## LS.12 ELECTRICITY AND CIRCUITS

I. Answer in detail:

1. Explain the structure of an electric cell

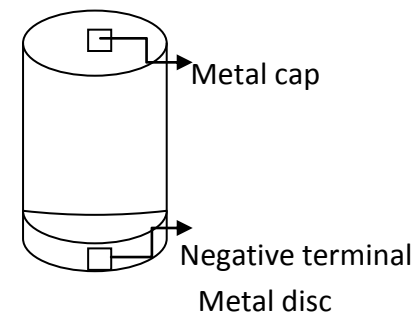
\*Electric cell has a small metal cap on one side and a metal disc on the other side.

\*The metal cap is the positive terminal and the metal disc is the negative terminal of the electric cell.

\*An electric cell, produces electricity from the chemicals

stored inside it.

\*When the chemicals in the electric cell are used up, the electric cell stops producing electricity.



II. Hots:

1. What is the filament inside a bulb made of?

Ans: Tungsten

2. List few inert gases.

Ans: Krypton, Helium, Argon, Neon, Xenon, etc.,

3. Full form of CFL:

### **COMPACT FLUORESCENT LAMP**

4. A bulb with a broken filament is called fused.

5. Which device used to make and break the circuit?

Ans: Switch

## LS-13. FUN WITH MAGNETS

I. Answer in detail:

1. Write short note on a compass:

i) A device that uses the property of magnet is called a compass.

ii) It is usually a small box with a glass cover on it.

iii) A magnetized needle is pivoted inside the box which can rotate freely.

iv) It has a dial with directions marked on it.

v) The compass is used to know the direction. The needle indicates the North- South direction when it comes to rest.

II. Hots:

1. Write the chemical name of Magnetite.

Ans: Fe<sub>2</sub>O<sub>3</sub> (Iron oxide).

2. The magnetic force of a magnet is maximum near its **ends** and it decrease as we move towards its **middle**.

3. What happens when the two poles of a magnet are left free?

The magnet loses its magnetism slowly, which is called self – demagnetization.

4. How to keep the horse - shoe shaped magnet safe?

Ans: A piece of iron should be kept across its poles.

5. Why the navigators use magnetic compass?

Ans: To find direction.

#### LN:14 WATER

I. Answer in detail:

1. Explain the different ways by which we can conserve water.

i. Storage of water in bucket and tanks to avoid unlimited and unnecessary use of water.

ii. Use of water according to our need.

iii. Do not waste tap water unnecessarily.

iv. Growing more trees and plants to increase the absorption of water by the soil. Plants and trees also helps in bringing rains.

v. We should stop polluting water by factory and domestic wastes.

vi. We can conserve water by rain water harvesting.

II. Hots:

1. Is the consumption of water for daily activities same in every time?

Ans: No, the consumption of water depends on the weather condition.

2. **Vitreous membrane** in eye has 99.68% of water.

3. Evaporation is an **endothermic** process.

4. How are clouds formed?

Ans: Floating droplets of water in the air appear as clouds.

5. What is a meaning of limnic?

Ans: Limnic means fresh water.

6. The imbalance in water cycle is termed as **hydrological imbalance**.

#### LN. 15 AIR AROUND US

I. Answer in detail:

1. Explain Air - A mixture:

Air is made up of nearly 78% nitrogen, 21% oxygen, 0.9% argon, 0.04, water vapour, 0.03% carbon - di - oxide and the remaining 0.03% are the other inert gases.

Nitrogen:

Nitrogen constitutes 78% of the air. It does not support combustion. Plants need nitrogen to grow. Fertilizers containing nitrogen are added to plants, to fulfill their requirement of nitrogen.

Oxygen:

Air consists of about 21% oxygen. The presence of oxygen is essential for survival of living organisms.

Carbon - di - oxide :

Atmosphere contains about 0.03% of CO<sub>2</sub>. Plants take in CO<sub>2</sub> present in the air and release O<sub>2</sub> into the atmosphere.

Water vapour:

Water vapour is formed due to evaporation and heating of water. It is important for the water cycle in nature.

II. Hots:

1. What is CNG?

Ans: CNG is a compressed Natural Gas. It is a fossil fuel substitute for petrol and diesel.

2. A healthy person breathes **22,000** times a day and takes in about **16** kg of air.

3. Why the traffic policeman wears a mask?

Ans: To protect from pollution.

4. In which layer of atmosphere can we see the clouds, rain and snow?

Trposphere

5. Why the human beings carry oxygen cylinder when diving under sea?

Ans: Seawater contains dissolved oxygen which is not enough for the human beings to breathe. So sea-divers are carrying oxygen cylinder along with them.

### **LN:16: GARBAGE IN GARBAGE OUT**

I. Answer in Detail:

1. Write a brief note on Vermicomposting.

i. The method of preparing compost with the help of red worms is called Vermicomposting.

ii. Dig a pit or keep a wooden box at a place where there is neither too hot nor too cold.

iii. Spread a net or chicken mesh at the bottom of the pit or the box.

iv. Spread 1 or 2 cm thick layer of sand, some vegetable wastes including peels of fruits as an alternative.

v. Sprinkle some water to make the layer wet.

vi. Buy some redworms and place it in the pit. Cover them loosely with gunny bag or an old sheet of cloth or a layer of grass.

vii. Observe after 3-4 weeks. A soil like material will be seen inside the pit and our vermicompost is ready for agriculture fields.

II. Hots:

1. A **red worm** can eat food equal to its weight in a day.

2. How many trees are equivalent to one tonne of waste paper?

Ans: 17 trees.

3. How long the plastic bags take to decompose?

Ans: Plastic bags take more than one million years to decompose.

4. Write any one park developed on a landfill area.

Ans: The Indraprastha Park in New Delhi.

5. Which is the first state in India to put a ban on polythene packing?

Ans: Himachal Pradesh.