16.OUR ENVIRONMENT

A. Write true or false.

Question 1: Environment includes only living things around us.
Solution: False
Explanation: The environment encompasses both living (biotic) things like plants and animals and non-living (abiotic) things like air, water, soil, and rocks; it includes everything that surrounds us and affects life.

Question 2: Buildings, roads, and bridges are part of the natural environment.
Solution: False
Explanation: Buildings, roads, and bridges are human-made and belong to the artificial or man-made environment; the natural environment consists of untouched elements like mountains, rivers, forests, and wildlife.

Question 3: Plants give us oxygen and take carbon dioxide from the air.
Solution: True
Explanation: Through photosynthesis, plants absorb carbon dioxide from the atmosphere and release oxygen as a byproduct, which is essential for animals and humans to breathe and maintain air quality.

Question 4: Throwing garbage into rivers causes water pollution.
Solution: True
Explanation: Discarding waste like plastic, chemicals, or sewage into rivers introduces contaminants that harm aquatic life, make water unsafe for drinking, and disrupt ecosystems by increasing toxins and reducing oxygen levels.

Question 5: The three R's stand for Reduce, Reuse, and Recycle.
Solution: True
Explanation: The three R's are a principle for sustainable living: Reduce (use less), Reuse (use items again), and Recycle (process waste into new materials) to minimize environmental harm and conserve resources.

B. Fill in the blanks.

Question 1: _____ means everything that surrounds us.
Solution: Environment
Explanation: The environment refers to the sum of all natural and human-made surroundings, including air, water, land, plants, animals, and structures that influence life and well-being.

Question 2: Mountains, rivers, and forests are part of the _____.
Solution: natural environment“Explanation: These are examples of biotic and abiotic components in the natural environment, which exists without human intervention

and provides essential resources like fresh water, timber, and biodiversity.

Question 3: All living things depend on each other for survival. This is called _____.
Solution: interdependence (or food chain/web)
Explanation: Interdependence describes how organisms in an ecosystem rely on one another for food, shelter, pollination, and nutrient cycling, ensuring balance and survival across species.

Question 4: _____ pollution happens when harmful gases and smoke mix with the air.
Solution: Air
Explanation: Air pollution occurs when pollutants like vehicle exhaust, factory smoke, or dust particles enter the atmosphere, leading to health issues, acid rain, and climate change.

Question 5: We should use _____ bags instead of plastic bags.
Solution: cloth/paper (or reusable)
Explanation: Cloth or paper bags are biodegradable or reusable alternatives to single-use plastic bags, which take centuries to decompose and harm wildlife through litter and microplastics.

C. Answer the following questions.

Question 1: What is environment? Name the two types of environment.
Solution: The environment is everything around us, including living and non-living things that affect our life. The two types are natural environment (e.g., forests, rivers) and artificial environment (e.g., buildings, roads).
Explanation: It provides resources for survival and well-being; the natural type is unaltered by humans, while the artificial is created or modified by human activities.

Question 2: What is the difference between living and non-living things? Give three examples of each.
Solution: Living things grow, reproduce, need food/air, and respond to stimuli; non-living things do not. Examples of living: plants, animals, humans. Examples of non-living: rocks, water, air.
Explanation: Living things show characteristics of life like movement and adaptation, while non-living things lack these and are essential abiotic factors supporting life.

Question 3: Why are plants and trees important for our environment?
Solution: Plants and trees provide oxygen, absorb carbon dioxide, prevent soil erosion, offer habitats for animals, and regulate climate by providing shade and releasing moisture.

Explanation: They maintain air quality, support food chains, and combat global warming through carbon sequestration, making them foundational to ecosystem health.

Question 4: What is pollution? Name any four types of pollution.
Solution: Pollution is the introduction of harmful substances or energy into the environment, causing damage to health and ecosystems. Four types: air, water, soil, noise.
Explanation: It results from human activities like industrialization; each type affects different spheres—e.g., air pollution from emissions, water from waste dumping.

Question 5: How can we protect our environment? Mention any five ways.
Solution:
Five ways:
(1) Plant more trees;
(2) Reduce, reuse, recycle waste;
(3) Use public transport to cut emissions;
(4) Avoid plastic use;
(5) Conserve water and energy.
Explanation: These actions reduce pollution, preserve resources, and promote sustainability, helping mitigate issues like deforestation, climate change, and habitat loss for future generations.

D. Understand the Picture

Question 1: Identify the different types of pollution shown in the picture.
Solution: Air pollution and water pollution (with elements of land pollution).
Explanation: The picture depicts factories releasing thick black smoke from chimneys, causing air pollution by filling the atmosphere with harmful gases and particulates; a pipe discharging waste directly into the river, along with floating garbage and bottles, illustrates water pollution that contaminates aquatic ecosystems; scattered

trash on the riverbank suggests minor land pollution from improper waste disposal.

Question 2: What can be done to clean this place?
Solution: Implement factory emission controls (e.g., filters and scrubbers), treat industrial wastewater before discharge, organize community clean-up drives to remove litter, enforce anti-dumping laws, and promote recycling and afforestation to restore the area.
Explanation: These actions address the root causes—industrial effluents and waste—by reducing pollutants at the source, restoring water quality through filtration and bioremediation, and involving locals (like the person picking up trash) to prevent recurrence, ultimately creating a healthier, sustainable environment.