5. WATER IN OUR LIFE

TEACHING TASK
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Multiple Choice Questions

1. Which of the following is NOT a method of collecting water mentioned in the passage?
   a) Rainfall b) Snowmelt c) Fossilization d) Wells

Answer: (c) Fossilization

Explanation: Fossilization is the process of preserving organic material over time, not a method of water collection.

2. What is the primary habitat for water according to the passage?
   a) Terrestrial habitats b) Aquatic habitats
   c) Desert habitats d) Tundra habitats

Answer: (b) Aquatic habitats

Explanation: Water primarily exists in aquatic environments like oceans, rivers, and lakes.

3. Which of the following is NOT a reason why water is important mentioned in the passage?
   a) Supporting ecosystems b) Generating electricity
   c) Maintaining soil health d) Enhancing air quality

Answer: (d) Enhancing air quality

Explanation: While water supports ecosystems, electricity generation, and soil health, it does not directly enhance air quality.

4. What is the purpose of treating water at treatment plants?
   a) To add flavor
   b) To remove dirt, germs, and chemicals
   c) To increase salt content
   d) To decrease clarity

Answer: (b) To remove dirt, germs, and chemicals

Explanation: Water treatment ensures safe drinking water by eliminating contaminants.

5. What is the primary source of freshwater mentioned in the passage?
   a) Oceans
   b) Glaciers and ice caps
   c) Rivers and lakes
   d) Rainwater

Answer: (c) Rivers and lakes

Explanation: Rivers and lakes are major accessible sources of freshwater for human use.

6. Which of the following is NOT a fact about water sources mentioned in the passage?
   a) Great Lakes contain about 21% of the world's fresh surface water
   b) Nile River is the longest river in the world
   c) The deepest known well is located in Africa
   d) Amazon River provides water to millions of people

Answer: (c) The deepest known well is located in Africa

Explanation: The passage does not mention the deepest well's location.

7. What is the primary use of water mentioned in the passage?
   a) Energy generation b) Transportation
   c) Agriculture d) Recreation

Answer: (c) Agriculture

Explanation: Agriculture is highlighted as a major water consumer for irrigation.

8. What percentage of Earth's water is found in oceans?
   a) 71% b) 50% c) 90% d) 3%

Answer: (a) 71%

Explanation: Oceans hold about 71% of Earth's water, though most is saline.

9. What is the significance of understanding where water comes from, according to the passage?
   a) To decrease pollution b) To appreciate this essential resource
   c) To increase water usage d) To reduce global warming

Answer: (b) To appreciate this essential resource

Explanation: Awareness fosters appreciation and responsible usage.

10. Which of the following is NOT a place where we can find water, as mentioned in the passage?
    a) Rivers and streams b) Underground aquifers
    c) Deserts d) Reservoirs

Answer: (c) Deserts

Explanation: Deserts are arid; the passage focuses on water-rich environments.

NEET ADVANCED LEVEL QUESTIONS

More than One Answer Type

11. How do we collect water?
    a) Digging wells b) Building dams
    c) Capturing rainwater d) Drilling into aquifers

Answer: (a) Digging wells, (b) Building dams, (c) Capturing rainwater, (d) Drilling into aquifers

Explanation: All are valid water collection methods.

12. What is involved in the treatment of water?
    a) Cleaning b) Filtering
    c) Removing germs d) Chemical treatment

Answer: (a) Cleaning, (b) Filtering, (c) Removing germs, (d) Chemical treatment

Explanation: Water treatment includes all these steps for purification.

13. Why is it important to know where water comes from?
    a) Appreciate the resource b) Learn to use it wisely
    c) Protect water sources d) Plan for sustainable use

Answer: (a) Appreciate the resource, (b) Learn to use it wisely, (c) Protect water sources, (d) Plan for sustainable use

Explanation: All reasons align with conservation and responsible usage.

Reason And Assertion Type

14. **Assertion :** Understanding the sources of water is irrelevant for conservation efforts.
    Reason : Knowledge about water sources helps in planning sustainable use and protecting water bodies from pollution.

Answer: Assertion is false, Reason is true.

Explanation: Understanding water sources is critical for conservation.

15. **Assertion :** Water is only important for drinking and cooking purposes.
    Reason : Water is essential for various activities, including cleaning, agriculture, recreation, and supporting natural habitats.

Answer: Assertion is false, Reason is true.

Explanation: Water has multiple vital uses beyond drinking/cooking.

16. **Assertion :** Water sources like rivers and lakes do not play a significant role in shaping the environment.
    Reason : Rivers, lakes, and other water bodies contribute to the formation of landscapes, support diverse ecosystems, and provide habitats for aquaticlife.

Answer: Assertion is false, Reason is true.

Explanation: Water bodies are key to environmental and ecological balance.

Matrix Matching Type

17. Match the methods of water collection with their corresponding descriptions.

	Column A	**Column B**
i.	Wells	a) Melting of snow providing water for rivers
ii.	Desalination	b) Collection from rivers, lakes, and ponds
iii.	Snowmelt	c) Collection and storage of rainwater for use
iv.	Rainwater Harvesting	d) Deep holes drilled into the ground
v.	Surface Water	e) Process of removing salt from seawater

Answer:

i. Wells - (d) Deep holes drilled into the ground

ii. Desalination - (e) Process of removing salt from seawater

iii. Snowmelt - (a) Melting of snow providing water for rivers

iv. Rainwater Harvesting - (c) Collection and storage of rainwater for use

v. Surface Water - (b) Collection from rivers, lakes, and ponds

Comprehension Type

18. Water conservation is essential to ensure the sustainable use of this pre cious resource. There are several simple yet effective ways individuals can contribute to saving water in their daily lives. Firstly, turning off taps when not in use can significantly reduce water wastage, whether it's while brushing teeth or washing dishes. By being mindful of water usage and only using what is necessary, individuals can conserve substantial amounts of water over time.Secondly, fixing leaks promptly is crucial in preventing water loss. Dripping faucets and leaking pipes can waste significant amounts of water if left unchecked. Regular maintenance and timely repairs can help prevent unnecessary water wastage, contributing to overall conser vation efforts. Additionally, shortening shower durations can have a signifi cant impact on water usage. Taking shorter showers not only conserves water but also reduces energy consumption associated with water heating. By incorporating shorter shower routines into daily habits, individuals can make a meaningful difference in water conservation efforts.Furthermore, using efficient appliances equipped with water-saving features can help minimize water usage in house holds. Devices such as low-flow showerheads and efficient washing machines are designed to optimize water usage while still ensuring effective performance. By investing in such appli ances, individuals can reduce their water footprint and contribute to overall conservation efforts.

Questions:

i. What are some practical ways individuals can contribute to water conservation?

Answer:

Turning off taps when not in use.

Fixing leaks promptly.

Taking shorter showers.

Using water-efficient appliances (e.g., low-flow showerheads).

ii. Why is fixing leaks considered crucial for water conservation efforts?

Answer:

Leaks waste significant amounts of water over time.

Timely repairs prevent unnecessary water loss.

iii. How do efficient appliances help minimize water usage in households?

Answer: They optimize water use (e.g., low-flow fixtures reduce consumption without compromising performance).

LEARNERS TASK
NEET LEVEL QUESTIONS

Multiple Choice Questions

1. What is the chemical formula for water?
   a) HO b) H_2O c) CO_2 d) O_2

Answer: (b) H2O

Explanation: Water consists of two hydrogen atoms (H) and one oxygen atom (O).

2. Which of the following is NOT a characteristic of water mentioned in the passage?
   a) Tasteless b) Odorless c) Yellow color d) Nearly colorless

Answer: (c) Yellow color

Explanation: Water is tasteless, odorless, and nearly colorless—not yellow.

3. Where do we primarily find water in the atmosphere?
   a) Clouds b) Rivers c) Deserts d) Glaciers

Answer: (a) Clouds

Explanation: Atmospheric water exists mainly as water vapor and clouds.

4. What percentage of the Earth's surface is covered by water?
   a) 71% b) 50% c) 90% d) 30%

Answer: (a) 71%

Explanation: About 71% of Earth’s surface is water (mostly oceans).

5. What is the primary use of water in agriculture?
   a) Drinking b) Cleaning c) Irrigation d) Recreation

Answer: (c) Irrigation

Explanation: Agriculture relies heavily on water for crop irrigation.

6. What is one way to save water mentioned in the passage?
   a) Taking longer showers b) Using water-saving appliances
   c) Leaving taps running d) Ignoring leaks

Answer: (b) Using water-saving appliances

Explanation: Efficient appliances (e.g., low-flow faucets) reduce water waste.

7. Which of the following is NOT a use of water mentioned in the passage?
   a) Energy generation b) Recreation
   c) Transportation d) Cleaning

Answer: (c) Transportation

Explanation: While water is used for shipping, the passage focuses on drinking, cleaning, agriculture, and energy.

8. What percentage of Earth's water is freshwater?
   a) 3% b) 50% c) 97% d) 10%

Answer: (a) 3%

Explanation: Only 3% of Earth’s water is freshwater (mostly in glaciers).

9. Which of the following is NOT a source of water mentioned in the passage?
   a) Reservoirs b) Oceans c) Deserts d) Rainwater

Answer: (c) Deserts

Explanation: Deserts are arid regions with minimal water availability.

10. What process is used to remove salt from seawater?
   a) Evaporation b) Desalination
   c) Filtration d) Distillation

Answer: (b) Desalination

Explanation: Desalination removes salt to make seawater drinkable.

NEET ADVANCED LEVEL QUESTIONS

More than One Answer Type

11. What are the uses of water?
    a) Drinking and Cooking b) Cleaning
    c) Agriculture d) Industry

Answers: (a) Drinking and Cooking, (b) Cleaning, (c) Agriculture, (d) Industry
Explanation: Water is essential for all these purposes.

12. How can we save water?
    a) Turn off taps b) Fix leaks
    c) Take shorter showers d) Use water-saving appliances

Answers: (a) Turn off taps, (b) Fix leaks, (c) Take shorter showers, (d) Use water-saving appliances
Explanation: These are key conservation methods.

13. Where do we get water from?
    a) Surface Water b) Groundwater
    c) Rainwater d) Ice and Snow

Answers: (a) Surface Water, (b) Groundwater, (c) Rainwater, (d) Ice and Snow
Explanation: These are primary natural water sources.

Reason And Assertion Type

14. **Assertion :** Water is essential for the survival of all living beings.
    Reason : It plays a crucial role in various physiological processes and is necessary for hydration and nutrient transport.

Answer: Both Assertion and Reason are true, and Reason correctly explains Assertion.
Explanation: Water is vital for cellular functions, digestion, and temperature regulation.

15. **Assertion :** Water vapor in the atmosphere has no significant impact on weather patterns.
    Reason : Atmospheric water vapor influences weather phenomena like rain and snow through processes such as condensation and precipitation.

Answer: Assertion is false, Reason is true.
Explanation: Water vapor directly drives weather (clouds, rain, storms).

16. **Assertion :** Agriculture, industry, and energy sectors do not rely on water for their operations.
    Reason : Water is essential for activities like irrigation, manufacturing processes, and power generation in these sectors.

Answer: Assertion is false, Reason is true.
Explanation: All these sectors depend heavily on water.

Matrix Matching Type

17. Match the water sources with their corresponding characteristics.

Column A	**Column B**
1. Rivers and Streams	a) Underground layers of rock and soil

2.	Aquifers	b) Flowing bodies of water
3.	Reservoirs	c) Large masses of frozen freshwater
4.	Rainfall	d) Water falling from the sky as precipitation
5.	Glaciers and Ice Caps	e) Man-made lakes

Answer:

1. Rivers and Streams - (b) Flowing bodies of water

2. Aquifers - (a) Underground layers of rock and soil

3. Reservoirs - (e) Man-made lakes

4. Rainfall - (d) Water falling from the sky as precipitation

5. Glaciers and Ice Caps - (c) Large masses of frozen freshwater

Comprehension Type

18. Water is an indispensable resource that plays a vital role in sustaining life, shaping the environment, and influencing weather patterns. Firstly, water is essential for the survival of all living organisms, from humans and animals to plants. Without water, life as we know it would cease to exist, as it is involved in various physiological processes crucial for sustaining life.Secondly, water significantly impacts the environment by shaping landscapes and supporting diverse ecosystems. Rivers, lakes, and oceans, formed by water, serve as habitats for countless species of plants and animals. Additionally, water plays a crucial role in nutrient cycling and maintaining the balance of ecosystems.Lastly, water vapor in the atmosphere plays a pivotal role in weather phenomena. As water evaporates from bodies of water and land surfaces, it rises into the atmosphere, where it condenses to form clouds. These clouds eventually lead to precipitation events like rain and snow, which are vital for replenishing freshwater sources and sustaining life on Earth.

Questions:

i. Why is water considered crucial for the survival of all living organisms?

Answer:

Water is involved in physiological processes (e.g., digestion, circulation).

It maintains cellular function and hydration.

ii. How does water influence the environment, according to the passage?

Answer:

Shapes landscapes (e.g., rivers carve valleys).

Supports ecosystems (habitats for aquatic life).

Maintains nutrient cycles (e.g., nitrogen, carbon).

iii. Explain the role of water vapor in the atmosphere in influencing weather pat terns.

Answer:

Evaporated water forms clouds.

Condensation leads to precipitation (rain, snow).

Drives weather systems (storms, monsoons).

TEACHING TASK
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Multiple Choice Questions

1. What effect can floods have on roads and bridges?
   a) Strengthening of infrastructure
   b) Minimal impact on transportation
   c) Destruction and washout
   d) Increased accessibility

Answer: (c) Destruction and washout
Explanation: Floodwaters can destroy infrastructure, eroding roads and collapsing bridges.

2. What risk does floodwater pose to health?
   a) Enhanced cleanliness b) Lower chances of illness
   c) Carrying of germs and diseases d) Purification of water sources

Answer: (c) Carrying of germs and diseases
Explanation: Floodwater often contains sewage, chemicals, and pathogens, increasing disease risks.

3. During a flood warning, what is advised for safety?
   a) Stay near rivers and streams
   b) Move to lower ground
   c) Go to higher ground away from rivers and streams
   d) Venture out to assess the situation

Answer:(c) Go to higher ground away from rivers and streams
Explanation: Moving to elevated areas reduces drowning risks.

4. Which of the following is NOT recommended during a flood?
   a) Staying informed about weather reports
   b) Having a preparedness plan
   c) Walking or driving through floodwaters
   d) Paying attention to flood warnings

Answer: (c) Walking or driving through floodwaters
Explanation: Just 6 inches of moving water can sweep away a person; 12 inches can float a car.

5. What is a notable characteristic of flash floods?
   a) Slow onset b) Long duration
   c) Gradual water accumulation d) Rapid occurrence

Answer: (d) Rapid occurrence
Explanation: Flash floods happen within minutes to hours, often with little warning.

6. What is the most common natural disaster globally?

a) Earthquakes b) Tornadoes c) Hurricanes d) Floods

Answer: (d) Floods

Explanation: Floods account for ~40% of natural disasters (WHO).

7. Which flood event resulted in millions of deaths, making it the worst in recorded history?
   a) 2004 Indian Ocean tsunami
   b) 2011 Tohoku earthquake and tsunami
   c) 1931 China floods
   d) 1998 Yangtze River floods

Answer: (c) 1931 China floods

Explanation: The 1931 Yangtze-Huai River floods killed 2–4 million people.

8. How can individuals help mitigate the dangers of floods?
   a) By disregarding weather forecasts
   b) By remaining uninformed
   c) By understanding flood causes and precautions
   d) By taking unnecessary risks

Answer:(c) By understanding flood causes and precautions

Explanation: Education and preparedness save lives (e.g., evacuation plans, emergency kits).

9. What is the purpose of understanding flood causes and precautions?
   a) To increase flood risk b) To ensure community safety
   c) To encourage risky behavior d) To promote environmental harm

Answer:(b) To ensure community safety

Explanation: Knowledge reduces risks (e.g., avoiding floodplains, heeding warnings).

10. What is a key takeaway regarding floods?
    a) Floods are always harmless events
    b) Ignoring flood warnings is advisable
    c) Floods can be dangerous, but preparedness is key
    d) Floods have minimal impact on communities

Answer:(c) Floods can be dangerous, but preparedness is key

Explanation: Prevention and readiness minimize harm (e.g., sandbags, early warnings).

NEET ADVANCED LEVEL QUESTIONS

More than One Answer Type

11. How doesn't dams and levees contribute to flood prevention?
    A) By increasing water flow B) By creating artificial waterfalls
    C) By holding back excess water D) By promoting river overflow

Answer: (A) By increasing water flow, (B) By creating artificial waterfalls, (D) By promoting river overflow

Explanation: Dams/levees control water—they don't worsen floods unless they fail.

12. Which factor is not contributes to the rapid onset of flash floods?
    A) Prolonged periods of rainfall B) Snowmelt over several weeks

C) Sudden heavy rainfall D) Steady river overflor

Answer:(B) Snowmelt over several weeks, (D) Steady river overflow

Explanation: Flash floods need sudden triggers (e.g., heavy rain, dam breaks).

13. What are potential health risks associated with floods?
    A) Improved sanitation
    B) Increased access to clean water
    C) Exposure to contaminated floodwater
    D) Enhanced medical services

Answer:(C) Exposure to contaminated floodwater

Explanation: Floodwaters spread cholera, leptospirosis, and hepatitis A.

Reason And Assertion Type

14. **Assertion :** Floods are often triggered by heavy rainfall.
    Reason : When it rains excessively in a short span, the ground becomes saturated, leading to water overflow onto the land.

Answer: Both are true, and Reason explains Assertion.

Explanation: Saturated soil can't absorb more water, causing runoff and flooding.

15. **Assertion :** Melting snow and ice contribute to flooding primarily in winter.
    Reason : Warmer temperatures in spring accelerate the melting pro cess, causing a rapid influx of water into rivers and streams.

Answer: Assertion is false, Reason is true.

Explanation: Snowmelt floods peak in spring (warmer temps), not winter.

16. **Assertion :** Dams and levees breaking can result in flooding events.
    Reason : These structures, designed to contain water, may fail under extreme pressure, releasing large volumes of water downstream.

Answer: Both are true, and Reason explains Assertion.

Explanation: Structural failures (e.g., 2005 New Orleans levees) cause catastrophic floods.

Matrix Matching Type

17.

Column A	**Column B**
1. Killing Germs	A. Keeps the water clean until we use it.
2. Storing Clean Water	B. Delivers safe water to where we need it.
3. Sending Water to Homes	C. Removes even more dirt to make the water cleaner.
4. Filtering Again	D. Makes sure the water is safe to drink.

Answer:

1. Killing Germs - (D) Makes sure the water is safe to drink.

2. Storing Clean Water -(A) Keeps the water clean until we use it.

3. Sending Water to Homes - (B) Delivers safe water to where we need it.

4. Filtering Again - (C) Removes even more dirt to make the water cleaner.

Comprehension Type

18. Water scarcity is a pressing issue affecting communities worldwide. It occurs when the demand for water exceeds the available supply, leading to challenges in meeting basic needs. Often, water scarcity is exacerbated by factors such as population growth, climate change, and inefficient water management practices.In regions experiencing water scarcity, the consequences are far-reaching. Agriculture, a major consumer of water resources, suffers from re duced crop yields and limited irrigation opportunities, impacting food produc tion and livelihoods. Animals face similar challenges, as inadequate water avail ability compromises their health and well-being.Furthermore, water scarcity jeopardizes public health by limiting access to clean drinking water. Communi ties may resort to using contaminated water sources, increasing the risk of waterborne diseases and illnesses. Additionally, industries reliant on water for manufacturing processes and energy production face operational constraints, hindering economic growth and development.Addressing water scarcity requires concerted efforts at local, national, and global levels. Implementing sustainable water management practices, promoting water conservation measures, and investing in water infrastructure are essential steps towards mitigating this critical issue.

Questions:

i. What is water scarcity, and what are its causes?

Answer:

Definition: Shortage of freshwater to meet demand.

Causes:

Population growth ? demand.

Climate change (droughts, erratic rainfall).

Poor management (leaky infrastructure, overuse).

ii. How does water scarcity impact agriculture and animal welfare?

Answer:

Agriculture: Crops fail without irrigation - food shortages.

Animals: Livestock dehydrate - lower milk/meat production.

iii. What are the consequences of water scarcity on public health and economic development?

Answer:

Health: Contaminated water - diseases (diarrhea, cholera).

Economy: Industries (textiles, energy) halt - job losses.

LEARNERS TASK

NEET LEVEL QUESTIONS

Multiple Choice Questions

1. Which step is NOT part of the process of collecting and treating water?
   a) Removing big stuff
   b) Adding chemicals
   c) Harvesting rainwater
   d) Filtering again

Answer: (c) Harvesting rainwater
Explanation: Rainwater harvesting is a collection method, not a treatment step. Treatment includes:

Removing debris (a)

Adding coagulants like alum (b)

Fine filtration (d)

2. During a drought, what is one major effect on plants and crops?
   a) Increased growth
   b) Decreased yield
   c) Overhydration
   d) Accelerated photosynthesis

Answer:(b) Decreased yield
Explanation: Drought stresses plants, reducing photosynthesis and crop productivity.

3. What can farmers experience during a drought due to water scarcity?
   a) Increased crop productivity
   b) Shortages in grocery stores
   c) Excess water availability
   d) Abundant harvests

Answer: (b) Shortages in grocery stores
Explanation: Crop failures lead to food supply chain disruptions.

4. How do animals suffer during a drought?
   a) They enjoy improved living conditions
   b) They face challenges finding water and food
   c) They become more active and playful
   d) They experience enhanced reproductive rates

Answer:(b) They face challenges finding water and food
Explanation: Drought dries up water sources and reduces vegetation, threatening wildlife and livestock.

5. What is one way people might be affected during a drought?
   a) Access to unlimited water supply
   b) Reduction in water usage restrictions
   c) Need to travel shorter distances for water
   d) Imposition of water usage limitations

Answer: (d) Imposition of water usage limitations
Explanation: Authorities enforce water rationing (e.g., bans on lawn watering).

6. What environmental consequence can occur due to drought-induced water scarcity?
   a) Increased biodiversity
   b) Enhanced soil fertility
   c) Risk of soil erosion
   d) Forest expansion

Answer: (c) Risk of soil erosion

Explanation: Dry, bare soil is prone to wind/water erosion, degrading farmland.

7. What risk is heightened during a drought in terms of wildfires?
   a) Decreased fire hazard
   b) Increased fire suppression efforts
   c) Reduced likelihood of wildfires
   d) Elevated risk of wildfire occurrence

Answer: (d) Elevated risk of wildfire occurrence

Explanation: Dry vegetation becomes highly flammable (e.g., 2019–2020 Australian bushfires).

8. What is a recommended method for conserving water during a drought?
   a) Running water continuously while brushing teeth
   b) Ignoring leaks in household plumbing
   c) Taking longer showers
   d) Using a broom instead of a hose to clean driveways

Answer: (d) Using a broom instead of a hose to clean driveways

Explanation: Sweeping saves ~80 gallons of water per use compared to hosing.

9. What defines a flood?
   a) Insufficient water in a region
   b) Excessive rainfall or water overflow
   c) Unaffected land areas
   d) Controlled release of water from dams

Answer: (b) Excessive rainfall or water overflow

Explanation: Floods occur when water submerges normally dry land (e.g., rivers bursting banks).

10. What can cause flooding during heavy rainfall?
    a) Increased water absorption by the ground
    b) Decreased water flow over the land
    c) River and lake levels dropping
    d) Inability of the ground to absorb all the water

Answer: (d) Inability of the ground to absorb all the water

Explanation: Saturated or paved surfaces increase runoff, overwhelming drainage.

NEET ADVANCED LEVEL QUESTIONS

More than One Answer Type

11. Which of the following is not a consequence of water scarcity?
    A) Abundant water for agricultural use
    B) Improved water quality
    C) Difficulty in growing crops
    D) Increased availability of drinking water

Answer: (A) Abundant water for agricultural use, (B) Improved water quality, (D) Increased availability of drinking water

Explanation: Scarcity leads to shortages and pollution, not abundance or cleaner water.

12. How can noy individuals contribute to reducing water usage during droughts?

A) Taking longer showers
B) Watering lawns frequently
C) Fixing leaks in plumbing
D) Washing cars daily

Answer:(C) Fixing leaks in plumbing

Explanation: A single leaky faucet wastes ~3,000 gallons/year.

13. What is the primary cause of floodwater contamination?

A) Pure rainwater
B) Chemical spills
C) Sanitary sewers
D) Storm surges

Answer: (B) Chemical spills, (C) Sanitary sewers, (D) Storm surges

Explanation: Floodwaters mix with sewage, pesticides, and industrial waste.

Reason And Assertion Type

14. **Assertion :** Flash floods develop gradually over several hours.
Reason : Flash floods can occur rapidly, sometimes within minutes, over whelming local drainage systems and causing immediate inundation.

Answer: Assertion is false, Reason is true.

Explanation: Flash floods are sudden (e.g., within 6 hours of heavy rain).

15. **Assertion :** Floods pose no significant health risks to affected communities.
Reason : Floodwaters can become contaminated with pollutants and pathogens, increasing the risk of waterborne diseases.

Answer: Assertion is false, Reason is true.

Explanation: Contaminated water spreads cholera, dysentery, and leptospirosis.

16. **Assertion :** Staying informed about weather forecasts is crucial in flood pre paredness.
Reason : Early warnings enable individuals to take necessary precau tions and evacuate to safer areas if needed.

Answer: Both are true, and Reason explains Assertion.

Explanation: Forecasts reduce fatalities (e.g., Japan's 2011 tsunami warnings saved thousands).

Matrix Matching Type

17.

Column A	**Column B**
1. Collecting Water	A. Helps gather tiny dirt par ticles.
2. Removing Big Stuff	B. Makes the water clearer by letting dirt settle at the bottom
3. Mixing In Chemicals	C. Gets the water we need.
4. Letting Dirt Settle	D. Keeps the water from getting clogged with trash.

Answer:

1. Collecting Water - (C) Gets the water we need.

2. Removing Big Stuff - (D) Keeps the water from getting clogged with trash.

3. Mixing In Chemicals - (A) Helps gather tiny dirt particles.

4. Letting Dirt Settle - (B) Makes the water clearer by letting dirt settle.

Comprehension Type

18. Floods are natural disasters that can wreak havoc on communities and ecosystems. The aftermath of a flood is often characterized by widespread devastation and a multitude of challenges for affected populations.During a flood, homes and buildings are particularly vulnerable to damage. Floodwaters can infiltrate structures, causing significant harm to furniture, electronics, and even the integrity of buildings themselves. This destruction not only results in financial losses but also disrupts the lives of individuals and families who must contend with the aftermath.Roads and bridges are critical infrastructure components that can be severely impacted by flooding. The force of floodwaters can wash away roads and bridges, rendering transportation networks impassable and hindering access to essential services and supplies. Communities may find themselves isolated, exacerbating the difficulties of recovery and relief efforts.Agriculture, a vital sector for food production and livelihoods, is also susceptible to flood damage. Floodwaters inundate crops and farmland, leading to significant losses in yield and quality. The destruction of crops not only affects farmers' incomes but also contributes to food shortages, posing challenges for food security in affected regions.““Furthermore, floods pose health risks to human populations. Floodwater is often contaminated with pollutants and pathogens, presenting a danger of waterborne diseases and illnesses. Exposure to dirty floodwater can result in gastrointestinal problems, skin infections, and other health complications, further straining already overwhelmed healthcare systems.The impact of floods extends beyond human communities to wildlife and ecosystems. Animals can lose their habitats and food sources due to flooding, leading to disruptions in ecosystems and biodiversity loss. The displacement and endangerment of wildlife populations highlight the nterconnectedness of natural and human systems in the face of environmental disasters.

Questions:

i. What are some of the consequences of floods on homes and buildings?

Answer:

Structural damage: Walls crack, foundations weaken.
Property loss: Ruined furniture, electronics, and personal items.
Mold growth: Damp conditions promote hazardous mold.

ii. How do floods affect transportation infrastructure?

Answer:

Road/bridge collapse: Erosion washes away pavement (e.g., 2022 Pakistan floods destroyed 8,000 miles of roads).
Isolation: Communities cut off from emergency services.

iii. What challenges do floods pose to agriculture and food security?

Answer:

Crop destruction: Submerged fields kill plants (e.g., rice paddies).
Soil degradation: Silt and salt reduce fertility.
Food shortages: 2023 Nigeria floods caused 43% rise in food prices.