

## Unit 4 – Freshwater Twitter Review Questions

U4-1: What is the greatest percentage of freshwater used for?

- Answer: Agriculture

U4-2: What is the single most erosive agent?

- Answer: Water

U4-3: What is potable water?

- Answer: Water that is safe for consumption

U4-4: Surface water that retreats back into the atmosphere as it converts from a solid to a liquid occurs during which stage of the water cycle?

- Answer: Evaporation

U4-5: Loss of water droplets through vegetation occurs during which stage of the water cycle?

- Answer: Transpiration

U4-6: As water vapor rises and cools via evaporation, water droplets are formed within clouds and occurs during which stage of the water cycle?

- Answer: Condensation

U4-7: Surface water that flows down-slope due to gravity is referred to as \_\_\_\_\_.

- Answer: Runoff/Surface Runoff

U4-8: As water droplets are no longer able to be contained within clouds, it retreats to the surface during which stage of the water cycle?

- Answer: Precipitation

U4-9: Planting abundant vegetation on steep slopes will increase flood damage to infrastructures. Is the statement true or false?

- Answer: False

U4-10: How are sinkholes formed? Be very specific.

- Answer: Slightly acidic water dissolves underground rock (Limestone)

U4-11: Which texture size (sand, silt, or clay) will increase the chances of flooding and why?

- Answer: Clay due to very low porosity and low permeability

U4-12: A paved parking lot was excavated to become an open pasture for life-stock. Which process of water cycle would be expected to increase?

- Answer: Infiltration

U4-13: Agriculture fields containing pesticides would be considered a non-point source of water pollution. Explain why.

- Answer: Chemical pesticides infiltrate into soil and is carried off by groundwater. Very difficult to identify original source due to its movement.

U4-14: NEED TO KNOW: All steps (in the correct order) and descriptions of each step of the waste water treatment process.

- Answer: Use waste water treatment handout and watch video on Weebly

U4-15: What is the main purpose of a watershed (river basin)?

- Answer: Area of land that drains to a river, lake, or larger body of water

U4-16: Overuse of groundwater or due to natural weather phenomenon near coastal areas can lead to \_\_\_\_\_.

- Answer: Saltwater Intrusion

U4-17: How is the cone of depression created when a well is excessively pumped?

- Answer: Results from withdrawing water from an aquifer at a rate greater than its recharge (re-supplied)

U4-18: What is true of the levels of dissolved oxygen in warm freshwater ecosystems?

- Answer: Dissolved Oxygen levels decrease

U4-19: What is an aquifer?

- Answer: Porous, water-saturated layer of underground rock and soil

U4-20: NEED TO KNOW: Specific examples of point source and non-point source pollutants/contaminants.

- Answer: Refer to notes for general list

U4-21: A secchi disk is used to measure \_\_\_\_\_ as part of water quality assessment.

- Answer: Turbidity – amount of suspended particles/solids in water

U4-22: Dissolved oxygen found in drinking water poses a high health risk. True or false?

- Answer: False

U4-23: What is the purpose of screening as part of the wastewater treatment process?

- Answer: Removal/separation of solid objects or debris from water

U4-24: The ability of a stream/river to transport materials as part of its load depends largely on its \_\_\_\_\_.

- Answer: Velocity

U4-25: Identify three (3) sources of groundwater contamination.

- Answer: Industrial waste/Life-stock waste/Agricultural waste

U4-26: The leading non-point source of water pollution is \_\_\_\_\_.

- Answer: Agriculture

U4-27: Karst topography is most evident in areas outlined by which type of bedrock?

- Answer: Limestone

U4-28: What stream channel shape is expected to form high in the mountains?

- Answer: V-Shaped

U4-29: When drilling for wells, what critical information is needed?

- Answer: Level of the water table

U4-30: In regards to water tables, the chance of flooding increases when the water table \_\_\_\_\_.

- Answer: Rises/Increases

U4-31: What is the relationship between stream gradient and stream velocity?

- Answer: Greater the gradient = faster velocity of water

U4-32: What is the relationship between stream velocity and stream shape?

- Answer: Slower the velocity = More meandering

U4-33: Where along a stream would the greatest amount of pollutants be expected?

- Answer: Near the end of the stream

U4-34: Approximately what percent (whole #) of Earth's water supply is saltwater?

- Answer: 97%

U4-35: Identify all physical water quality tests performed. (Also be able to explain the importance of each test)

- Answer: Temperature/Turbidity

U4-36: Identify all chemical water quality tests performed. (Also be able to explain the importance of each test)

- Answer: pH/Dissolved Oxygen/% Saturation of D.O./Nitrates/Phosphates

U4-37: Identify all biological water quality tests performed. (Also be able to explain the importance of each test)

- Answer: Coliform Bacteria/Other life-forms

U4-38: What is a stream/river's bed-load particles?

- Answer: Rocks, gravel, sand, etc that are pushed or rolled along the bottom of a stream/river

U4-39: A stream that is wider, deeper, and faster is expected to have a \_\_\_\_\_ (high/low) discharge.

- Answer: High

U4-40: Ability of water to pass through pore spaces within the soil is referred to as \_\_\_\_.

- Answer: Permeability

U4-41: The zone of \_\_\_\_\_ is filled with water and is also part of groundwater aquifers.

- Answer: Zone of Saturation

U4-42: Flow of water \_\_\_\_\_ (accelerates/decelerates) at the cone of depression as a well is pumped.

- Answer: Accelerates

U4-43: Industrial sewage is an example of a \_\_\_\_\_ pollution.

- Answer: Point-Source

U4-44: What occurs during the disinfection stage of wastewater treatment?

- Answer: Chemicals (chlorine) are used to disinfect/purify contaminated water

U4-45: The feature of a meandering river that is physically cut-off from the original river due to a change in its flow path is called a(n) \_\_\_\_\_.

- Answer: Oxbow Lake