

**State Environment and Natural Resources Contest
Water Quality Factors**

Spring 2019

Use the limiting factors area on the scantron and bubble in the correct answer.
There are 10 questions.

- 1) The results of your nitrate test show that this water is _____
 - a) 2 mg/L or more over the MCL for drinking water
 - b) At the MCL for drinking water
 - c) 2 mg/L or more below the MCL for drinking water

- 2) The pH of your sample is
 - a) Acidic
 - b) Neutral
 - c) Alkaline

- 3) High concentrations of nitrate in water can be removed by all EXCEPT:
 - a) Water filtration
 - b) Wetlands
 - c) Sewage treatment plants
 - d) Riparian (river) buffer areas

- 4) pH is the measure of...
 - a) Hydroxide ion concentrations
 - b) The acidity of a substances
 - c) How basic a substance is
 - d) All of the above are true

- 5) Agricultural BMPs to control nutrients include all EXCEPT:
 - a) building wetlands
 - b) installing riparian buffers
 - c) fencing row crop areas
 - d) timing fertilizer applications
 - e) using conservation tillage

- 6) Why would increased algae populations *lower* dissolved oxygen levels?
 - a) Algae prevents plants under the water from getting sunlight, stopping photosynthesis and oxygen production.
 - b) Algae consumes oxygen when it photosynthesizes
 - c) Algae consumes oxygen when it consumes dead organisms
 - d) None of the above

- 7) Oxygen can enter a water sample in a variety of ways EXCEPT for:
- a) Diffusion from the air
 - b) Pollutants from the soil
 - c) Photosynthesis of plants
 - d) Aeration (rapid movement) of water along its path
- 8) A limiting nutrient is described as one that:
- a) causes cancer
 - b) is a required element that is the least abundant
 - c) leads to hypoxia
 - d) binds with iron
- 9) Which of the following is not a source of nitrogen in water?
- a) Fertilizer
 - b) Limestone quarries
 - c) Manure
 - d) Municipal wastewater
- 10) Which of the following would be an example of **Point-source** pollution?
- a) Photosynthesis due to sunlight
 - b) The presence of zooplankton in a body of water
 - c) Discharge from an overwhelmed sewage treatment plant
 - d) Topsoil erosion from farm fields into a river