

# Minnesota Envirothon Sample Tests



## *Aquatics & Wetlands*

1. What is the definition of a watershed?
2. List three impacts to river flows resulting from land-cover transition over the last 50 years?
3. What three parameters are considered by wetland scientists in defining, mapping, and delineating wetlands?
4. Name 4 types of wetlands as described by Eggers and Reed.
5. Explain how the depletion of groundwater can affect surface water?

## *Forestry*

1. What Minnesota native evergreen has upright cones and flat needles?
2. The main functions of a tree trunk (bole) are \_\_\_\_\_ and \_\_\_\_\_.
3. True or False. Oak wilt is a fungal disease that kills thousands of oak trees every year.
4. New threat to forest ecosystems from \_\_\_\_\_ include wildfire, drought, insects, disease, and temperature increases.
5. At what height on the tree do you measure diameter at breast height (DBH)?

## *Soils*

1. What are some of the benefits of a complex soil food web?
  - a. Improved nutrient cycling
  - b. Improved degradation of pollutants
  - c. Higher biodiversity
  - d. All of the above
2. Soil anthropods are \_\_\_\_\_, which means they have no backbone and rely on an external covering called an exoskeleton.
3. Soils ideal for plant growth consisting of the right combination of soil particles is called?
  - a. Loam
  - b. Loess
  - c. Lime
  - d. Leaching
4. Wind and water erosion are major resource concerns on many Minnesota farms. The statewide annual water erosion rates on cultivated cropland is estimated at \_\_\_\_\_ tons per acre.
5. Soils are classified or arranged into one of twelve major units, referred to as?
  - a. Soil Classes
  - b. Soil Orders
  - c. Soil Groups
  - d. Soil Subgroups

## **Wildlife**

1. Identify this animal based on the fur.
  - a. Muskrat
  - b. Fisher
  - c. Marten
  - d. Otter
2. What is the name of the first National Wildlife Refuge?
  - a. Sherburne National Wildlife Refuge
  - b. Arctic National Wildlife Refuge
  - c. Pelican Island National Wildlife Refuge
  - d. Aransas National Wildlife Refuge
3. There are two “populations” of Sandhill Crane that inhabit Minnesota, please provide the names of both Sandhill Crane populations.
4. List the 3 main biological provinces of Minnesota.
5. Which of these is not a benefit of prescribed burning?
  - a. Improved wildlife habitat
  - b. Increased seed production
  - c. Thinned out native forbs
  - d. Set back non-native species

## **Current Events – Topic Changes every year**

1. *Sustainable Agriculture* In what year was sustainable agriculture addressed by Congress?
2. *Managed Grazing Systems in MN* – Which stage of grass growth typically has the higher forage quality?
  - a. Vegetative stage
  - b. At maturity (seeded out)
  - c. Both the same
3. *Agricultural Soil & Water Conservation Stewardship in MN* – Name the type of erosion in this picture.
4. *Invasive Species* – What are the four major pathways for transporting invasive species?
5. *Urban/Community Forests* – What happens when we fool around with a tree’s hormones/biochemistry, by snipping off the growing tip (apical meristem) of the leaders and branches?