

# MASSACHUSETTS ENVIR<sup>THON</sup>

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## Sample Questions

Take this quiz on-line at <http://www.maenvirothon.org/quiz.htm>

### Water

1. Which species is not native to Massachusetts

- Cattails
- white Water Lilly
- Bladderwort
- Fanwort

2. The area of rapid temperature change in a thermally stratified waterbody is called the

- Hypolimnion
- Transition Zone
- Thermocline
- Temperature gradiant

3. Which whale does not have baleen?

- Sperm Whale
- Humpback Whale
- Blue Whale
- Right Whale

4. The area in the waterbody where light is still able to penetrate is called the

- Aphotic Zone
- Benthic Zone
- Pelagic Zone
- Photic Zone

5. Water with a pH greater than 7 is more alkaline and has more

- hydronium ions
- hydrogen ions
- hydroxyl ions
- hydronic ions

6. A measure of the oxygen-consuming life in the waterbody is called the

- Aphotic measure
- Eutrophic Status
- Dissolved Oxygen Value
- Biochemical Oxygen Demand

### Forestry

1. Plants that have "naked" seeds and do not protect their seeds inside fruit are called?

- Vascular Plants
- Deciduous
- Angiosperms
- Gymnosperms

2. Early Europeans found New England forest dominated by?

- Red Oak, White Pine, Hemlock
- Red Maple, White Pine, Douglas Fir
- Beech, Birch, Ash
- White Oak, Red Maple, Cedar

3. Which epidemic did not affect New England tree populations?

- Dutch Elm Disease
- White Pine Fungus
- Gypsy Moth
- Chestnut Blight

4. During photosynthesis, carbon dioxide and water are converted to what?

- $O_2 + NH_4 + 2CO_2$
- $2CO_2 + 1 H_2O_2 + O_2$
- $C_6H_{12}O_6 + 6O_2 + 6H_2O$
- $C_6H_{12}O_6 + 2CO_2 + H_2O$

5. When the tree's crown is visible, you can estimate the trees height using a

- clinometer
- altimeter
- altometer
- cinameter

6. The chemical portion of intergrated pest management uses all of these methods except

- pesticides
- pheromone behavior modifiers
- Bacillus thuringiensis*
- fumigants

## Soil

1. The parent material produced by the weathering of a rock in place is called
  - a) Erosion
  - b) Alluvium
  - c) Residuum
  - d) Sedimentation
2. The broad term for all material swept out, sorted and deposited beyond the glacial ice front by streams of melt water is called
  - Glacial Outwash
  - Glacial Beach Deposits
  - Glaciolacustrine deposits
  - Drumlins
3. Massachusetts was covered with glacial ice
  - 25,000-30,000 years ago
  - 9,000-10,000 years ago
  - 18,000-20,000 years ago
  - 12,000-14,000 years ago
4. A horizontal layer of soil that has distinct characteristics is called a
  - soil profile
  - soil layer
  - soil horizon
  - soil feature
5. This texture class when moist, will form a cast but crumble when touched
  - Sandy loam
  - silt loam
  - loam
  - sand
6. The removal of soil through the cutting of many small, conspicuous channels that can not be obliterated by ordinary tillage is called
  - Gully erosion
  - Rill erosion
  - Sheet erosion
  - Accelerated erosion
7. Soils that have mostly grey colors in the upper B horizon and thick accumulations of organic matter are
  - Hydric soils
  - Organic Soils
  - Hydrological soils
  - Fluvial soils

## Wildlife

1. What animals survive freezing temperatures by turning their body fluids into glycerol (antifreeze)?
  - Ectotherms
  - Endoregulators
  - Poikilotherms
  - Picroregulators
2. Plants or fungi that obtain their nourishment from dead plant or animal material are called
  - Spongiophores
  - Saprophytes
  - Angiosperms
  - Fungiforms
3. Which species is a marsupial?
  - Fisher
  - Porcupine
  - Opossum
  - Flying Squirrel
4. Which of the following New England species hibernates?
  - Black Bear
  - Woodchuck
  - Monarch Butterfly
  - Lesser Shrew
5. Which species is frequently found in a vernal pool?
  - Fairy Shrimp
  - Minnow
  - Asian Clam
  - Fairy Frog
6. The response of an organism to the fluctuation between light and dark over a 24hr period is called
  - Solar Cycle
  - Diurnal Rhythm
  - Photosynthesis
  - Circadian Rhythm
7. Which of the following species is considered threatened?
  - Lake Chub
  - Timber Rattlesnake
  - Eastern Spadefoot
  - Bald Eagle