

Vermont Envirothon Sample Test Questions

These questions are examples of the types of questions that might be asked on the Envirothon tests. Each subject area, aquatics, forestry, soils and wildlife creates its own test each year. Some of the questions pertain to the individual subject area. Others make connections between the subject areas and with the current issue which changes each year.

Aquatics

- 1) Define non-point source pollution and give three examples of where it might come from.
 - 2) A good example of an oligotrophic ecosystem is a:
 - a) glacial kettle pond
 - b) wastewater treatment aeration pond
 - c) farm pond
 - d) river oxbow pond
 - 3) Delineate the watershed of the lake indicated on the topographical map.
 - 4) Using the key provided, identify the macroinvertebrate in the vial with its common or scientific name. Why are macroinvertebrates used as water quality indicators?
 - 5) Look at the stream and surrounding land. In the event of a severe storm and heavy rains what features of the land management of this area might protect the stream?
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Forestry

- 1) From the plot center indicated in the forest:
 - a) use the scale stick provided for you and record the diameter of the largest white pine on the plot. _____ inches.
 - b) use the glass prism provided for you and record the "IN" trees on this plot that are 6" in diameter or larger. _____ trees.
- 2) There are twelve trees with information cards attached to them around this area. Use your knowledge of eastern trees along with the information on the cards to identify each by its full common name.
- 3) The inner bark or phloem does which:
 - a) transports water to the leaves from the roots
 - b) carries sugar from the leaves to the roots
 - c) supplies rapidly dividing cells to the cambium

- 4) List two ways an open grown tree canopy differs from a tree grown under a dense woodland setting.
- 5) The large trees left in this stand for a future crop when it was last logged are best described as:
- a) sawtimber trees, residual trees, crop trees, cull trees
 - b) crop trees, dominant trees, residual trees, merchantable trees
 - c) sawtimber trees, cavity trees, over mature trees, residual trees
 - d) residual trees, crop trees, dominant trees, over mature trees
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Soils

1. Fill in the letter from the second column that best describes the horizon in the first column.

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|-----------------|--|
| _____ B horizon | A. topsoil |
| _____ R horizon | B. substratum, unweathered parent material |
| _____ O horizon | C. hard bedrock |
| _____ A horizon | D. subsoil |
| _____ C horizon | E. dominated by organic matter |

2. Of the horizons listed in Question 1, which one is most impacted by forest fires? _____

3. A "hydric" soil is typically what range of drainage classes?
- a) well to excessively drained
 - b) moderately well to somewhat poorly drained
 - c) poorly to very poorly drained

"Outdoor" Questions (at open soils pit)

4. What is the thickness of the A horizon, in inches? _____

5. The depth to bedrock of this soil is:
- a) very shallow - less than 10 inches
 - b) shallow - 10 to 20 inches
 - c) moderately deep - 20 to 40 inches
 - d) deep - greater than 40 inches
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Wildlife

1. Identify the animal mount. Specifically name the type of habitat this species uses for courtship and breeding.

2. Name the animal that left these droppings.
3. Marsupials raise their young in pouches. Name Vermont's only marsupial.
4. With these wildlife species, please list four that are exotic in Vermont: beaver, mayfly, ruffed grouse, fallow deer, woodland jumping mouse, spider monkey, ferret, wild boar, broad-winged hawk, and Canada lynx.
5. A landowner in the Green Mountains owns 500 acres of mature timber, with a five acre hayfield within it. Name three management practices that could be done to increase the biodiversity of this land within three years.