

Indiana Registry of Soil Scientists
Continuing Education Units, field activities (CEUf)
Pedon and Landscape Evaluation

Based on Indiana Soil and Landscape Evaluation Manual, AY-323

Name: _____ Location: _____ Date: _____

Instructions

Questions 1-16 are common to all exams. Additional questions (17+) may be added that are specific for a particular exam. Each blank or selection within brackets is worth one point. The total score will be normalized to 100% for a perfect score.

Official judges may give additional instructions.

Circle the best answer among those listed within brackets, [].

Numbers in parentheses are page numbers in *Indiana Soil and Landscape Evaluation Manual, 2004 (ISLEM)*.

Evaluate questions 1 through 11 by examining the pedon exposed in the pit

1. Kind(s) of parent material(s) (7). Official judges will state how many to identify. Do not give lower depth for the last parent material.

1. Kind _____; lower depth is _____ inches.
2. Kind _____; lower depth is _____ inches.
3. Kind _____.

2. Is there calcareous material in the pedon? (45)

___ No Yes, Below ___ inches
Maximum effervescence is: [VS SL ST VE]

3. Give the percent by volume of rock fragments (>2mm) in the horizon listed on the site card (44): _____%

4. Degree of compaction in surface horizon (41) [Slight; Moderate, Severe].

5. Does any horizon have structure units (peds) that are dominantly >100 mm across? (If more than one, describe the one with the strongest structure.) (39)

___ No Yes, Depth is _____ to _____ inches

6. Does the pedon have horizons that are limiting for onsite sewage disposal systems (OSDS) because of rapid permeability (permeability that will result in a soil loading rate >1.2 gallons per day)? (51)

___ No Yes, Upper depth of limiting condition is _____ inches.

(over)

7. Does the pedon have horizons that are limiting for OSDS because of slow permeability (permeability that will result in a soil loading rate <0.25 gallons per day)? (51).

No Yes, Kind of horizon is _____ (e.g., bedrock, dense till, fragipan, densic properties, etc.). Upper depth of limiting condition is _____ inches.

8 Assume that *reduction depletions* are defined as soil material with >2% gray color in the soil matrix, or dominantly gray clay films, or both (gray colors are those with value ≥ 4 and chroma ≤ 2) (51). Are reduction depletions visible in the pedon?

No Yes, Depth to reduction depletions (DRD) is _____ inches

9 Estimate the depth to saturation 8% of time (DSat8) the "seasonal high water table" (49 and additional paper on IRSS website) That depth is:

> pit depth In exposed pedon at _____ inch depth.

10. Is there evidence in the pedon of human disturbance other than tillage? (52)

No Yes. What evidence? _____

11. Is there evidence of flooding or ponding in the pedon, in the landscape, or both? (52)

No Yes. What evidence? _____

Evaluate questions 12 through 16 outside the soil pit

12. Location marker is: (3).

_____. feet [north or south] of reference marker, and
_____. feet [east or west] of reference marker

13. Slope gradient is _____ % (19)

14. Slope aspect is: [N NE E SE S SW W NW] (19)

15. Name of landform [Table 3, *ISLEM*]: (17)

16. Name of landform component. Use slope profile descriptors if they apply. [Table 4, *ISLEM*]: (19-20)

Additional question(s) specific to this exam

