

I. SOIL PROPERTIES (5 points each, 45 total)

A. PARENT MATERIAL

- | | |
|--------------------------------|-------------------|
| 1A Weathered bedrock | 1D Eolian sand |
| 1B Till | 1E Loess |
| 1C Outwash/Lacustrine deposits | 2A Alluvium |
| | 2B Local overwash |

B. SLOPE

- | | |
|-----------|-----------|
| 3A 0-2% | 3E 19-25% |
| 3B 3-6% | 4A 26-35% |
| 3C 7-12% | 4B >35% |
| 3D 13-18% | |

C. LANDFORM

- 5A Upland hillslope
- 5B Upland swell
- 5C Upland flat
- 5D Upland depression
- 6A Dune
- 6B Flood plain
- 6C Filled depression

D. SURFACE SOIL COLOR GROUP

- 7A Gray
- 7B Brown
- 7C Black

E. PREVIOUS EROSION

- 8A None to slight
- 8B Moderate
- 8C Severe

F. SURFACE TEXTURE

- 9A Sandy
- 9B Moderately sandy
- 9C Medium
- 9D Moderately clayey
- 9E Clayey

G. SUBSOIL TEXTURE

- 10A Sandy
- 10B Moderately sandy
- 10C Medium
- 10D Moderately clayey
- 10E Clayey

H. NATURAL SOIL DRAINAGE

- 11A Poorly
- 11B Somewhat poorly
- 11C Moderately well
- 11D Well

I. LIMITING LAYER

- | | |
|--------------------------|------------------------------------|
| 12A Bedrock, 0-20 in | 13A Fragipan, 21-40 in |
| 12B Bedrock, 21-40 in | 13B Coarse sand & gravel, 0-20 in |
| 12C Dense till, 0-20 in | 13C Coarse sand & gravel, 21-40 in |
| 12D Dense till, 21-40 in | 13D None within 40 in |
| 12E Fragipan, 0-20 in | |

II. AGRICULTURE PRACTICES (3 pts. each, 69 total)

A. LAND USE OVERVIEW

- 14 Restore original vegetation to:
A - Wetland; B - Prairie; C - Mesic forest
- Yes No
- 15 A B Prime farmland

B. EROSION AND COMPACTION POTENTIALS

- 16 A B High for erosion by water
- 17 A B High for erosion by wind
- 18 A B High for soil compaction

C. BUFFERS AND COVER CROPS

- 19 A B Grassed waterways
- 20 A B Windbreaks
- 21 A B Filter strips
- 22 Most significant benefit of cover crops:
A - Scavenge N; B - No need; C - Erosion control

D. CROPPING PRACTICES

- Yes No
- 23 A B Timber stand improvement (TSI)
- 24 A B Permanent pasture
- 25 A B Crop rotation

E. TILLAGE PRACTICES

- 26 A B No till
- 27 A B Moldboard or chisel plowing

F. WATER MANAGEMENT

- 28 A B Drainage
- 29 A B Irrigation
- 30 A B Terraces

G. PLANT NUTRIENT APPLICATION

- | | A | B | C |
|----------|-----|-------------|------|
| 31 N: | Low | Medium | High |
| 32 P: | Add | Maintenance | None |
| 33 K: | Add | Maintenance | None |
| 34 Lime: | Add | None | |

H. NUTRIENT POLLUTION POTENTIAL

- 35 Nitrogen pollution potential:
A - High, ground water; B - High surface water; C - Med.
- 36 Phosphorus pollution potential:
A - High; B - Medium; C - Low

Team / Contestant number: _____

Contestant name: _____

School / Club name: _____

Site number: _____

SCORE

Part I (45 points possible): _____

Part II (69 points possible): _____

Total (114 points possible): _____