1. A grower considering the installation of managed drainage structures should already have:
   - At least a 5% tile grade across the field.
   - A pattern tile system.
   - Tile blowouts in wet years.
   - Large areas of drowned-out crops in wet years.

2. A Midwest grower managing drainage in a field will likely keep Fall water levels:
   - Low
   - Medium
   - High
   - Very High

3. Proposed new nitrate standards may cause many local streams to be listed by the EPA as:
   - Endangered
   - Threatened
   - Impaired
   - Hazardous

4. Structures utilized for managed drainage control tile flow by:
   - Plugging tile stream outlets at certain times of the year.
   - Regulating the level of the water table.
   - Creating a vacuum that pulls water through the tile.
   - Measuring and regulating water flow.

5. A higher water table can decrease the nitrogen coming from field tiles by:
   - Eliminating denitrification.
   - Increasing soil leaching.
   - Decreasing the amount of soil water leaving the system.
   - Increasing crop rooting depth.

6. The increase in production for the field by installing a managed drainage system is:
   - 1 bu/A
   - 2 bu/A
   - 10 bu/A
   - 20 bu/A

7. Managed drainage has the potential to increase crop yields by:
   - Increasing microbial activity in the soil profile.
   - Storing soil water for dry summer periods.
   - Changing soil structure.
   - Eliminating capillary water.

8. To calculate the average net benefit of a managed drainage system, the following costs should be subtracted EXCEPT:
   - Hauling and drying costs of extra grain produced.
   - The initial cost of installing a pattern drainage system.
   - Annualized costs of the drainage control structure.
   - The cost to check each structure at least three or four times each year.

9. Soil factors that may be influenced by a managed drainage system include all of the following EXCEPT:
   - Soil texture.
   - Soil organic matter.
   - Soil nitrate concentration.
   - Earthworm populations.

10. Compared to 50 years ago, most Midwest farmers today depend more on nutrients from:
    - Animal manures.
    - Nitrogen-fixing crops in rotation.
    - Plowdown green manure crops.
    - Commercial fertilizers.