



2010

**State Agronomy CDE
Montana State University
Soils & Irrigation**

Please fill out “Assessment and Solution” section of the answer key

Please do not write on this test!

1. Small particles have more surface area per gram than large particles.
 - A. True
 - B. False
2. Clay particles are smaller than _____ mm in diameter.
 - A. .01
 - B. .003
 - C. .004
 - D. .002
3. What is the texture of a soil if it is found to have 20% clay, 40% silt, 45% sand?
 - A. Silt Loam
 - B. Silty Clay Loam
 - C. Sandy Loam
 - D. Loam
4. A township is _____ miles by _____ miles.
 - A. 1, 1
 - B. 6, 6
 - C. 4, 4
 - D. 2, 2
5. Sand particles are larger than _____ mm in diameter.
 - A. .01
 - B. .02
 - C. .05

- D. .04
6. A township contains ____ sections.
- A. 16
 - B. 20
 - C. 25
 - D. 36
7. Which of the following soils types would have the most severe drainage problems?
- A. Sand
 - B. Loamy Sand
 - C. Sandy Clay Loam
 - D. Silt Loam
8. Silt particles are _____ mm in diameter.
- A. .002-.007
 - B. .001-.004
 - C. .002-.05
 - D. .01-.004
9. What is leaching?
- A. Water moving through the soil.
 - B. The process of nutrients and other soluble materials (such as calcium, fertilizers, pesticides) are washed out from the soil.
 - C. The rate at which water moves through the soil.
 - D. The attraction of water molecules to soil particles.
10. What is the texture of soil sample 1?
- A.
 - B.
 - C.
 - D.
11. What is the texture of soil sample 2?
- A.
 - B.
 - C.
 - D.

Irrigation

12. A sprinkler pivot is 796 feet long. How many square feet does the pivot cover in one pass?
- A. 1,989,554.24 sq. ft

- B. 2,499.44 sq. ft.
- C. 2,132.06 sq. ft.
- D. 1,447,668.74 sq. ft

13. A certain variety of soybean uses 2 inches of water per day. How many inches will they need to apply over a 2.5 month period?

- A. 240 in.
- B. 140 in.
- C. 150 in.
- D. 210 in.