

Agricultural Construction

Unit I — Arc Welding Student Handout

Section I: Welding

Directions:

1. The instructor will give you a series of welds to perform.
2. Perform the assigned welds.
 - ☐ Wear appropriate safety equipment at all times.
 - ☐ Follow all assigned safety procedures. You can lose points for not following safety precautions and other assigned procedures.
 - ☐ Inspect the equipment, materials, and work area to ensure safe and correct operation.
 - ☐ Perform the welds using the assigned procedure.
 - ☐ Inspect your work.
 - ☐ Follow shutdown and cleanup procedures, and return all equipment and materials to their assigned places.
 - ☐ Turn in your work to the instructor.
3. Complete sections II and III of the activity, and turn your completed handout in to the instructor.
4. Your final assessment score will be based on your ability to safely and correctly perform the assigned welding procedures and on the accuracy of your responses to the identification and written assessment portions of the activity. All welds must pass destructive testing.

Section II: Identification

Directions: Go to the identification station. Write the names of each tagged part or item next to its correct tag letter in the spaces below.

A.

E.

I.

B.

F.

J.

C.

G.

K.

D.

H.

Section III: Written Assessment

Directions: Circle the letter that corresponds to the correct answer.

1. To weld a lap joint in flat position with a shielded metal arc welder, which choice reflects the correct work angle and travel angle?
 - a. 90-degree work angle and a 45-degree travel angle
 - b. 45-degree work angle and a 25- to 30-degree travel angle
 - c. 90-degree work angle and a 25- to 30-degree travel angle
 - d. 45-degree work angle and a 90-degree travel angle
2. A bright silver metal that is slightly magnetic and relatively hard to chip is likely to be which of the following?
 - a. Wrought iron
 - b. Aluminum
 - c. Stainless steel
 - d. Cast iron
3. For gas metal arc welding, the lens should *not* be lighter than number _____.
 - a. 4
 - b. 7
 - c. 9
 - d. 11

Complete the following short-answer questions.

4. List four ways to avoid exposure to harmful light rays when arc welding. (Each answer is worth 1 point for a maximum value of 4 points.)
 - a.
 - b.
 - c.
 - d.
5. List three reasons why metals should be cleaned before being welded. (Each answer is worth 1 point for a maximum value of 3 points.)
 - a.
 - b.
 - c.