

Unit 10 Test Welding, Brazing and Cutting

Name _____ Date _____ Hour _____

Multiple Choice

Choose the answer that best completes each statement or question.

- ___ 1. Which clothing would be best for agricultural mechanics?
- A. short- sleeved cotton shirt
 - B. short-sleeved synthetic shirt
 - C. long-sleeved cotton shirt
 - D. long-sleeved synthetic shirt
- ___ 2. Which footwear would be best for agricultural mechanics?
- A. slip-on casual shoes
 - B. comfortable tennis shoes
 - C. high-topped leather boots
 - D. any shoes that fit well
- ___ 3. To protect your eyes from welding burn you should wear a welding helmet with a shaded lens ranging from ____.
- A. No. 1 to No. 3
 - B. No. 3 to No. 6
 - C. No. 6 to No. 9
 - D. No. 9 to No. 12
- ___ 4. What welding process is also known as stick welding and uses an electrode to join metals?
- A. oxyfuel welding
 - B. gas metal arc welding
 - C. gas tungsten arc welding
 - D. shielded metal arc welding
- ___ 5. What welding process has high popularity within the agricultural industry because of its many advantages, such as its low expense, reliability, and ease of mastery?
- A. oxyfuel welding
 - B. gas metal arc welding
 - C. gas tungsten arc welding
 - D. shielded metal arc welding

- ___ 6. What welding process is commonly known as MIG welding and uses a steady stream of metal wire fed through a MIG gun?
- A. oxyfuel welding
 - B. gas metal arc welding
 - C. gas tungsten arc welding
 - D. shielded metal arc welding
- ___ 7. What welding process is generally used to repair or construct using materials where a high quality weld is needed such as aluminum trailers and stainless steel used in food processing?
- A. oxyfuel welding
 - B. gas metal arc welding
 - C. gas tungsten arc welding
 - D. shielded metal arc welding
- ___ 8. What welding process has two types known as fusion and braze?
- A. oxyfuel welding
 - B. gas metal arc welding
 - C. gas tungsten arc welding
 - D. shielded metal arc welding
- ___ 9. What welding process is unique in that it can use welding wire, or wire and a filler rod?
- A. oxyfuel welding
 - B. gas metal arc welding
 - C. gas tungsten arc welding
 - D. shielded metal arc welding
- ___ 10. What letter in welding wire classification indicates that the filler metal may be used as an electrode or welding rod?
- A. E
 - B. F
 - C. R
 - D. S
- ___ 11. What letter in welding wire classification indicates a bare solid electrode or rod?
- A. E
 - B. F
 - C. R
 - D. S

- ___ 12. What welding position is the position that many begin with when learning?
- A. flat weld
 - B. horizontal weld
 - C. overhead weld
 - D. vertical down weld
- ___ 13. What welding position works best when a welder is sitting and the metal is at eye level?
- A. flat weld
 - B. horizontal weld
 - C. overhead weld
 - D. vertical down weld
- ___ 14. What welding position is needed when the work piece is directly above the welder?
- A. flat weld
 - B. horizontal weld
 - C. overhead weld
 - D. vertical down weld
- ___ 15. What welding motion is used with all electrodes on wide fillets and butts in the flat position?
- A. box weave
 - B. triangular weave
 - C. circular motion
 - D. flat side-to-side motion
- ___ 16. What welding motion is used with all types of electrodes to make overhead welds?
- A. box weave
 - B. triangular weave
 - C. circular motion
 - D. flat side-to-side motion
- ___ 17. What welding motion is used with fill-freeze and low-hydrogen electrodes to make first pass on vertical fillets and V-butts?
- A. box weave
 - B. triangular weave
 - C. circular motion
 - D. flat side-to-side motion

- ___ 18. What welding motion is used with fast-fill electrodes to make stringer beads in all positions and on all types of joints?
- A. circular weave
 - B. triangular weave
 - C. flat side-to-side motion
 - D. straight whipping motion
- ___ 19. In the oxy-cutting process, the metal is preheated with the flame of the cutting torch and is hot enough to burn when it becomes a ___.
- A. gold color
 - B. off-white color
 - C. light blue color
 - D. cherry red color
- ___ 20. When air or gas is heated to an extremely high temperature and is compressed by pushing through a small channel or hole it creates ___.
- A. kerf
 - B. slag
 - C. plasma
 - D. infrared rays

True or False

Indicate if each statement is true or false.

- ___ 21. The type of PPE you should wear remains the same regardless of the type of work because all types of work have similar hazards.
- ___ 22. You should never touch the bare of an electrode when the machine is on.
- ___ 23. All types of fires can be put out with sufficient quantities of water.
- ___ 24. In braze welding the base metal is never melted, and the weld is formed as a result of molecular attraction to the metal.
- ___ 25. The diameter and tensile strength of the rod electrode, the type of flux coating, and the metal the rod is made of will vary according to the specific welding need.
- ___ 26. The most common types of electrodes used in agricultural mechanics are E6011 and E6013, both of which are all-purpose, any position electrodes that can be used with AC or DC current.
- ___ 27. Compared to a welding machine, the plasma arc machine requires much less voltage.
- ___ 28. When using plasma arc cutters, the metal must be preheated before cutting.

- ___ 29. When beginning to cut with a plasma cutter, it is important to angle the torch away from your body.
- ___ 30. Never use a plasma arc system in damp, wet areas.

Matching

Match each fire classification with its description.

- | | |
|------------|------------|
| A. Class A | C. Class C |
| B. Class B | D. Class D |
- ___ 31. live electrical equipment such as welders, heaters, and power tools
- ___ 32. common combustibles such as wood, paper, cloth
- ___ 33. flammable liquids and gasses such as gasoline, propane, and other solvents
- ___ 34. combustible metals such as magnesium and lithium

Matching

Match each welding joint with its description.

- | | |
|---------------|-----------------|
| A. butt joint | D. corner joint |
| B. lap joint | E. edge joint |
| C. tee joint | |
- ___ 35. often seen in rectangular or square objects and can be in different positions
- ___ 36. used to join two pieces of metal at their edges
- ___ 37. used to join two pieces of metal together at the ends or sides
- ___ 38. used when you place one work piece at a 90-degree angle to another, forming the letter T
- ___ 39. fastens two overlapping surfaces at a 90 degree angle

Short Answer

40. What are at least three shop area rules for agricultural mechanics?

41. What are at least three fire prevention rules for agricultural mechanics?
