

### 2024 Kansas ATM CDE Test

1. In SMAW welding, what is the main purpose of the flux coating?
  - a. To cool the weld
  - b. To shield the weld
  - c. To add strength to the electrode
  - d. To increase the weld speed
2. What is the term for the gap left between two metal pieces in a welding joint?
  - a. Tack
  - b. Weave
  - c. Bead
  - d. Root opening
3. Excessive spatter during welding is most often caused by:
  - a. Too low amperage
  - b. Too high amperage
  - c. Improper shielding gas
  - d. Moving too slowly
4. What type of welding process uses a flux-coated electrode to create the weld?
  - a. GMAW welding
  - b. TIG welding
  - c. SMAW welding
  - d. GTAW welding
5. Which gas is commonly used as a shielding gas in GMAW welding?
  - a. Oxygen
  - b. Carbon dioxide
  - c. Argon
  - d. Nitrogen
6. What is the purpose of a bill of materials in shop project construction?
  - a. To list the tools and equipment needed for a project
  - b. To provide instructions for project assembly
  - c. To calculate the total cost of materials
  - d. To itemize and quantify materials needed for a project
7. Which type of fire extinguisher is suitable for extinguishing electrical fires?
  - a. Class A
  - b. Class B
  - c. Class C
  - d. Class D
8. Which lens shade is typically recommended for oxyfuel cutting?
  - a. Shade 5
  - b. Shade 8
  - c. Shade 10
  - d. Shade 12
9. What is an accurate description of flashback in an oxyacetylene torch operation?
  - a. Torch is not lighting properly
  - b. Flame moves back into the hose
  - c. Flame is too large
  - d. Oxygen pressure is too high
10. What is the main purpose of a LOTO procedure?
  - a. To prevent accidental startup of equipment during maintenance
  - b. To store equipment securely overnight
  - c. To label equipment for inventory purposes
  - d. To notify supervisors that work is complete
11. In an electrical circuit, what does a switch control?
  - a. Voltage
  - b. Current path
  - c. Resistance
  - d. Ground connection
12. What unit is used to measure electrical force?
  - a. Ampere
  - b. Ohm
  - c. Volt
  - d. Watt
13. Which type of electrical circuit has multiple paths for current to flow?
  - a. Series circuit
  - b. Parallel circuit
  - c. Complex circuit
  - d. Combination circuit
14. What does DC stand for in electrical terms?
  - a. Direct Current
  - b. Down Current
  - c. Diode Current
  - d. Density Correct

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15. What is the purpose of a fuse in an electrical circuit?
- To increase the voltage
  - To regulate the current
  - To protect against overload
  - To reduce electrical resistance
16. Which electrical component can be used for reverse current protection in a circuit?
- Capacitor
  - Resistor
  - Diode
  - Potentiometer
17. What is the primary function of a governor system in a small gas engine?
- To regulate the flow of fuel to the engine
  - To control the speed of the engine by adjusting throttle position
  - To ignite the air-fuel mixture in the combustion chamber
  - To set a top-speed for engine operation
18. You turn off an engine using a switch. How did the switch kill the engine?
- It grounded the magneto to the engine block
  - It opened the current flow from the spark plug
  - It redirected the current to engine exhaust
  - It turned off the engine's access to fuel
19. Which engine part ensures the correct timing of the intake and exhaust valves?
- Flywheel
  - Camshaft
  - Piston
  - Crankshaft
20. Which stroke of a four-stroke engine cycle compresses the air-fuel mixture?
- Intake stroke
  - Compression stroke
  - Power stroke
  - Exhaust stroke
21. What is the purpose of calibration when applying pesticides?
- To measure the amount of pesticide residue on crops
  - To adjust the application equipment to deliver the correct amount of pesticide
  - To determine the pH level of the pesticide solution
  - To identify the most effective pesticide for a specific pest
22. Which practice best reduces soil erosion on farmland?
- Strip-tillage
  - Flood irrigation
  - Deep plowing
  - Monocropping
23. What device measures soil moisture to help determine irrigation needs?
- Hygrometer
  - Barometer
  - Manometer
  - Tensiometer
24. What is a primary environmental concern when overapplying nitrogen fertilizers?
- Soil acidification
  - Increased weed growth
  - Groundwater contamination
  - Soil compaction
25. A best management practice (BMP) for reducing nutrient runoff includes:
- Overapplying fertilizer
  - Planting cover crops
  - Burning crop residues
  - Diluting herbicides with water