

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