4 pts each

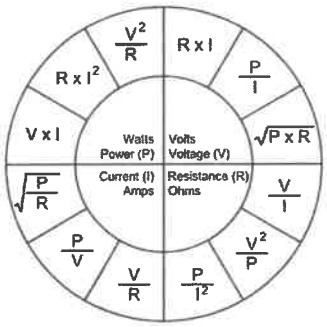
2026 Kansas ATM CDE Test

Machinery and Equipment

14. In a round baler, what is the purpose of the belts or rollers inside the bale chamber?
    a. Lift crop from the ground into baler
    b. Rotate crop into a dense bale
    c. Secure crop and fasten with a wrap
    d. Eject the bale
15. A farm employee is performing routine preventative maintenance on a round baler and notices several Zerk fittings around moving joints. What is the best preventative maintenance practice?
    a. Apply grease only if the joint is squeaking
    b. Remove the Zerk fittings and clean them before reinstallation
    c. Grease each fitting according to the OEM's recommended schedule
    d. Fill the fittings until grease leaks out
16. What is the main purpose of proper chain tension in a sprocket and chain system?
    a. Prevent slipping and wear
    b. Reduce lubrication needs
    c. Eliminate the need for sprockets
    d. All of the above

Electrical

Reference the image below for *Questions 17–18*.



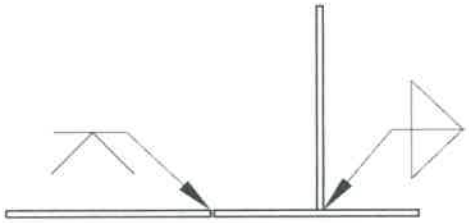
17. What is the power output of a 12V system that draws 5 amps of current?
    a. 0.42 watts
    b. 2.4 watts
    c. 12 watts
    d. 60 watts
18. In a 12V electrical system, a circuit draws 3 amps of current. What is the resistance of the circuit?
    a. 0.25Ω
    b. 4Ω
    c. 36Ω
    d. 64Ω
19. What unit is used to measure electrical force?
    a. Ampere
    b. Ohm
    c. Volt
    d. Watt
20. Which type of electrical circuit has one path for current to flow?
    a. Series circuit
    b. Parallel circuit
    c. Complex circuit
    d. Combination circuit
21. A tractor runs on a 12V system. When the tractor is running, you measure 14V at the battery terminal. What does this describe?
    a. The alternator is overcharging the battery, and the battery will fail
    b. The battery is overloaded
    c. The alternator is charging the battery as designed
    d. The diode in the alternator is not stabilizing the charge

Natural Resources

22. 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
23. How many acres are in one section of land?
    a. 160 acres
    b. 320 acres
    c. 640 acres
    d. 1,280 acres
24. A field is described as the S 1/2 of the NE 1/4 of a section. How many acres does this area contain?
    a. 40 acres
    b. 80 acres
    c. 120 acres
    d. 160 acres
25. Which statement describing the difference between GNSS and RTK in precision agriculture is *incorrect*?
    a. GNSS uses multiple satellites
    b. RTK replaces satellites with ground signals
    c. RTK improves positional accuracy
    d. RTK is more accurate than GNSS alone

Structures

Reference the image below for *Questions 1–6*.



1. What type of joint is shown in the first weld (left side)?
    a. Butt joint
    b. Corner joint
    c. T-joint
    d. Lap joint
2. What type of weld is shown in the first weld (left side)?
    a. Groove weld
    b. Plug weld
    c. Edge weld
    d. Fillet weld
3. Which best describes the placement of welds in the first weld (left side)?
    a. Top only
    b. Bottom only
    c. Both sides
    d. All of the above
4. What type of joint is shown in the second weld (right side)?
    a. Butt joint
    b. Corner joint
    c. T-joint
    d. Lap joint
5. What type of weld is shown in the second weld (right side)?
    a. Groove weld
    b. Plug weld
    c. Edge weld
    d. Fillet weld
6. Which best describes the placement of welds in the second weld (right-side)?
    a. Top only
    b. Bottom only
    c. Both sides
    d. All of the above
7. 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
8. Which gas is commonly used as a shielding gas in GMAW welding?
    a. Oxygen
    b. Carbon dioxide
    c. Argon
    d. Nitrogen

Compact Equipment

9. What is the purpose of the choke in a small gas engine during startup?
    a. Increase airflow for better combustion
    b. Increase the fuel-to-air ratio
    c. Reduce engine compression
    d. Advance ignition timing
10. An engine is backfiring through the carburetor. What is the most likely cause?
    a. Low oil level in the crankcase
    b. The fuel mixture is too lean
    c. Spark plug gap is too wide
    d. Intake valve gap or timing
11. What is the function of the *crankshaft* in a small gas engine?
    a. To open and close the valves in time with engine stages
    b. Push out the exhaust to ensure the engine does not overheat
    c. Convert reciprocating motion into rotational motion
    d. To regulate fuel delivery
12. What is the function of the *camshaft* in a small gas engine?
    a. To open and close the valves in time with engine stages
    b. Push out the exhaust to ensure the engine does not overheat
    c. Convert reciprocating motion into rotational motion
    d. To regulate fuel delivery
13. Which stroke of a 4-stroke engine cycle occurs after the spark plug ignites?
    a. Intake stroke
    b. Compression stroke
    c. Power stroke
    d. Exhaust stroke