2007 Machinery Operation Exam
Kansas Hazardous Occupation Training

Instructor: A passing score of 75% is recommended for the written exam, meaning the student must get at least 38 questions correct.

Instructions: Place your name and today’s date at the top of the first page. The first section of the exam contains 30 multiple choice questions. Answer the questions by placing the letter for the correct answer on the line to the left of the question. The second section consists of 20 True or False Questions. To complete Section 2, circle T for True or F for False on each question.

SECTION 1 – MULTIPLE CHOICE

_____ 1. Guards and shields protect operators of tractors and agricultural implements from:
   A. Coming into contact with rotating components when the engine is running
   B. Inadvertently contacting exposed elements during normal operation or servicing
   C. Pinch points such as gears, belts or chain drives
   D. All of the above

_____ 2. The term PPE means:
   A. Personal Protective Equipment
   B. Prepared to Protect the Environment
   C. Paper Products Excluded
   D. Personal Preparedness Exercises

_____ 3. What PPE is recommended when you see this symbol ?
   A. Eye protection
   B. Hand protection
   C. Hearing protection
   D. Lung protection

_____ 4. Safety signs using the color yellow usually mean:
   A. Caution
   B. Attention
   C. Danger
   D. Warning

_____ 5. Safety signs with a color combination of red and white mean:
   A. Caution
   B. Attention
   C. Danger
   D. Warning
6. Factors affecting reaction time which can lead to accidents include:
   A. Age
   B. Experience
   C. Mood
   D. All of the above

7. To steer a tractor with an attached implement safely, you need to know which of the following:
   A. Width and power of the tractor
   B. Width of the implement only
   C. Width and length of the tractor and the implement
   D. All of the above

8. When preparing to transport wide tillage equipment you need to:
   A. Fold into transport position and lock wings in the folded position
   B. Install transport locks on lift cylinders
   C. Both A and B are correct
   D. Neither A nor B is correct

9. Identify the hazardous substance that is formed during fermentation of silage.
   A. Corn rot fumes
   B. Silo gas
   C. Oxygen
   D. Sorghum sugar

10. An example of clothing you should wear for farm work is:
    A. Loose-fitting clothes
    B. Hard shoes with slip-resistant soles
    C. Cut-off shorts
    D. All of the above

11. The PTO master shield:
    A. Should be removed before operating the tractor
    B. Transfers power from the tractor to a machine
    C. Makes a great step for climbing on the tractor
    D. Protects the operator from the rotating PTO stub

12. Hand signals are an important form of communication on the farm when working around loud equipment. What does the hand signal pictured to the right mean?
    A. Stop the engine
    B. Decrease speed
    C. Start the engine
    D. Lower equipment
13. The term “hydraulic” refers to:
   A. Air under pressure
   B. Gas under pressure
   C. Fluid under pressure
   D. All of the above

14. A safe way to check for pin hole leaks in the hydraulic system is to:
   A. Rub your bare hand over the hydraulic hose
   B. Rub your gloved hand over the hydraulic hose
   C. Hold a match near where you suspect a leak
   D. Hold a piece of metal or cardboard near where you suspect a leak

15. Which of the following factors contributes to ATV accident injuries:
   A. Extra riders
   B. Excessive speed
   C. Driving on public roads
   D. All of the above

16. When the skid steer loader engine is running, the safest place for the operator to be is:
   A. Standing up in the cab
   B. Riding in the bucket
   C. Sitting in the operator’s seat with the seat belt fastened and the safety bar in place
   D. Standing next to the loader

17. If the equipment you are operating comes into contact with an electric power source you should:
   A. Stay calm, shut down the equipment, and shout for someone to call the power company to disconnect the power
   B. Stay in your seat or you could be electrocuted
   C. Wait until power has been disconnected to climb off of the equipment
   D. All of the above are correct

18. A young person is ready to operate farm machinery when he/she is:
   A. Strong enough to lift 50 pounds
   B. 5 feet tall
   C. Size is important, but maturity, common sense, and judgment should be evaluated before assigning farm jobs.
   D. Able to reach the foot pedals on all tractors and self-propelled equipment.

19. The most important source of information about your farm equipment is:
   A. Operator’s manual
   B. Sales brochures from the manufacturer
   C. Resale value book
   D. Your county agent
20. Agricultural chemical containers should be stored:
   A. Off the floor in the chemical storage building on wooden pallets
   B. Outside under a good shade tree
   C. Directly on any concrete floor that is available on the farmstead
   D. In the house

21. Causes of farm machinery accidents include:
   A. Fatigue
   B. Weather
   C. Missing safety devices
   D. All of the above

22. When machines with hydraulic lifts are not in use, the lifts should be:
   A. Locked in transport position or lowered to the ground
   B. Raised to their highest position
   C. Raised 4 feet off the ground
   D. Left in any position convenient for the operator

23. Lifting heavy loads with the skid steer bucket can result in the center of gravity:
   A. Being raised
   B. Being lowered
   C. Being unchanged
   D. Moving to the side

24. Hitch pins should be secured with a:
   A. Lock and key
   B. Screw
   C. Locking pin/security clip
   D. Bolt

25. A Slow Moving Vehicle (SMV) emblem can be used to replace other warning devices such as:
   A. It cannot be used to replace warning devices
   B. Amber rear reflectors
   C. Flashers
   D. Tail lights

26. Which of the following accidents can happen when working with grain augers?
   A. Caught feet
   B. Electrocution
   C. Cable or winch failures
   D. All of the above
27. When connecting a drawbar implement:
   A. Never let a helper stand between the tractor and the implement
   B. Always have a helper stand between the tractor and the implement
   C. Have the helper straddle the drawbar while you back the tractor
   D. None of the above is correct

28. Implements attached to tractors can be powered by:
   A. The PTO
   B. Hydraulics
   C. Wheels turning on the ground (ground-driven)
   D. All of the above

29. The Hazardous Occupations Order for Agriculture restricts 14 and 15 year olds from performing which of the following tasks, unless they have attended H.O.T. training and received certification.
   A. Corn picker
   B. Forage harvester
   C. Hay baler
   D. All of the above

30. Power engagement controls are associated with:
   A. Changing engine speed
   B. Turning lights on and off
   C. Breaking the tractor
   D. Activating the PTO

SECTION 2 – TRUE or FALSE

T F 31. Always disengage the power take off and shut off the engine of the tractor before removing material from the baler.

T F 32. Continual exposure to breathing hazards creates long-term health problems, such as “farmers lung”.

T F 33. Because reaction time increases with increased fatigue, the risk of personal injury also increases.

T F 34. One-third of farm injury fatalities occur to youth between the ages of 15 and 19.

T F 35. Before filling or emptying a wagon or bin of grain, always check to make sure no one is trapped or playing inside.

T F 36. Prolonged exposure to loud noises will lead to hearing loss.
T  F  37. Males age 20 and younger account for 85% of farm injury fatalities.

T  F  38. A handkerchief over your nose will filter gases, fumes, and small particles.

T  F  39. All moving parts on PTO-driven forage choppers and balers stop immediately when the PTO is disengaged.

T  F  40. Many farm deaths occur when equipment (such as elevators, ladders, or irrigation pipes) comes in contact with electrical power lines.

T  F  41. Safe operation of a utility vehicle requires the same safe work habits used with tractors, skid steer loaders, and ATVs.

T  F  42. It is safe to run an engine in a closed building.

T  F  43. Too tight of a turning radius can cause damage to the tractor tires or the towed equipment.

T  F  44. Tools used frequently on a tractor or self-propelled machine should be stored on the platform near the operator.

T  F  45. A first aid kit and fire extinguisher should be present on harvesting equipment and on the tractor.

T  F  46. Keeping machinery in good condition and properly adjusted makes it safer to operate.

T  F  47. PTOs must be guarded to prevent an entanglement hazard.

T  F  48. It is safe to leave the power engaged and the engine running when working to unplug a clogged silage wagon or blower.

T  F  49. Falls are a common source of injury to young farm workers.

T  F  50. A person can be completely engulfed in flowing grain in about 25 seconds.