

21 WOODWORKING MACHINERY

QUIZ 1 (20 POINTS TOTAL)

True/False (6 points)

1. All of the metal framework on electrically driven machines should be grounded with the exclusion of the motor.
 - a. true
 - b. false
2. The work area of a sander should be 3 ft plus the length of the stock.
 - a. true
 - b. false
3. All accessory or feed tables should be the same height as the working surface of the machine.
 - a. true
 - b. false
4. A machine should be put through a trial run before beginning a job.
 - a. true
 - b. false
5. Face shields are adequate protection for operations that may generate flying objects.
 - a. true
 - b. false
6. The height of a machine does not affect worker fatigue.
 - a. true
 - b. false

Multiple Choice (6 points)

7. Fine work may require _____ footcandles of light.
 - a. 25
 - b. 50
 - c. 80
 - d. 100
8. Who is usually responsible for putting a machine through trial runs?
 - a. management
 - b. workers
 - c. safety and health professional
 - d. maintenance or setup person

9. If a sound level equals or exceeds _____ dBA over an eight-hour period, then the worker's exposure to the sound level must be reduced.
 - a. 75
 - b. 80
 - c. 85
 - d. 90
10. To make push sticks long enough to keep hands well away from the blade, add _____ to the blade's diameter.
 - a. 3 inches
 - b. 4 inches
 - c. 6 inches
 - d. 8 inches
11. After repairs have been made to a blade, the blade must be re-tensioned. This is a job for a _____.
 - a. carpenter
 - b. sawsmith
 - c. machine operator
 - d. supervisor
12. Which type of button is recommended for emergency stop/shutoff?
 - a. protected
 - b. mushroom
 - c. silver-colored
 - d. all of the above

Short Answer (7 points)

13. How can a safety and health professional help to minimize the hazards posed by electrical saws?
14. What are some of the common injuries and incidents involved with circular saws?

15. Companies should provide employees with equipment that meets the existing standards and regulations of which three organizations?

16. What three characteristics are necessary for a point-of-operation guard on a woodworking machine?

17. What are the advantages of a high-blade silhouette?

18. How can you prevent a blade from cracking?

19. What is the purpose of an underslung cutoff saw?

Short Essay (1 point)

20. A kickback occurs during a ripping operation when part or all of the work piece is violently thrown back to the operator. As an operator of a saw, what would you do to avoid kickbacks?

QUIZ 2 (20 POINTS TOTAL)

True/False (6 points)

1. Most power-feed saws run at about 3,450 rpms.
 - a. true
 - b. false
2. A guard offers protection from the sides and from above, but it does not protect workers from the front.
 - a. true
 - b. false
3. Operators should hold stock against the gauge, and not saw freehand.
 - a. true
 - b. false
4. When crosscutting, radial saws cut upward and pull the wood away from the operator.
 - a. true
 - b. false
5. Workers should never operate the saw with the blade in a position where it protrudes or extends beyond the table unless making miter or bevel cuts.
 - a. true
 - b. false
6. When using a radial saw, an antikickback device must be used in the ripping operation.
 - a. true
 - b. false

Multiple Choice (5 points)

7. The _____ blades are for cutting brass, aluminum, copper, zinc, lead, and bronze.
 - a. flooring
 - b. steel slicer
 - c. nonferrous metal
 - d. master combination
8. The _____ blades are for precision cross cutting, mitering, and ripping on all woods, plywood, and laminates where the smoothest of cuts are desired.
 - a. hollow ground planer
 - b. master combination
 - c. rip
 - d. plywood

9. The ____ blade is an all-purpose blade for fast cutting of all woods where the best finish is not required. Ideal for use in cutting of heavy rough timbers, in framing of buildings, etc., it cross cuts, rips, and miters equally well.
 - a. master combination
 - b. chisel tooth combination
 - c. rip
 - d. flooring
10. Second only to circular saws, _____ are the most dangerous woodworking machines.
 - a. sanders
 - b. lathes
 - c. hand-feed jointers
 - d. shapers
11. Management can take an active role in minimizing hazards posed by machines by _____.
 - a. training operators
 - b. ensuring all machines are guarded
 - c. making sure operators follow all safety procedures
 - d. all of the above
 - e. none of the above

Short Answer (8 points)

12. To operate a sander safely, workers should _____.
13. What are the two possibilities of severe injury that can arise from feeding a radial saw from the wrong side.
14. What is the usual cause of band-saw injuries?

15. What is a common technique for safely sawing a sharp radius?

16. The principal danger in using wood shapers is that operators' hands and fingers might strike against the revolving knives. Severe incidents can also result when broken knives are thrown by the machine. What precautions can be made to keep the blades from breaking or flying?

17. How can an operator reduce planer vibration?

18. When an operator must remove wood fragments from the bed plate of a power-feed planer, what should he do first?

19. How should operators clean their machines?

Short Essay (1 point)

20. It is your job to inspect the blades for the company's circular saw operation. What blade conditions may cause an unsafe working condition?