

San Diego Fine Woodworkers Association Member Shop

Safety Test

Mark answers the correct portion of the answer sheet for the test you are taking.
Use the Guild Safety Answer Sheet to record your answers, available on the website.

General Shop Safety

1. Eye protection is required in the shop to
 - a. Improve your vision
 - b. Prevent eyestrain
 - c. Prevent flying particles, sawdust, foreign objects or corrosive substances from entering your eyes
 - d. Reduce glare
2. Loose clothing must be securely fastened or removed and long loose sleeves rolled up above the elbows
 - a. Before operating any machinery
 - b. During the operation of any machine
 - c. After operating any machine
 - d. Only when you are assisting the Shift Supervisor
3. If you notice any breakage or damage to tools, instruments, or machinery you should
 - a. Try to repair the damage yourself
 - b. As a friend to assist you in its repair
 - c. Be careful when using such equipment
 - d. Notify the Shift Supervisor immediately
4. When is it safe to clean and adjust a power driven machine?
 - a. If it is operating slowly.
 - b. When you are assisted by another member.
 - c. If it has no exposed gears.
 - d. If it has come to a complete stop and has been unplugged.
5. Prior to plugging in a power tool or machine to an electrical socket you must:
 - a. Ensure you using the correct blade or bit
 - b. Turn on dust collection and open the blast gate
 - c. Double check that the power switch is in the “off” position
 - d. Have your work piece securely clamped to a fixed surface or jig
6. All accidents and injuries must be
 - a. Ignored
 - b. Reported to the member’s doctor
 - c. Reported to the Shift Supervisor immediately
 - d. None of the above
7. If any member is committing an unsafe act
 - a. You may do so as well
 - b. You may ignore that member
 - c. Notify the Shift Supervisor of what you observed.
 - d. Send the member to the Shift Supervisor

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8. If you are in doubt about the use of any tool, machine, or shop procedure
 - a. Ask an advanced member for help
 - b. Proceed cautiously
 - c. Always ask the Shift Supervisor
 - d. Experiment with the new procedures

9. Always carry long objects such as metal rods and long boards
 - a. Directly in front of you because other persons will move out of your way
 - b. With the front end high to avoid hitting other people
 - c. On your shoulders
 - d. In a vertical position
10. When using a chisel it is ok to hold your work with your “free” hand.
 - a. True
 - b. False
11. One of the specific causes of accidents is the crowding or hurrying of a person at a machine.
 - a. True
 - b. False
12. Dusting yourself off with the air hose is not a good practice.
 - a. True
 - b. False
13. Sharp tools are the safest to use.
 - a. True
 - b. False

Band Saw

1. Prior to starting the band saw, you must check the machine for
 - a. Proper blade tension
 - b. Proper blade guard and guide alignment
 - c. Proper blade alignment
 - d. All of the above
2. The blade guard and guides are properly set when
 - a. The blade is stopped and guard and guide are barely touching the stock
 - b. The blade is stopped and the guard and guide are $\frac{1}{4}$ ” above the stock
 - c. The blade is stopped and guard and guide are $\frac{1}{2}$ ” above the stock
 - d. The machine is off and the blade is still coasting
3. When installed correctly, the teeth of the band saw point
 - a. Downward towards the table and facing front
 - b. Upward away from the table facing front

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4. The band saw blade should be where in proximity to the rear wheel roller bearing?
 - a. Firm and tight against the wheel roller bearing
 - b. Slightly clear the wheel within 1/16"
 - c. Slightly clear the wheel within 1/32"
 - d. None of the above
5. Freehand sawing on the band saw should only be attempted
 - a. When the work to be sawed is resting flat on the table or in a jig
 - b. When making an inside cut
 - c. When there is no way to use a fence or a miter gauge
 - d. It should never be done
6. When sawing sharp or tight curves
 - a. Feed the work quickly
 - b. Make relief cuts that will free the blade
 - c. If the blade becomes bound, back out of the cut after turning the saw off and the blade stops
 - d. Both B or C
7. If it becomes necessary to back out of a long cut, you should
 - a. Continue to try to push the stock forward
 - b. Carefully back the stock off the blade while running
 - c. Pull the stock off the blade
 - d. Stop the machine, wait for the blade to stop, and back the stock off the blade
8. What is the safest way to cut cylindrical stock on the band saw?
 - a. By rolling the stock slowly though the blade
 - b. By raising the guides, standing it on end, and carefully feeding it through the blade
 - c. By using a "V" block
 - d. By clamping the stock and moving it slowly through the blade

Bench Grinder

1. You must use both safety glasses and a face shield while using the grinder
 - a. True
 - b. False
2. The bench grinder is to be secured to the table or workbench while in use
 - a. True
 - b. False
3. Grinding wheels must be completely stopped before adjusting the tool rest or shatter guards or spark guards
 - a. True
 - b. False

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4. How far should the tool rest be adjusted away from the wheel?
 - a. 1/2"
 - b. 1/16"
 - c. 1/8"
 - d. Between 1/16" and 1/8"
5. Where should one stand when turning the bench grinder on?
 - a. At the side of the machine
 - b. In front of the machine
 - c. Standing to the side using a stick
6. How should material be brought into contact with the wheel?
 - a. Force the material into the wheel for two seconds and back it off until it cools
 - b. Slowly and smoothly bring the material into the grinding wheel
 - c. Barely touch the side of the wheel
7. Use the side of the wheel for heavy grinding
 - a. True
 - b. False
8. Dress the wheel when it is out of round, clogged, or has grooves worn into it
 - a. True
 - b. False

Drill Press

1. Always remove the chuck key and check that the pulley and belt guards are in place before turning on the power of the drill press
 - a. True
 - b. False
2. To drill a hole in cylindrical stock
 - a. Hold stock securely by hand
 - b. Clamp stock to the table
 - c. Use a "V" block
3. When drilling a long piece of stock
 - a. Place the excess length to the right of the operator
 - b. Place the excess length to the left of the operator
 - c. Depends on where someone is working next to you
4. When drilling a deep hole, raise the bit often
 - a. To allow chips to escape
 - b. To cool the bit
 - c. To give your feed arm a rest
 - d. Both a & b
5. When the drill begins to break through the underside of the stock, you should
 - a. Ease up on the feed pressure
 - b. Maintain the same feed pressure
 - c. Stop the drill immediately
 - d. Apply more pressure

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6. The safest way to remove chips from the drill press is to
 - a. Brush the chips away by hand
 - b. Blow the chips away by mouth
 - c. Stop the drill press and brush the chips away with bench brush
 - d. Blow chips away with an air nozzle

7. If a drill catches your work causing the work to revolve
 - a. Exert more feed pressure
 - b. Stop the machine immediately if possible without endangering yourself, otherwise backing away
 - c. Grab workpiece with your hand
 - d. None of the above.

Hollow Chisel Mortiser

1. You should make sure the chisel and bit of the mortiser are
 - a. Sharpened before and after each use
 - b. Properly oiled
 - c. Adjusted for correct clearance of the bit and chisel and correctly aligned
 - d. Cooled after each cut
2. It is best that all stock used on the mortiser is
 - a. Free of warps and checks
 - b. Big enough to hold with both hands
 - c. At least 1" thick and 1' long
 - d. Securely clamped onto the mortiser table
3. When the mortiser is turned on you should
 - a. Adjust for depth of cut
 - b. Change alignment of chisel and bit
 - c. Keep away from table
 - d. Keep your hands away from the bit and chisel
4. Once you have completed your set-up you should
 - a. Get the shop supervisor to double check your set-up
 - b. Use a nickel to double check the gap for the chisel
 - c. Plug in the mortiser and turn it on to ensure the bit turns freely
 - d. Ensure bit is completely inside of the chisel

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Jointer

1. End grain should not be jointed on the jointer
 - a. True
 - b. False
2. A push stick is not necessary when jointing the edge of stock, which is less than the height of the fence
 - a. True
 - b. False
3. Before picking up wood that has been surfaced or planed on the jointer, you should make sure you have pushed the wood far enough past the knives so that the
 - a. Wood drops clear of the table
 - b. Out-feed table raises the material above the level of the cutting knives
 - c. Fence will cover the work
 - d. Guard will return over the cutter knives, completely covering the cutter head
4. The jointer is most often used for
 - a. Jointing end grain
 - b. Jointing the face and edge of a piece of stock
 - c. Beveling
 - d. Tapering
5. The out-feed table must be
 - a. A little below the height of the knives
 - b. Even with the knives
 - c. A little above the knives
 - d. Not important when jointing
6. When jointing edge stock your hands should be
 - a. Always behind the stock, pushing it from the infeed table
 - b. Using a push stick or push block to hold the stock against the fence
 - c. Never directly over the knives
 - d. Always in front of the stock, pulling it from the outfeed table.
7. When jointing the face of stock, your hands should be
 - a. Always behind the stock, pushing it from the infeed table
 - b. Placed on the outfeed table
 - c. Directly over, not behind the knives
 - d. Protected by a push block
8. What is the generally accepted position of a jointer operator?
 - a. Stand in a balanced position ready to walk the board through the cut
 - b. Stand on the left side of the machine
 - c. Stand right in the middle next to the rotating blade
 - d. Stand at the end of the infeed table
9. Stock less than 12" in length
 - a. May be surfaced if the shift supervisor observes
 - b. May never be jointed
 - c. Is permissible if the action is with the grain
 - d. Can be jointed if the cut is less than 1/8"

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10. When should you make a fence adjustment to the jointer?
 - a. Before turning the power on
 - b. After turning the power on
 - c. While jointer is running
 - d. When the blast gate is closed
11. Which surface of a cupped board should be cut first?
 - a. Cupped side down, hump up
 - b. Cupped side up, hump down
 - c. Edge of board
 - d. Doesn't matter as long as the grain is going with the cut
12. When jointing long pieces of stock, it is safest to
 - a. Have a helper pull one end of though
 - b. Put more pressure on a piece to keep it from drooping
 - c. Cut the wood by yourself so no one else gets hurt
 - d. Have a helper or roller stand to support one end
13. The purpose of adjusting the fence is to
 - a. Joint a bevel
 - b. Allow all parts of the blade to be used
 - c. Accommodate surfacing the face of a board
 - d. All of the above
14. In which direction should you run the wood on the jointer
 - a. Across the grain if it is wider than 12"
 - b. With the grain
 - c. Against the grain
 - d. It does not matter

Sliding Compound Miter Saw

1. All adjustments shall be made to the miter saw
 - a. Prior to starting the machine with the blade in the up position
 - b. Locked with the miter saw in the down position
 - c. With the blade in the extreme left position
 - d. With the work piece held firmly to the table
2. Always hold the work firmly against the
 - a. Table
 - b. Fence
 - c. Fence & table
 - d. Pivot arm
3. When ready to cut, wait for the motor on the miter saw
 - a. To come up to half speed
 - b. To come to full speed
 - c. To reach a speed for the type of job

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4. When using the sliding compound miter saw
 - a. Use it the same as a miter saw
 - b. Use it like a radial arm saw; cut on the outward stroke
 - c. Pull the blade out, start the saw, push down into the wood, then cut towards the fence
 - d. It does not matter; the slider allows you to cut in either direction
5. What situations can you cross your hands on the miter saw?
 - a. When you have someone watching
 - b. If you are left handed
 - c. Whenever you want
 - d. It is never allowed
6. When a cut has been completed though the stock, you should release the trigger and
 - a. Remove the scrap from the table
 - b. Lock the motor in the up position
 - c. Wait for the blade to stop completely before raising
 - d. Raise the blade right away so it is covered by the blade guard
7. When replacing a blade on the miter saw, the teeth at the bottom of the blade point
 - a. Up and toward the operator
 - b. Down and toward the fence

Router

1. Check to see that the switch is in the off position before connecting the router to the power source
 - a. True
 - b. False
2. It is safe to assume that the router bit left in the router is secure on the router collet
 - a. True
 - b. False
3. When changing a router bit, make sure the router's switch is off and the router is unplugged
 - a. True
 - b. False
4. The nut can be tightened enough with your hand
 - a. True
 - b. False
5. Begin cutting with the router before the motor gets to full speed
 - a. True
 - b. False
6. Holding your stock with one hand and the router with the other is
 - a. Safe
 - b. Unsafe

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7. What direction should you feed the router bit through the work piece??
 - a. In the direction of the bit rotation
 - b. Against the direction of the bit rotation
 - c. Depends on the direction of the grain
8. Allow the motor to stop before setting the router down
 - a. True
 - b. False
9. Store the router with the bit left in the router chuck
 - a. True
 - b. False
10. The shank of the router bit should be inserted into the collet
 - a. 1/4"
 - b. As far as possible
 - c. 1"
 - d. Fully into the collet, then withdraw the shank of the bit approximately 1/8" so the shank is not "bottomed" out in the collet
11. Always make sure the bit is
 - a. Carbide-tipped
 - b. High speed steel
 - c. Sharp and clean
 - d. Lubricated

Router Table

1. You must wear a respirator when working on the router table
 - a. True
 - b. False
2. Check to see that the router switch is in the off position before connecting the power source
 - a. True
 - b. False
3. When shaping narrow stock (less than 3" wide)
 - a. Keep your hands away from the bit
 - b. Use feather boards and clamps
 - c. Use a push block
 - d. All of the above
4. The halves of the fence should touch the router bit so it will show the profile after the machine has been turned on
 - a. True
 - b. False
5. Use a miter gauge and clamp for end grain shaping
 - a. True
 - b. False

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6. The only foreign objects in the stock you need to be concerned with are nails
 - a. True
 - b. False
7. Never reach under the table while the router is running
 - a. True
 - b. False
8. Freehand cuts are allowed when you removed the fence, use a starting pin, and use a bit with a bearing
 - a. True
 - b. False

Edge Belt Sander

1. Always loosen locking knobs before changing or adjusting table height
 - a. True
 - b. False
2. The edge belt sander is used to sand edge grain
 - a. True
 - b. False
3. The edge belt sander is used to sand face grain
 - a. True
 - b. False
4. Inside curves may be readily sanded on the edge belt sander
 - a. True
 - b. False
5. The dust collection system must be turned on and blast gate open before using the edge belt sander
 - a. True
 - b. False
6. Use the side of the belt traveling away from the exhaust scoop
 - a. True
 - b. False
7. The work piece should be introduced to the edge belt sander
 - a. As parallel as possible to the belt
 - b. At a slight angle with the left side of the work piece touching first
 - c. At a slight angle with the right side of the work piece touching first
 - d. Doesn't matter as long as the right end is securely against the stop block

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Table Saw

1. How high above the work piece should the saw blade be set?
 - a. As high as it will go
 - b. High enough to clear the gullets
 - c. The tip of the blade 1/4" above the work piece or tall enough to clear the gullets.
 - d. The tip of the blade 3/8" to 5/8" above the work piece
2. When using the miter for cross cuts, which is the safest way to remove off cuts?
 - a. Turn the power off and wait for the blade to stop
 - b. Use a stick
 - c. Remove the stock being cut first, before removing chips
 - d. None of the above
3. When ripping long stock
 - a. Push it halfway through and then reverse it to complete the cut
 - b. Push it halfway through and then walk around to the back of the table and pull it through
 - c. Push stock through the saw and onto the outfeed table.
 - d. None of the above
4. When crosscutting short duplicate pieces on the table saw, the safe method to use is
 - a. The fence alone as a guide
 - b. A stop block clamped to the fence as a guide
 - c. The first piece cut as a gauge
 - d. Any of the above
5. When operating a table saw, you should stand
 - a. To the right side of the blade
 - b. To the left side of the blade
 - c. Directly in line of the blade
 - d. It does not matter
6. In ripping most stock the waste or scrap should
 - a. Fall to the outside of the blade
 - b. Between the blade and the fence
 - c. Be pushed through with your fingers
 - d. Be recycled
7. You must not back the wood away from the blade
 - a. Without first rolling up your sleeves
 - b. With sawdust and scraps on the table
 - c. Without giving a signal
 - d. While the saw is running, due to danger of "kickback"
8. Reaching over the saw blade or passing wood over the saw blade at any time while it is running
 - a. Speeds up the operation
 - b. Is forbidden
 - c. Shows you are handy with the machine
 - d. Lets you feed wood into the saw faster

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9. When you are ripping a piece of stock on the table saw, you should stand
 - a. So you can clearly see the blade
 - b. Behind the saw guard
 - c. In an upright position with sleeves rolled up
 - d. To the left side of the saw blade, exerting pressure against the fence and down on the table. Never in line with the blade or workpiece
10. When ripping with the table saw, always use
 - a. The miter gauge
 - b. The blade adjusted to maximum height
 - c. The miter gauge in conjunction with the rip fence
 - d. The rip fence only
11. When ripping long stock use a push block
 - a. Only when the block is supported by the table to prevent the stock from tipping up and kicking back
 - b. Only if the stock is over ½” wide
 - c. If you are not using a featherboard to hold the stock against the fence
 - d. At all times
12. When ripping with the table saw, it is imperative that the stock be
 - a. Pushed to the approximate center of the blade
 - b. Pushed forward until it is completely clear of the back of the blade by at least 4”
 - c. Pushed well past the front of the blade
 - d. Pulled back to clear the blade
13. All table saw adjustments should be made
 - a. While the saw is in motion
 - b. While the saw is completely stopped
 - c. After you close the blast gate
 - d. After the fence has been removed from the table
14. Cross-cutting stock normally requires a
 - a. Fence
 - b. Stop block
 - c. Push stick
 - d. Miter gauge or crosscut sled
15. The riving knife shall be used when
 - a. Cutting tapers
 - b. Crosscutting
 - c. Ripping
 - d. All of the above
16. When is it safe to do free-hand sawing on the table saw?
 - a. When cutting circles
 - b. Never
 - c. When cutting very thin stock
 - d. When cutting plywood
17. When ripping long stock
 - a. Have a helper pull the stock through the blade
 - b. Use the outfeed table or roller stands

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Thickness Planer

1. The minimum length of stock that can be run through the planer is
 - a. Determined by the width of the stock
 - b. Determined by the depth of cut
 - c. Equal to the distance between the upper and lower rollers
 - d. 12"
2. When feeding stock into the planer, one should stand
 - a. In directly line with the stock
 - b. Clear, and let it run free
 - c. Off to one side, out of line of the stock
 - d. In front of the planer
3. Feeding stock is best done by
 - a. Pushing it from the end
 - b. Pulling it from the other end
 - c. Letting it feed itself
 - d. Using a push stick
4. Which side does the planer cut?
 - a. Face down surface
 - b. Face up surface
5. The depth of cut with the planer should not exceed
 - a. $\frac{1}{4}$ " for softwood
 - b. $\frac{1}{32}$ " for all types of woods
 - c. $\frac{1}{8}$ " for hardwoods
 - d. $\frac{1}{16}$ " for all types of wood
6. When surface planning to thin stock ($\frac{3}{8}$ " or less), the work piece should be
 - a. Fed into the machine behind a piece of like thickness
 - b. First surfaced on the edges
 - c. Fed into the machine beside a piece of like thickness
 - d. Placed on top of a back board
7. If the board is warped
 - a. It is best to face joint the concave side first
 - b. Plane the hump side first
 - c. It doesn't matter which side is planed first
 - d. Plane the cup side first.
8. When should the depth of cut be set on the planer
 - a. While the board is being fed through
 - b. Only when the machine is shut off
 - c. Before the board is fed through
 - d. With the Shift Supervisors permission
9. After the stock has been gripped by the infeed rollers, it may be straightened without endangering the operator
 - a. True
 - b. False

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10. Wood may not be planed across the grain
 - a. True
 - b. False
11. The planer table hand wheel must not be adjusted while making a cut
 - a. True
 - b. False
12. For most work it is not necessary to remove more than
 - a. 1/32" with each cut
 - b. The amount specified on the depth gauge
 - c. The equivalent of three turns of the depth adjustment wheel
 - d. The amount of stock that was removed on the jointer

Oscillating Spindle Sander

1. Feed stock against the direction of spindle rotation
 - a. True
 - b. False
2. Secure spindles firmly with wrenches but do not over tighten
 - a. True
 - b. False

Combination Belt/Disk Sander

1. It is safe to have your fingertips nearly touching the moving belt or disc
 - a. True
 - b. False
2. Which operations should be done with the machine turned off?
 - a. None
 - b. Remove scrap pieces from work area
 - c. Make belt adjustments
 - d. Both B and C
3. Which is the most correct statement
 - a. Wearing gloves and jewelry is acceptable during the operation of the belt sander
 - b. Remove jewelry, remove gloves, and secure long hair and loose clothing while operating the drum sander
 - c. Jewelry should be removed but gloves are acceptable during operation of the drum sander
 - d. Loose hair must be secured and gloves removed but jewelry is acceptable while operating the drum sander

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4. The edge belt sander and combination belt/disk sanders are ideal tools for sanding small unsupported work pieces
 - a. True
 - b. False
5. Which statement is incorrect with respect to the sanders
 - a. The belts should be inspected for wear and integrity before use
 - b. The use of a filtering face mask or respirator is required
 - c. Always sand on the left side of the disk as it rotates down, into the table
 - d. Always have dust collection turned on while operating

Belt Sander (handheld)

1. The belt sander should always be allowed to operate at the full speed to which it is set
 - a. True
 - b. False
2. The power cord must always be unplugged when changing the belt and/or making adjustments other than the belt tracking
 - a. True
 - b. False
3. The belt sander should be left sitting directly on the belt when the power cord is first plugged in
 - a. True
 - b. False
4. The belt sander can be safely operated with one hand
 - a. True
 - b. False
5. Whenever a new belt is installed
 - a. The arrow printed on the inside of the belt must be aligned with the motor rotation
 - b. The belt must be tracked after installation of new belt
 - c. The power cord must be unplugged
 - d. All of the above