

9. Hands must be dry when handling any electrical equipment. _____
10. All four legs/wheels of the chair must be on the floor. Tilting back can cause the loss of balance. _____

Directions: Choose the best answer from the (a), (b), (c), (d) or (e) choices to complete each statement. Write the letter of your choice on the line provided in the right margin.

GENERAL SAFETY

1. Most accidents in the shop are due to _____
- a) Unguarded equipment
 - b) Unsafe shop conditions
 - c) Unsafe acts by people
 - d) Following safety procedures
 - e) All the above
2. When there is even the slightest accident, injury, or illness in the shop, you should first: _____
- a) Tell your instructor
 - b) Get the first aid kit and use it
 - c) Get the injured person to the nurse
 - d) Put a Band-Aid on the injury and continue working
3. To protect your feet from falling objects, spilled acid or objects on the floor of the shop, you should wear: _____
- a) Sneakers
 - b) Sandals
 - c) Solid shoes with full tops, preferably with rubber soles and heels
 - d) Soles with full tops and oil resistant soles
4. Lifting heavy objects and carrying long pieces should be done by _____
- a) More than one person
 - b) Someone else
 - c) Knocking obstacles out of your way
 - d) All the above
5. Floors and aisles should be kept clear. Hoses, cords, tools, and jacks must be kept out of passageways to prevent _____
- a) Slips and falls
 - b) A messy-looking shop
 - c) A bad rating by the inspectors
 - d) Injuries

6. Using the tool of the right size, shape and recommended “work load” for the job is important. Do not just pick up any available tool to “get by” because
 - a) The wrong tool can slip and hurt you
 - b) Over-loading a tool can cause breakage and injury
 - c) Both (a) and (b)
 - d) It is permissible to use any available tool

7. Which is good safety practice when working with hand tools?
 - a) Giving tools to another person by the handles first
 - b) Cleaning off greasy handles so they aren’t slippery
 - c) Both (a) and (b)
 - d) Neither (a) nor (b)

8. Before leaving a power machine be sure that:
 - a) All parts have stopped moving
 - b) The power has been turned off
 - c) Both (a) and (b)
 - d) Neither (a) nor (b)

9. When using a heavy-duty drill hold, the drill motor with both hands to:
 - a) Avoid breaking the drill bit
 - b) Avoid drilling an offset hole
 - c) Avoid twisting for bodily harm
 - d) Control the drill angle

10. When moving a ladder, be sure that:
 - a) It is closed
 - b) There are no tools or materials left on top of the ladder
 - c) Be aware of electrical lines
 - d) All the above

11. Safety instructions must be given before you are allowed to work on any machine or _____

12. You are not permitted to work on any equipment or machinery at any time if the _____ is not present.

13. Guards and safety devices must be on any machine during its _____

14. Machinery must be oiled or adjusted while it is in _____

15. A machine must be started or stopped only by the _____

16. Do not leave a machine while it is _____

17. When working on or near any machine or tool which produces chips or particles, you must wear _____

18. You are not permitted within the safety zone around any machine unless you are the _____
19. Loose clothing must be tucked in before you start work, as a precaution against _____
20. If in doubt about any machine, check with the _____
21. Aisles and working area must be kept clear of _____
22. The shop floor must be kept free of oil because of the fire danger and _____
23. Combustible rags must be kept in closed _____
24. Do not lift materials heavier than your ability to handle them _____
25. Long pieces of material should be carried by _____
26. Eye protection is required when operating or observing in close proximity, all power activated _____
27. To avoid possible injury, students with long hair must wear a head band, hair net, snood or similar device to prevent hair from becoming entangled in _____
28. The attention of the instructor should be directed to any violation of _____
29. Accidents, no matter how slight, must be reported immediately to the _____

Directions: Complete the following statements by writing the appropriate word or words in the blank spaces in the right margin only.

HAND TOOLS AND BENCH WORK

30. Pass sharp-edged tools _____ first to another student. _____
31. Passing students may be injured if materials are left _____ from a vise. _____
32. The handles and heads of tools should be kept free of _____
33. Two hardened surfaces should not be _____ together. _____
34. Tools with tags should never be without _____
35. "Mushroom" ends of chisels or hand tools must be ground off to prevent steel chips from _____
36. Sharp hand tools should not be carried in your _____

37. An air nozzle never should be pointed at _____

DRILL PRESS

38. To prevent work from being torn from your grasp, work should be securely clamped to the table or in a _____

39. When the drill begins to break through the work, ease up on the _____

40. The vise should be held firmly to prevent the work from _____

41. Chips should be removed from the drill press table with a _____

42. The chuck key must be _____ before turning power on.

GAS FURNACE

43. When working with hot metal, you should wear _____.

44. An _____ will result if moisture, cold metal, or cold tongs are allowed to come into contact with molten metal.

45. When lighting the furnace, the _____ is turned on first to clear the furnace of accumulated gas.

46. When shutting off the furnace, the first thing to do is to turn off the _____.

47. Hot metal should be marked with the word _____.

GRINDER AND BUFFER

48. The tool rest must be set close to the grinding wheel to prevent work from becoming _____.

49. Grinding on the _____ of the wheel produces pressure that may cause the wheel to break.

50. No one should stand in line of the _____ of the wheel when it is being faced or started because of the possibility of the wheel breaking.

51. Holding small pieces of material with vise grip or vise will prevent work from _____.

52. For any grinding or buffing operation the operator must wear _____.

LATHE

- 53. When mounting work between centers, the tail stock should be securely _____. _____
- 54. To prevent bar material extending beyond the end of the lathe from whipping, the material should be _____. _____
- 55. Not using some form of _____ in removing or mounting the chuck may result in the chuck dropping on the foot. _____
- 56. Revolving work should never be _____ by the hands. _____
- 57. The gear cover must be kept _____. _____
- 58. Turn the work through one complete cycle by hand to check for _____. _____
- 59. Starting the lathe with the wrench still in the chuck will throw the _____. _____
- 60. Stop the power feed before the tool bit reaches the _____. _____
- 61. Remove long, curled chips with a _____. _____

METAL CUTTING BAND SAW—DO ALL

- 62. When welding blades, flash guards should be _____. _____
- 63. Saw guards are usually set with a gauge for proper blade clearance. Any attempt to make this _____ with the machine running may result in cut hands. _____
- 64. At the first sound of a damaged blade, the machine should be _____. _____
- 65. To avoid cutting fingers when a through cut is made, use a _____, or a piece of wood block. _____

MILLING MACHINE

- 66. If clamps and attachments are not fastened _____ the work may fly off the table when the power is turned on. _____
- 67. All clutches and feeds should be _____ before starting the power. _____
- 68. Measurements made while the machine is running may result in tools or clothing becoming caught and dragging the hand into the _____. _____
- 69. The minimum distance the hands should approach the revolving cutter is _____. _____

UNIVERSAL OR TOOL AND CUTTER GRINDER

- 70. All work mounted in a grinder in any manner must be held _____. _____
- 71. An operator should never operate any grinder without wearing _____. _____
- 72. Drive belts on grinders are _____ to prevent injury to the operator. _____

Student

THIS IS TO CERTIFY that I have received instructions on safety precautions in my Machinist class.

The teacher demonstrated to me how to use tools, equipment and chemicals safely and correctly. I will observe all safety precautions. If ever in doubt regarding any operations, I will obtain the necessary information from my teacher.

(Student Signature)

(Date)

Instructor

THIS IS TO CERTIFY that

(name of student)

has been given safety instructions in my class.

I demonstrated the proper use of tools, equipment and chemicals in the class and this student passed this written safety test with 100% accuracy.

(Teacher Signature)

(Date)