

**LOS ANGELES UNIFIED SCHOOL DISTRICT
DIVISION OF ADULT AND CAREER EDUCATION
SAFETY TEST FOR AIRFRAME AND POWERPLANT MECHANIC PROGRAM**

School: _____ Industry Sector: Transportation

Class: _____ Date: _____

Teacher: _____ Room: _____
(Please Print)

Your Name: _____ Phone: _____
(Last) (First)

Date of Birth: _____ Age: _____ Email: _____

Address: _____
(Street) (City) (Zip)

In Case of Accident, Notify: _____ Phone: _____

To the Student:

These instructions are an important part of training in the Airframe and Powerplant Mechanic program. All members of the class must observe safety rules and precautions. Habits of carelessness or of failure to follow these rules are sufficient cause for dismissal from the class.

All students are required to learn these safety rules as part of the Airframe and Powerplant Mechanic program. Additional specific safety instructions are taught in the classroom about the various operations of machines and other workplace equipment.

All students will be required to pass this safety examination with 100% accuracy and to sign the back page of this examination indicating that you have received these instructions.

This test must be on file in the school records for 5 years.

Directions: Mark "T" for true if the following statements are completely true or "F" for false if any part of the statement is untrue. The first statement will serve as an example:

- | | |
|--|-----------------------------|
| 0. Most accidents in the classroom are due to unsafe acts by people. | <u> T </u> |
| 1. All classroom injuries and accidents must be reported to the teacher immediately. | <u> </u> |
| 2. The school elevator may be used during an emergency such as fire or earthquake. | <u> </u> |
| 3. It is permissible to store heavy items on top of file cabinets and bookcases as long as nothing is stored within 18" of the sprinkler system. | <u> </u> |
| 4. Objects or materials must be passed carefully to or at another student. | <u> </u> |
| 5. You may lift or carry heavy boxes or equipment in school less than 25 lbs. using proper lifting techniques. | <u> </u> |
| 6. Any frayed cord or even the slightest shock or spark from electrical wire or connections must be reported to the instructor immediately. | <u> </u> |
| 7. When broken tools or an unsafe classroom condition are found, or a machine needs repair, it is permissible to make the needed repair and then report the condition to the instructor. | <u> </u> |

- 8. Smoking on school campus is a violation of District rules and the Health Code. _____
- 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), or (d) choices to complete each statement. Write the letter of your choice on the line provided in the right margin.

**SAFETY IS ALWAYS YOUR RESPONSIBILITY
REPORT UNSAFE CONDITIONS AND ACCIDENTS TO YOUR INSTRUCTOR**

- 11. Most shop accidents are caused by:
 - a. Carelessness
 - b. Unfamiliarity with equipment
 - c. Being in a hurry
 - d. All the above_____
- 12. Before using any power tool or machine you must:
 - a. Pass a safety test and be sure there's an instructor present
 - b. Ask someone how to turn it on
 - c. Operate the device to see if it is safe to use
 - d. Have prior experience on that equipment_____
- 13. After even the slightest accident, injury or illness in the shop, you should first:
 - a. Take the injured person to the doctor
 - b. Get a first aid kit and treat the injury
 - c. Bandage the wound before returning to work
 - d. Tell your instructor_____
- 14. Whenever you find broken tools, an unsafe shop condition, or a machine in need of repair, you should first:
 - a. Make the needed repair
 - b. Test the tool and repair it as necessary
 - c. Notify the tool keeper or your instructor
 - d. Warn your classmates about the problem_____
- 15. Before running any engine you must:
 - a. Study the checklist
 - b. Perform a pre-run inspection
 - c. Obtain instructor's permission
 - d. All the above_____

ALWAYS WEAR APPROPRIATE PROTECTIVE CLOTHING AND EQUIPMENT

16. Approved safety goggles or face shields must be worn when:
- a. In the shop area
 - b. Using power tools
 - c. Using hazardous chemicals
 - d. All the above
-
17. To prevent hair or loose clothing from getting caught in moving equipment or machinery, you should:
- a. Get another student to do the work
 - b. Cut your hair before using the equipment
 - c. Stay away from all machinery
 - d. Wear properly fitting clothes and tuck in all loose clothing and hair before operating the equipment
-
18. To protect your feet from falling objects, spilled chemicals or sharp objects on the floor, you should wear:
- a. Sandals
 - b. Sport shoes
 - c. Solid shoes with full tops, preferably with rubber soles and heels
 - d. Shoes with full tops and hard soles
-
19. When using corrosive or caustic agents such as battery acid or paint remover you must wear:
- a. Face protection
 - b. Acid-proof gloves
 - c. A respirator
 - d. "a" and "b" are both correct
-
20. To protect your hearing from jet noise or other loud and high-pitched sounds, you should:
- a. Hold your hands over your ears
 - b. Stuff cotton in your ears
 - c. Wear approved hearing protectors
 - d. Stay away from the ramp area
-

LIFTING, HOISTING AND CARRYING SAFETY

21. When lifting heavy objects, keep your back and head as straight as possible and use your
- a. Arm muscles
 - b. Leg muscles
 - c. Back muscles
 - d. Stomach muscles

22. Lifting long or heavy objects should be done by:
- a. More than one person
 - b. Someone other than you
 - c. Instructors only
 - d. All the above
-
23. When working around a heavy object suspended by a hoist, you should:
- a. Keep a hand on it at all times to steady it
 - b. Stay close to it in case it starts to fall
 - c. Shake it to make sure it's secure
 - d. Not place your feet or any other part of your body under the object
-
24. Delicate equipment should be carried:
- a. On a shop cart, or carefully with both hands
 - b. In a tool box
 - c. The same way you would carry any other tool
 - d. By two students
-
25. Lead-acid or NiCad storage batteries should be carried:
- a. By two students
 - b. On a shop cart only
 - c. With both hands
 - d. By a lifting strap
-

FIRE SAFETY AND BURN PREVENTION

26. In case of a fire, you should:
- a. Know where fire extinguishers are and how to use them
 - b. Report the fire and follow your instructor's directions
 - c. Know how to turn off power tools and equipment
 - d. All the above
-
27. To prevent hand and arm burns, never:
- a. Directly hand a hot soldering iron to another student
 - b. Point a steam cleaner spray nozzle at yourself or another student
 - c. "a" and "b" are both correct
 - d. Neither "a" or "b" are correct
-
28. Gasoline should never be used:
- a. As a cleaning solvent
 - b. Near sparks or flames
 - c. As a fuel for steam cleaner
 - d. All the above
-

29. If you are unsure whether or not a material is combustible, you should:
- a. Read the container label or ask an instructor
 - b. Ask a more experienced student
 - c. Light a match to a small sample
 - d. Never use it
30. Before leaving your work area, return ALL oily rags and combustibles materials to:
- a. The tool crib
 - b. A nearby shelf
 - c. The classroom
 - d. A trash can
31. Liquid or grease spilled on the floor should be cleaned up to prevent:
- a. Fire
 - b. Slips and falls
 - c. Both a and b
 - d. Neither a nor b
-
-

HAND TOOLS AND BENCH WORK

32. It is important to always use the correct tool for each job. Using an inappropriate tool is prohibited because:
- a. The wrong tool may slip off and cause injury
 - b. Overloading a tool may cause breakage and injury
 - c. Incorrect tools may damage aircraft components
 - d. All the above
33. Never strike hardened tools such as hammers against each other, and never use chisels or punches with:
- a. Mushroomed heads
 - b. Square heads
 - c. Flat heads
 - d. Tapered heads
34. Which of the following is a good example of hand tool safety?
- a. Giving tools to another person by the handles first
 - b. Cleaning the grease or oil from tool handles so they aren't slippery
 - c. Always checking tools for condition before use
 - d. All the above
-
-

35. After making sure your hammer, file or screwdriver is the right size for the job, you should check to ensure:
- a. It has a tight fitting handle
 - b. The tool crib attendant thinks you are using the right tool
 - c. That other students are using the same kind of tool
 - d. None of the above
36. When using a screwdriver:
- a. Hold the work in the palm of your hand
 - b. Use any size tip, since they all will do the job
 - c. Be sure the tip is not worn, chipped or broken
 - d. Keep both hands on the screwdriver
-
-

GENERAL SHOP AND RAMP PRACTICES

37. Working around aircraft requires full and complete concentration. In the hangar or ramp area you should never:
- a. Use cell phones, so you won't be distracted while working in a hazardous environment
 - b. Run or make sudden moves, so you won't bump into aircraft or equipment
 - c. Use portable music players, so you won't be unaware of dangerous conditions
 - d. All the above
38. Floors and aisles should be kept clear. Hoses, cords, carts and equipment must be kept out of passageways to prevent:
- a. Damaging them
 - b. A bad rating by inspectors
 - c. A messy looking shop
 - d. Tripping, slipping and falling
39. To prevent injury to eyes or eardrums from flying particles, an air hose should never be:
- a. Used to clean dust from your clothing
 - b. Pointed at yourself or others
 - c. "a" and "b" are both correct
 - d. Neither "a" or "b" are correct
-
-

40. To prevent injury due to unintentional engine startup and to prevent engine damage, you must:
- a. Never turn propellers, rotors or turbine wheels by hand
 - b. Always check to make sure all engine controls are “back” or “off” before working around the engine
 - c. Never work in the propeller area when other students are in the cockpit
 - d. All the above
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41. High pressure gasses can be extremely hazardous. When using bottled nitrogen, oxygen or acetylene you must:
- a. Always have an instructor’s permission
 - b. Follow your instructor’s directions exactly
 - c. Never use the equipment without an instructor present
 - d. All the above
-
42. All waste liquids and materials should be:
- a. Disposed of by pouring into floor drains
 - b. Placed in an outside waste container
 - c. Disposed of in accordance with your instructor’s directions
 - d. Left in a safe place
-
43. Sharp tools or objects should never be carried:
- a. In your pocket
 - b. In your hands
 - c. From the tool crib
 - d. At all
-
44. To prevent impact injuries while working around aircraft:
- a. Always wear gloves
 - b. Always look first before moving any part of your body, and move carefully at all times
 - c. Keep away from doors
 - d. Wear a face shield
-
45. To prevent foreign object damage to engines or propellers, you should:
- a. Only operate engines near the hangar
 - b. Never start aircraft engines
 - c. Run engines only after installing protective covers
 - d. Carefully pick up all loose objects on the ground and place them in appropriate containers
-

46. To ensure safe operations of any aircraft or engine, before that operation you should:
- a. Always read the operators manual
 - b. Obtain instructor permission
 - c. Station safety personnel and equipment at appropriate locations
 - d. All the above
-

POWER TOOL SAFELY

47. When using a drill press, the work should always be:
- a. Securely clamped in a vice or to the table surface
 - b. Held firmly
 - c. Carefully placed on a table
 - d. Easy to hold
-
48. To prevent being injured by rotating work pieces in a lathe or drill press, you should:
- a. Carefully push them back in position if they come loose
 - b. Keep your hands and face well away from the cutting area
 - c. Keep one hand on the switch
 - d. None of the above
-
49. Portable rotary grinders and disc sanders should never be left:
- a. Resting on their cords
 - b. Resting on a bench
 - c. Resting on their disc surface
 - d. Near the work area
-
50. Extension cords should never be:
- a. Left lying across the floor unattended
 - b. Left plugged in during lunch or overnight
 - c. Tied in knots
 - d. All the above
-
51. When a drill begins to penetrate the work material, you should:
- a. Ease up on the pressure
 - b. Push harder
 - c. Stop drilling
 - d. All the above
-

52. When using any power tool or equipment you must always:
- a. Use an extension cord
 - b. Do all work outside
 - c. Stand as close as possible
 - d. Wear approved eye protection
-
53. Before and after using drilling or cutting tools you must:
- a. Clean all debris from the work area
 - b. Oil the tools
 - c. Sharpen them
 - d. None of the above
-
54. Electrical tools or equipment should not be used:
- a. In the hangar area
 - b. Without proper instruction in their correct use
 - c. Around other students
 - d. In the ramp area
-
55. Pneumatic tools are preferred when working near:
- a. Aircraft
 - b. Flammable liquids
 - c. Paints or solvents
 - d. All the above
-
56. Squeaking or squealing noises while drilling or cutting can indicate:
- a. Excessive cutting speed
 - b. Worn drills or blades
 - c. Improper lubrication
 - d. All the above
-
57. The power must be off when oiling, cleaning, or adjusting any power equipment to:
- a. Save electricity
 - b. Keep your attention on your work
 - c. Prevent catching your hands or clothing in moving parts
 - d. None of the above
-
58. When using power equipment, be sure your hands and feet are dry because wet hands and feet invite:
- a. Shocks
 - b. Blisters
 - c. Dirt
 - d. None of the above
-

OXYGEN-ACETYLENE WELDING

- 59. Valve protection caps are designed to protect valves from:
 - a. Explosion
 - b. Goggles
 - c. Breakage, damage
 - d. Getting lost

- 60. To keep cylinders from being knocked over while in use, secure them with a chain or:
 - a. Rope
 - b. Tie down
 - c. Solder
 - d. Locking device

- 61. Acetylene should never be allowed to saturate any part of the clothing as it could:
 - a. Ignite it
 - b. Stain it
 - c. Burn it
 - d. Discolor it

- 62. Before you open a cylinder valve, you should _____ the pressure adjusting screw on regulators.
 - a. Remove
 - b. Release, back off
 - c. Open
 - d. Disable

- 63. Oil or grease in the presences of oxygen under pressure may cause the mixture to:
 - a. Burn
 - b. Ignite violently, explode
 - c. Lose pressure
 - d. Slip and fall

- 64. The hose must be free from dirt before you can attach the:
 - a. Gauge
 - b. Oxygen tank
 - c. Regulator
 - d. Torch

65. A left-handed thread is encountered when hooking up a:
- a. Acetylene hose
 - b. Oxygen hose
 - c. Hydrogen hose
 - d. Auxiliary hose
66. Acetylene welding goggles are worn because they protect the eyes from:
- a. Acetylene flame
 - b. Serious burns
 - c. Glare and sparks
 - d. Overheating
-

ARC WELDING

67. For eye protection against infrared and ultraviolet rays, you must wear:
- a. An arc welding helmet with proper lens
 - b. Goggles
 - c. Safety glasses
 - d. Extra protection
68. Persons nearby, who are not wearing helmets, must be protected from the:
- a. Sparks
 - b. Vapor fumes
 - c. Arc flash, ultra violet rays
 - d. Splatter
69. Always shut off the welder when work is completed, as a protection against:
- a. A short circuit
 - b. Harmful fumes
 - c. Explosions
 - d. Regulator damage
-

BATTERY MAINTENANCE SAFETY

70. All maintenance on batteries should be performed:
- a. Inside the hangar
 - b. On the aircraft
 - c. Outside the hangar
 - d. In the tool crib
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71. Never store nickel-cadmium storage batteries near lead-acid batteries because:
- a. They both contain dangerous acid
 - b. They might cause each other to overheat
 - c. Their electrolyte fumes might neutralize each other
 - d. They may corrode each other

72. Batteries must be carried:

- a. On stable plastic carts
- b. Held close to your body
- c. On pieces of wood
- d. By two students

73. Nickel-cadmium battery electrolyte is a base. It must be cleaned up or neutralized with:

- a. Baking soda
- b. Acetic acid, vinegar or lemon juice
- c. Paint solvent
- d. None of the above

74. When removing batteries from aircraft, always:

- a. Turn the master switch off
- b. Remove your metal jewelry and watches
- c. Disconnect the negative terminal first
- d. All the above

Student	Instructor
<p>THIS IS TO CERTIFY that I have received instructions on safety precautions in my Airframe and Powerplant class.</p> <p>The instructor demonstrated to me how to operate hand tools, machines and equipment correctly and safely. I will observe all safety precautions, and if ever in doubt regarding any operations, I will obtain the necessary information from my instructor.</p>	<p>THIS IS TO CERTIFY that</p> <p style="text-align: center;">_____</p> <p style="text-align: center;">(name of student)</p> <p>has been given safety instructions in my class.</p> <p>I demonstrated the proper use of tools, equipment and chemicals in the class and this student passed this written safety test with 100% accuracy.</p>
<p>_____</p> <p>(Student Signature) (Date)</p>	<p>_____</p> <p>(Instructor Signature) (Date)</p>