

Fire Officer One State Exam Study guide

- Boredom with subject, from an instructors perspective, can be over come by doing the following: Be flexible with the lesson plan and design, vary the location and environment of the class, watch others teach the same subject matter or program.
- The most commonly arranged seating arrangement for teaching is? The Horseshoe
- Body language is not just what you say, but how you say. 7% of the received message is what you say, 93% is how you say it non-verbally.
- Pictures can be used as training aides. These aides work by: Explaining in pictures what words can not, help the student visualize it more clearly, get the point across faster, thus shorting the lesson plan and teaching time.
- Leaving a class with unanswered questions invites the students to reflect on the course material once class is over.
- How many words can a student copy during the average lecture, per minute? 20
- Company officer are planning when they decide which objectives or goals they will pursue.
- The number one motivator of people is? Feedback
- What is the difference between a vapor and a gas?
- Kenneth Blanchard, the author, is known for what philosophy?
- When ventilating a multi-story building, the windows should be? Opened on the upper floors on the leeward side first, and then open the windows and doors on the windward side (first floor) second.
- When ventilating a multi-story structure with no windows in the basement, where should the truck company make the cuts in the floor to remove the smoke? Between the floor joists, under an upper floor window.
- Rescue companies are given many tools to effect other assignments not related to fire ground operations. Which of the following is not considered a "Rescue"? A rescue transporting a victim to a hospital for follow up care.
- Span of control is 5 to 1
- Unity of command is simply defined as? A single supervisor
- Resistance to change is a very common trait of human nature. How can you help work through the change? Be supportive, helpful, and friendly. Do not be hostile.
- A quality that subordinates look for in a supervisor is all the following except: Fairness, ability, friendly, and love. Answer is LOVE.
- A load that is applied slowly and remains in place is called a? Static load.
- Impact loads are loads that are applied quickly.
- A girder is a beam that supports another beam.
- Sheathing is the material applied directly over wall studs.
- Steel elongates 9 ½" at 1000 degrees, if the steel is 100 feet long.
- Steel will expand .06 to .07 for every 100 degree rise in temperature.
- Fire pumps must be tested annually. Diesel motors are started weekly. The Jockey pump is the pump that starts the primary pump when it is needed.

- Wet pipe systems: Visual inspection is conducted monthly. All other inspections are conducted annually.
- Dry pipe Systems: Visual inspection is conducted weekly. All other inspections are conducted annually.
- Deluge Systems: primarily used in large hazard areas.
- Kenneth Blanchard is the author who compiled the “one minute” manager.
- McGregor: Compiled the philosophy of theory “X” and theory “Y”. Which of these two theories states that people do not like to work? X
- Sprinkler and standpipes systems with a 4” main riser or larger, is required to have what size drain valve? 2”
- The maximum travel distance to a class D extinguisher is? 75’
- The hydrostatic test of 150 pound or less, of dry chemical extinguishers, is conducted every 12 years.
- The UN number on the Hazmat placard is comprised of 4 numbers.
- The rate of rise detector is very reliable because it relies on what? It relies the inherent rate of rise of the surrounding are.
- The fire tetrahedron has four sides. What are they? Fuel. Oxygen. Heat. The free chain reaction.
- Critical flow is calculated how? $\text{Volume}/100=\text{GPM}$
- The color of smoke varies depending on what is burning. Smoke is a different color at night than during daytime. Grass and wild land fires are a dark gray. Paper burns grey/white, and smells differently from burning wood.
- Chance of fire extension is the greatest through vertical means. The question on the test reads “by what means does fire extend?” Answer Horizontal and vertical.
- Three basic rules of firefighting: 1. Locate 2. Confine. 3. Extinguish
- Strategic goals include which of the following: 1.What is to be done. 2. What you need to do it. 3. Who is to do it.
- When buildings are sprinklered and have functional standpipes. What lines should go where and when? The first line goes to the sprinkler system. The second line goes to the standpipe.
- During high rise fires, a Command post is usually set up in the lobby. Where is the upper level Command post located? It should be located two floors below the fire floor.
- What is done on the floor below the fire floor? Staging
- If a code is being appealed, being in the appeals process and you as the inspector must conduct an inspection which involves this “vague or ambiguous” code. How would you conduct the inspection? Enforce the code as is
- If an owner has an area that you need to inspect under lock and key and he/she refuses to open the area, How would handle the situation if you were the inspector? Document it and move on.
- Would you conduct a fire suppression system test without first contacting the plant manager and advising him/her of the test? NO. Would you still conduct the test if they refused you request? NO
- The maximum height of stacks of lumber in a lumber yard is 20 feet. Protect it from radiant heat, blowing embers, and run off.

- The most common location of occurring fires in a wood shop is in the dust hogger.
- There must be a minimum of 18" from any stocked material and the bottom of the deflector of any sprinkler head.
- The least likely place for a fire to propagate is? Solid piling, Rack storage, bulk storage, or box storage. Answer: Solid Piling.
- Rack storage with a height of how many feet is required to have a sprinkler between the rows. Answer: 25 feet.
- A dry pipe system must have an air pressure of how many psi above the trip point? 15 to 20.
- Photo electric smoke detectors operate when? When smoke particles break the beam of light.
- Bi-metallic detectors have what characteristic over other detectors? They are able to reset themselves. Remember, Photo-electric detectors can do the same thing, but is not listed as one of the answers.
- Rate of rise detectors are reliable not subject to false activation.
- Distance between storage tanks shall be not less than 1/6th the diameter of the tanks.
- Steel is not used as a building material for cryogenic storage tanks because of what reason? The steel becomes too cold and thus becomes fragile.
- Chairs that hold up reinforcing rods prior to concrete being cast are called? Re-bar chairs or CHAIRS.
- Organizing: is defined as an intentional structure of roles by identifying and listing the activities required to achieve the purpose of the program.
- The first consideration in team learning is what? The size and composition of the teams.
- A check valve allows water to flow in only one direction
- Where water pressure in a standpipe exceeds 100 psi at the 2 ½" outlets, an approved device must be installed to reduce the pressure. What is this device called? Pressure reducing valve.
- What is the sprinkler spacing for light hazard occupancy with smooth sheetrock ceilings? 225 square feet coverage.
- As an instructor, what can you do to ensure you are understood? 1. Speak slower. 2. Use visual aides. 3. Define terms better. 4. Demonstrate an activity.
- Rate of rise detectors depend almost exclusively on the expansion characteristics.
- Salvage begins when? When the Fire Department arrives
- Overhaul begins when? When the visible fire is extinguished.
- What is the primary difference between a vapor and a gas? A vapor is emitted from any solid or liquid. Gases exist in many ranges and temperatures.
- Evaluation forms, according to Smoke, for a training program should evaluate the curriculum by what method? Numerical based grading.
- Systems that have a pressure tank as part of the system are required to be ____full of water, and have ____ psi of air. Answer: 2/3 full of agent and have 75 psi of air.
- Ordinary combustibles (plastics, wood, paper, etc.) can produce 8000 BTU/Lb.

- Flammable/combustible liquids (gasoline, diesel, etc.) can produce 16,000 BTU/Lb.
- Flammable liquids have an ignition temperature of under 100 degrees.
- Combustible liquids have an ignition temperature over 100 degrees.
- Fog nozzles are not good for suppressing vapors of LPG. In order to reduce the threat, the primary tactic would be? Shut off the gas.
- Vertical command is GEOGRAPHIC. Horizontal command is TASK ORIENTED.
- One pound of carbon mixes with how many pounds of oxygen to produce CO₂ in a fire? I missed this one and still can not find the answer.
- During quenching operations, freeboard must be equal to how many inches? 6
- Plywood delaminates when exposed to fire.
- What type of stone is cut into rectangular or square blocks? Ashlar
- The elevations on a set of drawings may show what? Floor locations, Grade or slope of the ground outside the building, window/door shapes, and roof pitch/slope.
- Brick walls that are not structural, and are serve only to improve the exterior “look” of a building, is called a? Veneer wall.
- According to NFPA, a fire wall that projects through AND above the roof to protect a combustible roof covering is recommended to be at least how tall? 36 inches.
- In a high rise building, some panels of glass are designed to be broke during a fire or other emergency. What mark is used to identify the glass that is designed to broken? A Maltese cross on the window.
- What is a major hazard of sand and lime mortar commonly used in older construction? It is water soluble and prone to collapse.
- What is the predictable sequence of human behavior in a fire? Detection, definition, and coping.
- Atmospheric temperature is constantly decreasing as height increases. This phenomenon is called what? Lapse
- GOOD LUCK !