

J & B 3ed. Ch. 38 Quiz

Fire Cause Determination

1. There are a number of reasons why it is important to determine causes of fires. Of the following statements, which one would be LEAST important regarding the cause of fires:
 - a. Identifying and tracking faulty equipment which may have contributed to a fire.
 - b. Identifying improper installations or code violations.
 - c. Tracking weather forecasts and correlations to fires.
 - d. Determining if a crime may have been committed.
2. When attempting to reach a determination as to cause of a fire, the investigator can reach one of three conclusions. Which are the three:
 - a. Incendiary, accidental, undetermined.
 - b. Arson, negligence, suspicious
 - c. Incendiary, carelessness, unknown
 - d. Natural, accidental, arson
3. Most fire deaths and injuries occur in which of the following:
 - a. Commercial establishments using hazardous machinery or fuels
 - b. Residential occupancies
 - c. Large forest fires commonly occurring in western North America
 - d. Basements or below grade spaces
4. The most important reason for investigating and determining causes of accidental fires is to:
 - a. Assess responsibility for the fire and who is accountable.
 - b. Prevent future ones.
 - c. Determine if any codes were violated.
 - d. Determine if wiring is out of date.
5. One area of electrical fires can be traced to defective installations. Which of the following most accurately describes defective installations:
 - a. Using a portable heater to dry out damp clothing.
 - b. A worn out compressor motor in a refrigerator.
 - c. A street service loop arcing due to a branch falling on it.
 - d. Installing under sized wire in a kitchen circuit.
6. Before a fire can be ruled incendiary, which of the following criteria must be met:
 - a. Multiple points of origin found.
 - b. Unusually rapid spread of fire.
 - c. Rule out all possible accidental causes.
 - d. Building was in foreclosure.
7. Burn patterns, smoke residue (staining) and depth of char can be helpful in determining point of origin. Which of the following statements is true regarding these clues:
 - a. They are conclusive evidence of the exact point of origin.
 - b. They are strong evidence of arson.
 - c. They may indicate a low heat, slow moving fire.
 - d. They are not conclusive evidence of the exact point of origin.
8. "Digging out" is a term used to describe which process at a fire scene:

- a. Process of carefully looking for evidence within the debris.
 - b. Process of sifting through piles of overhauled debris looking for hot spots.
 - c. Process of removing overhauled debris from the building.
 - d. Process of digging through duff and ground fuels at brush and woods fires.
9. If a firefighter comes across something they believe may be evidence of some kind, the following steps should be followed except one. Which one is NOT a step to follow regarding evidence:
- a. Move it to a safe area where it won't be damaged.
 - b. Leave it in place and don't let anyone interfere with it.
 - c. Notify an officer or fire investigator.
 - d. If further damage is possible, cover it with something to protect it.
10. Chain of custody (or chain of evidence) is a legal term describing control of evidence from the time it is discovered until it goes to court. Of the following personnel, who would NOT be considered part of the chain of custody:
- a. The investigator who initially took possession of the evidence.
 - b. The investigative supervisor or fire marshal.
 - c. The evidence officer who received the evidence from the investigator.
 - d. The court officer who took possession of the evidence for presentation in court.
11. During the course of extinguishing and overhauling a house fire you may have become privy to evidentiary information. It would be permissible for you to relay that information to which of the following:
- a. Property owner or their attorney.
 - b. Insurance agency covering the property.
 - c. Fire investigator or police officer involved in the investigation.
 - d. All of the above.
12. Overhaul is nearly complete at a house fire and you are walking to the apparatus for a tool when a citizen approaches you and says they want to give you some information regarding the fire. You should:
- a. Notify your officer you will be delayed and speak with the citizen, gathering as much information as you can before they leave.
 - b. Call your officer over so you can both speak with the citizen about this information.
 - c. Refer the citizen to the incident commander.
 - d. Escort the citizen to a fire investigator or police officer.
13. Collecting and taking into custody evidence at a fire scene should usually fall to whom:
- a. The first person to discover evidentiary items.
 - b. The investigative supervisor or fire marshal.
 - c. A police officer working with the fire department.
 - d. One person designated for that purpose so as to simplify chain of custody.
14. Of the following personnel involved in a building fire, who is most likely to be called into court to testify regarding a piece of evidence:
- a. Operations officer
 - b. Incident commander
 - c. Firefighter who discovered the evidence
 - d. Fire marshal

15. Every fire has a starting point or point of origin. Which of the following statements most accurately defines point of origin:
- a. An ignition source and fuel supply come together long enough to ignite.
 - b. Pyrolysis takes place over a period of time.
 - c. Point at which the V-pattern burn is narrowest.
 - d. Point at which the V-pattern burn is widest.