

# Rapid-Fire

## Student Edition Test Page

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### TEST

#### Fire Department Incident Safety Officer

1. What should dictate what type of avoidance zone is needed?  
p. 118

- A.) *Required personal protective equipment*
- B.) *Procedures*
- C.) *Training level of responders*
- \*D.) *Severity of the threat***

2. Incidents that will last over what period of time should have a formal rehab in place?  
p. 137

- \*A.) *2 hours***
- B.) *1 /zour*
- C.) *4 hours*
- D.) *3 /zours*

3. What helps to differentiate solar thermal panels from PV panels?  
p. 111

- A.) *Coloration of the solar thermal panels*
- B.) *Location of tile solar thermal panels*
- C.) *Wiring in the solar thermal panels*
- \*D.) *Piping in the solar thermal panels***

4. What does physiological performance depend upon?  
p. 131

- A.) *Rehabilitation efforts*
- \*B.) *Metabolic processing***
- C.) *Work hardening*
- D.) *Thermal acclimation*

5. What level ISO or ASO must be appointed for hazmat incidents?  
p. 155

- \*A.) *Tec/znician*
- B.) *Operational*
- C.) *Administrative*
- D.) *Awareness*

**6. What needs to be dialed in to help the firefighter perform better and help prevent injuries?**

p. 126

- \*A.) *Nutrition*
- B.) *Training*
- C.) *Relationships*
- D.) *Mental health*

**7. Which is NOT a correct statement about the rehab area during an incident?**

p. 137

- \*A.) *The area should be set up with a line of sight to the incident*
- B.) *Hand and face cleaning provisions are a must when food is being served*
- C.) *The area should be divided into segments*
- D.) *Listen to and gauge the firefighters' general mood and attitude in the relaxation area*

**8. What is the minimum distance from a downed power line that the firefighter should maintain?**

p. 107

- A.) *30 feet (9 m)*
- \*B.) *10 feet (3 m)*
- C.) *40 feet (12 m)*
- D.) *20 feet (6 m)*

**9. What color is used to indicate a medium-voltage drive train?**

p. 114

- A.) *Orange*
- B.) *Yellow*
- C.) *Red*
- \*D.) *Blue*

**10. Which is NOT a hazard associated with drive/brake systems?**

p. 114

- A.) *Springs*
- B.) *Pressure vessels*
- C.) *Exotic metal fumes*
- \*D.) *Belts*

**J1.. Which weather aspect is the most important to the firefighter?**

p. 115

- A.) *Potential for change*
- B.) *Temperature*
- C.) *Humidity*
- \*D.) *Wind***

**12. Which types of threats can usually be handled with soft interventions by the ISO?**

p. 148

- A.) *Causative*
- B.) *Imminently***
- C.) *Immediate*
- \*D.) *Potential***

**13. What is the unit of measure for volume of current flow?**

p.106

- A.) *Watt*
- \*B.) *Ampere***
- C.) *Ohm*
- D.) *Voltage*

**14. What is the best course of action when dealing with a fire in a large wind turbine?**

p. 109

- A.) *Initiate an overall turbine shutdown operation*
- B.) *leave the area and contact the farm owner*
- \*C.) *Watch from the perimeter of a large collapse zone***
- D.) *Perform an aggressive attack with large hoselines*

**15. How many degrees of deviation from the average body temperature can a healthy adult tolerate before physical performance is affected?**

p. 128

- A.) *Four or five*
- B.) *Three or four*
- \*C.) *One or two***
- D.) *Two or three*

**16. How much of the collapse height should be added (as a minimum) when establishing control zones?**

p. 119

- \*A.) 50%**
- B.) 150%
- C.) 200%



- \*B.) *Acclimation*
- C.) *Avoidance*
- D.) *Awareness*

23. With which type of heat injury will the skin be cool and clammy and may be accompanied by nausea and dizziness?

p. 129

- A.) *Heatstroke*
- \*B.) *Heat exhaustion*
- C.) *Heat cramps*
- D.) *Heat rash*

24. Which type of environmental stressor includes distractions?

p. 127

- A.) *Firefighter awareness*
- \*B.) *Physical setting*
- C.) *Heat stress*
- D.) *Task requirements*

25. What is characterized by blotches of red skin especially around the neck, cheeks, underarms, and groin?

p. 129

- A.) *Heatstroke*
- B.) *Heat exhaustion*
- C.) *Heat cramps*
- \*D.) *Heat rash*

26. What is a by-product that responders should be aware of in battery rooms?

p. 111

- A.) *Arsenic gas*
- \*B.) *Hydrogen gas*
- C.) *Nitrogen gas*
- D.) *Carbon gas*

27. What should be the preferred method of communications with the IC and outside crews for the ISO?

p. 152

- \*A.) *Face-to-face*
- B.) *Relayed message*
- C.) *Written message*
- D.) *Radio*

28. Which of the following is considered an active safety trigger?

p. 146

- A.) *Making a note*
- \*B.) *Soft intervention***
- C.) *Being visible*
- D.) *Setting an example***

**29. Which is NOT correct about the wind turbine?**

p.109

- A.) *There is pressure outflow along the circumference of the blade travel*
- B.) *The blades create negative pressure upwind*
- \*C.) *Only the atmospheric wind causes movement***
- D.) *The blades create positive pressure downwind*

**30. Which acronym can be useful when transferring the ISO function?**

p. 156

- A.) *MOVER*
- B.) *MINDS*
- \*C.) *MEDIC***
- D.) *MANES*

**31. How many pounds per square foot is added to the roof when a PV module is installed?**

p. 111

- \*A.) *3 to 5 pounds***
- B.) *1 to 3 pounds*
- C.) *4 to 6 pounds*
- D.) *2 to 4 pounds*

**32. What is considered top priority during rehab operations?**

p. 136

- A.) *Energy nutrition*
- B.) *Hydration*
- \*C.) *Rest***
- D.) *Monitoring and care*

**33. What is the first order of business once assigned the ISO role at an incident?**

p. 154

- \*A.) *Con.firm the IAP with the IC***
- B.) *Perform a scene size-up*
- C.) *Get hands-on with the operations*
- D.) *Initiate equipment checks with members***

**34. Which ICS form would be used for a simple incident briefing?**

p. 154

- A.) *JCS 214*
- \*B.) *JCS 201***
- C.) *JCS 215A*
- D.) *JCS 208*

35. What does oxygen combine with in the cell to create energy?

p. 132

- A.) *Blood*
- B.) *Water*
- C.) *Heat*
- \*D.) *Fuel***

36. What is the minimum size hail that would indicate the possibility of a possible tornado?

p. 117

- A.) *3/4-inch*
- \*B.) *1/4-inch***
- C.) *1/2-inch*
- D.) *2/3-inch*

37. Up to what size concentric ring can be created from a downed power line?

p. 106

- A.) *60 feet (18 m)*
- B.) *15 feet (4.5 m)*
- \*C.) *30 feet (9 m)***
- D.) *45 feet (13.5 m)*

38. Which is NOT an ergonomic stressor that can lead to injury?

p. 127

- A.) *Worker relationship in the setting*
- \*B.) *Accommodation attempts***
- C.) *Task requirements*
- D.) *Physical setting*

39. What size area should be cleared when dealing with overhead power pole fires?

p. 107

- A.) *Half the distance between two poles*
- B.) *Half the distance between three poles*
- \*C.) *Distance between two poles***
- D.) *Distance between three poles*

40. Which is the most serious heat stress injury and is a result of the failure of the body's cooling mechanisms?





**46. Which should be done when fighting fires near downed power lines?**

p. 107

- A.) *Apply water to burning electrical equipment*
- B.) *Use a solid-stream nozzle*
- C.) *Apply water to arcing electrical equipment*
- \*D.) *Use a high-pressure fog nozzle*

**47. What is the actual freezing of skin tissue?**

p. 130

- A.) *Frostburn*
- \*B.) *Frostbite*
- C.) *Frost rash*
- D.) *Frostnip*

**48. Which part of the body is best used during active cooling?**

p. 130

- A.) *Knees*
- B.) *Elbows*
- \*C.) *Forearm*
- D.) *Feet*

**49. How much water should firefighters strive to drink during periods of work?**

p. 132

- A.) *One cup*
- \*B.) *One quart*
- C.) *Two cups*
- D.) *Two quarts*

**50. For what amount of time does most literature suggest water hydration should be used before sports drinks are introduced?**

p. 133

- A.) *45 minutes*
- B.) *90 minutes*
- C.) *30 minutes*
- \*D.) *60 minutes*

**51. With what frequency should you feed firefighters when mental and physical demands remain on the fire scene?**

p. 134

- A.) *3-4 hours*
- B.) *1-2 hours*
- C.) *4-5 hours*
- \*D.) *2.3 hours*

**52. What do most NIOSH investigations into multifirefighter fatality incidents fault?**

p. 152

- A.) /AP failu res
- \*B.) Communication failures**
- C.) Authority failures
- D.) JCS expansion failures

**53. Where should the ISO be located when an ASO is appointed to an incident?**

p. 155-156

- \*A.) With the IC**
- B.) Roaming the scene
- C.) Near the ASO
- D.) Within the building

**54. What should be brought to the IC when a problem needs to be solved during an incident?**

p. 153

- A.) Solution only
- B.) Multiple solutions only
- \*C.) Problem and solution**
- D.) Problem only

**55. How can most hazards associated with building electrical components be eliminated?**

p. 110

- A.) Unplug all major appliances
- \*B.) Shut off power at the main**
- C.) Cut the main control power line
- D.) Shutdown the pole mounted transformer

**56. What should be the last part of the process when bringing a concern to the IC's attention?**

p. 154

- \*A.) What do you think?**
- B.) This is what I would do.
- C.) Here's what I see.
- D.) Here's what I think it means.

**57. What is used to regulate the voltage needs within a building?**

p. 110

- \*A.) Transformer**
- B.) Control panel
- C.) Wiring

D.) *Breaker box*

**58.** What should be used to communicate an imminent threat on the fire ground?

p. 118

A.) *Briefings*

\*B.) *Radio*

C.) *Flagging*

D.) *face-to pface*

How long should the firefighter rest during self-rehab after the second 30- to 45-minutes SCBA has been depleted?

p . 136

\*A.) *20 minutes*

B.) *JO minutes*

C.) *30 minutes*

D.) *40minutes*

**60.** Which national incident typing scheme involves an incident that can be handled with local resources and without the activation of general staff positions of the JCS?

p . 157

\*A.) *Type 5*

B.) *Type 1*

C.) *Type4*

D.) *Type 3*

**61.** What should the number of seconds between lightning flash and thunder be divided by to determine the distance the lightning is from you?

p. 117

A.) 7

B.) 4

C.) 6

\*D.) 5

**62.** What identifier should the ISO use during radio communications?

p . 152

A.) *Control*

\*B.) *Safety*

C.) *ISO*

D.) *Your name*

**63.** Which abatement strategy includes the use of **PPE**?

p . 128

- A.) *Avoidance*
- B.) *Acclimation*
- \*C.) *Accommodation***
- D.) *Awareness*

**64. Which of the following has a water collection hazard?**

p. 108.

- \*A.) *Subterranean vault***
- B.) *Ground level vault*
- C.) *Pad-mounted transformer*
- D.) *Pole-mounted transformer*

**65. What can cause water to leach into surrounding gravel and dirt beds?**

p. 113

- A.) *Over application of water*
- B.) *Rogue sprinkler system*
- C.) *Flooding interior sink*
- \*D.) *Damaged sewer drain system***

**66. How should the firefighter move away from the area if tingling is felt in their boots?**

p. 106

- A.) *large steps*
- \*B.) *Shuffling***
- C.) *Heel-toe steps*
- D.) *Hopping*

**67. What is found in large transformers?**

p. 108

- \*A.) *Oil***
- B.) *Gasoline*
- C.) *Kerosene*
- D.) *Grease*

**68. What trap has the ISO who focuses on one aspect of safety on scene fallen into?**

p. 149

- A.) *Helicopter parent*
- \*B.) *Bunker cop***
- C.) *CYA mode*
- D.) *Worker*

**69. Below what core body temperature does hypothermia set in?**

p. 130

- \*A.) *95°-F (35°-C)***

- 8.) 90°F (32°C)
- C.) 94°F (34°C)
- D.) 92°F (33°C)

**70. According to the cell-fueling theory, what is the optimal carbohydrate/protein/fat balance during operations?**

p.134

- A.) 30/40/30
- \*B.) 40/30/30**
- C.) 50/25/25
- D.) 30/20/50

**71. What fuel is typically used to fuel the electrical generator in a locomotive?**

p. 115

- \*A.) Diesel**
- 8.) Propane**
- C.) Ethane
- D.) Gasoline

**72. What helps to stabilize the carbohydrate entry rate?**

p. 134

- A.) Protein
- 8.) Water
- C.) Carbohydrates
- \*D.) Fat**

**73. Which can be defined as a direct order to immediately stop activities?**

p. 148

- A.) Soft intervention
- 8.) Visible intervention**
- C.) Causative intervention
- \*D.) Firm intervention**

**74. Who is responsible for monitoring working teams, deploying safety measures, and making interventions during a type 1 or type 2 incident?**

p. 158

- A.) SOFJ
- 8.) /AP**
- \*C.) SOFR**
- D.) ASO

**75. Which is probably the most used abatement strategy?**

p. 128

- A.) *Avoidance*
- B.) *Accommodation*
- C.) *Acclimation*
- \*D.) *Awareness*

76. What color diamond is used to indicate a vehicle that is powered with propane?

p. 114

- \*A.) *Black*
- B.) *Blue*
- C.) *Yellow*
- D.) *Green*

77. Which is NOT a minimum requirement for cell performance?

p. 131

- A.) *Oxygen*
- \*B.) *Heat*
- C.) *Fuel*
- D.) *Water*

78. Who should make the judgment call about a firefighter returning to duty when in the rehab area?

p. 136

- A.) *IC*
- \*B.) *Paramedic*
- C.) *Firefighter*
- D.) *ISO*

How many different wires are usually wrapped into one sheath in electrical wires inside buildings?

p. 110

- A.) *Four*
- B.) *Five*
- \*C.) *Three*
- D.) *Two*

80. What property of electrical systems is based on their being grounded, insulated, and circuit protected?

p. 105

- A.) *Continuity*
- B.) *Strength*
- C.) *Reliability*
- \*D.) *Integrity*

81. What happens when heat is applied to a pressurized system?

p. 113

- A.) *Pressure decreases*
- B.) *Pressure stabilizes*
- \*C.) *Pressure increases*
- D.) *Pressure fluctuates*

82. What color is used to indicate that high-voltage is used in the vehicle's drive train?

p. 114

- \*A.) *Orange*
- B.) *Yellow*
- C.) *Red*
- D.) *Blue*

83. Which organization provides a chart the ISO can use to predict cold stress?

p. 131

- A.) *NIOSH*
- B.) *NFPA*
- \*C.) *NOAA*
- D.) *OHA*

84. What tends to lead to the CYA approach by the ISO?

p. 150

- \*A.) *Legal liability environment*
- B.) *Limited trust between members*
- C.) *Overexertion of firefighters*
- D.) *Inadequate training*

85. What type of power is created by the backup generator?

p. 111

- A.) *UC*
- B.) *AC*
- C.) *PC*
- \*D.) *DC*

86. What is the primary defense mechanism to prevent heat stress?

p. 128

- \*A.) *Sweating*
- B.) *Consuming*
- C.) *Shade*
- D.) *Wind*

87. To whose authority must the ISO yield at the incident scene?

p. 151

- \*A.) JC
- B.) *No one's*
- C.) *Sector commander*
- D.) *ASO*

88. **What** is the most important vital sign to stabilize during rehab?

p. 136

- A.) *Breathing rate*
- B.) *Blood pressure*
- C.) *Pulse rate*
- \*D.) *Core temperature*

89. **Which** accommodation strategy is often underutilized?

p. 128

- \*A.) *Reduce the pace*
- B.) *Use of PPE*
- C.) *Perform stretches*
- D.) *Issue warnings*

90. **With what frequency** should the ISO have face-to-face communications with the IC at routine incidents?

p. 152

- \*A.) **15 minutes**
- B.) *10 minutes*
- C.) *20 minutes*
- D.) *25 minutes*

91. **What is the unit of measure for resistance of electrical current?**

p. 106

- A.) *Volt*
- B.) *Amp*
- C.) *Watt*
- \*D.) *Ohm*

92. **How long** can true recovery from an overly strenuous firefight take?

p. 138

- \*A.) **24 hours**
- B.) *36 hours*
- C.) *12 hours*
- D.) *48 hours*

93. **What organization** serves to provide leadership and support during wildland fire emergencies and other natural disasters?



p. 157

- \*A.) GACG
- 8.) NIMS
- C.) NIMO
- D.) JMIT

**94. Which is NOT a correct statement about operations when an ASO is needed'?**

p. 154 :

- A.) A multiagency incident which is using a unified command structure
- 8.) The incident requires input of a safety officer for an established plans section
- C.) The incident covers a large geographic area
- \*D.) The ISO should focus on committed crews when crew risk taking is considered extreme

**.2i. Which would keep the smoke from dissipating in the outside air'?**

p. 116

- A.) Low humidity
- 8.) Low temperatures
- C.) High temperatures
- \*D.) High humidity

**96. Which is NOT a basic guideline for the ISO to follow when operating on the incident scene'?**

p. 147

- A.) Let someone know where you are going if taking a tour
- 8.) Don't walk into, or breathe, smoke
- \*C.) Turn on the PASS if entering the fire building only
- D.) Always be in sight of another responder

**97. Which is one of the most common utility gases?**

p. 112

- A.) Pentane
- 8.) Butane
- \*C.) Propane
- D.) Ethane

**98. Which communication failure likely relates to human factors or administrative control?**

p. 153

- A.) Not enough communication
- B.) Excessive feedback
- \*C.) Too much communication

**D.)** *Fractured radio messages*

**99. Which NFPA standard is referenced on the rehabilitation process for members during emergency operations and training exercises?**

p. 135

- A.) *NFPA 1521*
- B.) *NFPA 1579*
- \*C.) *NFPA 1584***
- D.) *NFPA 1561*

**100. Where does decontamination occur?**

p. 119

- \*A.) *Warm zone***
- B.) *Hot zone*
- C.) *No-entry zone*
- D.) *Cold zone*

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