

# **SkillsUSA**

## **2010 Contest Projects**

### **Firefighting**

Click the “Print this Section” button above to automatically print the specifications for this contest. Make sure your printer is turned on before pressing the button.

**SkillsUSA**

**Fire Fighting**  
**2010**

Orientation Packet

## **Fire Fighting**

### **Purpose**

To evaluate each contestant's preparation for employment and to recognize outstanding students for excellence and professionalism in the field of fire fighting.

### **Clothing Requirements**

Official SkillsUSA light blue work shirt and navy pants and black leather work shoes. To purchase official work clothes, contact Midwest Trophy Manufacturing Co. Inc. by calling 1-800-324-5996 or you can order online at [www.mtmrecognition.com/skillsusa](http://www.mtmrecognition.com/skillsusa)

### **Eligibility**

Open to active SkillsUSA members enrolled in technical and career technology programs with Protective Services/Firefighting as part of the curriculum and occupational objective.

### **Equipment and Materials**

1. Provided by the Technical Committee
  - a. All ladders, hose, hand tools, ropes, training tower/facility.
  - b. All necessary information and materials for the judges.
  
2. Supplied by the Contestant
  - a. Full Personal Protective Equipment: to include Helmet w/face-shield and chin strap, Bunker Coat and Pant w/liners, Standard Fire Boots (w/ steel toe/shank/shin guard), Nomex Hood, Fire Gloves, and Sneakers.
  - b. Pen and/or Pencil for written test.

### **Scope of the Contest**

1. Each individual student represents one state association. Contestants will demonstrate their ability to perform skills selected from the CPAT and Firefighter I Skill Station Menu NFPA 1001-2002 Edition.
  
2. The skills selected will consist of the following: for two events the Competitor will compete in full NFPA approved turnout gear including coat, pants, helmet (with skull cap), firefighting gloves, leather or rubber (steel toe/shank/shin guard) boots and nomex hood. All department/school names must be removed/covered prior to the competition.
  - a. Donning of Structural PPE
  - b. Ropes and Knots (without gloves)
  
3. For the following CPAT portion, the contestants will wear long pants and sneakers (not black leather work shoes). These are required for the CPAT remaining eight events of the competition.
  - a. Stairmaster Event

- b. Hose Drag Event
- c. Equipment Carry Event
- d. Ladder Raise Event
- e. Forcible Entry Event
- f. Search Event
- g. Rescue Event
- h. Breach and Pull Event

**SkillsUSA  
Firefighting Contest  
Sponsor Listing**

Conrad Fire Equipment, Inc.  
887 N. Jan-Mar Court  
Olathe, KS 66061  
(Fire Helmets)

Mr. Paul Schultz

Channel Lock, Inc.  
1306 South Main Street  
Meadville, PA 16335  
(Rescue Tool & T Shirts)

Mr. Mark Yoder

Newell Rubbermaid Irwin  
9829 Northcross Center Court  
Huntersville, NC 28078  
(Misc Tools)

Ms. R. Michelle Efird

Union Shop Apparel  
7400 E. 12<sup>th</sup> Street  
Kansas City, MO 64126  
(Flashlights)

Mr. Robert Palmer

**SkillsUSA**

**Fire Fighting**  
**2010**

Scoring Packet



## CONTEST SCORING CRITERIA

Contest - Fire Fighting

Chair – Michele Newby

Skill Description	Maximum Points
1. Donning Structural PPE Ensemble	25
2. Ropes and Knots	50
3. Stairmaster Event	85
4. Hose Drag Event	85
5. Equipment Carry Event	85
6. Ladder Raise Event	85
7. Forcible Entry Event	85
8. Search Event	85
9. Rescue Event	85
10. Breach and Pull Event	85
11. CPAT Time	70
12.	
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	
21.	
22. Oral Professional Assessment	25
23. Written Test	150
24.	
Résumé submitted? No <input checked="" type="radio"/> (5% penalty)	

Tie Breakers
1. SkillsUSA Professional Development Program Test
2.
3.

**Contestant Number \_\_\_\_\_**

**SkillsUSA Fire Fighting Skills Competition**

Donning Structural PPE Ensemble station worth 25 points (60 sec)

Ropes and Knots station worth 50 points (30 sec each knot)

All stations of the CPAT are worth 85 points each with the CPAT time worth 70 points.

1. There will be a 1 point deduction for any and every warning given.
2. There will be a 2 point deduction for any and every safety infraction occurrence.
3. A 50 lb. vest will be worn through all CPAT events. (Post Secondary will be required to wear an additional 25 lbs. for the Stairmaster event).
4. Any incomplete event except for the Stairmaster event will be an automatic 85 point deduction for that particular event.
5. Proctor instructions will be read from the official course booklet supplied by the CPAT program with the addition of the modifications made for this particular course.
6. The format listed below will be for scoring only.

1. **Donning Structural PPE Ensemble**

Safety infractions: 2 point deduction for each infraction

- 1. Head                                    \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_
- 2. Collar                                   \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_
- 3. Chin Strap                            \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_
- 4. Bunker Gear                         \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_

5 point deduction for over the 60 second time limit \_\_\_

Donning PPE Score \_\_\_\_\_ (25 point max)

2. **Ropes and Knots (PPE – No Gloves)**

- 1. Perform a figure eight (8) within 30 second time limit. Pass or Fail (25 points)

5 point deduction for over the 30 sec time limit \_\_\_

- 2. Perform one of the following within 30 second time limit: Pass or Fail (25 points)
  - a. Hoisting of an axe
  - b. Hoisting of a pike pole

5 point deduction for over the 30 sec time limit \_\_\_

Ropes and Knots Score \_\_\_\_\_ (50 point max)

## Events 3-10 Modified CPAT

### 3. Stairmaster Event:

There will be a 20 second period at a rate of 50 steps per minute followed by a 3 minute period at a rate of 60 steps per minute for a total of 3:20 on the Stairmaster. Secondary will only wear 50 lb vest and Post Secondary will wear the vest with additional 25 lbs.

Warnings: 1 point deduction for each infraction

1. Grasping the handrail \_\_\_\_\_
2. Stepping off of the Stairmaster \_\_\_\_\_

Safety infractions: 2 point deduction for each infraction

1. Slipping from the Stairmaster \_\_\_\_\_
2. Removal of any PPE \_\_\_\_\_

The following points will also be deducted from the Stairmaster event if the full time is not completed:

<u>Time on the Stairmaster</u>	
0-29 seconds	-20 ___
30-59 seconds	-15 ___
60-89 seconds	-10 ___
90-119 seconds	-7 ___
120-149 seconds	-5 ___
150-179 seconds	-3 ___

Subtract all warnings/safety and/or time deductions from the total possible points (85) for a final score on the Stairmaster event.

Stairmaster Score \_\_\_\_\_ (85 max)

4. **Hose Drag Event:**

Warnings: 1 point deduction for each infraction

1. Stepping outside marked boundaries \_\_\_ \_\_\_ \_\_\_

Safety infractions: 2 point deduction for each infraction

1. Slipping and falling \_\_\_ \_\_\_ \_\_\_
2. Removal of any PPE \_\_\_ \_\_\_ \_\_\_

Hose Drag Score \_\_\_\_\_

5. **Equipment Carry Event:**

Warnings: 1 point deduction for each infraction

1. Stepping outside marked boundaries \_\_\_\_\_

Safety infractions: 2 point deduction for each infraction

1. Dropping either or both saws \_\_\_ \_\_\_ \_\_\_
2. Slipping and falling \_\_\_ \_\_\_ \_\_\_

Equipment Carry Score \_\_\_\_\_

6. **Ladder Raise Event:**

Warnings: 1 point deduction for each infraction

1. Missing a rung \_\_\_ \_\_\_ \_\_\_

Safety infractions: 2 point deduction for each infraction

1. Losing control of or dropping the ladder \_\_\_ \_\_\_ \_\_\_
2. Removal of any PPE \_\_\_ \_\_\_ \_\_\_

Ladder Raise Score \_\_\_\_\_

7. **Forcible Entry Event:**

Warnings: 1 point deduction for each infraction

1. Stepping outside the marked boundaries \_\_\_ \_\_\_ \_\_\_

Safety infractions: 2 point deduction for each infraction

1. Losing control of the sledge hammer \_\_\_ \_\_\_ \_\_\_
2. Removal of any PPE \_\_\_ \_\_\_ \_\_\_

Forcible Entry Score \_\_\_\_\_

8. **Search Event:**

Warnings: 1 point deduction for each infraction

1. Disorientation/exiting from the entrance \_\_\_ \_\_\_ \_\_\_

Safety infractions: 2 point deduction for each infraction

1. Slipping and falling \_\_\_ \_\_\_ \_\_\_
2. Removal of any PPE \_\_\_ \_\_\_ \_\_\_

Search Event Score \_\_\_\_\_

9. **Rescue Event:**

Secondary will only drag the dummy down one way and Post  
Secondary will drag the dummy down and back.

Warnings: 1 point deduction for each infraction

1. Grasping the barrel \_\_\_ \_\_\_ \_\_\_

Safety infractions: 2 point deduction for each infraction

1. Slipping and falling \_\_\_ \_\_\_ \_\_\_

Rescue Event Score \_\_\_\_\_

10. **Breach and Pull Event:**

Secondary will only complete 2 sets and Post Secondary will complete 4 Sets.

Warnings: 1 point deduction for each infraction

1. Stepping outside of marked boundaries \_\_\_ \_\_\_ \_\_\_

Safety infractions: 2 point deduction for each infraction

1. Dropping the pike pole \_\_\_ \_\_\_ \_\_\_

2. Slipping and falling \_\_\_ \_\_\_ \_\_\_

Breach and Pull Event Score \_\_\_\_\_

Total Score From All 10 Events \_\_\_\_\_

## SKILLS USA CPAT TIMES

00:00 – 10:20	70 PTS
10:21 – 10:40	65 PTS
10:41 – 11:00	60 PTS
11:01 - 11:20	55 PTS
11:21 - 11:40	50 PTS
11:41 - 12:00	45 PTS
12:01 - 13:00	40 PTS
13:01 – 14:00	35 PTS
14:01 - 15:00	30 PTS
15:01 +	25 PTS

Candidate Number \_\_\_\_\_

**FIRE FIGHTING ORAL PROFESSIONAL ASSESSMENT**

1. Candidate walks in and greets the interviewer.

Candidate should smile  
Give firm but polite handshake  
Look the interviewer in the eye

1 pt Poor  
3 pts Good  
5 pts Excellent

2. Please take a few minutes to tell me about yourself.

Candidate should attempt to grab your interest within first 30 seconds.  
Opening should not be more than 1-1 ½ minutes.

1 pt Poor  
3 pts Good  
5 pts Excellent

3. Tell me why you want to be a fire fighter.

This is a great opportunity for the candidate to show his/her enthusiasm and excitement for the position.  
Candidate should personalize his/her response. (Use personal experience.)

1 pt Poor  
3 pts Good  
5 pts Excellent

4. Tell me what you think are the most important character traits a fire fighter should possess and why.

Should include honesty, teamwork, morals, ethics, service to community reliability, etc.

1 pt Poor  
3 pts Good  
5 pts Excellent

5. We have no more questions for you. However, you may take a couple minutes to ask any questions or to add anything you would like me to consider.

The candidate should take this opportunity to close the deal! He/she should show excitement, enthusiasm and attempt to convince you to hire them.

1 pt Poor  
3 pts Good  
5 pts Excellent

Total \_\_\_\_\_ (25 pts max)

**SkillsUSA**

**Fire Fighting**  
**2010**

Written Exam

Name \_\_\_\_\_

**MULTIPLE CHOICE.** Choose the one alternative that best completes the statement or answers the question.

- 1) The self-contained breathing apparatus (SCBA): 1) \_\_\_\_\_
  - A) protects the wearer's ears from airborne particles.
  - B) protects the head from impact.
  - C) provides an audible means by which a lost, trapped, or incapacitated firefighter can be located.
  - D) protects the face and lungs from toxic smoke and products of combustion.
  
- 2) Which of the following is MOST important to the secondary search? 2) \_\_\_\_\_
  - A) Threats
  - B) Speed
  - C) Thoroughness
  - D) Exposures
  
- 3) Which of the following is NOT a condition under which an emergency move may be necessary? 3) \_\_\_\_\_
  - A) There is fire in the distance.
  - B) It is impossible to protect the accident scene.
  - C) Explosives are involved.
  - D) The victim is in cardiac arrest and must be moved so rescuers can administer CPR.
  
- 4) Which of the following conditions make a building susceptible to collapse? 4) \_\_\_\_\_
  - A) Age of the building
  - B) Atmospheric conditions
  - C) Height of the building
  - D) Wooden floors and ceilings
  
- 5) Which of the following is NOT a life-safety reason for fireground ventilation? 5) \_\_\_\_\_
  - A) It expedites search and rescue operations.
  - B) It reduces damage caused by water.
  - C) It provides an escape path for the steam when water is vaporized.
  - D) It reduces interior temperature.
  
- 6) Which of the following statements about executing a primary search is MOST accurate? 6) \_\_\_\_\_
  - A) Start the search in the middle of each room.
  - B) Start the search as far away from the fire as possible.
  - C) Start the search as close to the fire as possible.
  - D) Do not search closets, shower stalls, or bathrooms.
  
- 7) When searching a hallway with only one team, which of the following actions should members of a search team take? 7) \_\_\_\_\_
  - A) Wait for a second search team to arrive.
  - B) Split up and take both sides of the hallway.
  - C) Search down one side of the hallway and back up the other side.
  - D) Alternate both sides of the hallway to search the entire hallway in one pass.
  
- 8) Which of the following is the most common building material used in North America and is the main component of a variety of structural assemblies? 8) \_\_\_\_\_
  - A) Reinforced concrete
  - B) Wood
  - C) Masonry
  - D) Cast iron

- 9) Which of the following classifications of fires involve combustible metals such as aluminum, magnesium, potassium, sodium, titanium, and zirconium? 9) \_\_\_\_\_  
 A) Class A fires      B) Class B fires      C) Class C fires      D) Class D fires
- 10) Cross members that provide the foothold for climbing are: 10) \_\_\_\_\_  
 A) rungs.      B) pawls.      C) stops.      D) rails.
- 11) Unprotected lightweight steel and wooden trusses will fail after \_\_\_\_\_ minutes of exposure to fire. 11) \_\_\_\_\_  
 A) 1 to 5      B) 5 to 10      C) 15 to 20      D) 10 to 15
- 12) If backdraft conditions are apparent, attempt entry: 12) \_\_\_\_\_  
 A) before beginning ventilation.      B) immediately.  
 C) only after ventilation is complete.      D) after ventilation has started.
- 13) Which of the following is the primary oxidizing agent in most fires? 13) \_\_\_\_\_  
 A) Carbon monoxide      B) Methane  
 C) Oxygen      D) Carbon dioxide
- 14) If fire is encountered during a search, close the door, report the condition, and: 14) \_\_\_\_\_  
 A) wait for all team members to arrive.      B) begin fire suppression activities.  
 C) exit the area immediately.      D) be guided by your supervisor's orders.
- 15) Which of the following is NOT an element of the fire tetrahedron? 15) \_\_\_\_\_  
 A) Oxygen      B) Self-sustained chemical reaction  
 C) Fuel      D) Fire inhibitor
- 16) The critical temperature at which steel trusses can fail from exposure to heat alone without any flames is: 16) \_\_\_\_\_  
 A) 500°F (260°C).      B) 750°F (399°C).      C) 1,000°F (538°C).      D) 1,250°F (677°C).
- 17) During the \_\_\_\_\_ search, be sure to check the known or likely locations of victims as quickly as conditions allow. 17) \_\_\_\_\_  
 A) primary      B) tertiary  
 C) secondary      D) rapid intervention
- 18) Which of the following steps should be done immediately after a firefighter realizes he or she is in imminent life-threatening danger? 18) \_\_\_\_\_  
 A) Transmit Mayday! according to local protocol.  
 B) Describe location as clearly as possible.  
 C) Communicate air supply status to Command.  
 D) Stay in contact with Command and keep them informed of the situation.
- 19) Which of the following classifications of fires involve flammable and combustible liquids and gases such as gasoline, oil, lacquer, paint, mineral spirits, and alcohol? 19) \_\_\_\_\_  
 A) Class A fires      B) Class B fires      C) Class C fires      D) Class K fires
- 20) If heated, \_\_\_\_\_ may crack and shatter when it is struck by a cold fire stream. 20) \_\_\_\_\_  
 A) gypsum      B) steel  
 C) reinforced concrete      D) glass

- 21) In thermal layering, the hottest gases tend to be: 21) \_\_\_\_\_  
 A) in the lower layers. B) in the top layer.  
 C) in the neutral plane. D) in both the top and lower layers.
- 22) Which of the following modes of combustion occurs when solid fuels undergo oxidation at the surface of the fuel? 22) \_\_\_\_\_  
 A) Nonflaming or smoldering combustion B) Standard combustion  
 C) Flaming combustion D) Linear combustion
- 23) Which of the following is an indicator of building collapse? 23) \_\_\_\_\_  
 A) Height of the building B) Structural members falling from building  
 C) Unusual creaks and cracking noises D) Flames breaking through roof covering
- 24) Which of the following is the first step to breaching an interior wall? 24) \_\_\_\_\_  
 A) Create an opening large enough to pass through.  
 B) Feel it for heat.  
 C) Remove sections on both sides of a stud as well as the stud itself.  
 D) Do not remove any studs, as that may compromise the integrity of the structure.
- 25) Which of the following is a rapid but thorough search that is performed either before or during fire suppression operations? 25) \_\_\_\_\_  
 A) Primary search B) Rapid intervention  
 C) Secondary search D) Tertiary search
- 26) Which of the following methods of controlling and extinguishing a fire uses water for the extinguishment of smoldering fires? 26) \_\_\_\_\_  
 A) Chemical flame inhibition B) Temperature reduction  
 C) Fuel removal D) Oxygen exclusion
- 27) Which of the following standards requires turnout coats to be made of an outer shell, moisture barrier, and thermal barrier? 27) \_\_\_\_\_  
 A) NFPA® 1500 B) NFPA® 2101 C) NFPA® 1971 D) NFPA® 1982
- 28) Which of the following is NOT an option if you cannot find your way out of a burning building through a door or window? 28) \_\_\_\_\_  
 A) Breach an interior wall, then try to find a door or window.  
 B) Break through an exterior wall.  
 C) Breach an interior wall.  
 D) Find a closet and break through the floor.
- 29) An increase in ventilation in a fire that is in the decay stage can result in a deflagration called a: 29) \_\_\_\_\_  
 A) backdraft. B) flashover. C) flameover. D) rollover.
- 30) Which of the following contributes to the spread and intensity of a fire? 30) \_\_\_\_\_  
 A) Roof coverings B) Roof supports  
 C) Location of exits D) Location of hydrants

- 31) Which of the following is a characteristic of utility rope? 31) \_\_\_\_\_  
 A) Must conform to NFPA® 1983  
 B) Must be block creel construction.  
 C) Used to hoist equipment and secure unstable objects  
 D) Used to support rescuers during training
- 32) Which of the following is the temperature to which the surface of a substance must be heated for ignition and self-sustained combustion to occur? 32) \_\_\_\_\_  
 A) Self-starting ignition  
 B) Piloted ignition  
 C) Autoignition  
 D) Pre-combustion ignition
- 33) Which of the following fire classifications has the recommended method of extinguishment as first turning off or disconnecting the electrical power and then using the appropriate extinguisher? 33) \_\_\_\_\_  
 A) Class A fires  
 B) Class B fires  
 C) Class C fires  
 D) Class D fires
- 34) Which of the following classifications of fires involve ordinary combustible materials such as wood, cloth, paper, rubber, grass, and many plastics? 34) \_\_\_\_\_  
 A) Class A fires  
 B) Class B fires  
 C) Class C fires  
 D) Class D fires
- 35) Firefighters who wear prescription safety eyeglasses should select frames and lenses that meet \_\_\_\_\_ for severe exposure to impact and heat. 35) \_\_\_\_\_  
 A) NFPA® 1982  
 B) NFPA® 2101  
 C) ANSI Z101.2  
 D) ANSI Z87.1
- 36) Which of the following extinguishers are intended for use on small Class A fires only and are equipped with either a single- or double-acting pump? 36) \_\_\_\_\_  
 A) Pump-type water extinguishers  
 B) Aqueous film forming foam extinguishers  
 C) Stored-pressure dry chemical extinguishers  
 D) Wet chemical stored-pressure extinguishers
- 37) Which of the following refers to the transition when conditions in the compartment change very rapidly from partial to full involvement of the compartment? 37) \_\_\_\_\_  
 A) Rollover  
 B) Backdraft  
 C) Isolated flames  
 D) Flashover
- 38) For flaming combustion to occur, fuels must be in the: 38) \_\_\_\_\_  
 A) chemical state.  
 B) liquid state.  
 C) gaseous state.  
 D) solid state.
- 39) The rope or cable used for hoisting and lowering the fly sections of an extension ladder is the: 39) \_\_\_\_\_  
 A) pulley.  
 B) guide.  
 C) halyard.  
 D) butt spur.
- 40) When searching multistory buildings, which of the following actions should be taken once critical areas have been searched? 40) \_\_\_\_\_  
 A) The intervening floors should be checked.  
 B) The all-clear should be sounded.  
 C) The fire floor should be checked.  
 D) The topmost floor should be checked.
- 41) Firefighters should consider that elongating \_\_\_\_\_ can actually push out load-bearing walls and cause a collapse. 41) \_\_\_\_\_  
 A) steel  
 B) gypsum  
 C) wood  
 D) cast iron

- 42) Which of the following extinguishers are for use on Class A-B-C fires and/or Class B-C fires and are among the most common portable fire extinguishers in use today? 42) \_\_\_\_\_
- A) Clean agent extinguishers
  - B) Aqueous film forming foam extinguishers
  - C) Carbon dioxide extinguishers
  - D) Dry chemical extinguishers
- 43) Which of the following products of combustion is frequently identified as the cause of death for civilian fire fatalities and acts as a chemical asphyxiant by binding with hemoglobin in the blood? 43) \_\_\_\_\_
- A) Hydrogen cyanide
  - B) Methane
  - C) Carbon monoxide
  - D) Carbon dioxide
- 44) Which of the following fire classifications involve flammable and combustible liquids, gases, and greases such as alcohol, gasoline, lubricating oils, and liquefied petroleum gas (LPG)? 44) \_\_\_\_\_
- A) Class A fires
  - B) Class B fires
  - C) Class D fires
  - D) Class K fires
- 45) Which of the following is energy possessed by a moving object? 45) \_\_\_\_\_
- A) Thermal energy
  - B) Forward energy
  - C) Kinetic energy
  - D) Potential energy
- 46) Applying large amounts of heat to solid fuels such as wood causes: 46) \_\_\_\_\_
- A) pyrolysis.
  - B) deflagration.
  - C) vaporization.
  - D) autoignition.
- 47) Which of the following fire classifications can easily be extinguished with water, water-based agents such as foam, or dry chemicals? 47) \_\_\_\_\_
- A) Class A fires
  - B) Class B fires
  - C) Class D fires
  - D) Class K fires
- 48) Which of the following refers to the temperature at which a liquid gives off sufficient vapors to ignite, but not sustain, combustion? 48) \_\_\_\_\_
- A) Volatility rating
  - B) Fire point
  - C) Flash point
  - D) Autoignition point
- 49) Which of the following is conducted after the fire is under control and the greatest hazards have been controlled? 49) \_\_\_\_\_
- A) Primary search
  - B) Tertiary search
  - C) Secondary search
  - D) Rapid intervention search
- 50) Which of the following methods of controlling and extinguishing a fire depends on reducing the temperature of a fuel to a point where it does not produce sufficient vapor to burn? 50) \_\_\_\_\_
- A) Chemical flame inhibition
  - B) Oxygen exclusion
  - C) Fuel removal
  - D) Temperature reduction
- 51) Which of the following extinguishers have an air-aspirating nozzle that aerates the foam solution, producing a better-quality foam than a standard extinguisher nozzle? 51) \_\_\_\_\_
- A) Dry chemical extinguishers
  - B) Carbon dioxide extinguishers
  - C) Clean agent extinguishers
  - D) Aqueous film forming foam extinguishers

- 52) Which of the following is NOT an indicator of building collapse? 52) \_\_\_\_\_  
 A) Amount of smoke coming from the building  
 B) Walls that appear to be leaning  
 C) Structural members separating from roof  
 D) Structural members that appear to be distorted
- 53) The lowest and widest section of an extension ladder is the: 53) \_\_\_\_\_  
 A) bed section. B) protection plate.  
 C) fly section. D) truss block.
- 54) Curved metal devices installed near the top end of roof ladders to secure the ladder to the highest point on a peaked roof of a building are: 54) \_\_\_\_\_  
 A) pulleys. B) protection plates.  
 C) pawls. D) hooks.
- 55) Which of the following fire classifications involve ordinary combustibles such as textiles, paper, plastics, rubber, and wood? 55) \_\_\_\_\_  
 A) Class A fires B) Class B fires C) Class D fires D) Class K fires
- 56) A chimney effect occurs: 56) \_\_\_\_\_  
 A) when a ventilation opening is made in the lower portion of a building.  
 B) when a ventilation opening is made in the upper portion of a building.  
 C) when a vertical ventilation opening is made.  
 D) when a ventilation opening is made in the chimney of a structure.
- 57) All of the following are warning signs of an unsafe roof condition EXCEPT: 57) \_\_\_\_\_  
 A) hard asphalt. B) "spongy" roof.  
 C) fire coming from the roof. D) smoke coming from the roof.
- 58) In order to burn, liquids must be: 58) \_\_\_\_\_  
 A) contained. B) pyrolyzied. C) vaporized. D) flowing.
- 59) Which of the following fire classifications involve combustible cooking oils? 59) \_\_\_\_\_  
 A) Class A fires B) Class B fires C) Class D fires D) Class K fires
- 60) Which of the following is the primary consideration in whether solids are easy or difficult to ignite? 60) \_\_\_\_\_  
 A) Orientation to the source of heat B) Proximity to the source of heat  
 C) Source of ignition D) Surface-to-mass ratio
- 61) Which of the following products of combustion is a product of complete combustion of organic materials and also acts as a respiratory stimulant? 61) \_\_\_\_\_  
 A) Hydrogen cyanide B) Carbon monoxide  
 C) Carbon dioxide D) Methane
- 62) Which of the following refers to the transfer of heat within a body or to another body by direct contact? 62) \_\_\_\_\_  
 A) Absorption B) Radiation C) Convection D) Conduction

- 63) Which of the following actions should firefighters take when dealing with truss-containing buildings exposed to fire conditions for longer than 5 minutes? 63) \_\_\_\_\_
- A) Attack the fire from the roof.
  - B) Do not enter the building to attack the fire.
  - C) Enter and proceed to extinguish the flames.
  - D) Do not treat the situation any differently than other types of buildings.
- 64) Which of the following is one of the two primary objectives of a building search? 64) \_\_\_\_\_
- A) Extinguishing fire
  - B) Locating victims
  - C) Determining the fire load.
  - D) Determining the structure's floor plan
- 65) Fuel in a combustion reaction is known as the: 65) \_\_\_\_\_
- A) primary agent.
  - B) reducing agent.
  - C) increasing agent.
  - D) combustion agent.
- 66) Which of the following fire classifications would use the following agents for extinguishment: Carbon Dioxide, Dry Chemical, and Class B Foam? 66) \_\_\_\_\_
- A) Class A fires
  - B) Class B-C fires
  - C) Special Hazard Class B fires
  - D) Special Hazard Class K fires
- 67) Which of the following causes the most fire deaths? 67) \_\_\_\_\_
- A) Exhaustion
  - B) Structural collapse
  - C) Heat
  - D) Toxic smoke
- 68) Which of the following refers to the transfer of heat energy from a fluid (liquid or gas) to a solid surface? 68) \_\_\_\_\_
- A) Convection
  - B) Radiation
  - C) Conduction
  - D) Absorption
- 69) The main structural member of a ladder supporting the rungs or rung blocks is the: 69) \_\_\_\_\_
- A) tip.
  - B) butt.
  - C) truss block.
  - D) beam.
- 70) If you are unable to exit the structure, do not have a functioning radio, and cannot reach the wall, position your flashlight to shine: 70) \_\_\_\_\_
- A) toward the window.
  - B) toward the north wall.
  - C) toward the ceiling.
  - D) toward the door.
- 71) Which of the following classifications of fires involve oils and greases normally found in commercial kitchens and food preparation facilities using deep fryers? 71) \_\_\_\_\_
- A) Class A fires
  - B) Class B fires
  - C) Class C fires
  - D) Class K fires
- 72) Which of the following fire stream classifications discharges more than 350 gpm (1 400 L/min) and is fed by 2 1/2- or 3-inch (65 mm or 77 mm) hoselines? 72) \_\_\_\_\_
- A) Low-volume stream
  - B) High-volume stream
  - C) Handline stream
  - D) Master stream

73) Intercom/ear protection systems provide a dual benefit because of their ability to reduce the amount of noise the ear is exposed to and: 73) \_\_\_\_\_  
A) eliminate the need for radio communication.  
B) allow the crew to communicate or monitor the radio.  
C) minimize the noise of radio traffic.  
D) mask distracting sounds.

74) Which of the following methods of controlling and extinguishing a fire effectively extinguishes any fire? 74) \_\_\_\_\_  
A) Chemical flame inhibition  
B) Temperature reduction  
C) Fuel removal  
D) Oxygen exclusion

75) When operating within a burning building, search and rescue personnel should work in teams of at least \_\_\_\_\_ or more. 75) \_\_\_\_\_  
A) 2  
B) 5  
C) 4  
D) 3