# City of Grand Prairie POLICE AND FIRE CIVIL SERVICE COMMISSION AGENDA

#### January 29, 2021 - 9:00 AM, CST

City Hall, City Council Chambers, 300 W Main Street, Grand Prairie, TX 75050

\*Please be advised that Social Distancing and masks will be required for entry for the health and safety of all in attendance.\*

- 1. Call to Order.
- 2. Elect the Chair and Vice-Chair for the Civil Service Commission.
- 3. Approve the minutes from the Civil Service Commission meeting held on August 28, 2020.
- 4. Approve the Eligibility List for Fire Department Captain from the written examination administered on January 12, 2021.
- 5. Consider appeals of test question 89 from the Fire Department Battalion Chief written promotional examination administered on January 12, 2021.
- 6. Approve the Eligibility List for Fire Department Battalion Chief from the written examination administered on January 12, 2021.
- 7. Consider appeal of test questions 55, 78, and 96 from the Fire Department Lieutenant written promotional examination administered on January 14, 2021.
- 8. Approve the Fire Department Lieutenant Eligibility List from the written examination administered on January 14, 2021.
- 9. Consider appeals of test questions 9, 92 and 96 from the Fire Department Driver written promotional examination administered on January 14, 2021.
- 10. Approve the Fire Department Driver Eligibility List from the written examination administered on January 14, 2021.
- 11. EXECUTIVE SESSION (if needed in accordance with Chapter 143.053 of the Texas Local Government Code to deliberate; and/or under Sections 551.071 and 551.074 of the Texas Government Code to discuss personnel matters and/or legal issues with City Attorney).
- 12. Adjourn.

This meeting is held and business conducted in accordance with Chapter 551, Subchapter C of the Texas Government Code, with Chapter 143, applicable sections of the Texas Local Government Code, and with the current Fire Fighters and Police Officers' Local Civil Service Rules and Regulations.

Agenda was prepared and posted on January 25th, 2021.

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**Civil Service Director** 

It is the policy of the City of Grand Prairie that all City-sponsored public meetings and events are accessible to people with disabilities. If you need assistance in participating in this meeting or event due to a disability as defined under the ADA, please call (972) 237-8192 or e-mail lnorris@gptx.org at least three (3) business days prior to the scheduled meeting or event to request an accommodation.

# City of Grand Prairie Police and Fire Civil Service Commission Minutes

## Date: August 28, 2020

## Location: City Hall, Council Chambers, 300 Main Street, Grand Prairie, TX 75050

Jerry King called the meeting to order at 8:35 a.m. with Commissioner Reg Crump present. Also present were Lisa Norris, Civil Service Director, Tasha Velasco, Human Resources Manager, Beatriz Juarez, Human Resources Specialist, Tiffany Bull, Assistant City Attorney, Daniel Scesney, Police Chief, and Christy Martinez, Assistant Police Chief.

The second item on the agenda was to approve the minutes from the Civil Service Commission held on June 16, 2020. Reg Crump moved to approve the minutes as written and Jerry King seconded the motion. The motion passed unanimously.

Item three on the agenda was to consider changes to the City of Grand Prairie Police Officers and Fire Fighters Local Civil Service Rules and Regulations. Ms. Norris indicated there were numerous changes to the rules at the request of the Police Department. She indicated that the agenda packet contained a summary of the rule changes, a full red-lined set of rules and a clean set of rules, assuming they would be approved. Ms. Norris indicated she would walk through the summary with the Commission and respond to any questions as needed.

The first change was to the cover page. The rules would be heard today at the meeting, expected to be posted the same day, and would become in full force and effect following a 7-day posting. If posted today, they would become effective September 5, 2020.

The next substantial changes were to Chapter 4 which modified the Police Officer eligibility requirements.

- Police were hoping to widen the net of applicants so the following changes were proposed in sections 4.5 and 4.6:
  - 1. Possess a Bachelor's Degree with a minimum 2.0 Grade Point Average at an accredited college through the Department of Education; OR
  - 2. Have no degree, but have two years of experience as a Police Officer; OR
  - 3. Have no degree, but have three years of military experience with an honorable discharge; OR
  - 4. Possess 30 college credit hours with at least a 2.0 GPA from an accredited college combined with two years of experience in a civilian position with the Grand Prairie Police Department.

Commissioner King asked Chief Scesney if the Police Officer requirement meant they could have been a Police Officer in a very small town and then come here where we are quite large and have more demands. Chief Scesney confirmed and stated candidates would still have to complete all other sections of the background process and attend a lateral academy hosted by our Police Department to ensure they were ready to go in our department. He confirmed this just widens the applicant pool and not every lateral officer would make it through the extensive background process or academy. Only a fraction of those that apply are hired.

• Ms. Norris indicated that the remainder of Chapter 4 beginning with 4.7 through 4.40 simply applied renumbering following the educational requirement change.

The next set of changes impacted Chapter 6 of the rules.

• Rule change 6.2 added language to allow on-site testing registration for a police entrance exam. Ms. Norris indicated that this was vetted through Tiffany Bull, Assistant City Attorney and our outside employment attorney. J.J. Wallis was present in the audience and asked to speak. He questioned the Chief as to the goal of this section to allow on-site testing. Chief Scesney responded that this simply allowed potentially strong candidates who became available to test on short notice, to be able

to show up and test. This widens the net of candidates for their hiring process. J.J. thanked him for responding and seem satisfied with the answer.

- Section 6.3 also was changed to include a "designee" to review police and fire applications for the entrance exams since typically our recruiters review those, not the Civil Service Director.
- Section 6.4 a. and e. were modified to address DD214 provisions and allow the candidates who were testing to provide that form at the test site on the day of the test. Ms. Norris clarified to the Commission that providing a DD214 prior or at the test site allows 5 points to be added to their raw score for purposes of the eligibility list so long as the DD214 was honorable. Tiffany Bull clarified the DD214 was currently included in the rules, but this provision added the option to turn this in at the testing site. Ms. Norris also added that the candidate could still choose to turn in the DD214 at a later date, but points would not be retroactively applied to the entrance examination score.
- Section 6.5 was modified to eliminate the requirement to submit documents in advance of the police officer entrance exam (similar to how Fire handles their document requirement for entrance exams), other than the DD214 if the candidates wants to receive the 5-point credit. Ms. Norris indicated this will help candidates, especially now with COVID19 as they are at the mercy of the agencies from which they have requested documents to get them to them timely, such as birth certificates from the county, transcripts from schools, etc. The rule change also clarified that during the background process, a variety of documents would be required to be submitted to verify eligibility and qualifications such as licenses, college transcripts, diplomas or degrees, birth certificates, etc.
- Sections 6.6 through 6.14 were simply renumbering due to previous rule changes, and then
- Section 6.15 allowed for a restroom break during the police or fire entrance examinations so long as a proctor was available to escort the candidate. Ms. Bull had confirmed with both Chiefs that this change was reasonable. The rule clarified any electronic device could not be taken with them to the restroom. Ms. Norris stated to the Commission there had been an issue recently at the Police exam and this was a needed change to mirror how we handle promotional examinations regarding restrooms. Chief Scesney confirmed. Commissioner King questioned if we really had to escort people and if we could not trust them to go on their own. Chief Scesney stated you would hope they could be trusted, but this just adds a level of testing security.
- Section 6.16 through 6.31 were simply renumbering of the remaining items in Chapter 6.

The final change to the rules was to the order on the last page that updates the Commission considering and adopting the changes noted. This was modified to indicate all changes were heard at this meeting on August 28, 2020. With this final change noted, Ms. Norris stated no other items were before the Commission and that completed all rule changes. The Commission had no other comments or questions regarding the rules. Reg Crump made a motion to approve the new rules as presented; Jerry King seconded the motion. The motion passed unanimously.

Ms. Norris stated there was no need for an Executive Session. Commissioner Crump moved to adjourn the meeting and Commissioner King seconded. The meeting adjourned at 8:55 a.m.

Commissioner

Commissioner

Commissioner

Civil Service Director

**ELIGIBILITY LIST** 

FIRE CAPTAIN PRELIMINARY

# GRand PRaikke

	T E X I A S						
RANK	NAME	RAW SCORE	SR. POINTS	FINAL SCORE	TIE BREAKER Raw Score	TIE BREAKER Ctf Level	TIE BREAKER date in Rank
1	Singleton, Randal	99	10	109			
2	Adcock, Robert	97	10	107			
3	Tadlock, Jared	95	10	105			
4	Cunningham, Chad	94	10	104			
5	Elizarraras, Adan	92	10	102			
6	Eastham, Philipp	91	10	101			
7	Blaylock, Mark	89	10	99			
8	Estrada, Jesus	88	10	98			
9	Mojica, Jose	87	10	97			
10	Ocampo, Edgar	86	10	96			
11	Baker, Kevin	85	10	95			
12	Insco, Philip	83	10	93			
13	Jones, Brandon	76	10	86			
14	Simpson, Jason	73	10	83			
15	Norris, Clayton	71	10	81			

The following candidates did not pass the test:

Blake, John	68
Johnson, Todd	68

Approved by the Grand Prairie Civil Service Commission this day of

Chairman, Civil Service Commission

Commissioner

Commissioner

**Civil Service Director** 

# **BC Test Question Appealed**

89. The NFPA Risk Management Plan includes the below five "cycles." Identify the 3<sup>rd</sup> cycle. (IFSTA Occupational Safety, Health and Wellness, 4<sup>th</sup> Ed).

1. Identification

- 2. Evaluation
- 3.
- 4. Control Techniques
- 5. Monitoring
  - A. Identify Workforce Gaps
  - B. Assess Resources
  - C. Priorities for Action
  - D. Environmental Scan

Correct Answer: C – IFSTA Occupational Safety, Health and Wellness, 4<sup>th</sup> Edition, Chapter 11, Page 371 Candidate Answer Summary: A - 1, B - 3, **C - 5**, D - 0

### Appellants:

Exam	EE	Question #
Battalion Chief	Grider, Wendell	89
<b>Battalion Chief</b>	Spivey, Donald	89
<b>Battalion Chief</b>	Williams, Michael	89



January 25, 2021

Tasha Velasco Human Resources Manager City of Grand Prairie 318 W Main Street Grand Prairie, TX 75050

Dear Mrs. Velasco,

Having received your request, the following is our response to the appealed question from the Grand Prairie Fire Department Battalion Chief Promotional Examination on January 12, 2021:

#### Battalion Chief Exam Question 89 Appellant: Grider, Spivey, Williams

(*IFSTA Occupational Safety, Health, and Wellness, 4th Ed.*) The NFPA Risk Management Plan includes the below five "cycles." Identify the 3rd cycle.

- 1. Identification
- 2. Evaluation
- 3. \_
- 4. Control Techniques
- 5. Monitoring
- a. Identify Workforce Gaps c. Priorities for Action
- b. Assess Resources d. Environmental Scan

### Answer Key: C

**Answer Source:** IFSTA Occupational Safety, Health, and Wellness, 4<sup>th</sup> Edition, Chapter 11, Page 371.

**Appellants:** The question is worded incorrectly to the book. It changes the thought process and possible answer to the question. The question asks for one of the below five "cycles." It changes

Ure Consulting Group, LLC 15101 Falcon Drive, Austin, Texas 78734 www.UreConsultingGroup.com your thinking to be for possible different planning processes instead of just looking for a step. The book in relation states "The Risk Management plan cycles through five "steps" outline in NFPA 1500. If the question would have asked for steps instead of the five "cycles" it would have led you to pick a step instead of possibly a different program.

**Consultant Opinion:** The appellant is correct in that the book, regarding the Risk Management Process, it refers to these five items as "steps" (Page 371). It also refers to these five items as "elements" (Page 370). We agree that the question could have been improved by using the word "steps" rather than "cycles"; however, the Risk Management Process (Page 371) clearly has five items in rank order, making answer C the only pliable answer. The consultant disagrees that by using the word "cycle," the context of the question is altered, as the question lists five (5) specific numbered items that are noticeably in rank order.

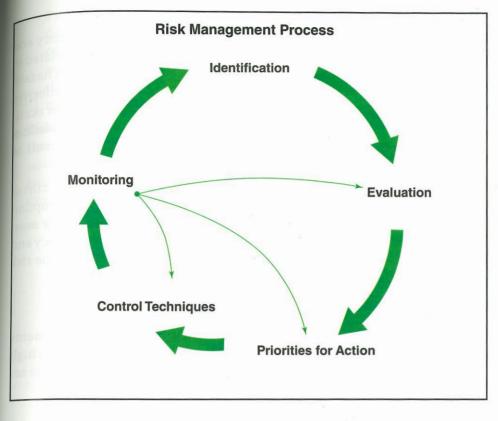
Consultant Recommendation: No action necessary. The question is valid and correct.

Respectfully,

Bruce Une

Bruce Ure Ure Consulting Group

Ure Consulting Group, LLC 15101 Falcon Drive, Austin, Texas 78734 www.UreConsultingGroup.com



**Figure 11.7** The risk management plan cycles through five steps outlined in NFPA 1500.

# **Risk Identification**

To identify risks, an HSO compiles a list of all emergency and nonemergency operations and duties of the organization. Ideally, an HSO should take into consideration the worst possible conditions or events, including disasters (Figure 11.8). There are many sources to assist with the risk identification process.

The first, and possibly the most effective, is the department's loss prevention data, a collection of annual fire-loss reports by categories that include occupancy type, loss value, and frequency. National averages and trends are available from NFPA and the National Fire Academy (NFA). However, national data is not always complete, accurate or current.

The HSO should seek input and ideas from department personnel, trade journals, professional associations, and other service providers to identify potential risks. When using information provided by other fire departments or organizations, the HSO should

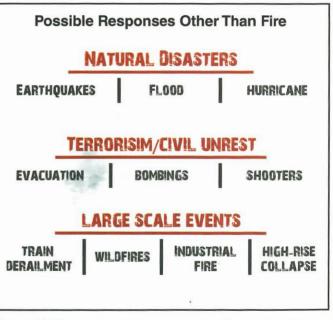


Figure 11.8 In an all-hazards response environment, risks other than fire need to be included in the risk management plan.

consider the effect of local circumstances on the set of emergency and/or nonemergency operations and duties. Other sources for risk identification include risk management plans developed by local industry and hazardous substance sites, vulnerability analyses, and the U.S. Environmental Protection Agency.

:	WENDELL GRIDER Date: 1-20-21
9	UCTIONS: Please complete one form for each question that you wish to appeal. State clearly what you is wrong with the question and provide a reason for your belief. Please type or write legibly. If additional sneeded, go to the back of this page.
; (	OF EXAM: 1-12-2021 TEST RANK: BATT Chief QUESTION # 89
R	OF EXAM: <u>1-12-2021</u> TEST RANK: <u>BATT Chief</u> QUESTION # <u>89</u> ENCE PAGES <u>370-37</u> 2 REFERENCE BOOK: <u>OCCUPATIONAL SAFETY, MEALTH, 4</u> W
	Il reason for objection: (Check one of the following and explain fully below)
	The keyed answer is not correct. Another answer is correct and it should be allowed for credit <b>instead</b> of the keyed answer. My answer is
	Another answer is also correct, <u>in addition</u> , to the keyed answer. Both answers should be allowed for credit. My answer is
prop. 1	The question is faulty because there is no correct answer among the choices. The question should be <u>eliminated.</u>
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# APPEAL OF PROMOTIONAL EXAMINATION QUESTION

Name:	Donald	Spivey			Date:	1-18-21	
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REFER	ENCE PAGES $\underline{3}$	70-372 REFE	RENCE BOOK:	Occupation	al Safe	QUESTION #_ E	d wellness
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of a risk analysis: Identification, eraluation, prioritization, control and monitoring." These are not 5 Separate "cycles" in the Risk Management Process, These are 5 steps/elements of the cycle or process. The only way to get to the answer, "Priorities for action," Is to Ignore the Words used in the question and when then assume what the question was really saying. This is not and Should never be a part of the testing process. I'm asking that the question be considered Invalid. This would have been a Very good Separator question, but by naming the elements and steps "cycles", the question was specifically asking for something that does not exist.

APPEAL OF PROMOTIONAL	EXAMINATION QUESTION
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Name: MICHAEL S Williams Date: 1-14.2021
INSTRUCTIONS: Please complete one form for each question that you wish to appeal. State clearly what you believe is wrong with the question and provide a reason for your belief. Please type or write legibly. If additional space is needed, go to the back of this page.
DATE OF EXAM: 1-12-2021 TEST RANK: BATTALION (HIEF QUESTION # 89
REFERENCE PAGES 371 REFERENCE BOOK: OCCOPATIONAL SAFETY, HEALTH & WELLNESS
General reason for objection: (Check one of the following and explain fully below)
The keyed answer is not correct. Another answer is correct and it should be allowed for credit <u>instead</u> of the keyed answer. My answer is
Another answer is also correct, <u>in addition</u> , to the keyed answer. Both answers should be allowed for credit. My answer is
The question is faulty because there is no correct answer among the choices. The question should be <u>eliminated</u> .
Other: THE QUESTION IS WORDED INCORRECTLY TO THE BOOK. IT CHANGES THE THOUGHT PROCESS AND POSSIBLE ANSWER TO THE QUESTION.
Reasons(s) supporting your appeal:
THE QUESTION ASKS FOR ONE OF THE PERON FIVE "CULLES". IT CHANNES YOUR THINKING TO BE FOR POSSIBLE DIFFERENT RIMNNING PROLESSES INSTEAD OF JUST LOOKING FOR A STEP. THE BOOK IN RELATION STATES "THE RISK MANAGEMENT PUAN CULLES THROULD FIVE STEPS" OUTLINED IN NEPA ISDO. IF THE QUESTION WOULD AANE ASKED FOR STEPS (NISTEAD OF FIVE "CULLES" IT WOULD HAVE LED YOU TO PICK A STEP INSTEAD OF POSSIBLY A DIFFERENT PROLEAM.

Continue on back of this form if needed.<sub>CSC Agenda Packet 1-29-21, Page 13</sub>

#### **GPFD Battalion Chief Promotional Exam, Question 89**

In response to the current appeal for Question 89 on the Grand Prairie Fire Department Battalion Chief Promotional Exam, I would like to submit a letter to support the validity of the question and that it should stand. The 5 separate components of the Risk Management Process as described in Occupational Safety, Health, and Wellness were described as "Identify, Evaluation, Priorities for Action, Control Techniques, and Monitoring", just as they were presented in question 89. The components first introduced on page 21 "NFPA 1500 includes the following risk assessment components: Identification, Evaluation, Prioritization, Control Techniques implementation, and Management monitoring". Additionally, the 5 steps were again listed and prioritized on page 370, "NFPA 1500 4.2.3, contains the five elements of a risk analysis: identification, evaluation, prioritization, control and monitoring". The elements were listed in the book, in the exact order as requested by the exam question. Furthermore, the specific question is clearly drawn from Figure 11.7 which states the "the risk management plan cycles through five steps outlined in NFPA 1500." The 3<sup>rd</sup> step in the process is "Priorities for Action" and the figure depicts a cyclic process. The term 'cycles' is used synonymously with the other terms in the book such as 'elements' and 'components' and does not significantly alter the meaning of the question. Utilizing critical thinking with the ability to recall the steps from the reading and the clearly depicted Figure 11.7 on page 371 should allow any applicant to decipher the correct answer and should therefore stand.

Captain Jeremy Ashcraft

#### Public Safety Officers' Benefits Programs (PSOB)

The Public Safety Officers' Benefits (PSOB) Programs are a combined effort of the U.S. Department of Justice; local, state, tribal, and federal public safety agencies; and national organizations. They provide death and education benefits to survivors of fallen law enforcement officers, firefighters, and other first responders, and disability benefits to officers seriously injured in the line of duty. Visit the PSOB website for more information and to file a claim.

# **Risk Management Plan**

Regardless of the size of the community or service area, every fire and emergency services organization needs a risk management plan to guide its operations.

The department chief usually develops a risk management plan but may delegate this responsibility to the HSO. Regardless of whether it is the chief officer or an assigned officer, all members of the organization should become familiar with the plan. Those responsible for the risk management plan must be capable of performing skills such as training, investigating, evaluating, analyzing, implementing, and communicating. Each of these skills applies to tasks required of the HSO.

The risk management plan, as described in NFPA 1500, encompasses many aspects of the fire and emergency services organization. It says risk identification is an ongoing process, and a reasonable control plan has been followed. An effective risk management plan aids many areas of the department, including its operational, safety, financial, and legal operations. This plan must be reviewed and revised annually. The fire chief assigns responsibility for the plan's review and revision to the HSO or an occupational safety and health committee. A risk management plan may form part of the overall community/jurisdiction plan, becoming the responsibility of that organization's risk manager (the community health and safety manager or loss control manager).

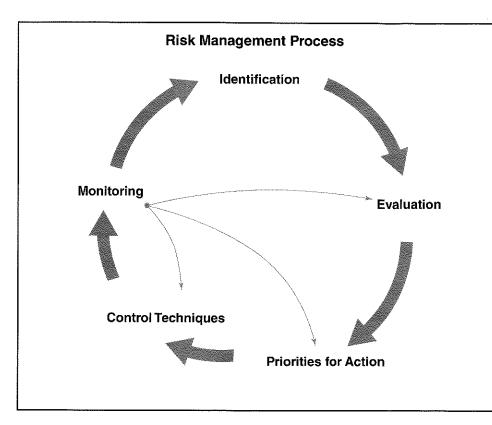
Chapter 4 of NFPA 1500 states the requirements:

The fire department shall adopt an official written risk management plan that covers administration, facilities, training, vehicle operations, protective clothing and equipment, operations at emergency incidents, operations at nonemergency incidents, and other related activities. At a minimum, the plan shall include risk identification, risk prioritization, risk evaluation, risk control techniques, and risk monitoring.

Risk management and system safety concepts must be understood by all fire officers and organizational HSOs. These concepts form the basis for most of the roles and responsibilities of officers who plan, develop, and manage the safety and health program.

### **Personnel Risk Analysis**

Risk analysis is applied to the safety and health of the internal customers of an organization, its employees and members. Since injuries and fatalities occur during training and/or physical fitness sessions, risk analysis applies to all nonemergency activities of the organization in order to prevent and/or reduce occurrences. NFPA 1500, 4.2.3 contains the five elements of a risk analysis: identification, evaluation, prioritization, control, and monitoring (Figure 11.7).



**Figure 11.7** The risk management plan cycles through five steps outlined in NFPA 1500.

### **Risk Identification**

To identify risks, an HSO compiles a list of all emergency and nonemergency operations and duties of the organization. Ideally, an HSO should take into consideration the worst possible conditions or events, including disasters (Figure 11.8). There are many sources to assist with the risk identification process.

The first, and possibly the most effective, is the department's loss prevention data, a collection of annual fire-loss reports by categories that include occupancy type, loss value, and frequency. National averages and trends are available from NFPA and the National Fire Academy (NFA). However, national data is not always complete, accurate or current.

The HSO should seek input and ideas from department personnel, trade journals, professional associations, and other service providers to identify potential risks. When using information provided by other fire departments or organizations, the HSO should

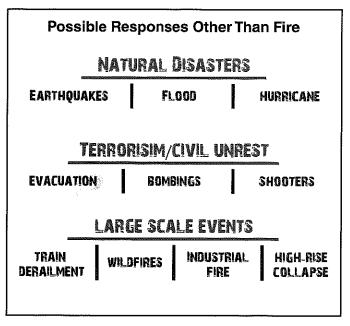


Figure 11.8 In an all-hazards response environment, risks other than fire need to be included in the risk management plan.

consider the effect of local circumstances on the set of emergency and/or nonemergency operations and duties. Other sources for risk identification include risk management plans developed by local industry and hazardous substance sites, vulnerability analyses, and the U.S. Environmental Protection Agency.

#### **Risk Evaluation**

Once the HSO identifies the risks, they can be evaluated for frequency and severity. Typically, if a particular type of incident, such as injuries related to lifting, has occurred repeatedly, it will continue to occur until a job hazard or task analysis has been performed to identify the root cause and effective control measures have been implemented. In this example, the HSO or occupational safety and health committee must develop and implement guidelines that outline proper lifting techniques and physical fitness requirements or provide mechanical aids for lifting.

Severity can be measured several ways, such as lost time from work, cost of damage, cost of and time for repair or replacement of equipment, disruption of service, or legal costs. Incidents of high frequency and high severity must have the highest priority in the risk analysis, while those of low frequency and low severity receive the lowest priority. The method for calculating the risk may vary from one department to another.

#### **Risk Prioritization**

Studied in combination, the results of frequency and severity assessments help establish priorities for determining action. Any risk that presents a high probability of occurrence and serious consequences deserves immediate action and is considered a high-priority item.

#### **Risk Control Techniques**

Once the HSO prioritizes the risks, it is time to apply risk control measures. Several approaches can be taken in risk control, including the following:



Figure 11.9 Risk avoidance includes training personnel in the use of proper lifting techniques.

- **Risk avoidance:** The best way to control risk is to avoid activities that create it. However, in a fire and emergency services organization, this approach can be impractical. For example:
  - Lifting a stretcher presents the risk of serious back-injury, but personnel cannot avoid this risk and provide effective service. Training in the use of safe lifting techniques and/or using safer equipment would be a more acceptable solution (Figure 11.9).
  - Smoking presents the risk of lung cancer and other illnesses. Hiring only nonsmokers could eliminate the risk by ending any exposure to tobacco smoke in the workplace.
- **Risk transfer:** Activities associated with risk can also be outsourced or insured, although these options may be more difficult, if not impossible, for a fire or emergency medical services (EMS) organization. For example:
- The cleanup and disposal of hazardous waste could be outsourced, thereby transferring the risk of contamination/exposure to a private contractor who accepts liability for any activity-related damages.

#### FIRE BATTALION CHIEF PRELIMINARY

# GTR and PRairie

RANK	NAME	RAW SCORE	SR. POINTS	FINAL SCORE	TIE BREAKER	TIE BREAKER	TIE BREAKER	TIE BREAKER
		SCORE	POINTS	SCORE	DREAKER	DREAKER	DREAKER	DREAKER
								Date of
					Raw Score	Ctf Level	date in Rank	Certification
1	Ashcraft, Jeremy	98	10	108				
2	Grider, Wendell	97	10	107		Master		
3	Spivey, Donald	97	10	107		Advance	4/30/2016	1/6/2014
4	Williams, Michael	97	10	107		Advance	4/30/2016	6/25/2014
5	Yates, James	94	10	104				
6	Stevenson, John	93	10	103				
7	Sullivan, Michael	92	10	102				
8	Covington, Ron	90	10	100				
9	Purdom, James	88	10	98				

The following candidates did not pass the test: N/A

Approved by the Grand Prairie Civil Service Commission this day of , 2021.

Chairman, Civil Service Commission

Commissioner

Commissioner

Civil Service Director

# **Fire Lieutenant Test Question Appealed**

**55.** A substance with a specific weight of 1.87 is which of the following? (IFSTA Fire Inspection & Code Enforcement, 8<sup>th</sup> Ed.)

- A. Soluble with water
- B. Heavier than water
- C. The same weight as water
- D. Lighter than water

Correct Answer: B – IFSTA Fire Inspection & Code Enforcement, 8th Ed., Chapter 3, Page 90 Candidate Answer Summary: A - 1, **B - 13**, C - 0, D - 0

#### Appellants:

Exam	EE	Question #	
Lieutenant	Gohlke, Preston	Į,	55

#### Vendor Response:

Lieutenant Exam Question 55

#### **Appellant: Gohlke**

(IFSTA Fire Inspection & Code Enforcement, 8th Ed.) A substance with a specific weight of 1.87 is which of the following?

a. Soluble with water	c. The same weight as water

b. Heavier than water d. Lighter than water

#### **Answer Key: B**

Answer Source: IFSTA Fire Inspection & Code Enforcement, 8th Ed., Chapter 3, Page 90

**Appellant:** This question is flawed and must be eliminated because there is no correct answer. As noted above the term Specific Weight is not listed, defined or mentioned anywhere within the approved source Fire Inspector and Code Enforcement 8th Edition. The term Specific Weight however an actual scientific term as referenced above outside source materials. One of two possibilities occurred during the creation of this question, resulting in this error. First, the question created utilizing the term "specific weight" from an outside source not approved by the commission. Second, a typographical error occurred during the creation of the question resulting in the correct term "Specific Gravity" to be altered by replacing the second word of the term "Gravity" with a random word mentioned in the definition itself "weight." Therefore, because this question presented a term not defined or listed within the approved sources as listed by the commission, this question should be eliminated from the exam.

**Consultant Opinion:** Disagree with the appellant. Questions are not required to be "word for word" from the reading sources. On page 90 of the IFSTA Fire Inspection & Code Enforcement (8th Edition), it states, "Specific Gravity – Mass (weight) of a substance compared to the mass of an equal volume of water at a given temperature. A specific gravity less than 1 indicates a substance greater than water; a specific gravity greater than 1 indicates a substance heavier than water." The question merely asks to compare a "substance with a specific weight of 1.87" to water would it be soluble, heavier, lighter or the same weight as water. The terms gravity and weight are interchangeable in this situation.

**Consultant Recommendation**: No action necessary. The question is valid and correct.

Specific Gravity — Mass (weight) of a substance compared to the mass of an equal volume of water at a given temperature. A specific gravity less than 1 indicates a substance lighter than water; a specific gravity greater than 1 indicates a substance heavier than water.

Flammable Liquid — Any liquid having a flash point below 100°F (37.8°C) and a vapor pressure not exceeding 40 psi absolute (276 kPa) {2.76 bar}.

Vapor Pressure — (1) Measure of the tendency of a substance to evaporate. (2) The pressure at which a vapor is in equilibrium with its liquid phase for a given temperature; liquids that have a greater tendency to evaporate have higher vapor pressures for a given temperature.

Flash Point — Minimum temperature at which a liquid gives off enough vapors to form an ignitable mixture with air near the liquid's surface.

Fire Point — Temperature at which a liquid fuel produces sufficient vapors to support combustion once the fuel is ignited. Fire point must exceed 5 seconds of burning duration during the test. The fire point is usually a few degrees above the flash point.

Solubility — Degree to which a solid, liquid, or gas dissolves in a solvent (usually water).

Table Characteristics of Com	e 3.4 mon Flammable	Gases
Material	Vapor Density	Ignition Temperature
Methane (Natural Gas)	0.55	(1004°F) 540°C
Propane (Liquefied Petroleum Gas)	1.52	(842°F) 450°C
Carbon Monoxide	0.96	(1,128°F) 620°C

Source: Computer Aided Management of Emergency Operations (CAMEO)

# Liquid Fuel

Liquids have mass and volume but no definite shape, except for a flat surface or when they assume the shape of their container. When released on the ground, liquids will flow downhill and can pool in low areas. Just as gases are compared to air, the density of liquids is compared with that of water. **Specific gravity** is the ratio of the mass of a given volume of a liquid compared with the mass of an equal volume of water at the same temperature. Water has been assigned a specific gravity of 1. Liquids with a specific gravity less than 1, such as gasoline and most **flammable liquids**, are lighter than water and will float on its surface **(Figure 3.20)**. Liquids with a specific gravity greater than 1, such as epichlorohydrin (used in making plastics), are heavier than water, causing them to sink.

Liquids must be vaporized in order to burn. Vaporization is the transformation of a liquid to vapor or gaseous state. In order to vaporize, liquids must overcome the pressure exerted by the atmosphere. At sea level, the atmosphere exerts a pressure of 14.7 psi (102.9 kPa). **Vapor pressure** is the pressure produced or exerted by vapors released by a liquid.

As a liquid is heated, vapor pressure increases along with the rate of vaporization. For example, a puddle of water eventually evaporates. When the same amount of water is heated on a stove, however, it vaporizes much more rapidly because more thermal energy is being applied. The rate of vaporization is determined by the vapor pressure of the substance and the amount of thermal energy applied to it. The volatility or ease with which a liquid gives off vapor influences how easily it can be ignited.

The **flash point** is the minimum temperature at which a liquid gives off sufficient vapors to ignite but not sustain combustion. **Fire point** is the temperature at which sufficient vapors are generated to sustain the combustion reaction. Flash point is commonly used to indicate the flammability hazard of liquid fuels **(Figure 3.21)**. Liquid fuels that vaporize sufficiently to burn at temperatures under 100°F (38°C) present a significant flammability hazard.

The extent to which a liquid will give off vapor is also influenced by how much surface area is exposed to the atmosphere. In many open containers, the surface area of liquid exposed to the atmosphere is limited.

A number of other characteristics of liquid fuels are important to inspectors. Principal among these are density in comparison to water and ability to mix with water (solubility). Liquids such as hydrocarbon fuels (including gasoline,

APPEAL OF PROMOTIONAL	, EXAMINATION QUESTION
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ATE	OF EXAM: 14 Jan 2021 TEST RANK: Lieutenant QUESTION # 55
EFE	is needed, go to the back of this page. OF EXAM: <u>14 Jan 2021</u> TEST RANK: <u>Lieutenant</u> QUESTION # 55 RENCE PAGES <u>90</u> REFERENCE BOOK: <u>Inspector and Code Enforcement</u> / Multiple on So
lener	50 ral reason for objection: (Check one of the following and explain fully below)
]	The keyed answer is not correct. Another answer is correct and it should be allowed for credit <u>instead</u> of the keyed answer. My answer is
- -	Another answer is also correct, in addition, to the keyed answer. Both answers should be allowed for credit. My answer is
z	The question is faulty because there is no correct answer among the choices. The question should be
	eliminated.
] .easo	<u>eliminated.</u> Other: ns(s) supporting your appeal: <u>Sec</u> Attachment
	Other:
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	Other:

# Facts according to the listed source Fire Inspector and Code Enforcement 8th Edition

- <u>Specific Gravity</u> is the ratio of the mass of a given volume of a liquid compared with the mass of an equal volume of water at the same temperature. (Pg 90)
- Water has been assigned a *Specific Gravity* of 1. (Pg 90)
- Liquids with a <u>Specific Gravity</u> greater than 1 are heavier than water causing them to sink. (Pg 90)
- <u>Specific Gravity</u> as defined on column on page. (Pg 90)
  - i. Term: Specific Gravity
  - ii. Definition: Mass (weight) of a substance compared to the mass of an equal volume of water at a given temperature. A <u>Specific Gravity</u> less than 1 indicates a substance lighter than water; <u>a Specific Gravity</u> greater than 1 indicates a substance heavier than water.
- Specific Weight No such term is listed or mentioned within the cited source book.

# Facts according to outside sources as cited below

- Specific Weight as defined by Merriam-Webster (www.merriam-webster.com/dictonary/specific%20weight)
  - i. Terms: Specific Weight
  - ii. Definition: the Weight of a substance per unit volume in absolute units equal to the density multiplied by the acceleration of gravity.
- Specific Weight, sometimes referred to as unit weight, is simply the weight of a fluid per unit volume. (www.pipeflow.com/pipe-pressure-drop-calculations/fluid-density)
- Specific Weight is a similar sounding word of Specific Gravity but these are two very different quantities. (https://www.differencebetween.com/difference-between-specific-gravity-and-vs-specific-weight)
- Specific Weight corresponds to the weight per unit of the volume and can be calculated from the Specific Gravity. (<u>https://sciencing.com/mass-weight-7721316.html</u>)

# The question asked "a substance with a SPECIFIC WEIGHT of 1.87 will do what"

This question is flawed and must be eliminated because there is no correct answer. As noted above the term Specific Weight is not listed, defined or mentioned anywhere within the approved source Fire Inspector and Code Enforcement 8<sup>th</sup> Edition.

The term Specific Weight however an actual scientific term as referenced above by outside source materials.

One of two possibilities occurred during the creation of this question, resulting in this error. First, the question was created utilizing the term "specific weight" from an outside source not approved by the commission. Second, a typographical error occurred during the creation of the question resulting in the correct term "Specific Gravity" to be altered by replacing the second word of the term "Gravity" with a random word mentioned in the definition itself "weight".

Therefore, because this question presented a term not defined or listed within the approved sources as listed by the commission, this question must be eliminated from the exam.

Lieutenant Exam Appeal

**Question 55** 

# **Fire Lieutenant Test Question Appealed**

**78.** Gas cooling is not a fire extinguishment method but is a way of reducing heat release from the hot gas layer. This technique is effective when faced with which of the following types of fires? (Structural Fire Fighting: Initial Response Strategy and Tactics, 2<sup>nd</sup> Edition)

- A. Combustible fire
- B. Potential flashover fire
- C. Shielded fire
- D. Transitional fire

Correct Answer: C – Structural Fire Fighting: Initial Response Strategy and Tactics, 2nd Edition, Chapter 6, Page 242

Candidate Answer Summary- A - 0, B - 3, C - 11, D - 0

#### **Appellants:**

Exam	EE	Question #
Lieutenant	Gohlke, Preston	78

#### Vendor Response:

Lieutenant Exam Question 78

#### **Appellant: Gohlke**

(Structural Fire Fighting: Initial Response Strategy and Tactics, 2nd Edition) Gas cooling is not a fire extinguishment method but is a way of reducing heat release from the hot gas layer. This technique is effective when faced with which of the following types of fires?

a. Combustible fire	c. Shielded fire
b. Potential flashover fire	d. Transitional fire

#### Answer Key: C

Answer Source: Structural Fire Fighting: Initial Response Strategy and Tactics, 2nd Edition, Chapter 6, Page 242

**Appellant:** The question is flawed and must be eliminated because there is no correct answer. "Types of Fire" is not a concept or defined in the approved source materials. The question is unanswerable due to the addition and inclusion of the test makers own wording, language and writing style. The core and focus of the question was redirected by the addition of the modifier "types of fire." "Types of Fire" cannot be found within the approved sources. This fact means that no answer was a good answer. You cannot assert a good answer based on an invalid question. Therefore, because this question presented the concept of "types of fire" as imagined by the test maker and the sources containing no such theory, principle or description, this question must be eliminated from the exam.

**Consultant Opinion:** Disagree with appellant. Page 242 of the text states, "Gas cooling is not a fire extinguishment method but is a way of reducing heat release from the hot gas layer. This technique is effective when faced with a shielded fire." The appellant's position of focusing on the phrase "types of fire" is not valid. Answers A, B, C, and D are different, or "types of fires." The appellant's position that to reword the question to "This technique is effective when faced with a valid is an incorrect assumption.

**Consultant Recommendation:** No action necessary. The question is valid and correct.

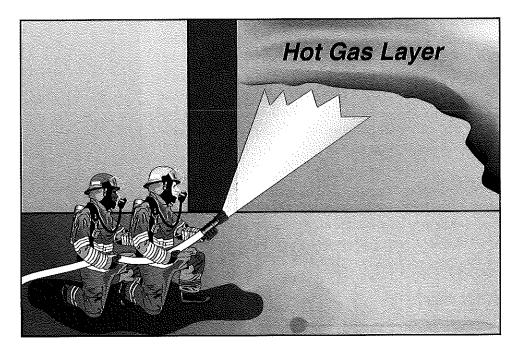
- Ease of access to the burning fuels
- Hose stream type and application
- Potential flow paths within the structure

# Indirect Attack

An indirect attack on the fire using a straight or solid stream uses water most efficiently on ventilation-controlled fires. The primary fuel within these types of fires are the fire gases that the combustion process inside a compartment produces. An indirect attack can be considered gas cooling if performed on the interior of the structure. Additionally, an indirect attack can be considered transitional if performed beginning on the exterior.

# Gas Cooling

Gas cooling is not a fire extinguishment method but is a way of reducing heat release from the hot gas layer. This technique is effective when faced with a **shielded fire (Figure 6.18)**. In these situations, you cannot apply water directly onto the burning material without entering the room and working under the hot gas layer.



Considerations for the IC when choosing gas cooling:

- High heat, rollover, flashover conditions
- Arrival conditions
- Location, size, and extent of the fire
- Available resources (quantity and experience)
- Size of the structure
- Structural features that may affect interior suppression (lack of compartmentation)
- Hose stream type and application

Shielded Fire — Fire that is located in a remote part of the structure or hidden from view by objects in the compartment.

Figure 6.18 A combination attack adds the cooling effect of an indirect attack to the suppression effect of a direct attack.

APPEAL	OF PRO	OMOTI	ONAL	EXAMIN	ATION	QUEST	TION

believ space	RUCTIONS: Please complete one form for each question that you wish to appeal. State clearly what you e is wrong with the question and provide a reason for your belief. Please type or write legibly. If additional is needed, go to the back of this page.
DATE REFE	COF EXAM: <u>14 Jan 2021</u> TEST RANK: <u>Lienterant</u> QUESTION # 78 242, <b>11</b> RENCE PAGES <u>17, 41</u> REFERENCE BOOK: <u>Structural Firefighting</u> : <u>Initial Response</u> and ral reason for objection: (Check one of the following and explain fully below) Fire Inspector <u>Tactics</u> and <u>Code Enforcement pg</u> The keyed answer is not correct. Another answer is correct and it should be allowed for credit <u>instead</u> of
Gener	al reason for objection: (Check one of the following and explain fully below) Fire Inspector Tractics
	The keyed answer is not correct. Another answer is correct and it should be allowed for credit <u>instead</u> of the keyed answer. My answer is
	Another answer is also correct, <u>in addition</u> , to the keyed answer. Both answers should be allowed for credit. My answer is
2	The question is faulty because there is no correct answer among the choices. The question should be <u>eliminated.</u>
	Other:
	See Attachment
C 18 0	

# Facts according to the listed source Structural Firefighting: Initial Response and Tactics 2<sup>nd</sup> Edition

- Gas cooling is not a fire extinguishment method but is a way of reducing heat release from the hot gas layer. This technique is effective when faced with a shielded fire. In these <u>Situations</u> you cannot apply water directly onto the burning material without entering the room and working under the hot gas layer. (Pg 242)
- Fire as defined within column on page. (Pg 11)
  - i. Term: Fire
  - ii. Definition: a <u>rapid oxidation process</u>, which is a gas phase chemical reaction resulting in the evolution of light and heat in varying intensities.
- Fire can take various forms, but all fires involve a heat producing chemical reaction between some type of fuel and an oxidizer. (Pg 11)
- Fire and Combustion are similar conditions. Both words are commonly used to mean the same thing. "Flaming combustion" is commonly referred to as fire. (Pg 17)
- Stages of Fire Development: Fires develop through four stages. Incipient, growth, fully developed and decay. (Pg 41)
- "Types of Fire" No such term is listed or mentioned within the cited source book.

# Facts according to the listed source Fire Inspector and Code Enforcement 8th Edition

• Fires are classified by the type of fuel involved and the type of extinguishing agent or activity that will be required to control and extinguish the fire. There are five classifications. Classes A, B, C, D, K. (Pg 96)

# The question asked about the effectiveness of the gas cooling technique when faced with "Which of the following TYPES of Fire"

This question is flawed and must be eliminated because there is no correct answer. "Types of Fire" is not a concept or defined in the approved source materials. The question is unanswerable due to the addition and inclusion of the test makers own wording, language and writing style. The core and focus of the question was redirected by the addition of the modifier "types of fire". "Types of Fire" are cannot be found within the approved sources. This fact means that no answer was a good answer. You cannot assert a good answer based on an invalid question.

Therefore, because this question presented the concept of "types of fire" as imagined by the test maker and the sources containing no such theory, principle or description, this question must be eliminated from the exam.

# Chapter 1 Fire Dynamics

Fire dynamics describes the meeting point between fire science, materials science, fluid dynamics of gases, and heat transfer. Understanding the basic physics of these sciences can give firefighters the knowledge needed to forecast fire growth at a scene and predict the likely consequences of various tactical options available for controlling a fire. All of the following provide firefighters with pieces of the total picture about a fire's likely behavior during fireground operations:

- Fire science
- The combustion process
- Fire behavior and its relationship to various materials and environments
- Classifications of fires and their corresponding extinguishing agents
- Recognition of fire behavior indicators, fire development patterns, and the potential for rapid fire development
- Various ventilation and suppression tactics used as tools for controlling fires

# **Science of Fire**

Firefighters should have a scientific understanding of **combustion**, fire, heat, and **temperature**. Fire can take various forms, but all fires involve a heatproducing chemical reaction between some type of **fuel** and an **oxidizer**, most commonly oxygen in the air. Oxidizers are not combustible but will support or enhance combustion. **Table 1.1** lists some common oxidizers.

Table 1.1 Common Oxidizers		
Substance	Common Use	
Calcium Hypochlorite (granular solid)	Chlorination of water in swimming pools	
Chlorine (gas)	Water purification	
Ammonium Nitrate (granular solid)	Fertilizer	
Hydrogen Peroxide (liquid)	Industrial bleaching (pulp and paper and chemical manufacturing)	
Methyl Ethyl Ketone Peroxide	Catalyst in plastics manufacturing	

Courtesy of Ed Hartin.



**Combustion** — A chemical process of oxidation that occurs at a rate fast enough to produce heat and usually light in the form of either a glow or flame. (Reproduced with permission from NFPA 921-2011, *Guide for Fire and Explosion Investigations*, Copyright 2011, National Fire Protection Association).

Fire — A rapid oxidation process, which is a gas phase chemical reaction resulting in the evolution of light and heat in varying intensities.

Heat — Form of energy associated with the motion of atoms or molecules in solids or liquids that is transferred from one body to another as a result of a temperature difference between the bodies, such as from the sun to the earth. To signify its intensity, it is measured in degrees of temperature.

Temperature — Measure of the average kinetic energy of the particles in a sample of matter, expressed in terms of units or degrees designated on a standard scale. Joule (J) - Unit of work or energy in the International System of Units (Si); the energy (or work) when a unit force (1 newton) moves a body through a unit distance (1 meter). Joules are defined in terms of mechanical energy. In terms of thermal energy, joules refer to the amount of additional heat needed to raise the temperature of a substance, such as the 4.2 Joules needed to raise the temperature of 1 gram of water 1 degree Celsius. Takes the place of calorie for heat measurement (1 calorie = 4.19 J).

Exothermic Reaction — Chemical reaction between two or more materials that changes the materials and produces heat.

Endothermic Reaction — Chemical reaction in which a substance absorbs heat. There are many types of energy including:

- Chemical
- Thermal
- Mechanical
- Electrical
- Light
- Nuclear
- Sound

All energy can change from one type to another. For example, mechanical energy from a machine can convert to thermal energy when friction between moving parts generates heat. In terms of fire behavior, the potential chemical energy of a fuel converts into heat and light during combustion.

Energy is measured in **joules (J)** in the International System of Units (SI). The quantity of heat required to change the temperature of 1 gram of water by 1 degree Celsius is 4.2 joules. In the customary system, the unit of measurement for heat is the British thermal unit (Btu). A British thermal unit is the amount of heat required to raise the temperature of 1 pound of water by 1 degree Fahrenheit. While not used in scientific and engineering texts, the Btu is still frequently used in the fire service. When comparing joules and Btu, 1 055 J = 1 Btu.

Chemical and physical changes almost always involve an exchange of energy. A fuel's potential energy releases during combustion and converts to kinetic energy. Reactions that emit energy as they occur are **exothermic reactions**. Fire is an exothermic chemical reaction that releases energy in the form of heat and sometimes light.

Reactions that absorb energy as they occur are **endothermic reactions** (Figure 1.4). For example, converting water from a liquid to a gas (steam) requires the input of energy resulting in an endothermic reaction. Converting water to steam is a tactic for controlling and extinguishing some types of fires.

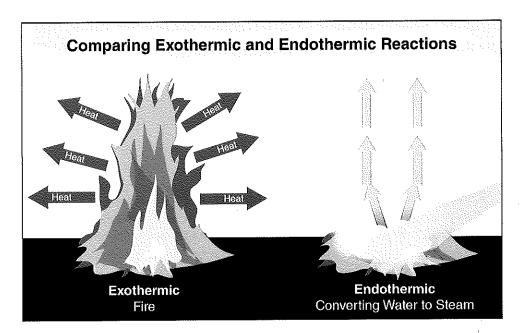
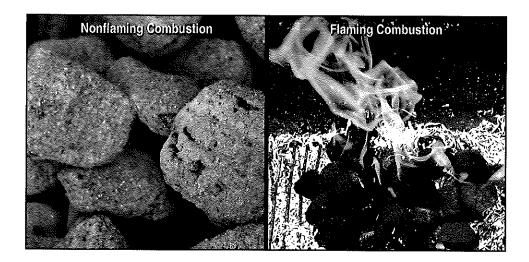


Figure 1.4 Exothermic reactions release energy while endothermic reactions absorb energy.

Autoignition temperature (AIT) is the minimum temperature at which a fuel in the air must be heated in order to start self-sustained combustion. The autoignition temperature of a substance is always higher than its piloted ignition temperature.

# Combustion

Fire and combustion are similar conditions. Both words are commonly used to mean the same thing. Combustion, however, is a chemical reaction while flaming combustion is only one possible form of combustion. Combustion can occur without visible flames. There are two modes of combustion: nonflaming and flaming (Figure 1.8).



Autoignition Temperature (AIT) — The lowest temperature at which a combustible material ignites in air without a spark or flame (Reproduced with permission from NFPA 921-2011, *Guide for Fire and Explosion Investigations*, Copyright 2011, National Fire Protection Association).

Figure 1.8 Flaming combustion displays visible flames above the burning fuel. Nonflaming combustion features lower temperatures and smoldering conditions.

# Nonflaming Combustion

Nonflaming combustion occurs more slowly and at a lower temperature, producing a smoldering glow in the material's surface. The burning may be localized on or near the fuel's surface where it is in contact with oxygen. Examples of nonflaming or smoldering combustion include burning charcoal or smoldering wood or fabric. The fire triangle illustrates the elements/conditions required for this mode of combustion.

# Flaming Combustion

Flaming combustion is commonly referred to as fire. It produces a visible flame above the material's surface. Flaming combustion occurs when a gaseous fuel mixes with oxygen in the correct ratio and heats to ignition temperature. Flaming combustion requires liquid or solid fuels to be converted to the gas phase through the addition of heat (vaporization or pyrolysis, respectively). When heated, both liquid and solid fuels will emit vapors that mix with oxygen, producing flames above the material's surface if the gases ignite. The fire tetrahedron accurately reflects the conditions required for flaming combustion.

Each element of the tetrahedron must be in the proper proportion and in close physical proximity for flaming combustion to occur. Removing any element of the tetrahedron interrupts the chemical chain reaction and stops flaming combustion. However, the fire may continue to smolder depending on the characteristics of the fuel. the interior survey is a matter of personal preference; most people prefer to start on the top floor or roof.

Personnel then conduct the interior survey, systematically drawing floor plans of each floor to show the locations of permanent walls, partitions, fixtures, and heavy machinery. Furniture and similar items should not be included on floor plans because their locations are not fixed.

The locations of any of the following items should be noted on the floor plan drawings:

- Vertical shafts and horizontal openings
- Fire protection equipment such as standpipe or sprinkler control valves
- Fire control centers
- Safe haven areas where occupants may be sheltered in place
- · Open pits and other process hazards

# **Life-Safety Information**

Life-safety information is collected in two basic topic areas: protection and evacuation of occupants and protection of firefighters. Occupant protection information to be gathered and recorded during the interior survey includes:

- Locations and number of exits
- Locations of escalators and elevators
- Locations of windows and other openings suitable for rescue access (Figure 2.13)



- Special evacuation considerations for disabled occupants, old or young occupants, and large numbers of occupants (Figure 2.14)
- Locations of areas of safe refuge
- Flammable and toxic interior finishes or processes

**Figure 2.13** The interior survey should note the location of windows, which could be used for rescuing trapped occupants and firefighters. *Courtesy of Ron Jeffers, Union City, NJ.*  the spread of smoke and heat. The activation of these assemblies may potentially restrict the ability for people to move throughout a structure, and door activation may damage, pinch, or block attack lines. Interior operating crews should consider alternate routes whenever possible.

For facilities protected with sprinkler or standpipe systems, the required water supply should have been determined during the design and installation of the systems. Changes in water demand, such as the construction of additional buildings using the same supply line, can reduce the actual water supply available.

Determining the availability and reliability of water supplies is critical to the development of any preincident plan. The preincident survey of any given occupancy should gather the following information:

- Locations of all water supplies
  - Auxiliary water supplies
  - Private water supply systems, such as impounded bodies of water or wells
- Locations of water-system interconnections
  - Hydrants, including hydrant main intake facing roadway (Figure 2.20)
  - Fire protection system flow meters and alarms



 Water-demand systems such as high-water demand processes connected to the supply system

- Required fire flow based on construction type and fuel load information or on calculations that owners/occupants provide
- Water supply system pressure (reading the pressure at hydrants with a **pitot** gauge while flowing water from them)

Figure 2.20 A preincident survey should include the location of hydrants.

Pitot Gauge — Instrument that is inserted into a flowing fluid (such as a stream of water) to measure the velocity pressure of the stream; commonly used to measure flow; functions by converting the velocity energy to pressure energy that can then be measured by a pressure gauge. The gauge reads in units of pounds per square inch (psi) or kilopascals (kPa). Also known as Pitot Tube.

# **Fire Lieutenant Test Question Appealed**

**96.** Both criterion-referenced and norm-referenced tests can be divided into more specific classifications, based on t he reason for testing and the way the test is adminisyered. The purpose classification clarifies the reasons a test is given and the point at which it is given during instruction. There are three test types that fall under the "purpose classification." These test types include all of the following **EXCEPT**: (Fire and Emergency Services Instructor, 9<sup>th</sup> Edition)

- A. Performance tests
- B. Summative tests
- C. Cognitive tests
- D. Prescriptive tests

Correct Answer: A – IFSTA Fire and Emergency Services Instructor, 9th Edition, Chapter 9, Page 187 & 189

Candidate Answer Summary: A - 2, B - 1, C - 11, D - 0

#### Appellants:

Exam	EE	Question #
Lieutenant	Gohlke, Preston	96
Lieutenant	Hill, Chad	96
Lieutenant	Morris, Benjamin	96
Lieutenant	Ostler, Brandon	96
Lieutenant	Rodgers, Chris	96

#### Vendor Response:

Lieutenant Exam Question 96

#### Appellant: Golke, Hill, Morris, Ostler, Rogers

(Fire and Emergency Services Instructor, 9th Edition) Both criterion-referenced and normreferenced tests can be divided into more specific classifications, based on the reason for testing and the way the test is administered. The purpose classification clarifies the reasons a test is given and the point at which it is given during instruction. There are three test types that fall under the "purpose classification." These test types include all of the following **EXCEPT:** 

a. Performance tests	c. Cognitive tests
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b. Summative tests d. Prescriptive tests

Answer Key: A

Answer Source: IFSTA Fire and Emergency Services Instructor, 9th Edition, Chapter 9, Page 187 & 189

**Appellants:** Another answer is also correct, <u>in addition</u>, to the keyed answer. Both answers should be allowed for credit. My answer is <u>C</u>. Page 187 Test Classifications – Purpose Classification test types include Prescriptive, Formative, and Summative tests. Neither Performance tests nor Cognitive tests fall under the Purpose Classification. Therefore, both answers (a. Performance tests and c. Cognitive tests) are equally correct. Performance tests fall under Administration classification and Cognitive tests are neither Purpose nor Administration classifications. The answer choices A & C should both be accepted as correct.

Consultant Opinion: The appellants are correct. The correct answers should be prescriptive formative, or summative. Both answers A and C are correct.

Consultant Recommendation: Both answers A and C is the correct response, as neither are "test classifications."

# Training and Education Terms Used in the Fire Service

The terms objectives and outcomes are similar and should be carefully used in context. An objective is what you seek to achieve, while the outcome is what you actually achieved.

Another example of terms that are very close in meaning are *psychomotor*, *performance*, and *skills*. Psychomotor refers to movement as a result of conscious mental activity; performance relates to the process of carrying out or accomplishing a task; and skill has come to mean a physical activity. They are all related back to actively accomplishing a physical task. The instructor is encouraged to be careful and specific in his or her use of language to avoid misunderstanding.

If they do, they pass, but if they do not, they fail. In some skills, a single step may be so critical that performing it incorrectly may result in a failing grade, even though the rest of the skill was performed perfectly.

# **Test Classifications**

Both criterion-referenced and norm-referenced tests can be divided into more specific classifications, based on the reason for testing and the way the test is administered. No single test type is suitable for every situation. Instructors should be familiar with the following two test classifications and be able to select a test that will best measure the intended learning result:

- Purpose classification (the reason for testing)
- Administration classification (the way the test is administered)

# **Purpose Classification**

The **purpose classification** clarifies the reasons a test is given and the point at which it is given during instruction. Test types include prescriptive, formative, and summative tests.

# Prescriptive (Pretest)

**Prescriptive tests** are given at the beginning of instruction to establish a student's current level of knowledge, in order to compare it to a subsequent summative evaluation. When the tests' contents are the same or similar in both iterations, comparing the two scores measures the amount of learning that has occurred.

### Formative (Progress)

**Formative tests** may be quizzes, pop tests, or question/answer periods that are given throughout the course or session. These tests typically measure improvement within a small scope of the class progression and give the instructor and students feedback on learning progress. When measuring improvement, the test answers the question: *Is the student achieving the objectives?* Formative tests can include the most important learning objectives, or all of them if possible. Each test item should be designed to a level of difficulty that matches the learning objective it is meant to measure. Doing so helps to ensure that the test is criterion-referenced.

### Summative (Comprehensive)

**Summative tests** measure comprehensive knowledge and skills at the end of a course, or of a major segment of the course. These tests answer the question: *Has the student achieved the course objectives*?

Examples of comprehensive tests would be the written and/or practical exams given at the midpoint or end of emergency medical technician (EMT), basic fire fighting, or driver/operator courses. Students who are tested must demonstrate comprehensive knowledge and skills relating to all material from the beginning of the course to the testing point.

Computers are an increasingly popular method of administering written tests. Students take the test in a testing center or computer lab, and the testing program scores the results and records them in a database. This method can be used for any type of training course, and is the only way to administer tests for Web-based and Internet training programs. One advantage of this method is that it allows the instructor to create realistic scenarios that require the student to evaluate a situation and determine the correct response.

#### Performance Tests

performance tests measure students' ability to perform skills and tasks as they would on the job, based on standardized criteria and performance objectives. They are tested on their current ability to complete the skill. When preparing to administer a performance test, instructors should perform the following tasks:

- Determine the materials, tools, or equipment that students must have available to perform the skills or activities. Make sure that they are available and in working order (Figure 9.5).
- Prepare a skill checklist, along with appropriate time limits for each of the steps necessary to perform the skill. The checklist provides/establishes/ defines the criteria that must be met for the student to pass. Review the checklist with all instructors and test evaluators to determine whether any points may be misunderstood.
- Determine the number of test evaluators needed to observe and measure (by checklist) the performances of students.
- Review the operation of unfamiliar equipment with all instructors and test evaluators.



**Figure 9.5** Instructors should ensure that all equipment needed for a performance evaluation is organized and available before a performance test.

### **Test Bias**

A test is considered biased when members of different

groups (age, cultural and ethnic background, gender) with the same ability level routinely score differently on a test. Bias can be difficult to prove because tests are designed to discriminate between those that know the information in the test and those that do not. In this application, discrimination is based on ability. Bias, in contrast, is an indication that the test puts one particular group at a disadvantage to another.

Level I Instructors have an obligation to eliminate testing bias wherever they can. The best way to eliminate bias is to recognize it and to request that potentially biased questions be rewritten or more closely examined. Level I Instructors may find biases in tests that have any of the following qualities:

- · Gender references (personal pronouns and proper names) are all from the same gender.
- · Ethnic references are stereotypical and/or irrelevant to the test.
- · Cultural references do not reflect the cultural knowledge of the likely testing group or are irrelevant to the test.
- Regional jargon or dialects used in the questions could put students from a different region at a disadvantage.
- Terminology and vocabulary in the test are unfamiliar to the students taking the test.

In legal terms, certification skills tests and promotional tests are grouped together under the larger title *employment tests* or *selection tests*. Typically, employment tests are either entry tests for getting a job or tests for reaching a promotion after training. In the United States, the Equal Employment Opportunity Commission (EEOC) has the responsibility of investigating any bias on employment tests. In order to avoid any legal liability, Level I Instructors should follow any scoring rubrics and answer keys that have been provided to them. They should also teach to the learning objectives in provided lesson plans. See **Appendix D** for a sample scoring rubric.

#### APPEAL OF PROMOTIONAL EXAMINATION QUESTION

Name: Preston Cobilke Date: 22 Jan Zozl INSTRUCTIONS: Please complete one form for each question that you wish to appeal. State clearly what you believe is wrong with the question and provide a reason for your belief. Please type or write legibly. If additional space is needed, go to the back of this page. DATE OF EXAM: 14 Jan ZOZI TEST RANK: Lieutanant QUESTION # 96 REFERENCE PAGES 189-29 REFERENCE BOOK: Fire and Emergency Service Instructor General reason for objection: (Check one of the following and explain fully below) The keyed answer is not correct. Another answer is correct and it should be allowed for credit instead of the keyed answer. My answer is \_\_\_\_\_. Another answer is also correct, in addition, to the keyed answer. Both answers should be allowed for credit. My answer is \_\_\_\_. Coopi tive The question is faulty because there is no correct answer among the choices. The question should be eliminated. Other: Reasons(s) supporting your appeal: See Attachment . Continuc on back of this form if needed.

## Facts according to the listed source Fire and Emergency Service Instructor 9th Edition

- Test classifications are divided into two sub classifications: Purpose Classification and Administration classification. (Pg 187)
- The Purpose classification list three types of test: Prescriptive, Formative and Summative. (Pg 187)
- The Administration classification list three types of test: Oral, Written and Performance. (Pg 188-189)
- There are three Domains of Learning: Cognitive, Psychomotor and Affective. (Pg 29)

The question asked "which of the following choices is NOT considered a Purpose classification test"

- Prescriptive
- Summative
- Performance
- Cognitive

As the approved soured book confirms two of the answer choices presented, Prescriptive and Summative, are Purpose classification test.

However, the answer choices <u>Performance</u> (an Administration classification test) and <u>Cognitive</u> (a Domain of Learning) are not Purpose Classification test. This fact, as supported by the approved source, verifies this question has two correct answers.

The answer choices Performance and Cognitive are both accurate. This requires credit be applied to both as correct answers.

**Question 96** 

Varr	me: <u>Chool Hill</u> Date: 1/19/	21
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Nam	ne: Benjamin Morris Date: 1/19/2021
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am	e: Chris Rodgers Date: 0//21/2021
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### **Maslow's Hierarchy of Needs**

Maslow's Hierarchy of Needs presents a five-stage hierarchy to explain human motivation. Psychologist Abraham Maslow published the concept in 1943 in an academic paper titled, "A Theory of Human Motivation." The five basic levels Maslow identified are (Figure 2.6):

- Level 1 Physiological or biological. Need for air, water, food shelter, warmth, sleep, sex, etc. Until a person is reasonably satisfied with these needs, the focus will always be on satisfying these and will not progress.
- Level 2 Safety. Need for security, order, stability, law, and freedom from fear.
- Level 3 Social. Need to belong to a societal group, be accepted, be loved, and valued by others.
- Level 4 Esteem. Need to achieve and master, need for selfrespect, prestige, respect of others, status, and dominance.
- Level 5 Self-actualization. Need to seek self-fulfillment, personal growth, and peak or culminating experiences.

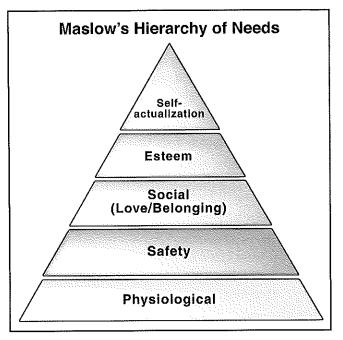
Maslow postulated that all people are capable of reaching the higher levels, but life circumstances or other considerations may disrupt that progress. In a training environment, this theory explains why a student may not perform well in a classroom setting when he or she is unable to meet the lowest-level requirements.

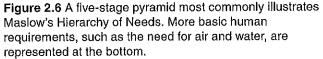
### **Domains of Learning**

Domains of learning refer to interrelated areas in which learning occurs. When the domains are used together, a student is encouraged to understand a concept, perform a task, and alter a behavior. The three learning domains are:

- Cognitive (Knowledge) Domain that encompasses "what" information a student should learn
- Psychomotor (Skills) Domain that encompasses "how" a student should apply knowledge
- Affective (Attitude) Domain that encompasses "why" the information is useful

Having an understanding of these domains and how they interact will assist the instructor in presenting effective instruction. Through the cognitive domain, students gain understanding about a concept or topic. Through the psychomotor domain, students perform the skills associated with that concept or topic. Through the affective domain, students develop a willingness to perform the behavior correctly and safely. The cognitive, psychomotor, and affective domains are the what, how, and why of the learning process (Figure 2.7).





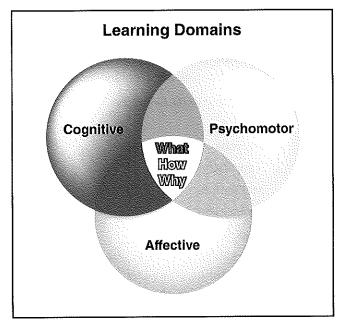


Figure 2.7 The three domains of learning interact and create the what, how, and why of the learning process.

#### Administration Classification

The administration classification is based on how the test is administered, and includes oral, written, and performance tests. The Level II Instructor or AHJ SOPs may assign this type of test based on the type of learning that is being evaluated. The Level I Instructor may be assigned to administer any of these types of tests.

#### Oral Tests

During oral tests, the student gives verbal answers to spoken questions during a one-on-one interaction with the instructor (Figure 9.3). These tests are not commonly used in the fire and emergency services, but they may be useful under certain circumstances, such as determining a student's understanding at the end of a lesson.

Administering and scoring oral tests should follow an established scoring rubric. Instructors must listen carefully to student responses in order to prevent misunderstanding, because students will phrase the same answer in different ways. Instructors should also be careful not to make facial expressions that might confuse or mislead students. Although oral tests can be useful evaluative tools, they should rarely be used as the sole means of determining students' terminal performance for a course or course segment.

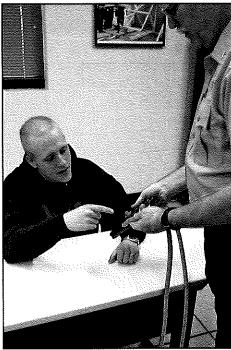


Figure 9.3 Occasionally, the instructor may employ an oral exam to evaluate a student's knowledge.

#### Written Tests

Written tests evaluate if students have met cognitive learning objectives from the lesson plan. They are useful for measuring retention and understanding of technical subjects, such as fire chemistry, laws and ordinances, hydraulic principles, and medical protocols. Written tests may have numerous question types, including the following:

- Multiple-choice Single question followed by multiple possible answers, of which only one is the best answer.
- True/false Students determine whether a statement is true or false.
- Matching Students match dates, events, or items from one column with appropriate definitions from a second column.
- Fill in the blank/completion Statement that is missing a word or several words that students must provide.
- Short-answer Question that requires a brief, factual answer.
- Essay Question that requires a lengthy, primarily subjective answer.

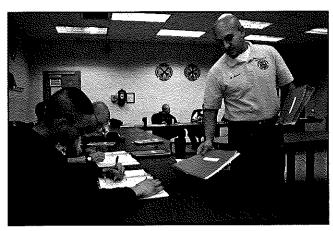


Figure 9.4 Written test booklets are a common evaluation tool.

Written tests can be administered either by reading them aloud, providing students with a sheet containing the questions, or through electronic media (Figure 9.4). Students write their answers on a blank page, on a formal answer sheet, or in the electronic medium through which the test is administered. The legibility of students' handwriting can be a factor during scoring. Tests that require students to circle, check, or fill in a block reduce the potential for misinterpretation based on handwriting. Whenever possible, use answer sheets that can be read, scored, and recorded electronically. **ELIGIBILITY LIST** 

LIEUTENANT PRELIMINARY

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RANK	NAME	RAW SCORE	SR. POINTS	FINAL SCORE	TIE BREAKER Raw Score	TIE BREAKER Ctf Level	TIE BREAKER date in Rank
1	Morris, Benjamin	97	10	107			
2	Burns, Jack	95	10	105			
3	Ostler, Brandon	92	10	102		Master	
4	Wakeland, Ryan	92	10	102		Advance	
5	Hill, Chad	91	10	101		Advance	10/29/2016
6	Gohlke, Preston	91	10	101		Advance	10/7/2017
7	Brock, Andrew	92	8	100	92		
8	Maxwell, Chance	90	10	100	90		
9	Rodgers, Christopher	87	10	97		Advance	
10	Stafford, Brandon	87	10	97		Intermediate	
11	Snow, Justin	86	9	95	86		
12	Conaway, Jackson	85	10	95	85		
13	Edington, Curt	81	10	91			
14	Cheney, Tim	80	10	90			

The following candidates did not pass the test: N/A

Approved by the Grand Prairie Civil Service Commission this day of

Chairman, Civil Service Commission

Commissioner

Commissioner

**Civil Service Director** 

#### **Fire Driver Test Question Appealed**

**9.** The hairstyle of all members shall be neat in appearance and consistent with a professional appearance. Any question of professional appearance regarding style, length, color, or cut will be referred to the Fire Chief and he/she will make a final determination. Woman's hair length shall not be longer than when standing in a normal position. (Grand Prairie Fire Department Policy Manual)

- A. One inches past the top of the uniform shirt collar
- B. Four inches at the longest point
- C. Two inches past the top of the uniform shirt collar
- D. None of the above are correct

**Correct Answer: D** – Reference Grand Prairie Fire Department Policy Manual, 1010.3.2 Personal Appearance Standards - Hair

Candidate Answer Summary: A - 6, B - 0, C - 8, D - 52

#### Appellants:

Exam	EE	Question #
Driver	Lytle, Jacob	9

#### Vendor Response:

<u>Driver Exam</u>	
Question 9	
Appellant: Lytle	

(Grand Prairie Fire Department Policy Manual) The hairstyle of all members shall be neat in appearance and consistent with a professional appearance. Any question of professional appearance regarding style, length, color, or cut will be referred to the Fire Chief and he/she will make a final determination. Woman's hair length shall not be longer than \_\_\_\_\_\_ when standing in a normal position.

- a. one inch past the top of the uniform shirt collar
- c. two inches past the top of the uniform shirt collar
- b. four inches at the longest point
- d. None of the above are correct.

#### Answer Key: D

**Answer Source:** Grand Prairie Fire Department Policy Manual, 1010.3.2 Personal Appearance Standards - Hair

**Appellant:** The question is faulty because there is no correct answer among the choices. The question should be eliminated. The question "Woman's hair length shall not be longer than

when standing in a normal position." There is no specific statement in the policy that states that women do not have to abide by the answer choice A "one inch past the top of the uniform shirt collar." Although the policy uses the word "men's" instead of women's, *Policy 1010.3* states "The following appearance standards shall apply to all members ...." The last sentence of *Policy 1010.3.2* does state "Women's hair length shall be managed in a neat appearance and

able to be completely covered by a protective hood and shall not interfere with the donning of a SCBA, facemask, or helmet."

I believe this allows an interpretation of the policy to be that a member's hair length must be kept above the 1-inch rule whether that be by hair tie, cap, beanie, or other means necessary for compliance. This would also be the basis for *Policy 1010.3.8* – "Members should be mindful of wearing jewelry that can become snagged or caught during performance of fire suppression duties." Therefore, with the only two credible choices being (A) (mentioned earlier) and (D) None of the above are correct, the only viable options are either accept answer choice (A) is the only correct answer or eliminate the question entirely due to not having sufficient information in the policy stating otherwise. But with the question being created outside of the GPFD Policy Manual, the question should be eliminated.

**Consultant Opinion:** Disagree with the appellant. The Grand Prairie Fire Department Policy 1010.3.2 states, "Women's hair shall be managed in a neat appearance and able to be completely covered by a protective hood and shall not interfere with the donning of a SCBA, mask or helmet. The GPFD policy fails to address any specific length, as it only addresses that the hair length must be able to be covered by a protective hood and not interfere with the donning of a SCBA, mask or helmet. The policy is specific, literal and to "interpret" the meaning could be a risky practice.

**Consultant Recommendation:** No action necessary. The question is valid and correct.

## **Personal Appearance Standards**

#### 1010.1 PURPOSE AND SCOPE

In order to project uniformity and neutrality toward the public and other members of the Department, members shall maintain their personal hygiene and appearance to project a professional image appropriate for this department and for their assignment.

The procedures contained herein are intended to promote uniformity of the members of the Department by addressing specific grooming items. However, nothing herein shall limit the department's ability to address any other grooming or personal appearance deemed improper for members of the Department.

#### 1010.2 POLICY

It is the policy of the Grand Prairie Fire Department that all members meet required personal hygiene and grooming standards while on-duty or conducting official business.

#### 1010.3 GROOMING STANDARDS

The following appearance standards shall apply to all members except those whose current assignment would deem them not appropriate or where the Fire Chief or the authorized designee has granted an exception.

#### 1010.3.1 PERSONAL HYGIENE

All members must maintain proper personal hygiene. Examples of improper personal hygiene include, but are not limited to, dirty fingernails, bad breath, body odor and dirty or unkempt hair. Any member who has a condition due to a protected category (e.g., race, physical disability) which affects any aspect of personal hygiene covered by this policy may qualify for an accommodation and should report any need for an accommodation to a supervisor or the Department of Human Resources.

#### 1010.3.2 HAIR

The hairstyle of all members shall be neat in appearance and consistent with a professional appearance. Any question of professional appearance regarding style, length, color, or cut will be referred to the Fire Chief and he/she will make a final determination. Men's hair length shall not be longer than one inch past the top of the uniform shirt collar when standing in a normal position. Women's hair length shall be managed in a neat appearance and able to be completely covered by a protective hood and shall not interfere with the donning of a SCBA, facemask, or helmet.

#### 1010.3.3 MUSTACHES AND SIDEBURNS

Mustaches and Sideburns shall not interfere with the sealing of the SCBA facemask.

#### 1010.3.4 BEARDS AND GOATEES

Beards, goatees or any hair on the chin is prohibited.

### Grand Prairie Fire Department

Policy Manual

#### Personal Appearance Standards

#### 1010.3.5 FACIAL HAIR

Facial hair other than sideburns, mustaches, soul patches and eyebrows shall not be worn, unless authorized by the Fire Chief or the authorized designee.

#### 1010.3.6 COSMETICS

Members are permitted to wear cosmetics of conservative color and amount.

#### 1010.3.7 FINGERNAILS

Fingernails extending beyond the tip of the finger can pose a safety hazard to members working in the field. For this reason, fingernails shall be trimmed so that no point of the nail extends beyond the tip of the finger.

#### 1010.3.8 JEWELRY AND ACCESSORIES

No jewelry or personal ornaments shall be worn by members on-duty on any part of the uniform or equipment, except those authorized within this manual. Members should be mindful of wearing jewelry that can become snagged or caught during performance of fire suppression duties.

- Necklaces or jewelry worn around the neck shall not be visible above the shirt collar.
- It is recommended that members refrain from wearing rings while assigned to suppression.

#### 1010.4 TATTOOS, BODY ART, OR BRANDS

Members are prohibited from having tattoos, body art, or brands on any part of their hands, neck, face, head, lips, eyes, mouth and ears. Tattoos, body art, or brands are allowed and at the sole discretion of the Fire Chief to be visible while wearing an approved uniform on the arms and legs while on duty. The Fire Chief will judge the appropriateness of the tattoo based on factors to include but not limited to extremist, indecent, sexist, racist, or other negative factors that could portray a negative public image and create a conflict with our impeccable image and violate our public trust. Members who request to have a visible tattoo, body art, or brand shall coordinate with the Fire Chief to gain his/her approval. Once the tattoo, body art, or brand is approved or denied, the Chain of Command will be notified. This process is mandatory for any new tattoo, body art, or brand.

Tattoos, body art, or brands already in existence at the time of this policy that does not gain the Fire Chief approval OR any new tattoo, body art, or brand that does not gain the Fire Chief approval shall have the following options:

- (a) Wear a long-sleeve uniform shirt.
- (b) Cover the tattoo, body art or, brand with a skin tone or neutral color sleeve or wrap.
- (c) Have the tattoo, body art, or brand removed at the member's expense.

#### 1010.5 BODY PIERCING OR ALTERATION

Except for a single stud pierced earring worn in the lobe of each ear, no body piercing shall be visible while any member is on-duty or representing the Department in any official capacity.

### Grand Prairie Fire Department

Policy Manual

#### Personal Appearance Standards

Alteration to any area of the body visible in any authorized uniform or attire that is a deviation from normal anatomical features and which is not medically required is prohibited. Such body alteration includes, but is not limited to:

- (a) Tongue splitting or piercing.
- (b) The complete or trans-dermal implantation of any material other than hair replacement.
- (c) Abnormal shaping of the ears, eyes, nose or teeth.
- (d) Branding or scarification.
- (e) Outlandish or unnatural contact lens color or color variations that create a distraction of the member's appearance.
- (f) Dental jewelry or unnatural covers such as a "grill".

### APPEAL OF PROMOTIONAL EXAMINATION QUESTION

4

м. ...

Name	: JACOB	LyThe			Date: 1/19/2021	
believe	e is wrong wi		rovide a reason for		appeal. State clearly what you type or write legibly. If additional	
DATE	OF EXAM:	1/14/2021	TEST RANK:	DRIVER	QUESTION # 4	
REFER	<sup>તા</sup> વૃહ્ય RENCE PAG	ES- <u>4/52-153</u> REF	ERENCE BOOK:_	GPFD , POLICY	QUESTION # 9	
		objection: (Check				
		answer is not correct mswer. My answer is		s correct and it shoul	ld be allowed for credit <u>instead</u> of	
		aswer is also correct, answer is	, <u>in addition</u> , to th	ne keyed answer. E	Both answers should be allowed for	
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THE ONLY COLARCE ANSWER, ON KLIMINATE THE QUESTION ENTITLELY WE TO NOT HAVING SUFFICIENT INFORMATION IN THE POLICY STATING OTHERWISE. BUT WITH JE MORE THE QUESTION BEING CEERTED OUTSIDE OF THE GUESTION POLICY MANUAL, THE QUESTION 1/14/21 SHOULD FOR ELIMINATED.

#### **Fire Driver Test Question Appealed**

**92.** What is the pressure loss due to friction for a pumper that is supplying a 300-foot of hoseline that is flowing 125 gpm? The hoseline is composed of 200 feet of 2 ½ inch hose to 100 feet of 1 ½ inch hose. (Pumping and Aerial Apparatus Driver/Operator Handbook, 3<sup>rd</sup> Edition)

- A. 21 psi
- B. 16 psi
- C. 18 psi
- D. 6 psi

**Correct Answer: D** – Pumping and Aerial Apparatus Driver/Operator Handbook, 3<sup>rd</sup> Edition, Chapter 7, Page 225

Candidate Answer Summary: A - 30, B - 5, C - 11, D - 20

#### **Appellants:**

Exam	EE	Question #
Driver	Bates, Trent	92
Driver	Brown, Benjamin	92
Driver	Cross, Taylor	92
Driver	Gregory, Brian	92
Driver	Kasparek, Adam	92
Driver	Kimball, Robert	92
Driver	Lewey, Joshua	92
Driver	Lytle, Jacob	92
Driver	Mayo, Zachary	92
Driver	Olalde, Alexander	92
Driver	Smith, Lewis	92
Driver	Stewart, Zachary	92
Driver	Tedrow, Brady	92

#### Vendor Response:

<u>Driver Exam</u> <u>Question 92</u> <u>Appellants: Bates, Brown, Cross, Gregory, Kasparek, Kimball, Lewey, Lytle, Mayo, Olalde, Smith,</u> <u>Stewart, Tedrow</u>

(Pumping and Aerial Apparatus Driver/Operator Handbook, 3rd Edition) What is the pressure loss due to friction for a pumper that is supplying a 300-foot of hoseline that is flowing 125 gpm? The hoseline is composed of 200 feet of  $2^{1}/2$  inch hose reduced to 100 feet of  $1^{1}/2$  inch hose.

a. 21 psi	c. 18 psi
b. 16 psi	d. 6 psi

#### Answer Key: D

**Answer Source:** Pumping and Aerial Apparatus Driver/Operator Handbook, 3<sup>rd</sup> Edition, Chapter 7, Page 225

**Appellants:** The question is faulty because there is no correct answer among the choices. **The question should be eliminated.** The answer provided in the book is not listed as a correct answer. The second part of the equation is found on Page 226. Additionally, Appellant Stewart requests that due to the examination instructions of selecting the "closest" answer, he contends that that his answer (A) is the "closest," and therefore, should be considered to be correct.

**Consultant Opinion:** Agree with appellants that the question is defective.

**Consultant Recommendation:** The question is defective. Recommend either giving credit for any answer or disqualify the question from the exam, resulting in a 99-question examination. Regarding Appellant Stewart's position of getting credit for the "closest" answer, we disagree with his analysis. It is true that his response was the "closest;" however, due to the fact that the question is defective and there is no possible correct answer, a person merely selecting the "closest" answer in a defective question should not receive either positive or negative credit as the question should be disregarded.

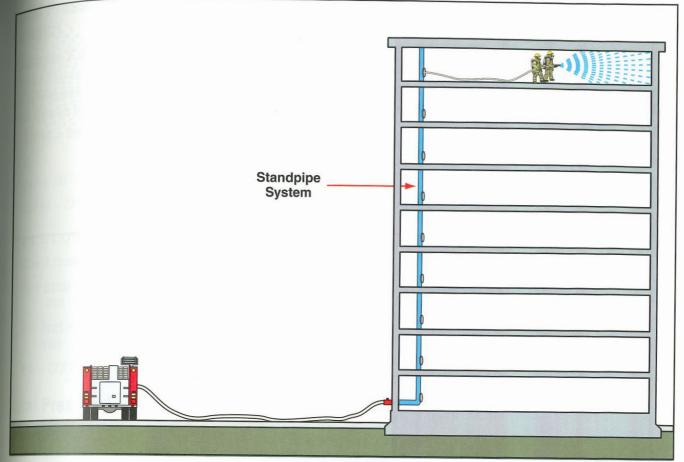


Figure 7.4

### Total Pressure Loss Calculations — Single Hoseline

#### Example 7.6

What is the pressure loss due to friction for a pumper that is supplying a 300foot hoseline that is flowing 125 gpm? The hoseline is composed of 200 feet of 2½-inch hose reduced to 100 feet of 1½-inch hose (Figure 7.5, p. 226).

2½-inch Hoseline  $FL = CQ^{2}L$  C = 2 from Table 7.3 Q = gpm = 125 = 1.25100 100 L = feet = 200 = 2100 100  $FL = (2)(1.25)^{2}(2) = 6.25 psi$ 

### APPEAL OF PROMOTIONAL EXAMINATION QUESTION

Name	: Trent Bates Date: 01/19/2021
believe space i	CUCTIONS: Please complete one form for each question that you wish to appeal. State clearly what you is wrong with the question and provide a reason for your belief. Please type or write legibly. If additional s needed, go to the back of this page.
DATE	OF EXAM: $01/(4/202)$ TEST RANK: $Driver$ question #92
REFEF	rence pages p. 225- reference book: <u>Pumper / Aerial</u>
	al reason for objection: (Check one of the following and explain fully below)
	The keyed answer is not correct. Another answer is correct and it should be allowed for credit <u>instead</u> of the keyed answer. My answer is
	Another answer is also correct, <u>in addition</u> , to the keyed answer. Both answers should be allowed for credit. My answer is
M	The question is faulty because there is no correct answer among the choices. The question should be <u>eliminated.</u>
	Other:
Reason	s(s) supporting your appeal:
Th Are Of Of	e answers only account for part of the th problem. The equation was isomplete of therefore he came to the wrong answer (25 psi. On the next page, 226, is the rest the problem
For	a complete answer of
6.	25 + 37.5 = (43.75 psi)
Nor cic	re of the jisted answers were anywhere ise.
	Continue on back of this form if needed. CSC Agenda Packet 1-29-21. Page 57

#### APPEAL OF PROMOTIONAL EXAMINATION QUESTION

Name:	Ben	amin	Brown

Date: 1/20/2021

INSTRUCTIONS: Please complete one form for each question that you wish to appeal. State clearly what you believe is wrong with the question and provide a reason for your belief. Please type or write legibly. If additional space is needed, go to the back of this page.

DATE OF EXAM: 1/14/2021 TEST RANK: Priver QUESTION # 92 REFERENCE PAGES 225 REFERENCE BOOK: Punping and Acrial Apparents, Drives Operator Handlink 3rd Ed

\_\_\_\_\_\_ (j\_\_\_\_\_\_ (j\_\_\_\_\_\_))

General reason for objection: (Check one of the following and explain fully below)

The keyed answer is not correct. Another answer is correct and it should be allowed for credit <u>instead</u> of the keyed answer. My answer is \_\_\_\_\_.

Another answer is also correct, <u>in addition</u>, to the keyed answer. Both answers should be allowed for credit. My answer is \_\_\_\_\_.

The question is faulty because there is no correct answer among the choices. The question should be <u>eliminated</u>.

Other:\_\_\_\_

Reasons(s) supporting your appeal:

The answer reference page (p225) for question #92 does not include the correct answer for the question. The answer and the rest of the question example are located on page 226. Page 226 is not included as a reference page for question # 92. The correct answer for question #92 should have been 44 psi it it was rounded to the next whole number like the rest of the questions in the test. Because of the options that were given (boss, 16psi, 18pss, and 21psi) it left you to question if you had been doing the rest of the problems in correctly and to tree and quess if there was something being left out of the question. Instead of being a few ps: different this questions answer was 23 ps: higher then the highest option to choose from. Every scaple one of the noth questions was taken straight from the book. The answers for all of the other questions were no more than 0.5 psi different from the answers available for each of those questions. There was another math question (#95) that was on multiple pages and the correct answer was available for that question. Additionally, choosing the closest unsurer for this problem is not reasonable because of the large discrepancy in the available anywers and the actual answer. The objection that another answer is correct does not stand up when taking the rest of the questions and their answers into account when looking at how close they are. It is apparent that when creating

choices The answers for this question, a turn of the page to see the rest of the question was simply over looked. Human error is something that can be expected when ereating customized test for fire departments. Because of this simple error, and taking into account the accuracy of the other question's answers, I believe this question should be eliminated.

#### APPEAL OF PROMOTIONAL EXAMINATION QUESTION

Name: TAYLOR CROSS Date: 1/15/2021
INSTRUCTIONS: Please complete one form for each question that you wish to appeal. State clearly what you believe is wrong with the question and provide a reason for your belief. Please type or write legibly. If additional space is needed, go to the back of this page.
DATE OF EXAM: $1/14/2021$ TEST RANK: DRINER QUESTION # 92
DATE OF EXAM: 1/14/2021 TEST RANK: DRINER QUESTION # 92 REFERENCE PAGES 225 REFERENCE BOOK: PUMPING/AERIAL HANDBOOK 3PD ED.
General reason for objection: (Check one of the following and explain fully below)
The keyed answer is not correct. Another answer is correct and it should be allowed for credit <u>instead</u> of the keyed answer. My answer is
Another answer is also correct, <u>in addition</u> , to the keyed answer. Both answers should be allowed for credit. My answer is
The question is faulty because there is no correct answer among the choices. The question should be <u>eliminated.</u>
Other:
Reasons(s) supporting your appeal:
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THE QUESTION IS VERISATIM IN THE BOOK AS REFERENCED AND THE AVAILABLE ANSWER CHOKES ARE NOT GERECT. THE ANSWER PRIVIDED IN THE BOOK IS NOT
INCLUDED AS A POSSIBLE CHOICE.

CSC Agenda Packet 1-29-21, Page 60

Continue on back of this form if needed.

Ivan	ne: BRIAN GREGORY	Date: 1~19-21
belie	TRUCTIONS: Please complete one form for each question that yo eve is wrong with the question and provide a reason for your belief we is needed, go to the back of this page.	
DAT	TE OF EXAM: 1-14-21 TEST RANK: DRIVE	<b>R</b> QUESTION # <b>72</b>
REF	te of exam: <u>1-14-21</u> test rank: <u>Drive</u> erence pages <u>225</u> reference book: <u>Pumitne</u>	+ AERIAL APPARATUS DRIVER/OPERA
	eral reason for objection: (Check one of the following and expla	· · · · ·
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<b>≻</b> ≁	The question is faulty because there is no correct answer a eliminated.	among the choices. The question should be
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QUESTION # 92 FROM PAGE 225 IS A TWO PART QUESTION IN WHICH YOU MUST ADD THE FRICTION LOSS FROM EACH HOSELDNE TO GET THE CORRECT ANSWER. THE SECOND HOSELINE FRICTION LOSS IS ACTUALLY CONTINUED ON THE FOLLOWING PAGE # 226. THE CORRECT ANSWER IS 43.75 PSI AND THIS ANSWER CHOICE WAS NOT PROVIDED NOR AN ANSWER CHOICE THAT IT CLOSE TO THE ACTUAL CORRECT ANSWER, IT APPEARS THAT THE ANSWER WAS ONLY TAKING IN ACCOUNT FOR ONLY ONE HOSECENE, WHECH THAT ANSWER APPEARED AT THE BOTTON OF PAGE 225. WITH NO ANSWER CHOICES REMOTLY CLOSE TO THE ACTUAL CORRECT ANSWER AND THE FACT THAT THE KEYED "CORRECT" ANSWER WAS "6 PSI", IT IS OBVIOUS THAT THE REST OF THE MATH PROBLEM WAS NOT ACCOMMIED FOR AND THERE FORE THIS QUESTION SHOWLD BE ELIMINATED

ame	e: Adam Kasparek Date: 1-20-21
lieve ace i	RUCTIONS: Please complete one form for each question that you wish to appeal. State clearly what you e is wrong with the question and provide a reason for your belief. Please type or write legibly. If additional is needed, go to the back of this page.
\TE	OF EXAM: 1-14-21 TEST RANK: 6 QUESTION # 92
FEI	COF EXAM: 1-14-21 TEST RANK: 6 QUESTION # 92 RENCE PAGES 225-226 REFERENCE BOOK: Pumping and Aerial Apparatus Driver Jopen
	al reason for objection: (Check one of the following and explain fully below)
	The keyed answer is not correct. Another answer is correct and it should be allowed for credit <u>instead</u> of the keyed answer. My answer is
	Another answer is also correct, <u>in addition</u> , to the keyed answer. Both answers should be allowed for credit. My answer is
	The question is faulty because there is no correct answer among the choices. The question should be <u>eliminated</u> .
	Other:
	e question asks for pressure loss due to friction supplying
	is(s) supporting your appeal: e question asks for pressure loss due to friction supplying a pumper that is supplying a 300-foot of hoseline that is ing 125 gpm. The correct answer is 43.75 ps;. ere the answer choices are not even close to 43.75 ps;. correct answer is in the book on page 226.
Th or own Th	e question asks for pressure loss due to friction supplying a pumper that is supplying a 300-foot of hoseline that is ing 125 gpm. The correct answer is 43.75 ps;. ere The answer choices are not even close to 43.75 ps.
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Th >r Swi Th	e question asks for pressure loss due to friction supplying a pumper that is supplying a 300-foot of hoseline that is ing 125 gpm. The correct answer is 43.75 ps;. ere The answer choices are not even close to 43.75 ps.
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Nam	e: Robert Kimb	all		Date: _	1/20/21
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	Another answer is also corrected it. My answer is	rect, <u>in addition</u> , to th	e keyed answei	: Both answ	vers should be allowed for
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Nam	ne: Joshua Lewey	Date: 1-21-21
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DATE	e of exam: <u>1-14-21</u> test rank: <u>8</u> BRENCE PAGES <u>775</u> REFERENCE BOOK: Pumping & F	QUESTION # <u>92</u>
REFE	erence pages 225 reference book: Pumping of F	levial Apparatus
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	Other:	
11 C M		solve the problem and
ansi	e question is directly copied from the Book. The hydraulic questions indicate that you are to lect the closest numerical answer." The ques source loss due to Ariction for a 300 foot len wided in the book is 43.75 psi, which is wer on the test. The closest numerical 121 psi	nor a selectable
ansi	wer on the test. The closest numerical	nor a selectable
ansi	wer on the test. The closest numerical	nor a selectable
ansi	wer on the test. The closest numerical	nor a selectable

Nan	1e: JACOB LYTUE Date: 1/19/2021
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DAT	The needed, go to the back of this page. E OF EXAM: $\frac{1}{14} \frac{2021}{2021}$ TEST RANK: <u>DRIVER</u> QUESTION # <u>92</u> ERENCE PAGES <u>225-26</u> REFERENCE BOOK: <u>PUMPIAL AND ARLIAL APP. DRIVER [of Internet Handow</u> ral reason for objection: (Check one of the following and explain fully below)
REFE	ERENCE PAGES 225-26 REFERENCE BOOK: PUMPING AND ACLIAL APP. DUVEL OIGLATION HANDO
Gene	ral reason for objection: (Check one of the following and explain fully below)
	The keyed answer is not correct. Another answer is correct and it should be allowed for credit <u>instead</u> of the keyed answer. My answer is
	Another answer is also correct, <u>in addition</u> , to the keyed answer. Both answers should be allowed for credit. My answer is
ſ	The question is faulty because there is no correct answer among the choices. The question should be <u>eliminated.</u>
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)UE 5 Com	ns(s) supporting your appeal:
) 5 6, 7	ns(s) supporting your appeal: 5710 N 492 ASUS WHAT THE FRICTION LOSS FOR TWO DIFFERENT HOSELINGS BUT DOES NOT PROVIDE AN ANSWER THAT IS CORRECT FOR POTH FOR 1/1 SWED HOSELINES FL WHICH WOULD BE 43.75 <sup>70</sup> APP. 40 AS STATED ON 226. TREPETORE NONE OF THE ANSWERS ARE COMPERT AND THE QUESTION
5 5 6, 7	ns(s) supporting your appeal: 5710 N 492 ASUS WHAT THE FRICTION LOSS FOR TWO DIFFERENT HOSELINGS BUT DOES NOT PROVIDE AN ANSWER THAT IS CORRECT FOR POTH FOR 1/1 SWED HOSELINES FL WHICH WOULD BE 43.75 <sup>70</sup> APP. 40 AS STATED ON 226. TREPETORE NONE OF THE ANSWERS ARE COMPERT AND THE QUESTION
5 5 6, 7	ns(s) supporting your appeal: 5710 N 492 ASUS WHAT THE FRICTION LOSS FOR TWO DIFFERENT HOSELINGS BUT DOES NOT PROVIDE AN ANSWER THAT IS CORRECT FOR POTH FOR 1/1 SWED HOSELINES FL WHICH WOULD BE 43.75 <sup>70</sup> APP. 40 AS STATED ON 226. TREPETORE NONE OF THE ANSWERS ARE COMPERT AND THE QUESTION
S S OM	ns(s) supporting your appeal: 5710 N 492 ASUS WHAT THE FRICTION LOSS FOR TWO DIFFERENT HOSELINGS BUT DOES NOT PROVIDE AN ANSWER THAT IS CORRECT FOR POTH FOR 1/1 SWED HOSELINES FL WHICH WOULD BE 43.75 <sup>70</sup> APP. 40 AS STATED ON 226. TREPETORE NONE OF THE ANSWERS ARE COMPERT AND THE QUESTION
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5 5 6, 7	ns(s) supporting your appeal: 5710 N 492 ASUS WHAT THE FRICTION LOSS FOR TWO DIFFERENT HOSELINGS BUT DOES NOT PROVIDE AN ANSWER THAT IS CORRECT FOR POTH FOR 1/1 SWED HOSELINES FL WHICH WOULD BE 43.75 <sup>70</sup> APP. 40 AS STATED ON 226. TREPETORE NONE OF THE ANSWERS ARE COMPERT AND THE QUESTION

APPEAL OF PROMOTIONAL EXAMINATION QUESTION
Name: Zachary Mayo Date: [-20-2]
INSTRUCTIONS: Please complete one form for each question that you wish to appeal. State clearly what you believe is wrong with the question and provide a reason for your belief. Please type or write legibly. If additional space is needed, go to the back of this page.
date of exam: $1 - 14 - 21$ test rank: 2 question # 92
DATE OF EXAM: 1-14-21 TEST RANK: 2 QUESTION # 92 REFERENCE PAGES 225 REFERENCE BOOK: PUMPING UN A Acria (Apparatus Priver Ofenior
General reason for objection: (Check one of the following and explain fully below)
The keyed answer is not correct. Another answer is correct and it should be allowed for credit <b>instead</b> of the keyed answer. My answer is
Another answer is also correct, <u>in addition</u> , to the keyed answer. Both answers should be allowed for credit. My answer is
The question is faulty because there is no correct answer among the choices. The question should be <u>eliminated.</u>
Other:
Reasons(s) supporting your appeal: There is no correct answer listed in that among the answer choices. The test maker clearly made a miskike. I chose D only because half of the friction loss Vas lo ps: 
Continue on back of this form if needed. CSC Agenda Packet 1-29-21, Page 66

Name	e: Alexander Olalde Date: 1-20-21
believe	RUCTIONS: Please complete one form for each question that you wish to appeal. State clearly what you e is wrong with the question and provide a reason for your belief. Please type or write legibly. If additional is needed, go to the back of this page.
DATE	OF EXAM: 1-14.21 TEST RANK: Fire Engineer QUESTION # 92
REFEJ	rence pages 225-224 REFERENCE BOOK: Pumping and Aerial approxies Haddack and
	al reason for objection: (Check one of the following and explain fully below)
	The keyed answer is not correct. Another answer is correct and it should be allowed for credit <u>instead</u> of the keyed answer. My answer is
	Another answer is also correct, <u>in addition</u> , to the keyed answer. Both answers should be allowed for credit. My answer is
Y	The question is faulty because there is no correct answer among the choices. The question should be <u>eliminated.</u>
	Other:
Reasor	us(s) supporting your appeal:
I Ca	the second states of the secon
	the formula Straight out of the book and the identical numbers for
GIM	
	, hose length and the coefficients, the correct answer is 43.75. The
ánsa	cer choices provided do not allow for a correct answer Choice.
ánsa	
ánsa	the referenced pages 225-226 For the example and correct
ansu See	the referenced pages 225-226 for the example and correct $= CQ^2L$ 2 2 inch line
ansu See	the referenced pages 225-226 For the example and correct - CQ <sup>2</sup> L 2 2 inch line 2 From table 7.3
ansu See ansu FL	the referenced pages 225-226 for the example and correct - CQ <sup>2</sup> L 2 2 inch line 2 from table 7.3 9 pm - 125 - 1.25
ansu See ansu FL	cer choices provided do not allow for a correct answer Choice. the referenced pages 225-226 for the example and correct ver. = CQ <sup>2</sup> L 2 2 inch line 2 from table 7.3 <u>9pm - 125 - 1.25</u> 100 100
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ansu See FL: Q = L = FL = FL = for of $fL =C =$	is choices provided do not allow for a correct answer Choice. the referenced pages 225-220 For the example and correct ver. = $CQ^2L$ 2 2 inch line 2 from table 7.3 <u>9pm = 125</u> - 1.25 100 100 <u>feet = 200 = 2</u> <u>100 Koo</u> (2) (1.25) <sup>2</sup> (2) = 6.25 for 2 <sup>1</sup> / <sub>2</sub> inch hose The friction loss the 100 ft of 1 <sup>1</sup> / <sub>2</sub> was not accounted in the question but is part the answer. See page 220 for the remainder of the answer. FL = $CQ^2L$
ansu See FL: Q = L = FL = FL = for of $fL =C =$	Let choices provided do not allow for a correct answer choice. the referenced pages 225-226 for the example and correct veri- = $CQ^2L$ 2 2 inch line 2 from table 7.3 <u>9pm = 125</u> = 1.25 100 100 <u>feet = 200 = 2</u> 100 100 (2) (1.25) <sup>2</sup> (2) = 6.25 for 2 <sup>1</sup> / <sub>2</sub> inch hose The friction loss the 100 ft of 1 <sup>2</sup> / <sub>2</sub> was not accounted in the question but is part the answer. See page 226 for the remainder of the answer. FL= $CQ^2L$ 24 from table 7.3 $FL=(24)(1.25)^2(1) = 37.5$ psi
ansu See FL: Q = L = FL = FL = for of $fL =C =$	Let choices provided do not allow for a correct answer Choice. the referenced pages 225-226 for the example and correct wer. = $CQ^2L$ 2 2 inch line 2 from table 7.3 <u>9pm</u> = <u>125</u> = 1.25 <u>100</u> <u>100</u> <u>fret</u> = <u>200</u> = 2 <u>100</u> <u>100</u> <u>fret</u> = <u>200</u> = 2 <u>100</u> <u>100</u> (2) (1.25) <sup>2</sup> (2) = 6.25 for 2 <sup>4</sup> / <sub>2</sub> inch hose The friction loss the 100 ft of 1 <sup>4</sup> / <sub>2</sub> will not accounted in the Question but is part the answer. Size page 226 for the remainder of the answer. FL = CQ <sup>2</sup> L <u>24</u> from table 7.3 <u>FL = (24) (1.25)<sup>2</sup>(1) = 37.5 psi</u> <u>9fm</u> = <u>125</u> = 1.25 Tot-1 pressue loss is
ansu See FL C = Q = L = FL = for c = for c = for c = for f = for f = for f = for f = for f = for f = for = f	Let choices provided do not allow for a correct answer choice. the referenced pages 225-226 for the example and correct wer. = $CQ^2L$ 2 2 inch line 2 from table 7.3 <u>9pm = 125 - 1.25</u> 100 100 <u>feet = 200 = 2</u> (2) $(1.25)^2(2) = 6.25$ for 22 inch hose The friction loss the 100 ft of 12 <sup>hose</sup> the 100 ft of 12 <sup>hose</sup> not accounted in the question but is part the answer. See page 226 for the remainder of the answer. FL = $CQ^2L$ 24 from table 7.3 $PL = (24)(1.25)^2(1) = 37.5$ psi <u>9pm = 125 - 1.25</u> Total pressue loss is

A CTTTT-	ne: Lewis Smith	Date:
eliev pace	TRUCTIONS: Please complete one form for each question that you we is wrong with the question and provide a reason for your belief. e is needed, go to the back of this page.	Please type or write legibly. If additional
)ATE	E OF EXAM: 1.14,21 TEST RANK: Driver	<u>r</u> QUESTION #92_
	ERENCE PAGES 225 REFERENCE BOOK: <u>Pumping</u>	
ener	eral reason for objection: (Check one of the following and explain	in fully below)
]	The keyed answer is not correct. Another answer is correct and the keyed answer. My answer is	id it should be allowed for credit <u>instead</u> of
	Another answer is also correct, <u>in addition</u> , to the keyed and credit. My answer is	nswer. Both answers should be allowed for
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	Other:	
ans	/	more the twice the one to believe they alistic to answer
· •	on 21, 21 who would a	
	swer if test maker followed icing " closest connect answer"	
	Thing coursel griswer,	

Nam	e: ZACHANY Q. STRWART		Date:	1/20/2021	<u>.</u>
oeliev	RUCTIONS: Please complete or ve is wrong with the question and is needed, go to the back of this	provide a reason for your belief	ou wish to appeal.	State clearly what you	nal
DATI	з оf ехам: <u>1/14/2021</u>	test rank:	)	QUESTION #	2
EFE	B OF EXAM: <u>1/14/2021</u> RENCE PAGES <u>225-226</u> RE	EFERENCE BOOK: Jumping 3 A	exin Apparances	Diventoninor Hanos	<u>ook 3</u>
	ral reason for objection: (Chec				
¢	The keyed answer is not corre the keyed answer. My answer	ect. Another answer is correct an r is $\frac{1}{4(2)}$	d it should be allo	owed for credit <u>instead</u>	of
]	Another answer is also corre credit. My answer is	ect, <u>in addition</u> , to the keyed a	nswer. Both ans	wers should be allowed	1 for
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]	Other:			C BAAR LUP SSY.	
~	ns(s) supporting your appeal:				
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 $= - \sum_{i=1}^{n} (1 - i) \sum_{i=1}^{n} (1 - i)$ 

The front page of the Driver exam has instructions on how to take the exam. These instructions are on every test and read by every test taker, prior to starting their exam. The instructions state "In particular with the hydraulic questions, select the **closest** correct answer". These instructions are repeated on page 1 of the test and states "Though the text includes "estimations", you are expected to manually solve the hydraulic problems with the included calculator and select the closest numerical answer". The test makers instructions are clear. It specifically points out and **underlines** a key word to follow when choosing an answer for the hydraulic calculations. The key word is <u>"closest"</u>. Based on this instruction, there is a correct answer for every hydraulic question in this test and it is the <u>closest</u> correct answer.

This exact question can be found in the book starting on page 225 and ending on page 226. The question states "What is the pressure loss due to friction for a pumper that is supplying a 300 foot hoseline that is flowing 125gpm?". The answer is confirmed on page 226 and is 43.75psi. The <u>closest</u> correct answer choice to 43.75psi is answer choice "A. 21".

The keyed answer is not correct. Answer choice "A. 21" is correct and it should be allowed for credit instead of the keyed answer.

Question #92 is a valid question and has a correct answer choice, which is "A. 21". This question should **NOT** be eliminated, but instead the keyed answer should be changed to "A. 21"

CSC Agenda Packet 1-29-21, Page 70

	APPEAL OF PROMOTIONAL EXAMINATION QUESTION
Nam	Brady Tedrow Date: 1/19/21
believ	UCTIONS: Please complete one form for each question that you wish to appeal. State clearly what you is wrong with the question and provide a reason for your belief. Please type or write legibly. If additional needed, go to the back of this page.
DATE	OF EXAM: $1/14/21$ TEST RANK: $Priver$ QUESTION # $92$
REFE	OF EXAM: <u>1/14/21</u> TEST RANK: <u>Priver</u> QUESTION # <u>92</u> ENCE PAGES <u>225</u> REFERENCE BOOK: <u>Pumping &amp; Aerial App Br Hondbuck 3rd ed</u> .
	l reason for objection: (Check one of the following and explain fully below)
	The keyed answer is not correct. Another answer is correct and it should be allowed for credit <u>instead</u> of the keyed answer. My answer is
	Another answer is also correct, <u>in addition</u> , to the keyed answer. Both answers should be allowed for credit. My answer is
X	The question is faulty because there is no correct answer among the choices. The question should be <u>eliminated.</u>
	Other:
Reason	s(s) supporting your appeal:
_T/	$\frac{e \; equation \; for \; solving \; question \; \# \; 42}{\left[FL = 2 \cdot (1.25)^2 \cdot 2\right] \; + \; \left[FL = 24 \cdot (1.25)^2 \cdot 1\right] = FL + FL = (43.75) \cdot 1}{I \; and \; an$
	$[FL = 2 \cdot (1.25)^{2} \cdot 2] + [FL = 24 \cdot (1.25)^{2} \cdot 1] = FL + FL = (43, 75)^{2}$
	teads the test taken to an answer that is not available in the bank of answers. None of the available answers are even
	close, the highest available answer is not even half of the
	currect answer and is also not even above the coefficient of friction for the 1% segment. Because no answer is nearly close enough to be under any real consideration what so ever, this question should be removed entirely.
	of friction for the 12 segment, Because no answer is
	nearly close enough to be under any real consideration
	what so ever, this question should be removed entirely.
	I chose answer A, 21 because it is in the direction
	of the true answer, however, it is still not worth
	considering as a possible option for the correct answer.
<b>.</b>	considering as a possible option for the correct answer. The keyed answer D,6 is clearly neglecting to account for the 2nd section of hose in this prochem.
	account for the Lind section of hose in this problem.
<u></u>	

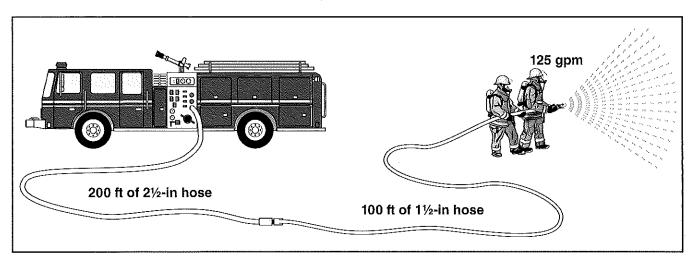


Figure 7.5

1½-inch Hoseline

FL = CQ<sup>2</sup>L C = 24 from Table 7.3 Q = <u>gpm</u> = <u>125</u> = 1.25 100 100 L = <u>feet</u> = <u>100</u> = 1 100 100 FL = (24)(1.25)<sup>2</sup>(1) = **37.5 psi** 

*Total Pressure Loss* TPL = 6.25 + 37.5 = **43.75 psi (app. 40)** 

#### Example 7.7

An engine company advances 150 feet of 1¾-inch hose to the third floor of a building for fire attack. Determine the total pressure loss due to friction and elevation when flowing 175 gpm.

1¾-inch Hoseline  $FL = CQ^{2}L$  C = 15.5 from Table 7.3  $Q = gpm = \frac{175}{100} = 1.75$  100 100  $L = \frac{feet}{150} = 1.5$  100 100  $FL = (15.5)(1.75)^{2}(1.5) = 71.2$  psi *Elevation Pressure*   $EP = (5 \text{ psi}) \times (\text{Number of Stories - 1})$ EP = (5)(3 - 1) = 10 psi

*Total Pressure Loss* TPL = 71.2 + 10 = **81.2 psi (app. 80)** 

#### **Fire Driver Test Question Appealed**

**96.** A person appointed to a beginning position in the fire department must serve a probationary period of one year beginning on which of the following? (Texas Local Government Code, Chapter 143)

- A. From the interview date
- B. From the person's date of employment as a fire fighter, or fire academy trainee
- C. From the entry level examination date
- D. None of the above are correct

Correct Answer: B - Reference Texas Local Government Code, Chapter 143 (2020), 143.027

Candidate Answer Summary- A - 0, B - 39, C - 0, D - 27

#### Appellants:

Exam	EE	Question #
Driver	Graham, Tommy	96
Driver	Trotter, Lawrence	96

#### Vendor Response:

Answer Key: B

#### <u>Driver Exam</u> <u>Question 96</u> Appellant: Graham, Trotter

(*Texas Local Government Code, Chapter 143*) A person appointed to a beginning position in the fire department must serve a probationary period of one year beginning on which of the following?

a. From the interview date

- c. From the entry level examination date
- b. From the person's date of employment as a fire fighter, or academy trainee
- d. None of the above are correct.

Answer Source: Texas Local Government Code, Chapter 143 (2020), 143.027

**Appellants:** The keyed answer is not correct. Another answer is correct, and it should be allowed for credit **instead** of the keyed answer. My answer is <u>D</u>. So, in the very next sentence it says, "In a municipality with a population of less than 1.9 million, the commission by rule may extend the probationary period by not more than six months for every person who: (2) is required to attend a basic training academy for initial certification by the Texas Commission of Fire Protection or the Texas Commission on Law Enforcement." With that 6 months added to the academy trainee, that is a total of 18 months. So, when you read all of the section of this law it states who it can be applied to. The City of Grand Prairie is less than 1.9 million, so you add this to the year. A certified firefighter is the only answer because our commission has extended this to a total of 18 months for a new hire that has to go to the training academy.

**Consultant Opinion:** The appellant's position is not correct. The question merely asks when the beginning of the probational period begins. Section 143.027 states:

"a) A person appointed to a beginning position in the fire or police department must serve a probationary period of one year <u>beginning on that person's date of employment</u> <u>as a fire fighter</u>, police officer, or academy trainee. In a municipality with a population of less than 1.9 million, the commission by rule may extend the probationary period by not more than six months for a person who:

**Consultant Opinion:** The question is taken directly from Chapter 143.027. The questions asks <u>when</u> the probationary period begins and not how long the probationary period is.

**Consultant Recommendation:** No action necessary. The question is valid and correct.

September 1, 2005.

Acts 2005, 79th Leg., Ch. 909 (H.B. 148), Sec. 1, eff. September 1, 2005.

Acts 2007, 80th Leg., R.S., Ch. 921 (H.B. 3167), Sec. 11.001, eff. September 1, 2007.

Acts 2013, 83rd Leg., R.S., Ch. 93 (S.B. 686), Sec. 2.50, eff. May 18, 2013.

Sec. 143.028. ELIGIBILITY FOR PROMOTION. (a) Except as provided by Sections 143.013 and 143.102, a fire fighter is not eligible for promotion unless the person has served in that fire department in the next lower position or other positions specified by the commission for at least two years at any time before the date the promotional examination is held. A fire fighter is not eligible for promotion to the rank of captain or its equivalent unless the person has at least four years' actual service in that fire department.

(b) Except as provided by Sections 143.013 and 143.102, a police officer is not eligible for promotion unless the person has served in that police department in the next lower position or other positions specified by the commission for at least two years immediately before the date the promotional examination is held. A police officer is not eligible for promotion to the rank of captain or its equivalent unless the person has at least four years' actual service in that police department.

(c) If a person is recalled on active military duty for not more than 60 months, the two-year service requirements prescribed by Subsections (a) and (b) do not apply and the person is entitled to have time spent on active military duty considered as duty in the respective fire or police department.

Acts 1987, 70th Leg., ch. 149, Sec. 1, eff. Sept. 1, 1987. Amended by:

Acts 2005, 79th Leg., Ch. 833 (S.B. 863), Sec. 2, eff. June 17, 2005.

Sec. 143.029. PROMOTIONAL EXAMINATION NOTICE. (a) Before the 90th day before the date a promotional examination is held, the

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APPEAL OF PROMOTIONAL EXAMINATION QUESTION Name: Tommy A. Graham Date: 1-19-2021
Name: Tommy A. Graham Date: 1-19-2021
INSTRUCTIONS: Please complete one form for each question that you wish to appeal. State clearly what you believe is wrong with the question and provide a reason for your belief. Please type or write legibly. If additional space is needed, go to the back of this page.
DATE OF EXAM: $1 - 14 - 21$ TEST RANK: $Driver$ QUESTION # 96
DATE OF EXAM: 1-14-21 TEST RANK: Driver QUESTION # 96 REFERENCE PAGES 143,0027 REFERENCE BOOK: Toxas Local Conformat Code Ch. 143, 2020
General reason for objection: (Check one of the following and explain fully below)
The keyed answer is not correct. Another answer is correct and it should be allowed for credit <u>instead</u> of the keyed answer. My answer is $D$ .
Another answer is also correct, <u>in addition</u> , to the keyed answer. Both answers should be allowed for credit. My answer is
The question is faulty because there is no correct answer among the choices. The question should be <u>eliminated.</u>
Other:
Reasons(s) supporting your appeal:
So in the Very Next sentence I says "Immunicipality with a Population of Less than 1.9 million, the commission by rule May extend the probationary period by not more than six monts for every person who is a is required to attend a basic training acadmey for initial certification by the Texas Commission of Fire Protection or the Texas Commission and Law Enforcement." With that 6 months Added to the Academy Trainee that is a total of IB mo. So when you read All of the Section of this Law it states who it can be Applyed to. The City of
Grand Prairie is Less than 1.9 million so you Add this to the ipear. A certified Firefighter is the only Answer, pecause & Dur Commission has extended this to a total of 18 mo for A New hire that has to go to the training Acadmag.

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APPEAL OF PROMOTIONAL EXAMINATION QUESTION

Name: Lawrence	Trotter
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Date: /-2/-2/

INSTRUCTIONS: Please complete one form for each question that you wish to appeal. State clearly what you believe is wrong with the question and provide a reason for your belief. Please type or write legibly. If additional space is needed, go to the back of this page.

DATE OF EXAM: _	1-14-21	I TEST RANK:∫	) LIV	21		QUEST	'ION #	96
REFERENCE PAGE	is pg 19	REFERENCE BOOK: <u>6</u> .	29	and	6.30	Loca.1	CIVI	Service

General reason for objection: (Check one of the following and explain fully below)

- The keyed answer is not correct. Another answer is correct and it should be allowed for credit <u>instead</u> of the keyed answer. My answer is D.
- Another answer is also correct, <u>in addition</u>, to the keyed answer. Both answers should be allowed for credit. My answer is \_\_\_\_\_.
- The question is faulty because there is no correct answer among the choices. The question should be <u>eliminated</u>.

Other:\_

Reasons(s) supporting your appeal:

Serving arson Probation are C applicate 40 A)) OUPCurrenth TCFP Certific) are m Fishters 1 she POInta are not Currently (Carjire) te attenta basic training (AC FICOTION Shel For initio) Sense Preba 30 01 acore †0 ate.Ment In answe Period eS False 2 or Carle Ow CODEN Probationoni Derio Only Comed ecouse alpointe> FIref - shters Dar!a Yeer robe-tioner Certifiel acadeny trainees

#### FIRE ENGINEER PRELIMINARY

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RANK	NAME	RAW	T E X	FINAL	TIE	TIE	TIE	TIE
	NAME	SCORE	POINTS	SCORE	BREAKER Raw Score	BREAKER Ctf Level	BREAKER date in Rank	BREAKER
								Date of Cont
1	Kimball, Robert	100	6	106				
2	Mayo, Zachary	100	5	105	100			
3	Tedrow, Brady	99	6	105	99			
4	Olalde, Alexander	95	10	105	95	Advance	12/6/2010	12/20/2019
5	Graviett, Michael	95	10	105	95	Advance	12/6/2010	10/21/2020
6	Kasparek, Adam	95	9	104	95			
7	Gregory, Brian	94	10	104	94			
8	Lewey, Joshua	97	6	103	97			
9	Stewart, Zachary	94	9	103	94			
10	Brown, Benjamin	93	10	103	93			
11	Cross, Taylor	98	4	102	98			
12	Smith, Lewis	92	10	102	92	Advance	8/7/2000	
13	Turner, Sean	92	10	102	92	Advance	12/6/2010	
14	Trotter, Lawrence	91	10	101				
15	Owens, Micah	95	5	100	95			
16	Davis, Derek	92	8	100	92			
17	Dudley, Daniel	91	9	100	91			
18	Thomas, Alejandro	90	10	100	90			
19	Lytle, Jacob	94	5	99	94			
20	Storm, Ian	93	6	99	93	Master		
21	Underhill, Jonathan	93	6	99	93	Intermediate		
22	Glaze, Nicholas	92	7	99	92			
23	Mauer, Nicholas	94	4	98	94			
24	Mckennie, John	93	5	98	93			
25	Flath, Brent	92	5	97	92			
26	Howell, Keith	90	7	97	90	Advance		
27	Bates, Trent	90	7	97	90	Intermediate		
28	Bennett, Loren	87	10	97	87			
29	Besselman, Charles	93	3	96	93			
30	Pulice, Timothy	91	5	96	91			
31	Curbo, Trevor	90	6	96	90			
32	Allison, Michael	91	4	95	91			
33	Seider, William	90	5	95	90			
34	McCullough, Michael	85	10	95	85	Advance		
35	Graham, Tommy	85	10	95	85	Intermediate		
36	Grondin, Andrew	88	6	94	88			
37	Hansbro, Boyd	84	10	94	84	ļ		
38	Shoemaker, Justice	89	4	93	89			
39	Winkle, Joe	88	5	93	88	ļ		
40	Medcalf, Eric	83	10	93	83	ļ		
41	Boatman, Matt	87	5	92	87	Intermediate	1/26/2015	
42	Galindo, Ruben	87	5	92	87	Intermediate	4/6/2015	
43	Powell, Michael	82	10	92	82	Advance	1/26/2004	
44	Collings, Austin	82	10	92	82	Advance	10/1/2007	
45	Skipper, Westmoreland	87	4	91	87	Intermediate		
46	Roberts, Joshua	87	4	91	87	Basic		
47	Essig, Jeffrey	81	10	91	81	ļ		
48	Grey, Jeffrey	80	10	90		ļ		
49	Schrader III, Edward	78	10	88	78	Intermediate		

#### ELIGIBILITY LIST

#### FIRE ENGINEER PRELIMINARY

50	Nichols, Nathan	78	10	88	78	Basic	
51	Benavidez, Michael	76	10	86			
52	Thompson, Dustin	77	7	84			
53	Mazac, Robert	71	10	81	71	Master	
54	Case, Darwyn	71	10	81	71	Advance	
55	Tapia, Gerardo	76	4	80	76		
56	Cowan, Robert	70	10	80	70		
57	Wade, Nolan	71	5	76			
58	Simpson, John	71	3	74			

The following candidates did not pass the test:

Hill, Kory	68
Irvan, Blake	67
Macdonald, Scott	66
Ivey, Hunter	64
Jennings, Craig	64
Miller, Bryan	62
Price, Cody	61
Laurie, Christopher	61

Approved by the Grand Prairie Civil Service Commission this day of

Chairman, Civil Service Commission

Commissioner

Commissioner

**Civil Service Director**