After connecting the supply line to the hydrant, the firefighter should the hydrant.				
A. partially open C. barely crack oper	٦	B. fully open D. never open		
Reference: NFPA 1001, 5.3.15 and 5.3.15(A)(B) Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 239. IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 695 Skill sheet 13-1-12. Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 454. Answer: B 2. The recommended minimum pressure for water coming from a fire hydrant is:				
A. 115 psi.	B. 80 psi.	C. 50 psi.	D. 20 psi.	
Reference: NFPA 1001, 5.3.15 and 5.3.15(A) Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 247. Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, pages 449 and 458. Answer: D 3. Portable water tanks should be positioned in a location that allows easy access from:				
A. multiple directionC. the windward side		B. only one direction D. the leeward side		
Reference: NFPA 1001, 5.3.15 and 5.3.15(A)(B) Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, pages 242-243. IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 615. Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 446. Answer: A 4. The term for an arrangement of water mains that delivers water to hydrants from more than one direction at the same time is a:				
A. grid.	B. matrix.	C. nexus.	D. web.	
Reference: NFPA 1001, 5.3.15 and 5.3.15(A) IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, pages 599-600. Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 450. Answer: A 5. Sometimes the hydrant is color-coded. What do these color codes indicate?				
A. The size of the diB. Whether they areC. Whether they have	_	II		

D. The available flow from the hydrant

Jones and Bartlett, Funda Answer: D	Fighting and Fire Departr mentals of Fire Fighter S	ment Operations, 5th Edition kills, 2nd Edition, 1st Printi	ing, page 456.
onto the	while the tank is being	ng filled.	
A. frame	B. check rope	C. distributor	D. collar
Reference: NFPA 1001, Jones and Bartlett, Funda Answer: D		kills, 2nd Edition, 1st Printi	ing, page 448.
To what type of w	ater source does a d	ry hydrant provide acc	cess?
A. A municipal waterC. A proprietary sour	system ce	B. A static water so D. An artesian sour	
Jones and Bartlett, Funda Answer: B	lbook, 3rd Edition, page 2 Fighting and Fire Departr mentals of Fire Fighter S	239. ment Operations, 5th Editic kills, 2nd Edition, 1st Printi rval between hydrant o	ing, page 453.
A. Every five years	B. Tri-annually	C. Bi-annually	D. Annually
Answer: D	mentals of Fire Fighter S es in a water distribu	-	ing, pages 455-456. ver the water finally to
A. capillaries.	B. promontory.	C. distributors.	D. cross mains.
Jones and Bartlett, Funda Answer: C	lbook, 3rd Edition, page 2 Fighting and Fire Departr mentals of Fire Fighter S	238. ment Operations, 5th Editio kills, 2nd Edition, 1st Printi on grid in a water syste	ing, page 450.
A filler pipes	D. water mains	C ro oireulatera	D. drain fields
A. filler pipes.	B. water mains.	C. re-circulators.	D. drain fields.

Reference: NFPA 1001, 5.3.15 and 5.3.15(A)

Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, pages 236-238.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 598.

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 449.

Answer: B

11. Tankers/tenders are primarily used to transport water to the scene and have a capacity of:

A. 500 gallons.

B. 750 gallons.

C. 300 gallons.

D. 1,000 gallons or more.

Reference: NFPA 1001, 5.3.15 and 5.3.15(A)

Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 236.

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 445.

Answer: D

12. Tenders combined with _____ can efficiently provide large volumes of water to a fire ground operation.

A. large diameter hose

B. automatic nozzles

C. portable water tanks

D. ladder trucks

Reference: NFPA 1001, 5.3.15 and 5.3.15(A)(B)

Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 236.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 612.

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, pages 445-446.

Answer: C

13. The **most common** water distribution system is a _____ system.

A. pumped

B. combination pumped/gravity

C. gravity

D. tender shuttle

Reference: NFPA 1001, 5.3.15 and 5.3.15(A)

Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 237.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 597.

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 450.

Answer: B

- 14. Which of the following statements regarding dead-end water mains is incorrect?
- A. Connecting to a dead-end main may not provide adequate water.
- B. Two units on the same dead-end main may rob water from each other.
- C. Dead-end mains provide the most volume in the system.
- D. Where possible, firefighters should avoid using them.

Reference: NFPA 1001, 5.3.15 and 5.3.15(A)

Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 238.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, pages 599-600.

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 450.

Answer: C

15. The two major hydrant types are:

B. high-pressure and low-pressure.

A. wet barrel and dry barrel.C. ground water and surface water.

D. treated water and untreated water.

Reference: NFPA 1001, 5.3.15 and 5.3.15(A)

Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 238.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, pages 605-607.

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 452.

Answer: A

16. Which of the following statements regarding wet barrel and dry barrel hydrants is incorrect?

- A. Dry barrel hydrants are used in areas where freezing temperature could damage the hydrant.
- B. Wet barrel hydrants have water in the barrel up to the valves of each outlet.
- C. Dry barrel hydrants use a valve at the base to control water flow to all outlets.
- D. Wet barrel hydrants are commonly used in the northern parts of the United States.

Reference: NFPA 1001, 5.3, 15 and 5.3, 15(A)

Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, pages 238-239.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, pages 605-607.

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, pages 452-453.

Answer: D

- 17. Which of the following statements regarding dry hydrants is **incorrect?**
- A. They are used primarily in rural areas with no water systems.
- B. They are a pipe system with a pumper suction connection at one end and a strainer at the other.
- C. Dry hydrant is another term for dry barrel hydrant.
- D. They are a connection point for drafting from a static water source.

Reference: NFPA 1001, 5.3.15 and 5.3.15(A)(B)

Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, pages 239-240.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 611.

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 453.

Answer: C

18. Which of the following statements regarding a shuttle operation is incorrect?

- A. The fill site is set up first.
- B. The operation involves tenders moving large quantities of water between a dump site and a fill site.
- C. Dump sites should be selected for availability to unload multiple tenders, operational area, and a variety of other factors.
- D. The fill site is the location of the water source where the tenders are filled.

Reference: NFPA 1001, 5.3.15 and 5.3.15(A)(B)

Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, pages 243-244.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, 612-615.

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 449.

Answer: A

19. Residual pressure is:

- A. the pressure in the system with no hydrants or water flowing.
- B. the pressure remaining in a system after water has begun flowing.
- C. the level of ground water under the surface.
- D. a device that speeds the unloading of water from a tender.

Reference: NFPA 1001, 5.3.15 and 5.3.15(A)
Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 247.
IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 604.
Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 457.
Answer: B
20. On a dry barrel hydrant the valve that controls water flow to all outlets is located ______ of the hydrant.

A. at the top B. on the side C. at the base D. by each outlet

Reference: NFPA 1001, 5.3.15 and 5.3.15(A)

Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 239.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, pages 605-606.

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 452.

Answer: C

21. Dump site selection should be based on:

A. access to hydrants.

B. turn-around area for the tenders.

C. the size of available mains. D. the location of the fill site.

Reference: NFPA 1001, 5.3.15 and 5.3.15(A)(B)

Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 243.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 616.

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 448.

Answer: B

- 22. In general, the largest diameter pipes in a distribution system are the:
- A. branch lines.

B. primary feeder lines.

C. secondary feeder lines.

D. distribution lines.

Reference: NFPA 1001, 5.3.15 and 5.3.15(A)

Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, pages 237-238.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 599.

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 450.

Answer: B

23. According to the National Fire Protection Association (NFPA) 291 Standard, a fire hydrant color-coded red will flow:

- A. 1500 gallons per minute (gpm) or greater.
- B. 1000-1499 gpm.
- C. 500-999 gpm.
- D. less than 500 gpm.

Reference: NFPA 1001, 5.3.15 and 5.3.15(A)

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 609.

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 456.

Answer: D

- 24. According to the National Fire Protection Association (NFPA) 291 Standard, a fire hydrant color-coded orange will flow:
- A. 1500 gallons per minute (gpm) or greater.
- B. 1000-1499 gpm.
- C. 500-999 gpm.
- D. less than 500 gpm.

Reference: NFPA 1001, 5.3.15 and 5.3.15(A)

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 609. Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 465.

Answer: C

- 25. According to the National Fire Protection Association (NFPA) 291 Standard, a fire hydrant color-coded green will flow:
- A. 1500 gallons per minute (gpm) or greater.
- B. 1000-1499 gpm.
- C. 500-999 gpm.
- D. less than 500 gpm.

Reference: NFPA 1001, 5.3.15 and 5.3.15(A)

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 609. Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 465.

Answer: B

One-inch rubbe is commonly called a		r-lined hose equipped wi	th one-inch couplings
A. forestry hose.	B. supply hose.	C. booster hose.	D. engine line.
Delmar, Firefighter's Han IFSTA, Essentials of Fire	amentals of Fire Fighter S		
C. device that is fast	a hose can be rolled. tened to the hose cou	upling in preparation for f dge of a roof or windows	
Delmar, Firefighter's Han IFSTA, Essentials of Fire Jones and Bartlett, Fund Answer: D	amentals of Fire Fighter S		g, page 481.
A. 50	B. 75	C. 90	D. 100
Delmar, Firefighter's Han IFSTA, Essentials of Fire Jones and Bartlett, Fund Answer: A	amentals of Fire Fighter S s being rolled into twir	rinting, page 326. tment Operations, 5th Edition, Skills, 2nd Edition, 1st Printing	
A. donut	B. hi-rise	C. self-locking	D. straight
Delmar, Firefighter's Han IFSTA, Essentials of Fire and 486. Jones and Bartlett, Fund Answer: C	amentals of Fire Fighter S	rinting, pages 267-269. Iment Operations, 5th Edition, Skills, 2nd Edition, 1st Printing	g, page 517.
30. Prior to entering	g a fire area with a ch	arged hoseline, the noza	zle operator should first:

A. bleed air from the line.C. wait for the power to be			wait for a building layout. wait for direction from the pump operator.
Jones and Bartlett, Fundamentals Answer: A	Brd Edition, 1st Printing g and Fire Department s of Fire Fighter Skills, 2	Óp 2nd	erations, 5th Edition, 1st Printing, page 673. Il Edition, 1st Printing, page 505.
connection the		Sys	stem, a firefighter should make the
A. on the floor below C. on			on the floor above two levels above
Reference: NFPA 1001, 5.3.10 at Delmar, Firefighter's Handbook, 3 IFSTA, Essentials of Fire Fighting Jones and Bartlett, Fundamentals Answer: A 32. In reference to a fire st	Brd Edition, 1st Printing g and Fire Department s of Fire Fighter Skills, 2	Óp 2nd	erations, 5th Edition, 1st Printing, page 674. Il Edition, 1st Printing, page 514.
A. the loss of the stream ve B. that part of the pressure C. the amount of pressure D. the friction created by dr	that is used to ove needed to overcom	rcc ie f	ome friction in the hose. riction caused by water turbulence.
Jones and Bartlett, Fundamentals Answer: B	Brd Edition, 1st Printing g and Fire Department s of Fire Fighter Skills, 2	, pa Op 2nd	ages 335 and 1109. erations, 5th Edition, 1st Printing, page 722.
A. static energy absorptionC. flow pressure.			a water hammer. residual pressure.
Reference: NFPA 1001, 5.3.10 at Delmar, Firefighter's Handbook, 3 IFSTA, Essentials of Fire Fighting Jones and Bartlett, Fundamentals Answer: B 34. To properly operate a	Brd Edition, 1st Printing g and Fire Department s of Fire Fighter Skills, 2	Óp 2nd	erations, 5th Edition, 1st Printing, page 724. Il Edition, 1st Printing, page 466.
A. opened slowly and close C. opened and closed slow	•		opened quickly and closed slowly. opened and closed quickly.

Answer: C

Delmar, Firefighter's F IFSTA, Essentials of I Jones and Bartlett, Fu Answer: C	ındamentals of Fire Figh		rinting, page 505.	
` ,		eing supplied to the nozz		IIIC
A. set gallonage	B. solid	C. automatic	D. proportioner	
Delmar, Firefighter's F IFSTA, Essentials of I Jones and Bartlett, Fu Answer: C	Fire Fighting and Fire De Indamentals of Fire Figh	5.3.8 and 5.3.8(A)(B) Ist Printing, pages 327-328. Expartment Operations, 5th Editor Skills, 2nd Edition, 1st Po	rinting, page 518.	
A. booster	B. solid	C. elevated	D. master	
Delmar, Firefighter's F IFSTA, Essentials of I Jones and Bartlett, Fu Answer: D	Fire Fighting and Fire De Indamentals of Fire Figh	3.8 and 5.3.8(A)(B) Ist Printing, pages 312 and 3 Epartment Operations, 5th Ec Inter Skills, 2nd Edition, 1st Po	dition, 1st Printing, page 725 rinting, pages 472 and 624.	5.
A. 40	B. 125	C. 350	D. 250	
Delmar, Firefighter's I	01, 5.3.10, 5.3.10(A)(B), Handbook, 3rd Edition, 1 Fire Fighting and Fire De		dition 1st Printing page 724	1

38. Which of the following statements concerning automatic constant pressure nozzles **is not** correct?

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, pages 516 and 618.

- A. The nozzle automatically varies the flow rate to maintain an effective nozzle pressure.
- B. A minimum nozzle pressure is needed to maintain a good spray pattern.
- C. The nozzle person can change the flow rate by opening and closing the shut-off valve.
- D. The pump operator must change the pump setting to change the flow rate of the nozzle.

IFSTA, Essentials o Jones and Bartlett, I Answer: D	f Fire Fighting and Fir Fundamentals of Fire	(B), 5.3.8 and 5.3.8(A)(B) se Department Operations, 5th E Fighter Skills, 2nd Edition, 1st F e for a solid stream nozzle	Printing, page 516.	•
psi.				
A. 50	B. 80	C. 100	D. 125	
Delmar, Firefighter's IFSTA, Essentials o Jones and Bartlett, I Answer: A 40. Nozzle con	Handbook, 3rd Edition Fire Fighting and Fire Fundamentals of Fire trols, hydrants, va	, 5.3.8 and 5.3.8(A)(B) on, 1st Printing, page 326. e Department Operations, 5th E Fighter Skills, 2nd Edition, 1st F	Printing, page 517.	
to prevent a water	er hammer.			
A. one-half turn C. rapidly	at a time	B. slowly D. during low p	oressure only	
Delmar, Firefighter's IFSTA, Essentials o Jones and Bartlett, I Answer: B	Handbook, 3rd Edition of Fire Fighting and Fire Fundamentals of Fire	(B), 5.3.8 and 5.3.8(A)(B) on, 1st Printing, page 258. The Department Operations, 5th E Fighter Skills, 2nd Edition, 1st F The sign ine up a ladder, firefighters	Printing, page 466.	
B. no more thanC. with no more	sides of the beam six feet apart. than one firefighte each of each othe	er per section		
Delmar, Firefighter's IFSTA, Essentials o 675-676. Jones and Bartlett, I Answer: C 42. When adva	Handbook, 3rd Edition Fire Fighting and Fire Fundamentals of Fire ncing a hoseline i	(B), 5.3.8 and 5.3.8(A)(B) on, 1st Printing, pages 299-300. e Department Operations, 5th E Fighter Skills, 2nd Edition, 1st F onto a burning structure, it is ering the fire area.	Printing, page 511.	I the
A. immediately a C. soon after	after	B. before D. upon		

Reference: NFPA 1001, 5.3.10 and 5.3.10(A)(B) Delmar, Firefighter's Handbook, 3rd Edition, 1st Printi IFSTA, Essentials of Fire Fighting and Fire Department Jones and Bartlett, Fundamentals of Fire Fighter Skill. Answer: B	nt Operations, 5th Edition, 1s	
43. To avoid sharp bends and kinks during	the advancement of a he	oseline <u>up</u> a stairway:
A. lay the hose on the stairs against the insideB. the hose should not lie on the steps, but in the control of the hose back onto itself.D. lay the hose on the stairs against the outside	n a vertical position to th	e next upper level.
Reference: NFPA 1001, 5.3.10 and 5.3.10(A)(B) Delmar, Firefighter's Handbook, 3rd Edition, 1st Printi IFSTA, Essentials of Fire Fighting and Fire Department Jones and Bartlett, Fundamentals of Fire Fighter Skill. Answer: D 44. Firefighters assisting with a working line	nt Operations, 5th Edition, 1s s, 2nd Edition, 1st Printing, pa	age 507.
hose with the coupling		a pisace and
A. over the shoulder; in frontB. under the shoulder; in the frontC. under the shoulder; in the rear, resting orD. over the shoulder; in the rear, resting on the		
Reference: NFPA 1001, 5.3.10, 5.3.10(A)(B), 5.3.8 ar Delmar, Firefighter's Handbook, 3rd Edition, 1st Printi IFSTA, Essentials of Fire Fighting and Fire Department and 701. Jones and Bartlett, Fundamentals of Fire Fighter Skill. Answer: A 45. How many female couplings are on a w	ng, page 272. nt Operations, 5th Edition, 1s s, 2nd Edition, 1st Printing, pa	
A. 1 B. 2	C. 3	D. 4
Reference: NFPA 1001, 5.3.10, 5.3.10(A), 5.3.8, and IFSTA, Essentials of Fire Fighting and Fire Department 643-644. Jones and Bartlett, Fundamentals of Fire Fighter Skill Answer: A 46. One way to identify the physical structure.	nt Operations, 5th Edition, 1sts, 2nd Edition, 1st Printing, pa	age 479.
A. swivel protector.C. coating.	B. lugs on the shank.D. shank length.	
Reference: NFPA 1001, 5.3.10 and 5.3.10(A)(B)		

R

639-640. Jones and Bartlett, Funda Answer: B	Fighting and Fire Dep	t Printing, page 259. artment Operations, 5th Edi er Skills, 2nd Edition, 1st Pril r wrench is for use in:	
A. breaking glass.C. operating hydrant	valves.	B. shutting-off g. D. tightening/loo	as valves. sening hose couplings.
Jones and Bartlett, Funda Answer: D 48. A hose	dbook, 3rd Edition, 1st Fighting and Fire Dep amentals of Fire Fighte is used to se	t Printing, page 261. artment Operations, 5th Edi er Skills, 2nd Edition, 1st Pri	oting, page 468. So that may occur in fire hose
A. bridge	B. clamp	C. jacket	D. seal
	dbook, 3rd Edition, 1st Fighting and Fire Dep amentals of Fire Fighte considered a: nese appliance. appliance. ent leakage in wate	t Printing, page 261. artment Operations, 5th Edi er Skills, 2nd Edition, 1st Pril	
644-645. Jones and Bartlett, Funda Answer: B	dbook, 3rd Edition, 1si Fighting and Fire Dep amentals of Fire Fighte	t Printing, page 262. artment Operations, 5th Edi er Skills, 2nd Edition, 1st Pri	nting, page 479.
	_	om a/an no	
A. smooth-orifice	B. adjustable-fo	g C. special-purpo	ose D. applicator
	dbook, 3rd Edition, 1st Fighting and Fire Dep		

Answer: B

51. The Higbee indic	cator is:			
C. utilized for aligning	n hose couplings. ut for rescue purposes. the male with the femals g to provide protection	ale (. •	
Delmar, Firefighter's Hand IFSTA, Essentials of Fire F Jones and Bartlett, Fundar Answer: C	3.10, 5.3.10(A)(B), 5.3.8 an book, 3rd Edition, 1st Printir Fighting and Fire Departmer mentals of Fire Fighter Skills Beeded to combine two h	ng, p nt Oµ s, 2n	page 259. perations, 5th Edition, 1 ad Edition, 1st Printing, p	page 468.
A. water thief.	B. wye.	C.	siamese.	D. double male.
Delmar, Firefighter's Hand, IFSTA, Essentials of Fire F Jones and Bartlett, Fundar Answer: C	3.10, 5.3.10(A)(B), 5.3.8 an book, 3rd Edition, 1st Printing Fighting and Fire Departmer mentals of Fire Fighter Skills out a spanner wrench and is used.	ng, p nt Oµ s, 2n	page 262. perations, 5th Edition, 1 nd Edition, 1st Printing, p	page 480.
A. knee-jerk	B. stiff-arm	C.	arm-press	D. knee-press
Delmar, Firefighter's Hand IFSTA, Essentials of Fire F Skill sheet 13-1-5. Jones and Bartlett, Fundar Answer: D	3.10, 5.3.10(A)(B), 5.3.8 an book, 3rd Edition, 1st Printir Fighting and Fire Departmer mentals of Fire Fighter Skills e a hoseline from a ladd	ng, p nt Op s, 2n	pages 264-265. perations, 5th Edition, 1 ad Edition, 1st Printing, p	pages 470-471.
A. secured to the ladeC. looped through the			secured to the haly looped through the	
IFSTA, Essentials of Fire F Jones and Bartlett, Fundar Answer: A 55. Devices through	book, 3rd Edition, 2nd Printi Fighting and Fire Departmer mentals of Fire Fighter Skills which water flows, use	nt Op s, 2n	perations, 5th Edition, 1 nd Edition, 1st Printing, p	page 511.
gate valve, are known A. apparatus.	as: B. appliances.	Γ	tools.	D. flow controls.
π. αμματαίμο.	ם. appliatioes.	O .	10013.	ש. ווטא Coritiols.

Reference: NFPA 1001, 5.3.10, 5.3.10(A)(B), 5.3.8 a Delmar, Firefighter's Handbook, 3rd Edition, 2nd Print IFSTA, Essentials of Fire Fighting and Fire Department Jones and Bartlett, Fundamentals of Fire Fighter Skill Answer: B	nting, page 260. ent Operations, 5th L	
56. The standpipe connection is usually loobuilding.	cated in the	of a multistory
A. equipment roomC. elevator shaft (bottom)	B. building lob D. stairwell	bby
Reference: NFPA 1001, 5.3.10 and 5.3.10(A)(B) Delmar, Firefighter's Handbook, 3rd Edition, 1st Print IFSTA, Essentials of Fire Fighting and Fire Departme Jones and Bartlett, Fundamentals of Fire Fighter Skil Answer: D 57. When advancing dry fire hose up a mu approximately ladder section(s	ent Operations, 5th B lls, 2nd Edition, 1st B Ilti-section ladder	Printing, page 514.
A. 1 B. 1.5	C. 2	D. 2.5
Reference: NFPA 1001, 5.3.10 and 5.3.10(A)(B). IFSTA, Essentials of Fire Fighting and Fire Departme 675-676. Jones and Bartlett, Fundamentals of Fire Fighter Skil Answer: A 58. A water hammer is:	•	
A. a hydraulic tool used for breaking apart ofB. the pressure surge that occurs when wat opened and closed.		zles are slowly
C. the use of water to assist in overhaul by materials away from the structure.D. the pressure surge that occurs when wat opened or closed.	.	·
Reference: NFPA 1001, 5.3.10, 5.3.10(A), 5.3.8 and Delmar, Firefighter's Handbook, 3rd Edition, 1st Print IFSTA, Essentials of Fire Fighting and Fire Departme Jones and Bartlett, Fundamentals of Fire Fighter Skil Answer: D 59. The two types of couplings are:	ting, page 258. ent Operations, 5th L	
A. male and female.C. threaded and nonthreaded/Storz.	B. brass and a D. national sta	aluminum. andard and iron pipe.

Reference: NFPA 1001, 5.3.10, 5.3.10(A), 5.3.8 and 5.3.8(A)(B) Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 258.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 639.

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 467.

Answer: C

60. The first step in uncoupling a charged line is to:

- A. place spanners on lugs going in opposite directions.
- B. have at least two people available to perform the uncoupling.
- C. fold hose over on itself and press knee down on coupling.
- D. open the nozzle and bleed off the pressure.

Reference: NFPA 1001, 5.3.10, 5.3.10(A), 5.3.8 and 5.3.8(A)(B) Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 264.

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 470.

Answer: D

61. A dutchman is:

- A. used when loading hose and has a short fold or a reverse fold with a coupling at the point where a fold should occur.
- B. a process for uncoupling hose.
- C. a short length of hose that connects a deluge set to the engine company's pump.
- D. the fold in a twin donut roll.

Reference: NFPA 1001, 5.3.10, 5.3.10(A)(B), 5.3.8 and 5.3.8(A)(B) Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 273.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 656.

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 493.

Answer: A

- 62. Which of the following statements regarding the accordion load is **incorrect**?
- A. It is easy to load and unload.
- B. It can be used as an additional supply line.
- C. It is ideal for making shoulder loads.
- D. It is the preferred way to load large diameter hose (LDH).

Reference: NFPA 1001, 5.3.10, 5.3.10(A)(B), 5.3.8 and 5.3.8(A)(B)

Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 273.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 658.

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 495.

Answer: D

63. Which of the following statements regarding advancing a hoseline up a ladder is **incorrect?**

A. The safest and best manner is to advance a charged hoseline up the ladder.

- B. The safest and best manner is to advance an uncharged hoseline up the ladder.
- C. Use two firefighters who coordinate and maintain their distance on the ladder and the hose.
- D. The nozzle person, with both hands free for climbing, begins climbing the ladder to point about 20 feet up and stops.

Reference: NFPA 1001, 5.3.10, 5.3.10(A)(B), 5.3.8 and 5.3.8(A)(B)
Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 296.
IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 675.
Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, pages 510-511.
Answer: A
64. The most often used hose lay at fire scenes is the ______ lay.

A. split B. forward C. reverse D. accordion

Reference: NFPA 1001, 5.3.10 and 5.3.10(A)(B)

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 487.

Answer: B

65. When should the fire fighter attaching hose to the hydrant charge the supply line?

- A. As soon as possible
- B. Not until the driver/operator's signal is received
- C. After slowly opening the hydrant all the way
- D. After ten full minutes from the time of drop-off

Reference: NFPA 1001, 5.3.10, 5.3.10(A)(B), 5.3.15, and 5.3.15(A)(B)

Delmar, Firefighter's Handbook, 3rd Edition, page 304.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, pages 665-666. Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 487.

Answer: B

66. Which of the following statements regarding solid streams **is not** correct?

- A. A solid stream has less effect on a room's thermal balance.
- B. Solid stream produces minimal amounts of steam compared to narrow and wide fog patterns.
- C. It has poor penetration into piles of burning material.
- D. Solid streams have the ability to penetrate through fire's heat without absorbing the heat before reaching the target.

Reference: NFPA 1001, 5.3.10, 5.3.10(A)(B), 5.3.7, 5.3.7(A), 5.3.8 and 5.3.8(A)

Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 326.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 727. Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 517.

Answer: C

67. Which of the following statements regarding fog nozzles is not correct?

- A. Adjustable fog nozzles provide personal protection because of the screening effect between them and the fire.
- B. Fog nozzles provide better heat absorption.
- C. They have a greater reach than solid stream nozzles.
- D. Fog streams can produce more steam that can extinguish hidden fire.

Reference: NFPA 1001, 5.3.10, 5.3.10(A), 5.3.7, 5.3.7(A), 5.3.8 and 5.3.8(A)

Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 328.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 731. Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 517.

Answer: C

- 68. Cellar nozzles are designed to be used to fight localized fires in basements where firefighters cannot make a direct attack. It operates by:
- A. forming a water curtain to protect exposures.
- B. directing the stream in one direction.
- C. piercing block walls or aircraft skin.
- D. rotating in a circular spray pattern.

Reference: NFPA 1001, 5.3.10 and 5.3.10(A)(B)

Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, pages 328-329.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 731.

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 518.

Answer: D

69. What type of valves are opened or closed by rotating a handle a quarter-turn?

A. Gate B. Siamese C. Butterfly D. Post-indicating

Reference: NFPA 1001, 5.3.10 and 5.3.10(A)

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, pages 643-644. Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 482.

Answer: C

70. The hose diameter used by **most** fire departments for heavy interior attack is:

A. 3-1/4". B. 3". C. 2-3/4". D. 2-1/2".

Reference: NFPA 1001, 5.3.10 and 5.3.10(A)

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 498.

Answer: D

71. Hose that is **usually** carried on a hose reel, is made of rubber, and flows only 30 to 50 gallons per minute is called:

A. booster hose. B. dumpster hose. C. fool's hose. D. attic hose.

Reference: NFPA 1001, 5.3.10 and 5.3.10(A)

Delmar, Firefighter's Handbook, 3rd Edition, page 256.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, pages 663 and 724.

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 466.

Answer: A

72. What does a gated wye enable that a non-gated wye **does not**?

- A. Remote control of the valves inside by radio frequency from a distance
- B. Regulating the flow to either side of the wye independently of the other side
- C. Securing the wye from tampering by anyone without a special tool
- D. Hose lines of unequal diameter to be connected to the two sides

Reference: NFPA 1001, 5.3.10 and 5.3.10(A)

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 479.

Answer: B

- 73. The purpose of a hose adaptor is to connect two hose sections of:
- A. equal diameter, but differing threads.
- B. unequal diameter but similar threads.
- C. equal diameter and similar threads.
- D. unequal diameter and differing threads.

Reference: NFPA 1001, 5.3.10 and 5.3.10(A)

Delmar, Firefighter's Handbook, 3rd Edition, page 262.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, page 647. Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 480.

Answer: A

74. The type of appliance used to attach hoselines of differing diameters is a/an:

A. adaptor. B. engager. C. distributor. D. reducer.

Reference: NFPA 1001, 5.3.10 and 5.3.10(A)

Delmar, Firefighter's Handbook, 3rd Edition, page 262.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, page 647. Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 480.

Answer: D

75. Which of the following is a recommended practice to prevent mechanical fire hose damage?

- A. Maintain the same fold positions when reloading hose on apparatus.
- B. Eliminate all chafing blocks in the vicinity of the operating pumper.
- C. Open and close nozzles, valves and hydrants slowly.
- D. Avoid inserting hose in ramps or bridges.

Reference: NFPA 1001, 5.3.10 and 5.3.10(A)(B)

Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 258.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 634. Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 466.

Answer: C

76. When performing a forward lay, the pumper is driven from the:

- A. fire scene to water source.
- B. water source to fire scene.
- C. water source to fire scene to water source.
- D. discharge of one pumper to intake of another.

Reference: NFPA 1001, 5.3.15 and 5.3.15(A)(B)

Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 311.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, pages 664-665.

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 487.

Answer: B

- 77. The term reverse lay describes an apparatus that lays out a supply line:
- A. while the apparatus is moving in reverse.
- B. from the fire to the water source.
- C. from the water source to the fire.
- D. with the male coupling ending up at the fire scene.

Reference: NFPA 1001, 5.3.15 and 5.3.15(A)(B)

Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 312.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, pages 666-667.

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 488.

Answer: B

- 78. Soft sleeve intake hose is used for:
- A. transferring water from a hydrant to an apparatus.
- B. primarily drafting water from a static source.
- C. siphoning water from one portable tank to another.
- D. transferring water from pump to tank.

Reference: NFPA 1001, 5.3.15 and 5.3.15(A)

Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 256.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 633. Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 474.

Answer: A

79. An advantage of a forward lay is:

- A. that the pumper is located at the hydrant to boost water pressure.
- B. that the supply line is dropped off at the fire location.
- C. the ability to utilize poor or static water sources.

D. that the pumper is located at the fire with access to additional hoselines. Reference: NFPA 1001, 5.3.15 and 5.3.15(A) Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 311. IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 664, Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 487. Answer: D 80. The space provided for hose on fire apparatus is generally referred to as the: C. hose bed. A. hose box. B. hose load. D. hose lay. Reference: NFPA 1001, 5.3.15 and 5.3.15(A) Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 257. IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 655. Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 492. Answer: C 81. The function of hard suction hose is: A. connecting to distant municipal hydrants. B. connecting to another pumper in relay. C. drafting water from a static source. D. supplying a master stream device. Reference: NFPA 1001, 5.3.15 and 5.3.15(A)(B) Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 256. IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, page 633. Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 474. Answer: C 82. When hose has been exposed to small amounts of oil, it should be washed with: A. clear water. B. cold water and scrub brush. C. mild soap or detergent. D. solvent solution. Reference: NFPA 1001, 5.5.2 and 5.5.2(A)(B) Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 258. IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 637. Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, pages 476-477. Answer: C 83. When loading fire hose, the serves to change the direction of the hose and can also change the location of a coupling. D. Dutchman A. horseshoe B. flat load C. reverse lay

Reference: NFPA 1001, 5.5.2, 5.5.2(A)(B), 5.3.15 and 5.3.15(A)(B) Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 273.

Jones and Bartlett, Fund Answer: D	amentals of Fire Fighte ose beds on appara	r Skills, 2nd Edition, 1st Pri atus contain two differe	
A. two-stage load.C. baffle bed.		B. Detroit load.D. split hose bed.	
	Fighting and Fire Departmentals of Fire Fighte	artment Operations, 5th Ed r Skills, 2nd Edition, 1st Pri oll is:	
 A. the female end is exposed and the male end is protected in the center of the roll. B. both ends are available on the outside of the roll. C. the hose can be rolled into a twin roll and secured by a portion of the hose itself. D. the couplings are connected to keep them together and protect the threads. 			
Jones and Bartlett, Fund Answer: B	ndbook, 3rd Edition, 1st Fighting and Fire Departmentals of Fire Fighte ed at the scene of a	Printing, page 266. artment Operations, 5th Ed or Skills, 2nd Edition, 1st Pri a fire and the pumper p	ition, 1st Printing, page 653. inting, page 482. roceeds to the water source.
A. combination	B. forward	C. reverse	D. direct
Jones and Bartlett, Fund Answer: C	ndbook, 3rd Edition, 1st Fighting and Fire Depa amentals of Fire Fighte	Printing, page 312. artment Operations, 5th Ed r Skills, 2nd Edition, 1st Pri	ition, 1st Printing, page 666. Inting, page 488. Echanical damage to fire
A. Avoid closing the B. Remove wet hos C. Prevent vehicles	e from apparatus ar	nd replace with dry hos e hose.	se.

D. Avoid laying hose over rough, sharp edges or corners.

Reference: NFPA 1001, 5.5.2 and 5.5.2(A)(B)
Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, pages 257-258.
IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 634.

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, pages 466-476.

Answer: B

88. Of the following, the most important factor relating to the life of a hose is the:

A. method of service testing.

B. manufacturing process.

C. care it receives.

D. number of jackets used in construction.

Reference: NFPA 1001, 5.5.2 and 5.5.2(A)(B)

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 637.

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 474.

Answer: C

89. Which coupling goes on the inside of a straight hose roll?

A. The female

B. The male.

C. Either A or B

D. It depends on the diameter.

Reference: NFPA 1001, 5.5.2 and 5.5.2(A)(B)

Delmar, Firefighter's Handbook, 3rd Edition, page 266.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, page 653.

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, pages 482-483.

Answer: B

90. Which of the following is not a common load for preconnected attack lines?

A. Flat load

B. Triple layer load

C. Straight load

D. Minuteman load

Reference: NFPA 1001, 5.5.2 and 5.5.2(A)(B)

Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 279.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, pages 662-663.

. 002-003.

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 499.

Answer: C

91. Which of the following is an advantage of the flat load?

- A. Hose for shoulder carries can easily be taken from the load.
- B. Hose loaded in this manner has fewer sharp bends than other loads.
- C. It is the best way to load large-diameter hose.
- D. Only four people are required to perform the load.

Reference: NFPA 1001, 5.5.2 and 5.5.2(A)(B)

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 658.

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 492.

Answer: C

92. Which of the following is an advantage of the horseshoe load?

A. Ease of loading

- B. Hose for shoulder carries can easily be taken from the load.
- C. Hose loaded in this manner is less subject to wear from apparatus vibration.
- D. Hose loaded in this manner has fewer sharp bends than other loads.

Reference: NFPA 1001, 5.5.2 and 5.5.2(A)(B)

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 657. Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 494.

Answer: D

- 93. Water supply is one of the **most critical** elements of firefighting because:
- A. of the great expense in obtaining it.
- B. water is the most common extinguishing agent.
- C. water freezes at high temperatures.
- D. of its ability to suffocate a fire.

Reference: NFPA 1001, 5.3.15 and 5.3.15(A)

Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 234.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 593. Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 617.

Answer: B

- 94. Which of the following statements is **incorrect** regarding why water is the most common extinguishing agent?
- A. It is readily available.
- B. It has the ability to absorb large quantities of heat.
- C. It is expensive.
- D. Its expansion ratio.

Reference: NFPA 1001, 5.3.15 and 5.3.15(A)

Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 234.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 593.

Jones and Bartlett, Fundamentals of Fire Fighter Skills, 2nd Edition, 1st Printing, page 617.

Answer: C

95. A cistern is a(n):

- A. underground water tank made from natural rock or concrete.
- B. above ground water storage pool.
- C. elevated water storage facility that holds up to 20,000 gallons.
- D. pocket of natural spring water.

Reference: NFPA 1001, 5.3.15 and 5.3.15(A)

Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 236.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 610.

Answer: A

96. Which of the following statements regarding rural water supply operations is **correct?**

- A. Rural water supply operations require careful coordination and control.
- B. A water supply officer should be part of the incident command system with full authority over tender operations.
- C. Firefighters assigned to water supply operations may find this task less glamorous than actual firefighting.
- D. All of the above.

Reference: NFPA 1001, 5.3.15 and 5.3.15(A)(B)

Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 242.

Answer: D

- 97. High-pressure hydrants are hydrants connected to a separate high-pressure water system used only for:
- A. fire protection purposes.
- B. industrial water supply.
- C. augmenting residential areas during peak demand.
- D. generating hydroelectric power.

Reference: NFPA 1001, 5.3.15 and 5.3.15(A)

Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 240.

Answer: A

- 98. What step **should not** be taken when attempting to lower shuttle time?
- A. Increase efficiency of personnel at fill site.
- B. Increase vehicle speed on highway during shuttle operations.
- C. Increase efficiency of personnel at dump site.
- D. Use jet dumps to increase dumping time.

Reference: NFPA 1001, 5.3.15 and 5.3.15(A)(B)

Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 244.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, pages 612 and 615.

Answer: B

99. The device that speeds the process of dumping a load of water from a tender is a:

A. gravity siphon. B. special pump.

C. jet dump. D. portable water tank.

Reference: NFPA 1001, 5.3.15 and 5.3.15(A)(B)

Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 243.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, page 615.

Answer: C

100. Flowing capacity of a hydrant is:

- A. the force or weight of a substance, usually water, measured over an area.
- B. the amount of water available or amount that the water distribution system is capable of flowing.
- C. a measure comparing the amount of heat the fire is capable of generating vs. the amount of water required for cooling the fuels below their ignition temperature.
- D. length x width = gallons per minute required for effective fire suppression.

Reference: NFPA 1001, 5.3.15 and 5.3.15(A)

Delmar, Firefighter's Handbook, 3rd Edition, 1st Printing, page 249.

IFSTA, Essentials of Fire Fighting and Fire Department Operations, 5th Edition, 1st Printing, pages

604-605. Answer: B