Personal information you provide may be used for secondary purposes [Privacy Law, s. 15.04(1)(m)].

***** If you obtain approval for this course and it is other than a face-to-face training session, you must inform students that they may not retake the same course for credit more than once during the 1-, 2- or 4-year term of their specific credential *****

<table>
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<tr>
<th>Course Provider Name (Business, School, Institute, Individual, etc)</th>
<th>Contact Person (If different from provider)</th>
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<tbody>
<tr>
<td>Gary Klinka Building Inspection Inc</td>
<td>Gary or Amy Klinka</td>
</tr>
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<th>S&amp;B Customer Id number (If already provided)</th>
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<th>Address No. &amp; Street, or P.O. Box:</th>
<th>City, Town or Village, State, Zip + 4 Code:</th>
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<tbody>
<tr>
<td>228 Mandella Court</td>
<td>Neenah WI 54956</td>
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<tr>
<th>City, Town or Village, State, Zip + 4 Code:</th>
<th>Telephone No. (include area code):</th>
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<tbody>
<tr>
<td>Neenah WI 54956</td>
<td>If Available, E-mail Address:</td>
</tr>
<tr>
<td></td>
<td><a href="mailto:garyklinka@hotmail.com">garyklinka@hotmail.com</a> or <a href="mailto:aklinka@hotmail.com">aklinka@hotmail.com</a></td>
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Fill in the Course Name/Title:

Gastite Quiz Part 2

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<th>Type of course:</th>
<th>Total Course Hours:12 hours (ten questions equal one hour)</th>
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<td>☑ Student-paced Training (Internet, DVD, Broadcast, Correspondence)</td>
<td>Number of review questions 120</td>
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<th>POPTS</th>
<th>BUILDING</th>
<th>ELECTRICAL</th>
<th>ELEVATOR</th>
<th>SPRINKLERS</th>
<th>BOILERS</th>
<th>INITIAL QUALIFIER</th>
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<tr>
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<td>☑ Master Plumber Restricted Service</td>
<td>☑ Commercial Building Inspector</td>
<td>☑ Master Electrician</td>
<td>☑ Elevator Mechanic</td>
<td>☑ Automatic Fire Sprinkler Contractor</td>
<td>☑ Boiler Inspector</td>
<td>☑ Multi-Purpose Piping Initial Qualifier</td>
</tr>
<tr>
<td>☑ Master Plumber Restricted Appliance</td>
<td>☑ POWTS Maintainer</td>
<td>☑ UDC-HVAC Inspector</td>
<td>☑ Beginning Electrician</td>
<td>☑ Lift Mechanic</td>
<td>☑ Automatic Fire Sprinkler Contractor-Maintenance</td>
<td>☑ Boiler Inspector</td>
<td>☑ POWTS Restricted Tech Installer Qualifier</td>
</tr>
</tbody>
</table>
Gastite Quiz Part 2

Instructions
1. Print these pages and Click Here for the necessary Gastite reference materials.
2. Answer the Simple questions that closely follow the reference materials in a consecutive order.
3. Circle the correct answers and transfer the answers to the answer sheets (see last 3 pages).
4. After answering the simple questions you will become familiar with the new code changes.
5. Page down to the last page for the verification form, answer sheets and mailing instructions.

12 hour course for:
1. Beginner Electrician
2. Boiler-Pressure Vessel Inspector
3. Commercial Building Inspector
4. Commercial Electrical Inspector
5. Commercial Plumbing Inspector
6. Dwelling Contractor Qualifier
7. Industrial Journeyman Electrician
8. Journeyman Electrician
9. Journeyman Plumber
10. Journeyman Plumber-Restricted Appliance
11. Journeyman Plumber-Restricted Service
12. Manufactured Home Installer
13. Master Electrician
14. Master Plumber
15. Master Plumber-Restricted Appliance
16. Master Plumber-Restricted Service
17. Residential Journeyman Electrician
18. Residential Master Electrician
19. UDC-Electrical Inspector
20. UDC-HVAC Inspector
21. UDC-Plumbing Inspector
22. Utility Contractor

Questions: call Amy at 920-727-9200 or 920-740-4119 or 920-740-6723 or email aklinka@hotmail.com

4.6 Appliance

1. The Appliance Stub-Out is mounted to a stud face (Fig. 4-53) and provides a fixed point to which a Gastite®/FlashShield mechanical fitting may be attached. The design of this stub-out ensures that the flexible tubing is routed away from any points of constraint that may subject the tubing to potential ________ threats.
   a. kinking
   b. bending
   c. puncture
   d. none of the above

2. For use with movable appliances, Gastite®/FlashShield must be rigidly terminated before the appliance connection. This fixed connection point allows for the attachment of ________ to moveable appliances such as dryers and ranges.
   a. flexible appliance connectors
   b. drip legs
   c. shut off valves
   d. all of the above

3. The _______ Stub provides a fixed point for the Gastite/FlashShield mechanical fitting and a stable platform for service meter connections.
   a. angle
   b. curved
   c. straight
   d. all of the above

4. Gastite®/FlashShield™ CSST may be connected directly to non-movable appliances such as water heaters, furnaces, boilers and island cook-tops (Figures 4-57) without the installation of a _________.
   a. termination outlet
b. rigid appliance connector
c. drip leg
d. shut-off valve

5. When appliances such as water heaters, furnaces or fireplaces have metallic vents which extend beyond or protrude through the roof physical contact between the Gastite® CSST and the appliance cabinet or vent is ____________.
   a. allowed
   b. required
   c. prohibited
   d. none of the above

6. Gastite recommends that all continuous metallic systems be ____________.
   a. earthed
   b. bonded
   c. grounded
   d. both b & c

7. Barbecue Grills – Movable grills shall be connected using an approved outdoor appliance connector which shall be attached to the CSST system either at a ________________.
   a. termination fitting
   b. quick disconnect device
   c. appliance connector
   d. both a & b

4.6.4 Special Applications

8. Roof Mounted Equipment (Fig. 4-60) – Gastite®/FlashShield Flexible Gas Piping can be used in an outdoor rooftop application. When used in this application Gastite® is to be supported ___ the surface of the roofing material.
   a. at
   b. on
   c. against
   d. off

9. When Gastite®/FlashShield™ Flexible Gas Piping is installed in an outdoor rooftop application the following requirements must be met:
   a. Support materials will be selected to provide an adequate anchoring point that addresses the lightweight flexible nature of Gastite/FlashShield. This can be accomplished through either the weight of the support or adhering the support to the roof materials. The support materials must also be selected to be non-damaging to the roofing material. (Check with roof material manufacturer for approved adhering methods and non-damaging materials/installations.)
   b. It is also important to select the appropriate metal pipe clamps or straps to loosely affix the tubing to the support.
   c. both a & b
   d. none of the above

10. When Gastite®/FlashShield Flexible Gas Piping is installed in an outdoor rooftop application the following requirements must be met: The supports shall lift the tubing at least ___" from the surface of the roof, higher as required by code or local conditions.
   a. 1
   b. 2
   c. 3
   d. 4

11. Roof-top support spacing maximum support spacing for 1” Gastite would be _____”?
   a. 6
   b. 8
12. Roof-top support spacing maximum support spacing for 1 1/2” Gastite would be _____”?
   a. 6
   b. 8
   c. 31
   d. 47

13. Moveable gas appliances on concrete pads or blocks, such as heat pumps, air conditioners, pool heaters and NGV refueling systems, shall be connected to the Gastite®/FlashShield™ CSST system at a termination fitting using either an __________.
   a. rigid pipe
   b. approved outdoor appliance connector
   c. terminal application
   d. both a & b

14. Gas Packs and Other Non-Moveable Equipment (Fig. 4-66) – Can be connected to the Gastite/FlashShield CSST system either through a __________ connected to the appliance shut-off valve.
   a. terminating fitting
   b. rigid pipe
   c. directly with Gastite/FlashShield CSST
   d. all of the above

15. Permanently mounted lights located on decks shall be connected to the Gastite®/FlashShield CSST system in the same fashion as permanently mounted grills as shown in the figure and in accordance with the manufacturer’s instructions.
   a. true
   b. false

16. Yard Mounted Lights – Shall not be connected to the Gastite®/FlashShield™ CSST systems.
   a. true
   b. false

17. Infrared heaters that are mounted to allow movement of the heater must use an appropriate appliance/flex connector between the heater and the properly terminated Gastite®/FlashShield™.
   a. low density heaters
   b. tube heaters
   c. heaters hung from chains
   d. all of the above

18. Flexible Gas Tubing may be used to deliver gas directly to the control valve of a gas fireplace.
   a. true
   b. false

19. Control valve of a gas fireplace shall be rigidly mounted.
   a. true
   b. false

20. Brass fittings should not be used inside the firebox for __________ or in any firebox where wood logs will be burned due to the potential for physical harm to the tubing.
   a. log lighters
   b. gas wands
   c. both a & b
   d. none of the above

21. Heaters and installations must comply with __________, “Standard for gas fired infrared heaters.”
   a. ASSE Z83.6
   b. ANSI Z83.6
22. Gastite®/FlashShield™ Mechanical Fittings are approved to be concealed and can be connected directly to a valve controlling gas flow to a fireplace appliance. The Gastite/FlashShield CSST and valve connection can be installed ________________.
   a. behind the wall
   b. beneath the floor or hearth
   c. behind the brickwork of the fireplace
   d. all of the above
23. Where it is necessary to install Gastite/FlashShield through masonry materials in fireplace construction, the ________ jacket shall remain intact and the tubing should be routed through sleeving that is appropriate for the application.
   a. metal
   b. copper
   c. plastic
   d. all of the above
24. Sleeving is required through ceramic liners in decorative fireplaces and heat generating fireplaces.
   a. true
   b. false
25. Gastite/FlashShield may not be run above the flue within a masonry chimney.
   a. true
   b. false
26. Where it is necessary to install Gastite/FlashShield through sheet metal enclosures (such as fireplaces) the tubing should be ____________ to prevent physical contact with the enclosure.
   a. routed
   b. supported
   c. both a & b
   d. none of the above
27. If direct contact cannot be avoided a ________ grommet may be used to prevent physical contact with the enclosure.
   a. metal
   b. rubber
   c. flexible
   d. all of the above
28. In certain configurations corrugated tubing or flexible appliance connectors feeding a fireplace or gas log set can whistle due to gas flow velocity. Acoustics can usually be avoided by restricting Gastite/FlashShield CSST sizes to the maximum capacity as shown in Table 4-6. A fireplace drawing up to 80,000 BTUH should use ____” tubing.
   a. ½
   b. ¾
   c. 1
   d. none of the above

4.7 Manifold

29. Manifolds must be rigidly installed. This can be achieved ____________.
   a. through the use of a mounted manifold bracket
   b. by rigidly piping into a movable gas-piping component
   c. both a & b
   d. none of the above
30. A manifold assembly a regulator can be concealed.
31. The Gastite/FlashShield CSST Capacity Tables include losses for ____90° bends & ____end fittings.
   a. 2, 2
   b. 4, 1
   c. 4, 2
   d. none of the above

32. The installation of manifold assemblies using a pounds-to-inches regulator must be in accordance with all local codes, and the following guidelines:
   a. A manifold assembly directly integrating a pounds-to-inches regulator shall be installed in an accessible location so that the regulator can be inspected, maintained and serviced if repair or replacement is required.
   b. For manifold systems that use a pounds-to-inches regulator installed behind an access panel, all tubing penetrations in the cabinet should be sealed, caulked or grommeted. The cabinet must be ventilated through the panel/door and not into a wall space.
   c. Open face cabinets (Fig. 4-78), which open on to the normal room environment, may be utilized without the need for ventilation or penetration sealing requirements.
   d. all of the above

4.8 Pressure Regulator

33. A Gastite®/FlashShield™ CSST system using line gas pressures above the maximum appliance input rating shall use a regulator to lower the downstream appliance supply pressure to ____ PSI, or less.
   a. 1/4
   b. 1/3
   c. 1/2
   d. 3/4

34. The above regulator shall have a lock-up feature that will limit the downstream pressure to 1/2 PSI.
   a. 1/4
   b. 1/3
   c. 1/2
   d. 3/4

35. Line gas pressures at or below the maximum appliance input rating does require the use of a line regulator.
   a. true
   b. false

36. A _____ Regulator is defined as a pressure regulator placed in a gas line between the service regulator and the appliance regulator.
   a. Load
   b. Full Flow
   c. Line Gas
   d. none of the above

37. Regulators must be rigidly installed.
   a. true
   b. false

4.8.2 Sizing Instructions

38. Line pressure regulators are typically used in a _____ PSI gas piping installation to reduce supply pressure to the appliance within required operating ranges
   a. 2 or 7
   b. 2 or 6
39. For natural gas, the regulator outlet pressure is set to 8"WC and the appliance runs are sized with a 3"WC pressure drop. This will allow for ___"WC inlet pressure at the appliance.
   a. 3
   b. 4
   c. 5
   d. 8

40. For propane gas, the regulator outlet pressure is set to 11"WC and the appliance runs are sized with a 0.5"WC drop. This will allow for a ____"WC inlet pressure at the appliance.
   a. .5
   b. 11
   c. 10.5
   d. none of the above

41. To select the correct regulator for pressure regulation, the following information must be established:
   a. Available outlet pressure range at the regulator inlet.
   b. Desired inlet pressure.
   c. Total minimum flow rate vs. regulator model number (Table 4-7 through Table 4-9).
   d. Largest single appliance flow rate vs. regulator model number (Table 4-10).

4.8.3 Installation

42. The regulator shall be installed in an accessible location with an approved shut-off valve and drip leg on the inlet side and a union (if required by code) on the _____ side so that it may be inspected, maintained and serviced if repair or replacement is required.
   a. inlet
   b. outlet
   c. either
   d. none of the above

43. The regulator must be installed with gas flow as indicated by the arrow on the casting.
   a. true
   b. false

44. Shut-off valves should be opened and closed slowly. A rapidly opened or closed valve can shock the regulator causing abnormal behavior.
   a. true
   b. false

45. The regulator is suitable for multi-poise mounting. When using a vent-limiting orifice however, the regulator must be mounted in a ________ position.
   a. horizontal downright
   b. vertical upright
   c. horizontal upright
   d. vertical downright

46. The vent-limiting orifice (Fig. 4-80) is a fail-safe device that permits free air movement ______ the diaphragm during normal operation.
   a. above
   b. below
   c. within
   d. all of the above

47. In the unlikely event of a diaphragm rupture, the vent limiting orifice will limit gas escapement to ________.
   a. 1.0 CFH natural gas at 2 PSI
   b. 0.65 CFH LP at 2 PSI
48. The vent-limiting orifice does not allow gas to escape to the environment during operation.
   a. true
   b. false

49. Always leak test the vent orifice with liquid leak test solution. This action will not contaminate the internal check ball mechanism or plug the breathing hole resulting in erratic regulator performance.
   a. true
   b. false

50. When using a vent-limiting orifice, the maximum inlet pressure is 5 PSI for Propane and 2 PSI for Natural Gas.
   a. true
   b. false

51. When using a vent line, the line must be at least the same size as the regulator vent connection for all runs up to ___ feet.
   a. 10
   b. 20
   c. 30
   d. 40

52. When using a vent line, the line shall be increased one pipe size over its entirety for every additional ___ feet that the vent runs.
   a. 10
   b. 20
   c. 30
   d. 40

53. Vent lines may be constructed of any approved fuel gas piping, including Gastite®/FlashShield™ CSST.
   a. true
   b. false

54. The vent shall be designed to prevent entry of water, insects or other foreign materials that could cause blockage of the line.
   a. true
   b. false

55. Always vent to appliance flue, pilot light or building exhaust system.
   a. true
   b. false

56. The regulators supplied by Gastite Division have a temperature range limit of _______ degrees F.
   a. 40 to 240
   b. -40 to 240
   c. -30 to 230
   d. -40 to 200

57. The lower temperature limit and rust proof construction design enables the regulator to be used for outdoor installations. To minimize the potential for moisture condensation and freezing problems in or around the vent port, the vent-limiting orifice must be _______ for outdoor installations.
   a. install downward
   b. protected
   c. removed
   d. none of the above

Outdoor Mounting Options: (Figures 4-81 through 4-83)
58. The regulator may be mounted upside down with the open vent port facing down. Consideration must be taken to ensure there is adequate clearance for __________ buildup.
   a. grass
   b. dirt
   c. snow
   d. all of the above

59. The regulator may be mounted horizontally, with a vent tube installed in the venting port. The end of the tube must be facing upward, and should not be designed to prevent water and foreign material from causing a blockage.
   a. true
   b. false

4.8.4 Performance

60. A performance test should be conducted while operating all appliances at _______. This will test if adequate pressure is reaching each appliance under full-load conditions. To accomplish this, measure the line pressure at the appliance connection while operating the appliance.
   a. half load
   b. 3/4 load
   c. full load
   d. no load

61. The inlet pressure for typical gas appliances under _______ conditions should be equal to but not exceeding the appliance’s recommended inlet pressure range. If these pressure ranges cannot be obtained, a slight adjustment to the service regulator or the pounds-to-inches regulator may be necessary to increase line pressure.
   a. half load
   b. 3/4 load
   c. full load
   d. no load

4.8.5 Regulator Outlet Pressure Adjustment

62. Adjustment can be accomplished by first removing the regulator seal cap to expose the adjusting screw. Turning the screw ______ will increase outlet pressure.
   a. clockwise
   b. counter clockwise
   c. none of the above
   d. both a or b

63. Adjustment can be accomplished by first removing the regulator seal cap to expose the adjusting screw. Turning the screw ______ will increase decrease pressure.
   a. clockwise
   b. counter clockwise
   c. none of the above
   d. both a or b

64. If spring adjustment will not produce the desired outlet pressure, check to make sure the ______ supply pressure is adequate.
   a. main
   b. secondary
   c. street
   d. all of the above

65. The line regulators can be adjusted with an outlet pressure ranging between 7 and 11 _______.
   a. PSI
b. inches water column
c. none of the above
d. both a & b

4.8.6 Over-Pressurization Protection

66. Downstream over-pressure protection must be provided in any gas piping installation where a line-pressure regulator is utilized for pressures in excess of ___ PSI to supply appliances rated for 1/2 PSI or less inlet pressure.
   a. 1
   b. 2
   c. 3
   d. 1/2

67. Special line regulators of suitable control and capacity may be installed in place of the standard line regulator.
   a. true
   b. false

4.9 Underground Installations

68. Gastite/FlashShield CSST can be buried directly in the ground or directly embedded in concrete (e.g. slab on grade construction, patio slabs, foundations and walkways).
   a. true
   b. false

69. When it is necessary to bury or embed Gastite®/FlashShield™ CSST, the tubing shall be routed inside a non-metallic, watertight conduit that has an inside diameter at least ____ inch larger than the O.D. of the tubing
   a. 1/4
   b. 1/3
   c. 1/2
   d. 3/4

70. For ends of the conduit installed __________, the conduit shall be sealed at any exposed end to prevent water from entering.
   a. indoors
   b. outdoors
   c. both a & b
   d. none of the above

71. Unlike rigid pipe however, Gastite/FlashShield CSST is continuous with only one fitting at each end of the run, and up to two fittings inside the conduit. As a result, the possibility of gas build-up due to fitting leaks has been eliminated. Therefore, Gastite Division does not require the sleeving to be vented to the outside of the structure.
   a. true
   b. false

72. If, however, venting is still required, Figure 4-86 below depicts gas piping installed within plastic sleeving that is vented to the outdoors. Other possible venting routes, such as the attic and roof, may also be considered but must be reviewed with the local administrative authority, and must prevent the entry of______________.
   a. water
   b. foreign objects
   c. both a & b
   d. none of the above

4.10 Electrical Bonding of Gastite®/FlashShield™ CSST
73. Unlike FlashShield, there are no additional bonding requirements for Gastite imposed by the manufacturer’s installation instructions. FlashShield™ is to be bonded in accordance with the National Electrical Code NFPA 70 Article 250.104 in the same manner as the minimum requirements for rigid metal piping. However, installers must always adhere to any local requirements that may conflict with these instructions.
   a. true
   b. false

74. Direct bonding of Gastite CSST is not required for all gas-piping systems incorporating Gastite CSST when not the connected gas equipment is electrically powered.
   a. true
   b. false

75. Gastite® CSST installed _______ to a building or structure shall be electrically continuous and direct bonded to the electrical ground system of the premise in which it is installed.
   a. inside
   b. attached
   c. both a & b
   d. none of the above

76. The gas piping system shall be considered to be direct bonded when installed in accordance with the following: The piping is permanently and directly connected to the electrical service equipment enclosure, the grounded conductor at the electrical service, the grounding electrode conductor (where of sufficient size) or to one or more of the ___________ used.
   a. bonding methods
   b. grounding electrodes
   c. lighting protection
   d. lighting arrestor

77. For single and multi-family structures, a single bond connection shall be made _______ of the individual gas meter for each housing unit.
   a. upstream
   b. downstream
   c. both a & b
   d. none of the above

78. For single and multi-family structures, a single bond connection shall be made _______ of any CSST connection.
   a. upstream
   b. downstream
   c. both a & b
   d. none of the above

79. The bonding conductor shall be no smaller than a ______ AWG copper wire or equivalent.
   a. 8
   b. 6
   c. 4
   d. all of the above

80. The bonding jumper shall be attached in an approved manner in accordance with NEC Article 250.70 and the point of attachment for the bonding jumper may be accessible.
   a. true
   b. false

81. Bonding/grounding clamps shall be installed in accordance with its listing per UL 467 and shall make ______ contact with the piping. This bond is in addition to any other bonding requirements as specified by local codes.
   a. metal-to-plastic
5.2 Installation Checklist Description

87. Gastite®/FlashShield™ CSST has been tested per ANSI LC1 as required for approval and as an approved gas piping material in the ____________.
   c. International Fuel Gas Code-ICC
   d. all of the above

88. Gastite®/FlashShield™ flexible gas piping may only be installed by a qualified installer who has successfully completed the manufacturer’s certification training program. A manufacturer’s certification card is required to ________ Gastite/FlashShield flexible gas piping.
   a. purchase
   b. repair
   c. install
   d. both a & c

89. Only the components ________ by the Gastite Division (including strike protection) as part of the piping system are to be used in the installation.
   a. provided
   b. specified
   c. both a & b
   d. none of the above
90. Gastite/Flash Shield CSST routed in a location which is ______________ must be protected against damage using protection devices listed in the manufacturer’s Design and Installation Guide.
   a. concealed
   b. constrained
   c. within 6 inches of a potential threat
   d. both a & b

91. Gastite/Flash Shield CSST can be connected to moveable appliances similar to a flexible appliance connector.
   a. true
   b. false

92. The Gastite/Flash Shield flexible gas piping system must be pressure tested for leaks during rough construction in accordance with all local codes. In the absence of local requirements, test in accordance with NFPA 54, National Fuel Gas Code, which is 1-1/2 times the maximum working pressure but not less than ____ PSI.
   a. 2
   b. 3
   c. 4
   d. 5

93. Regulators are suitable for multi-poise mounting. When using a vent-limiting device however, the regulator must be mounted in a ___________ upright position.
   a. vertical
   b. horizontal
   c. horizontal or vertical
   d. all of the above

94. A manifold assembly utilizing a pounds-to-inches regulator shall include a _____ ahead of the regulator and installed in an accessible location so that the regulator can be inspected, maintained and serviced if repair or replacement is required.
   a. gate valve
   b. ball valve
   c. both a & b
   d. none of the above

95. When installed__________, the external jacket shall remain intact as much as possible. Exposed portions of the stainless steel tubing shall be wrapped to provide protection from corrosive threats.
   a. indoors
   b. outdoors
   c. both a & b
   d. none of the above

96. For installations buried underground, under concrete/asphalt or embedded in concrete, Gastite/Flash Shield CSST must be routed in a metallic watertight conduit which has an inside diameter at least 1/2 in. larger than the inside diameter of the tubing. Under concrete/asphalt slab, sleeved CSST must be buried in accordance with all local codes. Mechanical joints are permitted within the conduit.
   a. true
   b. false

97. Installation must be properly supported to not only keep the job professional and organized but also to prevent excess strain on the _______.
   a. bends
   b. fittings
   c. both a & b
   d. none of the above
98. Gas piping systems must be properly bonded to the structure's ___________. A qualified professional following the NEC approved methods as outlined in section 4.10 shall perform the bonding installation.
   a. plumbing system
   b. heating system
   c. electrical service
   d. all of the above

99. Gastite CSST must be physically __________ from other continuous metallic systems in accordance with section 4.3 of this guide.
   a. connected
   b. separated
   c. both a & b
   d. none of the above

5.3.1 Determine Damage

100. No repairs or replacement of the tubing is necessary if the Gastite®/FlashShield™ CSST tubing is only slightly dented due to impact or crushing and the overall crush depth is less than ___ the diameter of the tubing.
   a. 1/4
   b. 1/3
   c. 1/2
   d. 1/8

101. Where __________ involve only the Gastite®/FlashShield™ CSST, the tubing can be joined with standard pipe couplings or Gastite/FlashShield CSST coupling.
   a. repairs
   b. replacements
   c. both a & b
   d. none of the above

102. Where repairs or replacements involve CSST systems of different manufacturers, the systems can be joined through standard pipe couplings and any manufacturer’s recommended CSST fitting
   a. true
   b. false

6.1 General Guidelines for Pressure Testing

103. PRESSURE/LEAKAGE TESTING include:
   a. Pressure testing must be performed during final inspection of the facility (after interior walls are finished). This will permit a more complete inspection of the piping system during the pressure testing.
   b. Do not connect appliances or pressurize with fuel gas until after the pressure test has been passed.
   c. All gas outlets for appliance connections should not be capped during pressure testing.
   d. all of the above

Section 8: Definitions

104. A device used in piping to control the gas supply to any section of the piping system or to an appliance defines:
   a. REGULATOR, PRESSURE
   b. SHIELDING DEVICE
   c. STRIKER PLATE
   d. VALVE, SHUTOFF
105. A special type of shielding device used when concealed tubing is run through wall studs, floor and ceiling joists or other structural members where tubing movement is restricted defines:
   a. REGULATOR, PRESSURE
   b. SHIELDING DEVICE
   c. STRIKER PLATE
   d. VALVE, SHUTOFF

106. A component of the piping system used to protect the installed corrugated tubing from accidental puncture by nails, screws or similar hardware at concealed tubing support points defines:
   a. REGULATOR, PRESSURE
   b. SHIELDING DEVICE
   c. STRIKER PLATE
   d. VALVE, SHUTOFF

107. A device placed in a gas line for reducing, controlling and maintaining the pressure in that portion of the piping system downstream of the device defines:
   a. REGULATOR, PRESSURE
   b. SHIELDING DEVICE
   c. STRIKER PLATE
   d. VALVE, SHUTOFF

108. A hand-operated device which provides a means for connecting and disconnecting an appliance or an appliance connector to a gas supply, and which is equipped with an automatic means to shut off the gas supply when the device is disconnected defines:
   a. QUICK-DISCONNECT DEVICE
   b. QUALIFIED INSTALLER
   c. PRESSURE DROP
   d. PLENUM

109. Any individual, firm, corporation or company which either in person or through a representative is engaged in and is responsible for the installation or replacement of building gas piping systems, who is experienced in such work, familiar with all precautions required, and has complied with all the requirements of the authority having jurisdiction defines:
   a. QUICK-DISCONNECT DEVICE
   b. QUALIFIED INSTALLER
   c. PRESSURE DROP
   d. PLENUM

110. The loss in static pressure of flowing fuel gas due to friction or other flow resistance in tubing, fittings, valves, regulators, or other devices in the piping system defines:
   a. QUICK-DISCONNECT DEVICE
   b. QUALIFIED INSTALLER
   c. PRESSURE DROP
   d. PLENUM

111. __________ is an enclosed portion of the building structure that is designed to allow air movement, and thereby serve as part of an air distribution system.
   a. QUICK-DISCONNECT DEVICE
   b. QUALIFIED INSTALLER
   c. PRESSURE DROP
   d. PLENUM

112. The system pressure, immediately downstream of the regulator, at which the regulator valve will completely close (leak tight) under no-flow conditions to prevent the downstream pressure from exceeding a predetermined level defines:
   a. PIPING SYSTEM
b. MAXIMUM ACTUAL OPERATING PRESSURE

c. OVER-PRESSURE PROTECTION DEVICE

d. LOCKUP PRESSURE, REGULATOR

113. The maximum pressure existing in a piping system during a normal annual operating cycle defines:

a. LOCKUP PRESSURE, REGULATOR
b. MAXIMUM ACTUAL OPERATING PRESSURE
c. OVER-PRESSURE PROTECTION DEVICE
d. PIPING SYSTEM

114. System component that is intended to protect all downstream components from high pressures in the event of a system failure. OPDs are required in gas systems using more than 2psi line pressure defines:

a. LOCKUP PRESSURE, REGULATOR
b. MAXIMUM ACTUAL OPERATING PRESSURE
c. OVER-PRESSURE PROTECTION DEVICE
d. PIPING SYSTEM

115. As used in this standard, an assembly of corrugated stainless steel tubing and tubing connection fittings, intended for field assembly and installation in residential or commercial buildings to distribute fuel gas to gas utilization equipment within the building. The piping system may also include a gas pressure regulator(s), a shutoff valve(s), tube shielding devices, distribution manifold(s), and other approved devices or component defines:

a. LOCKUP PRESSURE, REGULATOR
b. MAXIMUM ACTUAL OPERATING PRESSURE
c. OVER-PRESSURE PROTECTION DEVICE
d. PIPING SYSTEM

116. Equipment or materials including a list published by an organization acceptable to the authority having jurisdiction and concerned with product evaluation that maintains periodic inspection of production of listed equipment or materials and whose listing states either that the equipment or materials meets appropriate standards or has been tested and found suitable for use in a specified manner defines:

a. LISTED
b. LEAK TEST SOLUTION
c. INCHES OF WATER COLUMN
d. GAS UTILIZATION EQUIPMENT
e. EQUIVALENT HYDRAULIC DIAMETER

117. A solution of commercial leak-testing fluids may be used. The use of soap buds or household detergents and water is not considered a satisfactory leak-test fluid for a bubble test, because of a lack of sensitivity due to masking by foam. The fluid should be capable of being applied free of bubbles so that a bubble appears only at a leak. The fluid selected should not bubble except in response to a leak defines:

a. LISTED
b. LEAK TEST SOLUTION
c. INCHES OF WATER COLUMN
d. GAS UTILIZATION EQUIPMENT
e. EQUIVALENT HYDRAULIC DIAMETER

118. Any device that utilizes gas as a fuel or raw material or both defines:

a. LISTED
b. LEAK TEST SOLUTION
c. INCHES OF WATER COLUMN
d. GAS UTILIZATION EQUIPMENT
e. EQUIVALENT HYDRAULIC DIAMETER

119. A theoretical size, which reflects the hydraulic performance of the tubing. It is not true physical measurement defines:

a. LISTED
b. LEAK TEST SOLUTION  
   c. INCHES OF WATER COLUMN  
   d. GAS UTILIZATION EQUIPMENT  
   e. EQUIVALENT HYDRAULIC DIAMETER

120. Method of pressure measured in inches of water column by a manometer or pressure gauge.  
Commonly used in the gas industry when the pressure is less than 1 PSI defines:  
   a. LISTED  
   b. LEAK TEST SOLUTION  
   c. INCHES OF WATER COLUMN  
   d. GAS UTILIZATION EQUIPMENT  
   e. EQUIVALENT HYDRAULIC DIAMETER
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