

The following test is Continuing Education for:

**Master Plumbers, Journeyman Plumbers, UDC Plumbing Inspectors,
and Commercial Plumbing Inspectors.**

You can complete the test by printing a hard copy, or you can take it online. All answers are found in the Wisconsin Uniform Plumbing Code Book (Comm. 81 and 82). If you do not own a Plumbing codebook, you may follow this link to the State of Wisconsin website and download it to your computer. <http://commerce.wi.gov/SB/SBDivCodesListing.tml>.

The answer sheet can be found at the end of the test. Take the following steps to complete the testing process:

- 1. Print the answer sheet and circle the correct answer.**
- 2. Complete and Mail the:**
 - a) Answer sheet**
 - b) Educational Course Attendance Verification Form
(found after the answer sheet)**
 - c) Correct fees.**

There is no reason to mail the whole test.

Remember: All questions have been extracted from the codebook. Therefore, the one correct answer will be as worded in the codes.

Begin test on the following page...

Plumbing Continuing Education Test 12

Comm 81.01: Definitions

1. _____ means a water closet, lavatory and a bathtub or shower located together on the same floor level.

- a. Full bathroom
- b. Bathroom group
- c. Three-quarter bath
- d. None of the above

2. _____ means that portion of a drain system that consists of a series of pipes that transport water from one area to another without providing detention.

- a. Corporation cock
- b. Cross connection control assembly
- c. Conveyance system
- d. Cross connection

3. _____ means a pipe or channel outside a building which conveys storm water from the roof or gutter drains to a storm drain, storm sewer or to grade.

- a. Leader
- b. Adequate channel
- c. Control measure
- d. Major outfall

4. _____ means a color classification that specifies the relative degrees of the color variables in terms of hue, value and chroma.

- a. Mottling
- b. Ground surface color
- c. Redoximorphic feature
- d. Munsell soil color

5. _____ means the portion of a pipe that is enlarged to receive the end of another pipe of the same diameter for the purpose of making a joint.

- a. Bell
- b. Drip pan elbow
- c. Suction diffuser
- d. Connector

6. _____ means a type of plumbing system from which valid and reliable data are being sought to demonstrate compliance with the intent of chs. Comm 82 to 84.

- a. Failing private onsite wastewater treatment system
- b. Private sewage system
- c. Experimental system
- d. None of the above

7. _____ means a type of sewage pump which macerates wastewater consisting in part of sewage.

- a. Sewage pump
- b. Sewage grinder pump
- c. Effluent pump
- d. Sump pump

8. _____ means any industrial or commercial organization or enterprise operated for profit, including but not limited to a proprietorship, partnership, firm, business trust, joint venture, syndicate, corporation or association.

- a. Business services
- b. Organizational structure
- c. Business establishment
- d. Institutional structure

9. _____ means a type of stationary holding tank used to collect and hold wastewater discharges generated by an individual camping trailer or recreational vehicle.

- a. Campsite receptor
- b. Catch basin
- c. Camping unit transfer container
- d. None of the above

10. _____ means the accumulated floating solids generated during the biological, physical or chemical treatment, coagulation or sedimentation of wastewater.

- a. Sludge
- b. Slime
- c. Scum
- d. Sewage

11. Sewage means wastewater containing fecal coliform bacteria exceeding 200 CFU, colony forming units, per 100 ml.

- a. True
- b. False

12. _____ means a drain pipe serving as a receptor for the discharge wastes from indirect or local waste piping.

- a. Stack
- b. Spring line pipe
- c. Spigot
- d. Standpipe

13. _____ means the unobstructed vertical distance through the free atmosphere between the outlet of indirect or local waste piping and the flood level rim of the receptor into which it discharges.

- a. Air-gap
- b. Air-break
- c. Air-gap, drain system
- d. Air-gap, water supply system

14. _____ means an excavation which receives domestic wastewater by means of a drain system without pretreatment of the wastewater and retains the organic matter and solids permitting the liquids to seep from the excavation.

- a. Cesspool
- b. Cistern
- c. Refuse
- d. Holding tank

15. _____ means a method of venting 2 to 8 traps or trapped fixtures without providing an individual vent for each trap or fixture.

- a. Circuit vent
- b. Auto vent
- c. Individual vent
- d. Stack vent

16. _____ means a device supplied with hot or cold water, or both, and located adjacent to a water closet or clinical sink to be used for cleansing bedpans.

- a. Exposed wall hung unit
- b. Mixing valve
- c. Vacuum breaker
- d. Bedpan washer hose

17. Bedrock means rock that is exposed at the earth's surface or underlies soil material and includes:

- a. Weathered in-place consolidated material, larger than 2 mm in size and greater than 50% by volume
- b. Weakly consolidated sandstone at the point of increased resistance to penetration of a knife blade.
- c. Both a and b
- d. Neither a or b

18. _____ means an accessible opening in a drain system used for the removal of obstructions.

- a. Cleanout plug
- b. Plumbing auger
- c. Drain pipe
- d. Cleanout

19. _____ means solids in wastewater that can be removed readily by standard filtering procedures in a laboratory and reported as milligrams per liter (mg/L).

- a. Water quality measurement
- b. Conventional pollutant
- c. Total dissolved solids
- d. Total suspended solids

20. _____ means a fitting, device or arrangement of piping so designed and constructed as to provide, when properly vented, a liquid seal which prevents emission of sewer gases without materially affecting the flow of wastewater through it.

- a. Trap seal
- b. Trap seal primer
- c. Trap weir
- d. Trap

21. _____ means wastewater other than storm water, having no impurities or where impurities are below a minimum concentration considered harmful by the department, including but not limited to noncontact cooling water and condensate drainage from refrigeration compressors and air conditioning equipment, drainage of water used for equipment chilling purposes and cooled condensate from steam heating systems or other equipment.

- a. Blackwater
- b. Graywater
- c. Drainage water
- d. Clear water

22. _____ means a fixture combining one sink and laundry tray or a 2- or 3-compartment sink or laundry tray in one unit.

- a. Combination fixture
- b. Combination drain and vent system
- c. Combination private water main
- d. Combination water service

23. Lead-free means a chemical composition equal to or less than 0.3% of lead.

- a. True
- b. False

24. _____ means a portion of drain piping which receives the wastes discharged from indirect waste piping and which discharges those wastes by means of an air break or air gap into a receptor.

- a. Local waste piping
- b. Local vent
- c. Multipurpose piping system
- d. None of the above

25. _____ means a branch vent connecting at or downstream from the junction of 2 fixture drains and serving as a vent for those fixture drains.

- a. Common vent
- b. Circuit vent
- c. Auto vent
- d. Stack vent

26. _____ means a test performed on a plumbing system or portion thereof in which the system is filled with a liquid, normally water, and raised to a designated pressure.

- a. Hydrostatic test
- b. Test pressure
- c. Water jacket test
- d. Water pressure test

27. _____ means drain piping which does not connect directly with the drain system, but which discharges into the drain system by means of an air break or air gap into a receptor.

- a. Individual vent
- b. Indirect waste piping
- c. Infiltration component
- d. Infiltrative surface

28. _____ means a drain pipe inside the building which conveys storm water from a roof to the storm drain or storm sewer.

- a. Containment
- b. Conductor
- c. Contaminant load
- d. Common vent

29. _____ means a tank or pit that receives wastewater that must be emptied by mechanical means.

- a. Basement waterproofing system
- b. Sump
- c. Water table
- d. Water tank

30. _____ means a valve placed in a water service or a private water main, usually near the lot line.

- a. Dead end
- b. Stop and drain ball valve
- c. Meter valve
- d. Curb stop

31. _____ means a dimensional volume of in situ soil that receives wastewater for treatment or distributes final effluent for dispersal.

- a. Distribution cell
- b. Dispersal zone
- c. Documented data
- d. Domestic wastewater

32. _____ means a layer of soil material approximately parallel to the land surface and differing from adjacent genetically related layers in physical, chemical, or biologic characteristics.

- a. Soil consistence
- b. Soil morphology
- c. Soil horizon
- d. Soil profile

33. _____ means the end of a pipe which fits into a bell or hub.

- a. Valve
- b. Mixer tap
- c. Faucet
- d. Spigot

34. _____ means any pipe that carries wastewater or water-borne wastes.

- a. Drain system
- b. Exam sink
- c. Treatment sink
- d. Drain

35. _____ means liquid discharged from a process, device, appurtenance or piping system.

- a. Ejector
- b. Effluent
- c. Elevation
- d. Engineered soil

36. _____ means a specification, standard, guideline or procedure in the field of plumbing or related thereto, generally recognized and accepted as authoritative documented through national standards or specifications.

- a. Approved standards
- b. Quality assurance standards
- c. Accepted engineering practice
- d. None of the above

37. _____ (when applied to a fixture, appliance, pipe, fitting, valve or equipment) means having access for maintenance, but which first may require the removal of an access panel or similar obstruction.

- a. Accessible
- b. Readily accessible
- c. Open
- d. Available

38. _____ means wastewater contaminated by waste materials, exclusive of urine, feces or industrial waste, deposited into plumbing drain systems.

- a. Groundwater
- b. Graywater
- c. Clearwater
- d. Blackwater

39. _____ means a unit for the treatment of wastewater that utilizes the principle of oxidation for biological decomposition.

- a. Standard treatment component
- b. Anaerobic treatment component
- c. Residential wastewater system
- d. Aerobic treatment component

40. _____ means a receptacle designed to intercept and retain or remove grease or fatty substances.

- a. Grease recovery device
- b. Grease interceptor
- c. Grease shield
- d. Grease guzzler

Comm 82.21 Testing and maintenance

41. The plumber shall have present the proper _____ for making the tests, and shall furnish such assistance as may be necessary in making the inspection.

- a. Apparatus
- b. Appliances
- c. Tools
- d. a and b

42. A _____ inspection shall be made when the plumbing system is roughed-in and before fixtures are set.

- a. Rough-in
- b. First rough
- c. Second rough
- d. Final

43. Except as provided in subd. 1., plumbing work shall not be closed in, concealed, or covered until it has been _____ by the plumbing inspector and permission is granted to do so.

- a. Inspected
- b. Approved
- c. Evaluated
- d. a and b

44. Upon completion of the plumbing installation and before _____ approval is given, the plumbing inspector shall inspect the work.

- a. Final
- b. Initial
- c. Early
- d. Pre-

45. Whenever the plumbing official finds that the work or installation does not pass any initial test or inspection, the _____ corrections shall be made to comply with this chapter.

- a. Necessary
- b. Full
- c. Completed
- d. Identified

46. The work or installation shall then be _____ for inspection to the plumbing inspector.

- a. Reviewed
- b. Resubmitted
- c. Evaluated
- d. Reconsidered

47. The building sewer or private interceptor main sewer shall be tested by insertion of a test plug at the point of connection with the _____ sewer.

- a. Public
- b. Sanitary
- c. Stormwater
- d. Dedicated

48. The air test shall be made by attaching an air compressor testing apparatus to any _____ opening, and, after closing all other inlets and outlets to the system, forcing air into the system until there is a uniform gauge pressure of 3 pounds per square inch.

- a. Appropriate
- b. Approved
- c. Suitable
- d. Correct

49. The entire building drain with all its branches, receptacles and connections shall be brought so far as practical to the surface or grade of the basement floor and shall be tested with _____ in accordance with subd. 7.

- a. Water
- b. Air
- c. Water or air
- d. None of the above

50. The piping of a water distribution system shall be tested and proved water tight under a water pressure _____ the working pressure under which it is to be used.

- a. Equal to
- b. Matching
- c. Not more than
- d. Not less than

51. A test for _____ shall be applied to the entire drain and vent system at one time or to the entire system in sections after the rough piping has been installed in accordance with either subd. 7. a. or b.

- a. Waterflow
- b. Static pressure
- c. Residual pressure
- d. Watertightness

52. If applied to the entire system, all openings in the piping shall be tightly closed, except the _____ opening, and the system shall be filled with water to the point of overflow.

- a. Highest
- b. Lowest
- c. Main
- d. Top

53. If the system is tested in sections, each opening shall be tightly plugged _____ the highest opening of the section under test, and each section shall be filled with water, but a section shall not be tested with less than a 10 foot head of water.

- a. Including
- b. Excluding
- c. Except
- d. Counting

54. In testing successive sections, at least the upper ____ feet of the next preceding section shall be tested, so that no joint or pipe in the building, except the uppermost ____ feet of the system, is subjected to a test of less than a ____ foot head of water.

- a. 5
- b. 10
- c. 12
- d. 15

55. Where _____ by the local plumbing inspector, after the plumbing fixtures have been installed and the traps filled with water, the connections shall be tested and proved gas and watertight by either one of the methods specified in subd. 8. a. or b.

- a. Required
- b. Recommended
- c. Assessed
- d. Suggested

56. The smoke test shall be made by introducing a _____, thick smoke, produced by one or more smoke machines, into the completed system.

- a. Strong
- b. Substantial
- c. Pungent
- d. Putrid

57. When the smoke appears at stack openings on the roof, the openings shall be closed and a pressure equivalent to a (n) _____ inch water column shall be built and maintained for the period of the inspection.

- a. One
- b. Two
- c. Three
- d. Six

58. When a hazard to _____ exists or is created by an existing system, that system shall be repaired or replaced.

- a. Life
- b. Health
- c. Property
- d. All of the above

59. When an old or defective fixture is removed, to be replaced by a new fixture, and no other fixture or piping is to be added or remodeled, it is necessary to reconstruct the drain or vent piping to make it conform to the provisions of this chapter, unless the drain or vent piping is in a defective condition.

- a. True
- b. False

60. Where the existing drain or vent piping does not conform to the provisions of this chapter, the department may require the new fixtures to be provided with ____ traps.

- a. Full
- b. Drum
- c. Non-siphoning
- d. Deep Seal

61. When old or defective plumbing is to _____, the remodeled system shall be made to conform to this chapter.

- a. Be remodeled
- b. Have additional fixtures installed
- c. Have the whole plumbing system moved to another part of the building
- d. a, b, or c

62. Except as provided in subd. 2., plumbing materials removed and found to be in ____ condition, may be reused if such reuse is approved by the department or a local plumbing inspector.

- a. Excellent
- b. Good
- c. Fair
- d. Satisfactory

63. The owner of the building or facility in which the reused materials are to be installed shall provide ____ consent.

- a. Verbal
- b. Written
- c. Informed
- d. Legal

64. Water supply piping materials may only be ____ when intended for uses having an equal or higher degree of hazard than the previous use as specified in Table 82.70-1.

- a. Used
- b. Reused
- c. Salvaged
- d. Recycled

65. Existing building sewers and drains may be used in connection with ____ buildings only when they are found on examination and test to conform to the requirements of this chapter governing building sewers and drains.

- a. Commercial
- b. New
- c. Industrial
- d. Vacant

66. If the existing work is found _____ the local or state inspector shall notify the owner of the changes necessary to make it conform to the requirements of this chapter.

- a. Deficient
- b. Incomplete
- c. Defective
- d. To be substandard

67. All repairs to fixtures or piping shall be done in conformance with the provisions of this chapter, except repair clamps or bands may be used for _____ situations.

- a. Emergency
- b. Approved
- c. Unusual
- d. Atypical

68. When a structure is _____, all sanitary sewer, storm sewer and water supply connections shall be sealed and plugged in a safe manner.

- a. Demolished
- b. Removed
- c. a or b
- d. Preserved

69. If a dead end is created in the removal of any part of a drain system, all openings in the drain system shall be properly _____ .

- a. Sealed
- b. Installed
- c. Cleaned
- d. Fitted

70. A performance test shall be conducted for the devices listed in Table 82.21-1 at all of the following intervals EXCEPT:

- a. Before the time of installation.
- b. Immediately after repairs to the device have occurred
- c. Immediately after alterations to the device have occurred.
- d. At least annually.

71. As specified in Table 82.21-1, the results of the cross connection device performance test shall be submitted to the department and purveyor within _____ days of completion of the test.

- a. 14
- b. 20
- c. 60
- d. 30

72. The results of performance tests for the devices or assemblies listed in Table 82.21–1 shall be made available upon _____ to the department, its agent, or the local governmental unit.

- a. Submission
- b. Request
- c. Notification
- d. Application

73. The maintenance and performance testing requirements of this subsection shall also apply to those cross connection control devices or assemblies installed prior to the _____ date of this subsection.

- a. Effective
- b. Due
- c. Approved
- d. Reference

Comm 82.30: Sanitary drain systems

74. The provisions of this section set forth the requirements for the design and installation of sanitary drain systems, including building drains and _____ sewers.

- a. Building
- b. Storm
- c. Water
- d. Public

75. Drainage fixture unit values for intermittent flow fixtures not listed in Table 82.30–1 shall be computed on the basis of one fixture unit equaling _____ gallons per minute of flow.

- a. 6
- b. 7.5
- c. 6.5
- d. 7

76. Drainage fixture unit values for _____ flow devices such as pumps, ejectors, air conditioning equipment or similar devices shall be computed on the basis of one fixture unit for each 2 gallons per minute of flow rate of discharge into the drain system.

- a. Continuous
- b. Semicontinuous
- c. a or b
- d. None of the above

77. The drainage fixture unit values assigned to a receptor which is to receive only the indirect waste discharge from a relief valve on a domestic water heater may be disregarded when determining the _____ size of the building drain and building sewer.

- a. Suitable
- b. Correct
- c. Maximum
- d. Minimum

78. The minimum size of a gravity flow sanitary building sewer shall be _____ inches in diameter.

- a. 2
- b. 4
- c. 6
- d. 5

79. A municipality or sanitary district by ordinance may not require that portion of the building sewer between the lot line and the public sewer to be larger than 4 inches in diameter.

- a. True
- b. False

80. Sewers pressurized through the use of _____ shall be sized to maintain a minimum flow velocity of 2 feet per second and shall be in accordance with the ejector or pump manufacturer's recommendations.

- a. Sewage ejectors
- b. Sewage pumps
- c. Sewage grinder pumps
- d. All of the above

81. Except as provided in subd. 3., the minimum size of pressurized private interceptor main sewer shall be such so as to maintain a minimum flow velocity of _____ feet per second.

- a. 3
- b. 2
- c. 3.5
- d. 2.5

82. Where provisions are made for the future installation of fixtures, the _____ of such fixtures shall be considered in determining the required sizes of drain and vent pipes.

- a. Drainage fixture unit values
- b. Water supply fixture unit values
- c. Drainage fixture unit loads
- d. Expected loads

83. Construction to provide for _____ installations shall be terminated with a plugged fitting or fittings.

- a. Future
- b. Emergency
- c. Permanent
- d. Institutional

84. All changes in direction of flow in drain piping shall be made by the appropriate use of _____.

- a. 45 degree wyes
- b. Long or short sweep quarter bends
- c. Sixth, eighth, or sixteenth bends
- d. Combination of the above or other equivalent fittings

85. Where blowout type fixtures are installed _____, appropriate fittings shall be installed to prevent the passage of wastes from one fixture to the other.

- a. Remotely
- b. Closely
- c. Concurrently
- d. Back to back

86. Drain fittings, connections, devices and methods of installation shall not obstruct or retard the flow of _____ in the drain system or venting system in an amount greater than the normal frictional resistance to flow, unless as otherwise permitted in this chapter or unless approved by the department.

- a. Water and air
- b. Wastes and sewage
- c. a and b
- d. Gas

87. All sanitary building _____ shall discharge into an approved, vented sump with an airtight cover.

- a. Venting system
- b. Drainage system
- c. a and b
- d. Subdrains

88. The sump shall be so located as to receive the sewage by gravity flow, and shall be located at least _____ feet from any water well.

- a. 6
- b. 10
- c. 20
- d. 25

89. The water supply fixture unit method shall be used to determine peak input flow in gallons per minute; _____ the fixtures that drain to the sump shall be included.

- a. Only
- b. All
- c. None of
- d. Primarily

90. When converting water fixture units to gallons per minute it is _____ to calculate the load as a supply system with predominantly flush tanks.

- a. Not permissible
- b. Permissible
- c. Sufficient
- d. Useful

Plumbing Continuing Education Test 12

Answer Sheet

Circle or Mark the Correct Answer

- | | | | | | | | | | |
|-----|---|---|---|---|-----|---|---|---|---|
| 1. | a | b | c | d | 49. | a | b | c | d |
| 2. | a | b | c | d | 50. | a | b | c | d |
| 3. | a | b | c | d | 51. | a | b | c | d |
| 4. | a | b | c | d | 52. | a | b | c | d |
| 5. | a | b | c | d | 53. | a | b | c | d |
| 6. | a | b | c | d | 54. | a | b | c | d |
| 7. | a | b | c | d | 55. | a | b | c | d |
| 8. | a | b | c | d | 56. | a | b | c | d |
| 9. | a | b | c | d | 57. | a | b | c | d |
| 10. | a | b | c | d | 58. | a | b | c | d |
| 11. | a | b | c | d | 59. | a | b | c | d |
| 12. | a | b | c | d | 60. | a | b | c | d |
| 13. | a | b | c | d | 61. | a | b | c | d |
| 14. | a | b | c | d | 62. | a | b | c | d |
| 15. | a | b | c | d | 63. | a | b | c | d |
| 16. | a | b | c | d | 64. | a | b | c | d |
| 17. | a | b | c | d | 65. | a | b | c | d |
| 18. | a | b | c | d | 66. | a | b | c | d |
| 19. | a | b | c | d | 67. | a | b | c | d |
| 20. | a | b | c | d | 68. | a | b | c | d |
| 21. | a | b | c | d | 69. | a | b | c | d |
| 22. | a | b | c | d | 70. | a | b | c | d |
| 23. | a | b | c | d | 71. | a | b | c | d |
| 24. | a | b | c | d | 72. | a | b | c | d |
| 25. | a | b | c | d | 73. | a | b | c | d |
| 26. | a | b | c | d | 74. | a | b | c | d |
| 27. | a | b | c | d | 75. | a | b | c | d |
| 28. | a | b | c | d | 76. | a | b | c | d |
| 29. | a | b | c | d | 77. | a | b | c | d |
| 30. | a | b | c | d | 78. | a | b | c | d |
| 31. | a | b | c | d | 79. | a | b | c | d |
| 32. | a | b | c | d | 80. | a | b | c | d |
| 33. | a | b | c | d | 81. | a | b | c | d |
| 34. | a | b | c | d | 82. | a | b | c | d |
| 35. | a | b | c | d | 83. | a | b | c | d |
| 36. | a | b | c | d | 84. | a | b | c | d |
| 37. | a | b | c | d | 85. | a | b | c | d |
| 38. | a | b | c | d | 86. | a | b | c | d |
| 39. | a | b | c | d | 87. | a | b | c | d |
| 40. | a | b | c | d | 88. | a | b | c | d |
| 41. | a | b | c | d | 89. | a | b | c | d |
| 42. | a | b | c | d | 90. | a | b | c | d |
| 43. | a | b | c | d | | | | | |
| 44. | a | b | c | d | | | | | |
| 45. | a | b | c | d | | | | | |
| 46. | a | b | c | d | | | | | |
| 47. | a | b | c | d | | | | | |
| 48. | a | b | c | d | | | | | |

Name and Credential Number

Date

To obtain your WI continuing education credits follow the below instructions.

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2. Fill in all fields applicable.
3. Include your credential or license number.
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FYI: The state allows a person to take the same course more than once (several times) per cycle.

Send by mail

1. Test answer sheets, fee, and the following form.
2. Fill out this form below completely.
3. Make check or Money Order to Brett Or Kathy Ward
4. Mail to: Yourwicontinuinged.com P.O. Box 36 Kaukauna WI 54130.
Questions call: 920-740-4348

-----Educational Course Attendance Verification Form -----

Attendee's Name _____
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Course Title and Name Plumbing Continuing Education Test 12
Credited Hours 3 hrs
List the name of each credential held by attendee _____

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Attendee passed the correspondence quiz with greater than 70% score _____
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