

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 15

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.
- Failing private onsite wastewater treatment system
 - Private sewage system
 - Experimental system
 - None of the above
7. _____ means a type of sewage pump which macerates wastewater consisting in part of sewage.
- Sewage pump
 - Sewage grinder pump
 - Effluent pump
 - 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.
- Business services
 - Organizational structure
 - Business establishment
 - 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.
- Campsite receptor
 - Catch basin
 - Camping unit transfer container
 - None of the above
10. _____ means the accumulated floating solids generated during the biological, physical or chemical treatment, coagulation or sedimentation of wastewater.
- Sludge
 - Slime
 - Scum
 - Sewage
11. Sewage means wastewater containing fecal coliform bacteria exceeding 200 CFU, colony forming units, per 100 ml.
- True
 - 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

41. _____ means a plumbing appliance, the function of which is unique to health care activities.

- a. Hand held shower
- b. Assisted living bath fixtures
- c. Health care plumbing appliance
- d. Healthcare accessible

42. _____ means a device designed to prevent the reverse flow of wastewater in a drain system.
- a. Access box
 - b. Diverter valve
 - c. Backwater valve
 - d. Access sleeve
43. _____ means a water supply valve opened or closed by means of a float or similar device used to supply water to a tank.
- a. Ballcock
 - b. Float
 - c. Lever
 - d. Liftarm
44. _____ means zones of soil saturation which include perched water tables, shallow regional groundwater tables or aquifers, or zones that are seasonally, periodically or permanently saturated.
- a. High hazard
 - b. High groundwater elevation
 - c. Low groundwater
 - d. High groundwater
45. _____ means a manufactured device or prefabricated assembly of component parts which is an adjunct to a plumbing product or plumbing system.
- a. Accessory
 - b. Appurtenance
 - c. Fabricated
 - d. Assembled
46. _____ means a receptor designed to collect storm waters from an open area.
- a. Floor drain
 - b. Area drain
 - c. Trench drain
 - d. Grease interceptor
47. _____ means the unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet supplying water to a tank or plumbing fixture and the flood level rim or spill level of the receptacle.
- a. Air-gap, water supply system
 - b. Air-gap
 - c. Air-gap, drain system
 - d. Air-break

48. _____ means a watertight receptacle for the collection and holding of wastewater.

- a. Holding tank
- b. Horizontal pipe
- c. Hose connection backflow preventer
- d. Hose connection vacuum breaker

49. Hot water means water at a temperature of 110 °F or more.

- a. True
- b. False

50. _____ means soil naturally formed or deposited in its present location or position and includes soil material that has been plowed using normal tillage implements and depositional material resulting from erosion or flooding.

- a. In situ soil
- b. Ex situ soil
- c. Soil mechanics
- d. Shrink-swell capacity

51. _____ means a part of a piping system other than a riser, main or stack.

- a. Fitting
- b. Valve
- c. Pipe cap
- d. Branch

52. _____ means the vertical distance along a drain stack measured from immediately below a branch drain connection to immediately below the first lower branch drain connection that is 8 feet or more below.

- a. Branch tailpiece
- b. Branch vent
- c. B. T. U
- d. Branch interval

53. _____ means a device designed and installed so as to separate and retain deleterious, hazardous or undesirable matter from wastes flowing through it.

- a. Interceptor
- b. Separator
- c. Neither a or b
- d. Both a and b

54. _____ means a combination relief valve designed to function as both a temperature relief and pressure relief valve.

- a. Temperature and pressure relief valve
- b. Low pressure valve
- c. Vacuum valve
- d. Temperature relief valve

55. _____ water means water ranging in temperature from 85 °F. to less than 110 °F.

- a. Hot
- b. Alkaline
- c. Tempered
- d. Tap

56. _____ means a product designed to support soil and create a cavity for the temporary storage of effluent and to provide an infiltrative surface for the distribution cell POWTS dispersal or treatment component.

- a. Septic tank
- b. Leaching chamber
- c. Drainfield
- d. Gravelless system

57. _____ means a device designed to intercept and retain oil, lubricating grease or other similar materials.

- a. Grease recovery device
- b. Grease trap
- c. Oil interceptor
- d. Grease guzzler

58. Design wastewater flow means 100% of the estimated wastewater flow generated by a dwelling, building or facility.

- a. True
- b. False

59. _____ means a type of POWTS treatment component, excluding a soil-based POWTS treatment component, that utilizes a chemical or photoelectric process to reduce the wastewater fecal coliform contaminant load.

- a. Ozonation
- b. Chlorination
- c. Disinfection unit
- d. Artificial UV radiation

60. _____ means the point on the bank or shore up to which the presence and action of surface water is so continuous as to leave a distinctive mark such as by erosion, destruction or prevention of terrestrial vegetation, predominance of aquatic vegetation, or other easily recognized characteristic.

- a. Ordinary high-water mark
- b. Hydrophytic
- c. Public trust domain
- d. Floodplain

61. _____ means a fixture having an integral trap and a flushing rim so that water cleanses the interior surface.

- a. Flushing rim sink
- b. Clinic service sink
- c. Clinic sink
- d. All of the above

62. _____ means a valve end of a water pipe by means of which water can be drawn from or held within the pipe.

- a. Faucet
- b. Fixture drain
- c. Fixture supply
- d. Final effluent

63. _____ means a receptor for the discharge from indirect or local waste piping installed with its flood level rim even with the surrounding floor.

- a. Foundation drain
- b. Flushometer valve
- c. Flush valve
- d. Floor sink

64. Cold water means water at a temperature less than 87 °F.

- a. True
- b. False

65. Plumbing means and includes:

- a. All piping, fixtures, appliances, equipment, devices and appurtenances in connection with the water supply, water distribution and drainage systems, including hot water storage tanks, water softeners and water heaters connected with such water and drainage systems and also includes the installation thereof.
- b. The construction, connection or installation of any drain or waste piping system from the outside or proposed outside foundation walls of any building to the mains or other sewage system terminal within bounds of, or beneath an area subject to easement for highway purposes, including private sewage systems, and the alteration of any such systems, drains or waste piping.
- c. The water service piping from the outside or proposed outside foundation walls of any building to the main or other water utility service terminal within bounds of, or beneath an area subject to easement for highway purposes and its connections.
- d. All of the above

66. _____ includes the water supply system, the drain system, the vent system, plumbing fixtures, plumbing appliances and plumbing appurtenances that serve a building, structure or premises.

- a. Plumbing appliance
- b. Plumbing fixture
- c. Plumbing system
- d. POWTS

67. _____ means a pressure actuated valve held closed by a spring or other means and designed to automatically relieve pressure at a designated pressure.

- a. Quick closing valve
- b. Pressure relief valve
- c. Anti-siphon valve
- d. Control valve

68. _____ means a type of cross connection control device which consists of an independently operating internally loaded check valve and an independently operating loaded air inlet located on the discharge side of the check valve, a tightly closing shut-off valve located at each end of the assembly, and test cocks.

- a. Pressure vacuum breaker assembly
- b. PVB
- c. Both a and b
- d. Neither a or b

69. _____ means a device that uses the water supply to create a pressurized discharge to flush a fixture exclusive of gravity type flushing systems.

- a. Flushometer valve
- b. Pressurized flushing device
- c. Flushometer tank
- d. Gravity type flushing system

70. _____ means a roughness or metal protruding from the walls of a pipe usually as the result of cutting the pipe.

- a. Nipple
- b. Burr
- c. Bump
- d. Bulge

71. _____ means wastewater contaminated by human body waste, toilet paper and any other material intended to be deposited in a receptor designed to receive urine or feces.

- a. Clearwater
- b. Graywater
- c. Blackwater
- d. None of the above

72. Potable water means water that is:

- a. Safe for drinking, personal or culinary use.
- b. Free from impurities present in amounts sufficient to cause disease or harmful physiological effects.
- c. Both a and b
- d. Neither a or b

73. _____ means any subsystem, subassembly or other system designed for use in or as part of a private onsite wastewater treatment system which may include treatment, dispersal or holding and related piping.

- a. POWTS treatment component
- b. POWTS holding component
- c. POWTS dispersal component
- d. POWTS component

74. _____ means a vessel designed to receive the discharge from a boiler blow-off outlet and to cool the discharge to a temperature that permits safe entry into the drain system.

- a. Boiler feed system
- b. Boiler blow-off basin
- c. Deaerators
- d. Boiler blow-down system

75. Private water main means a water main serving 2 or more buildings and is part of the municipal water system.

- a. True
- b. False

76. _____ means a valve or faucet that closes automatically when released manually or controlled by mechanical means for fast action closing.

- a. Globe valve
- b. Pressure relief valve
- c. Quick closing valve
- d. Angle valve

77. _____ means a connection in which one pipe slips into another, the joint of which is made tight with a compression type fitting.

- a. Slip-joint
- b. Cam
- c. Set screw
- d. Leveling rods

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

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

79. _____ means an automatic device located in a sump, pit or low point that is designed to elevate storm water, groundwater or clear water.

- a. Pedestal
- b. Submersible
- c. Sump pump
- d. Canister

80. _____ means the reference point on a vacuum breaker that must be submerged before backflow can occur.

- a. Cross connection
- b. Critical level
- c. Cross connection control device
- d. None of the above

Comm 82.30 (10) (b) 4c: Sanitary drain systems

81. Where _____ ejector or pumping equipment is installed, each discharge pipe from an ejector or pump shall be provided with a gate or ball type valve installed downstream of each full flow check valve.

- a. Special
- b. Duplicate
- c. Existing
- d. Pressurized

82. Air relief valves shall be _____ at all high points in the discharge piping of an ejector or pump where the piping arrangement creates an air trap.

- a. Supported
- b. Supplied
- c. Maintained
- d. Provided

83. No fixtures may be connected to the discharge pipe between the ejector or pump and the point where it enters the gravity drain.

- a. True
- b. False

84. No building sewer may pass through or under a building to serve another building, unless:

- a. The building sewer serves farm buildings or farm houses, or both, which are all located on one property
- b. The building sewer or private interceptor main sewer serves buildings located on the same property and a document, which indicates the piping and distribution arrangement for the property and buildings, shall be recorded with the register of deeds no later than 90 days after installation.
- c. The building sewer serves farm buildings or farm houses, or both, which are all located on neighboring properties.
- d. a or b

85. All building drains shall be installed below the lowest floor levels on which fixtures may be installed if the _____ elevation permits.

- a. Public sewer
- b. POWTs
- c. Private interceptor main sewer
- d. a, b, or c

86. A building drain subject to backflow or backwater shall be _____ with a backwater valve or with a sump with pumping equipment in accordance with sub. (10).

- a. Protected
- b. Supported
- c. Supplied
- d. Connected

87. _____ valves, when fully open, shall have a capacity not less than that of the pipes in which installed.

- a. Ball
- b. Butterfly
- c. Backwater
- d. Non-return

88. Backwater valves shall be so located as to be readily accessible for _____ .

- a. Flushing
- b. Cleaning
- c. Appraisal
- d. Adjustment

89. Where a plumbing fixture or appliance is located on a floor which is entirely _____, a floor drain shall be installed to serve that floor.

- a. Above grade
- b. At grade
- c. Below grade
- d. None of the above

90. In any room containing the recessed or concealed portions of _____ located in health care or related facilities, at least one floor drain connecting to the drainage system shall be installed in a manner to adequately drain the entire floor area.

- a. Sterilizers
- b. Autoclaves
- c. X-ray equipment
- d. All of the above

91. Except as provided in subd. 2. c. to e., a building sewer or private interceptor main sewer shall be protected from _____ in accordance with subd. 3. in areas where the top of the building sewer or private interceptor main sewer is located less than 60 inches below a surface area from which snow will be cleared.

- a. Snow
- b. Hail
- c. Ice
- d. Frost

92. Where a building sewer or private interceptor main sewer is installed to serve summer use public facilities, frost protection requirements shall not apply.

- a. True
- b. False

93. All _____ for building drains and building sewers shall be open trench work, unless otherwise permitted by local ordinance or accepted by the local inspector.

- a. Trenching
- b. Shoring
- c. Excavations
- d. Backfilling

94. Where the bottom of the trench can be maintained in a stable condition and free of _____ during the time of installation the building drain and the building sewer shall be bedded and initially backfilled as specified in this subdivision.

- a. Water
- b. Hazardous atmospheres
- c. Surface tension cracks
- d. Saturated soil

95. Where the trench bottom does not contain stone larger than one inch in size or where bedrock is not _____, the trench may be excavated to grade.

- a. Encountered
- b. Present
- c. Unconsolidated
- d. Sloped

96. Where a mucky or unstable bottom is encountered in the trench, the required dry and stable foundation conditions shall be provided by sheathing driven and left in place to a depth of 48 inches below the trench bottom or to solid foundation at a lesser depth, the removal of wet and yielding material to a depth of 24 inches or to solid material, and replacement of the unstable material with _____ for the bedding under the pipe.

- a. Limestone screenings
- b. Pea gravel
- c. Equivalent material
- d. a, b, or c

97. Care shall be exercised in placing the _____ of the backfill to prevent breakage of the pipe.

- a. Open-graded soil
- b. Unsuitable material
- c. Remainder
- d. Balance

98. _____ shall not be used in the backfill.

- a. Large boulders or rock
- b. Concrete slabs
- c. Frozen masses
- d. All of the above

99. The ends of all pipes not immediately connected shall be closed so as to _____ the introduction of earth or drainage from an excavation.

- a. Thwart
- b. Prevent
- c. Stop
- d. Impede

100. Where a forced building sewer discharges to a pressurized public sewer, a _____ shall be installed.

- a. Full flow corporation cock
- b. Full flow curb stop
- c. Check valve and dresser type coupling
- d. All of the above

101. The curb stop, check valve and dresser type coupling shall be installed on the property _____ to the connection to the common forced main sewer.

- a. Parallel
- b. Next
- c. Adjacent
- d. As close as possible

102. No person may connect to a public sewer any building _____ through which is discharged any substance likely to cause undue corrosion, obstruction, nuisance, explosion or interference with sewage treatment processes.

- a. Drain
- b. Sewer
- c. Septic
- d. a or b

103. Except as provided in s. Comm 82.36 (3), _____ drain piping may not discharge to a sanitary building drain which connects to a publicly-owned treatment works.

- a. Storm
- b. Clear water
- c. Gray water
- d. a and b

104. Plumbing fixtures, except _____, shall be of the wall mounted type.

- a. Bathtubs
- b. Showers
- c. Urinals
- d. a and b

105. _____ shall have waste and overflow connections made above the floor and piped to a trap below the floor.

- a. Bathtubs
- b. Lavatories
- c. Drinking fountains
- d. Water closets

106. Floor and shower drains installed shall be equipped with _____ pans.

- a. Head
- b. Integral seepage
- c. Drain
- d. Shower

107. Where drain piping is located in ceilings of areas where _____ are prepared, handled stored or displayed, the ceilings shall be of the removable type, or shall be provided with access panels in order to provide an access for inspection of the piping.

- a. Food
- b. Ice
- c. Potable liquids
- d. All of the above

108. Exposed drain piping shall not be located over a pool, surge tank or an open filter for a pool.

- a. True
- b. False

Comm 82.31 Vents and venting systems

109. Drain stacks of more than _____ branch intervals shall be provided with yoke vents.

- a. 10
- b. 5
- c. 6
- d. 8

110. All vent terminals shall be located:

- a. At least 8 feet from an air intake; At least 5 feet from a power exhaust vent;
- b. At least 8 feet horizontally from or 2 feet above roof scuttles, doors and openable windows
- c. At least 3 feet from or 2 inches above parapet walls.
- d. None of the above

111. Where a structure has a(n) _____ roof extending from surrounding grade, the vent extension shall run at least 7 feet above grade and terminate with an approved vent cap.

- a. Flat
- b. Gable
- c. Earth covered
- d. Hip

112. The portion of vent pipe outside the structure shall be without joints, except _____ fitting may be installed where the pipe leaves the top or side of the structure.

- a. One
- b. Elbow
- c. Union
- d. Barb

113. Where approved by the department, a vent may _____ through an exterior wall.

- a. Continue
- b. Depart
- c. Terminate
- d. None of the above

114. Drain or vent pipe extensions shall not be located or placed on the outside of an exterior wall of any _____ building, but shall be located inside the building.

- a. Attached
- b. Commercial
- c. Pre-fabricated
- d. New

115. A _____ shall not be used for purposes other than the venting of the plumbing system.

- a. Vent
- b. Vent system
- c. Vent piping
- d. a or b

116. Vent piping from boiler blowoff basins shall not be connected to a vent or vent system serving a _____ drain system, storm drain system or chemical waste system.

- a. Branched
- b. Trench
- c. French
- d. Sanitary

117. Vent piping for _____ systems shall not be connected to a vent system serving a sanitary drain system or storm drain system.

- a. Chemical waste
- b. Sanitary drain
- c. Sewage drain
- d. Storm drain

118. Vents serving _____ sterilizers, cleansing or degreasing equipment, pressing machines or any other apparatus which normally discharges steam into the vent shall not be connected to a vent or a vent system serving a sanitary drain system, storm drain system or chemical waste system.

- a. Table top
- b. Autoclave
- c. Steam operated
- d. Dry heat

Comm 82.32 :Traps and direct fixture connections.

119. All traps shall be rigidly supported and set true with respect to the water level and so located as to protect the water seals, and shall be protected from _____ and evaporation.

- a. Cracking
- b. Freezing
- c. Leaking
- d. Heat

120. Except as provided in s. Comm 82.33, all plumbing fixtures and appliances discharging wastes shall connect _____ to a drain system.

- a. Tightly
- b. Directly
- c. Securely
- d. Safely

Comm 82.33: Indirect and local waste piping

121. Indirect waste piping and local waste piping draining the fixtures, appliances and devices having a public health _____, including but not limited to those listed in Table 82.33-1, shall be considered as plumbing and shall comply with the provisions of this section.

- a. Initiative
- b. Challenge
- c. Concern
- d. Risk

122. The air-break between indirect waste piping or local waste piping and the receptor shall be

_____ by extending the indirect waste piping or local waste piping below the flood level rim of the receptor and terminating at an elevation above the trap outlet.

- a. Completed
- b. Attained
- c. Accomplished
- d. Reinforced

123. A receptor receiving the discharge from indirect waste piping or local waste piping shall be of a shape and capacity as to prevent _____ or flooding.

- a. Splashing
- b. Overflow
- c. Overspill
- d. Runoff

124. The _____ waste piping of a portable dishwasher or water treatment device serving one or 2 outlets may discharge into a kitchen sink of a dwelling unit or to a branch tail piece serving a kitchen sink.

- a. Indirect
- b. Cast-iron soil
- c. Single hub
- d. Rigid

125. The indirect waste piping of an automatic clothes washer or water treatment device may not discharge into a laundry tray.

- a. True
- b. False

126. The indirect or local waste piping _____ a cross connection control device or assembly, water treatment device, air conditioner, humidifier or furnace condensate may discharge into a branch tailpiece serving a laundry tray.

- a. Dividing
- b. Sharing
- c. Serving
- d. Linking

127. The local waste piping serving a water heater temperature and pressure relief valve, water treatment device, cross connection control device or assembly, humidifier, sterilizer, or a furnace or air conditioner may discharge into the _____ of a floor drain when installed in accordance with sub. (7) (b).

- a. Body
- b. Riser
- c. Clamp collar
- d. Top grate

128. The indirect or local waste piping serving a water heater temperature and pressure relief valve, water treatment device, cross connection control device or assembly, or a furnace or air conditioner may discharge to a floor served by a floor drain so as not to create a _____ hazard.

- a. Physical
- b. Environmental
- c. Workplace
- d. Health or safety

129. Except as provided in subd. 2. b., wastewater more than _____ ° F in temperature shall be discharged by means of indirect waste to the plumbing system.

- a. 120
- b. 130
- c. 150
- d. 160

130. Steam condensate blow down shall be cooled to 160°F in temperature prior to discharging to a plumbing system.

- a. True
- b. False

131. When discharging to a plumbing system, all _____ water shall discharge by means of an air-gap.

- a. Storm
- b. Clear
- c. Black
- d. Grey

132. Residential-type clothes washers shall discharge into the sanitary drain system by means of a(n) _____.

- a. Air gap
- b. Air-break
- c. High-loop
- d. Hydrostatic loop

133. Pumped-discharge automatic clothes washing equipment in _____ shall have the wastes discharge to a drain system by means of standpipes.

- a. Launderettes
- b. Laundromats
- c. Self-service laundry establishments
- d. All of the above

134. Washer wastes shall not be discharged to gutters, troughs, local waste piping, indirect waste manifold or other similar connections.

- a. True
- b. False

135. Gravity discharge-type clothes washing equipment shall discharge by means of an air-break or by other approved methods into a _____.

- a. Floor receptor
- b. Trench
- c. Trough
- d. All of the above

13 6. The indirect waste piping from a residential- type dishwashing machine shall not exceed a developed length of _____feet.

- a. 10
- b. 11
- c. 12
- d. 12.5

Comm 82.34: Wastewater treatment devices

137. Any deleterious waste material which is discharged into a plumbing system shall be _____ to a wastewater treatment device.

- a. Channeled
- b. Routed
- c. Released
- d. Directed

138. The wastewater treatment device shall be capable of _____ the deleterious waste material to a degree that the wastewater is no longer deleterious.

- a. Separating
- b. Diluting
- c. Neutralizing
- d. a, b, or c

139. Wastewater treatment devices that retain any waste materials shall be designed and installed to facilitate periodic _____.

- a. Removal
- b. Treatment
- c. Pumping
- d. a or b

140. Except as provided in subd. 2., wastewater discharged from water closets or urinals shall not be reused for drinking water or _____ for reuse.

- a. Allowed
- b. Intended
- c. Treated
- d. Permitted

141. All treatment works permitted by the _____, or a POWTS which includes an in situ soil dispersal or treatment component may treat wastewater discharged from water closets or urinals for reuse.

- a. Department of agriculture
- b. Department of health services
- c. Department of regulation and licensing
- d. Department of natural resources

142. The treatment or disposal system shall be installed so as not to _____ any water supply which is or may be used for drinking, culinary or bathing purposes, or which may create a nuisance, unsanitary conditions or water pollution.

- a. Change
- b. Affect
- c. Endanger
- d. Involve

143. Interceptors, catch basins and other similar devices shall be _____ so that flow rates shall be developed and maintained in a manner that solid and floating materials of a harmful, hazardous or deleterious nature will be collected in the interceptor for disposal.

- a. Designed
- b. Sized
- c. Installed
- d. All of the above

144. All devices installed for the purpose of intercepting, separating, collecting, or treating harmful, hazardous or deleterious materials in liquid or liquid-borne wastes shall be operated and cleaned of intercepted or collected materials or of any residual from treatment at such intervals which may be required to _____ their passage through the interceptor.

- a. Prevent
- b. Reduce
- c. Eliminate
- d. Stop

145. Any fixed orifice, vent or trap of an interceptor, catch basin or other similar device shall remain intact and shall not be removed or tampered with except for _____ purposes.

- a. Treating
- b. Cleaning
- c. Authorized
- d. Unusual

146. After _____, all parts of the interceptor, collector or treatment device, such as baffles, weirs, orifice plates, channels, vents, traps, tops, and fastening bolts or screws shall be replaced in proper working position.

- a. Repair
- b. Service
- c. Evaluation
- d. Modification

147. No interceptor, catch basin or similar device may be _____ or covered as to render it inaccessible for service or inspection.

- a. Enclosed
- b. Exposed
- c. Fastened
- d. Surrounded

148. No interceptor, catch basin or similar device may have its top located more than _____ feet above the surrounding floor.

- a. 6
- b. 3
- c. 4
- d. 5

149. Deleterious waste materials retained by an interceptor, catch basin or similar device shall not be _____ into any drain, sewer or natural body of water without approval of the state agency having jurisdiction.

- a. Introduced
- b. Allowed
- c. Permitted
- d. Released

150. All plumbing installations for occupancies, other than dwelling units, where grease, fats, oils or similar waste products of cooking or food are introduced into the drain system shall be provided with _____ in accordance with this subsection.

- a. Cleanouts
- b. Valves
- c. Interceptors
- d. Fixtures

151. Exterior grease interceptors shall receive the _____ waste discharge from kitchens or food processing areas.

- a. Trapped
- b. Entire
- c. Separated
- d. All of the above

152. Manhole risers for interceptor tanks shall be provided with a _____ cover of concrete, steel, cast iron or other approved material.

- a. Substantial
- b. Fitted
- c. Watertight
- d. All of the above

153. Manhole covers shall terminate _____ grade and shall have an approved locking device.

- a. At
- b. Above
- c. Below
- d. a or b

154. Where the tank _____ the septic tank and grease interceptor the label shall identify it as such.

- a. Replaces
- b. Acts as
- c. Controls
- d. Services

155. The minimum liquid capacity of a grease interceptor shall be determined in accordance with the provisions of this subdivision, except no grease interceptor may have a capacity of less than _____ gallons if the interceptor is to discharge to a private onsite wastewater treatment system or less than 750 gallons if the interceptor is to discharge to a municipal sewer system and treatment facility.

- a. 500
- b. 1000
- c. 800
- d. 900

156. Grease interceptor tanks may not be located within 5 feet of a building or any portion of the building or swimming pool; _____ feet of a water service; 2 feet of a lot line; _____ feet of a cistern or 25 feet of a reservoir or high water mark of a lake, stream, pond or flowage.

- a. 5
- b. 6
- c. 20
- d. 10

157. No water-cooled grease interceptor may be installed.

- a. True
- b. False

158. No grease interceptor may be located where the surrounding temperatures, under operating conditions, are less than _____ ° F.

- a. 40
- b. 35
- c. 43
- d. 41

159. Oil and flammable interceptors and separators shall be so designed to prevent the _____ of explosive gases.

- a. Discharge
- b. Release
- c. Formation
- d. Accumulation

160. The wastes from meat processing areas, slaughtering rooms and meat dressing rooms shall be discharged through an approved interceptor to prevent the discharge of _____ and other materials.

- a. Feathers
- b. Entrails
- c. Blood
- d. All of the above

Comm 82.35: Cleanouts

161. The cleanout shall be located within _____ feet of where the building drain and the building sewer connect.

- a. 5
- b. 6
- c. 7
- d. 8

162. The cleanout may only be located outside the building.

- a. True
- b. False

163. A cleanout in a drain stack may serve as the cleanout at the junction of the building drain and building sewer, if the stack is _____ 5 feet of where the building drain and building sewer connect.

- a. More than
- b. Less than
- c. Within
- d. Outside

164. Where a cleanout is provided in a drain stack, the cleanout shall be located _____ inches above the lowest floor penetrated by the stack.

- a. 26 to 58
- b. 28 to 60
- c. 30 to 60
- d. None of the above

165. Except as provided in subd. 2., cleanouts shall be provided in connection with batteries of fixtures at such points that all parts of the branch drain may be accessible for _____ of stoppages.

- a. Cleaning
- b. Removal
- c. Prevention
- d. a or b

166. Drain pipes carrying greasy wastes shall be provided with cleanouts located not more than 40 feet apart and at all changes in direction of more than _____ degrees.

- a. 40
- b. 45
- c. 50
- d. 60

167. Cleanout access for drain piping located in _____ spaces shall be provided by either extending the cleanout to at least the surface of a wall or floor or by providing access panels of a sufficient size to permit removal of the cleanout plug and proper cleaning of the pipe.

- a. Covered
- b. Approved
- c. Open
- d. Concealed

168. Cleanout openings shall not be used for the installation of fixtures or floor drains, except where another cleanout of equal _____ is provided.

- a. Access
- b. Capacity
- c. Thread
- d. a and b

169. Solid watertight manhole covers are to be used wherever the manhole tops may be _____ street runoff or high water.

- a. Exposed to
- b. Flooded by
- c. Affected by
- d. Have contact with

170. Where groundwater conditions are _____, manholes of brick or block shall be waterproofed on the exterior with plastic coatings supplemented by a bituminous waterproof coating or other approved coatings.

- a. Likely
- b. Favorable
- c. Unfavorable
- d. Possible

171. Inlet and outlet pipes are to be joined to the manhole with a _____ connection or any watertight connection arrangement that allows differential settlement of the pipe and manhole wall to take place.

- a. Gasketed
- b. Flexible
- c. Watertight
- d. All of the above

172. An outside drop pipe is to be _____ for a sewer entering a manhole where the invert elevation of the entering sewer is 2 feet or more above the spring line of the outgoing sewer.

- a. Introduced
- b. Supplied
- c. Installed
- d. Provided

Comm 82.36: Stormwater and clearwater plumbing

173. No storm building sewer or private interceptor main storm sewer may pass through or under a building to serve another building, unless one of the following conditions is met:

- a. The storm building sewer or private interceptor main storm sewer serves farm buildings or farm houses, or both, that are located on one property.
- b. Where a storm building sewer or private interceptor main storm sewer serves buildings that are located on one property, a document that indicates the piping and distribution arrangement for the property and buildings is recorded with the register of deeds no later than 90 days after installation.
- c. a or b
- d. Neither a or b

174. All underground stormwater storage tanks for water reuse shall be separated from sanitary sewers by a minimum of _____ feet.

- a. 8
- b. 6
- c. 10
- d. 5

175. Roof drain strainers used on sun decks, open parking decks and similar areas shall be of the _____ type, shall be level with the deck and shall have an available inlet area of not less than 2 times the area of the conductor to which the drain connects.

- a. Funnel
- b. Conventional
- c. Flat surface
- d. Approved

176. A stormwater or clearwater subsurface infiltration plumbing system consisting in part of in situ soil may not be installed if the soil is _____ at the infiltrative surface.

- a. Frozen
- b. Saturated
- c. Compacted
- d. Well-drained

177. Snow cover shall be _____ before excavating or installing a stormwater or clearwater system component consisting in part of in situ soil.

- a. Evaluated
- b. Considered
- c. Measured
- d. Removed

178. For a stormwater or clearwater subsurface infiltration plumbing system consisting in part of in situ soil, the soil _____ shall be evaluated immediately prior to installation of the component.

- a. Moisture content
- b. Condition
- c. Composition
- d. Type

179. Pursuant to s. 160.19 (2) (a), Stats., the department has determined that it is not technically or economically feasible to require that a stormwater or clearwater subsurface infiltration plumbing system treat wastewater to comply with the preventive action limit for _____ specified in ch. NR 140 Table 2, as existed on June 1, 1998.

- a. Nitrates
- b. Chloride
- c. Bacteria
- d. Chromium

180. Sanitary dump stations which are used to receive _____ wastes and _____ wastewater from the holding tanks of travel trailers, recreational vehicles or other similar mobile vehicles, and transfer containers shall conform with this subsection.

- a. Human
- b. Domestic
- c. Solid
- d. Commercial

Plumbing Continuing Education Test 15

Answer Sheet

Circle or mark the correct answer

- | | | | | | | | | | | | | | | | | | | | |
|-----|---|---|---|---|-----|---|---|---|---|------|---|---|---|---|------|---|---|---|---|
| 1. | a | b | c | d | 49. | a | b | c | d | 97. | a | b | c | d | 145. | a | b | c | d |
| 2. | a | b | c | d | 50. | a | b | c | d | 98. | a | b | c | d | 146. | a | b | c | d |
| 3. | a | b | c | d | 51. | a | b | c | d | 99. | a | b | c | d | 147. | a | b | c | d |
| 4. | a | b | c | d | 52. | a | b | c | d | 100. | a | b | c | d | 148. | a | b | c | d |
| 5. | a | b | c | d | 53. | a | b | c | d | 101. | a | b | c | d | 149. | a | b | c | d |
| 6. | a | b | c | d | 54. | a | b | c | d | 102. | a | b | c | d | 150. | a | b | c | d |
| 7. | a | b | c | d | 55. | a | b | c | d | 103. | a | b | c | d | 151. | a | b | c | d |
| 8. | a | b | c | d | 56. | a | b | c | d | 104. | a | b | c | d | 152. | a | b | c | d |
| 9. | a | b | c | d | 57. | a | b | c | d | 105. | a | b | c | d | 153. | a | b | c | d |
| 10. | a | b | c | d | 58. | a | b | c | d | 106. | a | b | c | d | 154. | a | b | c | d |
| 11. | a | b | c | d | 59. | a | b | c | d | 107. | a | b | c | d | 155. | a | b | c | d |
| 12. | a | b | c | d | 60. | a | b | c | d | 108. | a | b | c | d | 156. | a | b | c | d |
| 13. | a | b | c | d | 61. | a | b | c | d | 109. | a | b | c | d | 157. | a | b | c | d |
| 14. | a | b | c | d | 62. | a | b | c | d | 110. | a | b | c | d | 158. | a | b | c | d |
| 15. | a | b | c | d | 63. | a | b | c | d | 111. | a | b | c | d | 159. | a | b | c | d |
| 16. | a | b | c | d | 64. | a | b | c | d | 112. | a | b | c | d | 160. | a | b | c | d |
| 17. | a | b | c | d | 65. | a | b | c | d | 113. | a | b | c | d | 161. | a | b | c | d |
| 18. | a | b | c | d | 66. | a | b | c | d | 114. | a | b | c | d | 162. | a | b | c | d |
| 19. | a | b | c | d | 67. | a | b | c | d | 115. | a | b | c | d | 163. | a | b | c | d |
| 20. | a | b | c | d | 68. | a | b | c | d | 116. | a | b | c | d | 164. | a | b | c | d |
| 21. | a | b | c | d | 69. | a | b | c | d | 117. | a | b | c | d | 165. | a | b | c | d |
| 22. | a | b | c | d | 70. | a | b | c | d | 118. | a | b | c | d | 166. | a | b | c | d |
| 23. | a | b | c | d | 71. | a | b | c | d | 119. | a | b | c | d | 167. | a | b | c | d |
| 24. | a | b | c | d | 72. | a | b | c | d | 120. | a | b | c | d | 168. | a | b | c | d |
| 25. | a | b | c | d | 73. | a | b | c | d | 121. | a | b | c | d | 169. | a | b | c | d |
| 26. | a | b | c | d | 74. | a | b | c | d | 122. | a | b | c | d | 170. | a | b | c | d |
| 27. | a | b | c | d | 75. | a | b | c | d | 123. | a | b | c | d | 171. | a | b | c | d |
| 28. | a | b | c | d | 76. | a | b | c | d | 124. | a | b | c | d | 172. | a | b | c | d |
| 29. | a | b | c | d | 77. | a | b | c | d | 125. | a | b | c | d | 173. | a | b | c | d |
| 30. | a | b | c | d | 78. | a | b | c | d | 126. | a | b | c | d | 174. | a | b | c | d |
| 31. | a | b | c | d | 79. | a | b | c | d | 127. | a | b | c | d | 175. | a | b | c | d |
| 32. | a | b | c | d | 80. | a | b | c | d | 128. | a | b | c | d | 176. | a | b | c | d |
| 33. | a | b | c | d | 81. | a | b | c | d | 129. | a | b | c | d | 177. | a | b | c | d |
| 34. | a | b | c | d | 82. | a | b | c | d | 130. | a | b | c | d | 178. | a | b | c | d |
| 35. | a | b | c | d | 83. | a | b | c | d | 131. | a | b | c | d | 179. | a | b | c | d |
| 36. | a | b | c | d | 84. | a | b | c | d | 132. | a | b | c | d | 180. | a | b | c | d |
| 37. | a | b | c | d | 85. | a | b | c | d | 133. | a | b | c | d | | | | | |
| 38. | a | b | c | d | 86. | a | b | c | d | 134. | a | b | c | d | | | | | |
| 39. | a | b | c | d | 87. | a | b | c | d | 135. | a | b | c | d | | | | | |
| 40. | a | b | c | d | 88. | a | b | c | d | 136. | a | b | c | d | | | | | |
| 41. | a | b | c | d | 89. | a | b | c | d | 137. | a | b | c | d | | | | | |
| 42. | a | b | c | d | 90. | a | b | c | d | 138. | a | b | c | d | | | | | |
| 43. | a | b | c | d | 91. | a | b | c | d | 139. | a | b | c | d | | | | | |
| 44. | a | b | c | d | 92. | a | b | c | d | 140. | a | b | c | d | | | | | |
| 45. | a | b | c | d | 93. | a | b | c | d | 141. | a | b | c | d | | | | | |
| 46. | a | b | c | d | 94. | a | b | c | d | 142. | a | b | c | d | | | | | |
| 47. | a | b | c | d | 95. | a | b | c | d | 143. | a | b | c | d | | | | | |
| 48. | a | b | c | d | 96. | a | b | c | d | 144. | a | b | c | d | | | | | |

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2. Fill out this form below completely.
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Course Title and Name Plumbing Continuing Education Test 15
Credited Hours 6 hrs
List the name of each credential held by attendee _____

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Course Password _____ Course ID# 10160

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

Instructor Signature _____