

Plumbing Practice Test

1. What best describes an air break?
 - a. A valve that relieves air pressure
 - b. A piping arrangement in which a drain from a fixture, appliance or device discharges indirectly into another fixture, receptacle or interceptor at a point below the flood level rim and above the trap seal.
 - c. A trap seal located in the attic that is an indirect waste outlet.
 - d. A vertical drain in which a vent is required.

2. Trenches installed parallel to footings shall not extend below?
 - a. The 90- degree bearing plane of the footing or wall.
 - b. The 30- degree bearing plane of the footing or wall.
 - c. The 45- degree bearing plane of the footing or wall.
 - d. The bottom of the outside of the brick line.

3. Exterior Water lines subject to freezing shall be installed not less than?
 - a. 18 inches below the frost line.
 - b. 12 inches below the frost line.
 - c. 24 inches below the frost line.
 - d. 6 inches below the frost line.

4. Horizontal drains within buildings shall have cleanouts provided not more than?
 - a. 400 feet apart.
 - b. 100 feet apart.
 - c. 250 feet apart.
 - d. 155 feet apart.

5. Each fixture trap shall have a liquid seal of?
 - a. Not less than 2 inches and not more than 4 inches.
 - b. Not less than 1 inches and not more than 6 inches.
 - c. Not less than 3 inches and not more than 4 inches.
 - d. Not less than 2 inches and not more than 12 inches.

6. All hot water distribution pipe and tubing shall have a minimum?
 - a. Pressure rating of 60 psi @ 180 degrees F.
 - b. Pressure rating of 100 psi @ 180 degrees F.
 - c. Pressure rating of 250 psi @ 80 degrees F.
 - d. Pressure rating of 100 psi @ 300 degrees F.

7. What best describes an individual vent?
 - a. A pipe installed to vent a fixture trap and that connects with the vent system above the fixture served or terminates in the open air.
 - b. A vent that catches all other vents.
 - c. A pipe installed below the flood level rim of a fixture that connects a least four other fixtures.
 - d. A vent terminal that is located in the attic space.

8. The minimum hanger spacing for horizontal PVC pipe?
 - a. 6 feet.
 - b. 10 feet.
 - c. 20 feet.
 - d. 4 feet.

9. The DFU value as load factor for a commercial automatic clothes washer?
 - a. 6
 - b. 3
 - c. 4
 - d. 2

10. The DFU value for a 3 inch trap?
 - a. 1
 - b. 3
 - c. 5
 - d. 8

11. The minimum number of roof drains required for up to 10,000 square feet?
- 6
 - 2
 - 4
 - 5
12. What best describes a stack vent?
- The vent that extends horizontal to the outside wall.
 - The extension of a soil or waste stack above the highest horizontal drain connected to the stack.
 - The air inlet for the attic space required by code.
 - A vent outlet only for a water closet.
13. What is the minimum condensate pipe diameter for up to 20 tons of refrigeration?
- $\frac{1}{2}$ "
 - $\frac{3}{4}$ "
 - 1"
 - $\frac{5}{8}$ "
14. How many water closets are required for an R-3 occupancy one and two family dwellings?
- 4
 - 2
 - 5
 - 1
15. Separate facilities shall not be required in mercantile occupancies in which the maximum occupant load is?
- 60 or more
 - 100 or less
 - Separate facilities are always required
 - Greater than 52

16. The closest distance from the center of a water closet to a side wall is?
- 30 inches
 - 22 inches
 - 15 inches
 - 18 inches
17. Where systems under continuous pressure contain chemical additives or antifreeze, or where systems are connected to a non-potable secondary water supply, the potable water supply shall be protected against backflow by?
- A double check valve
 - A vacuum breaker
 - A reduced pressure principle backflow preventer
 - A spill-proof vacuum breaker
18. The minimum size for a main in piping of a central vacuum system shall not be less than?
- 2 inch
 - 1-1/2 inch
 - $\frac{3}{4}$ inch
 - 1 inch
19. The air gap between the indirect waste pipe and the flood level rim of the waste receptor shall be a minimum of?
- Twice the effective opening of the indirect waste pipe
 - Three times the effective opening
 - At least the same size as the attic vent piping
 - Four times the distance off the wall

20. What type of trap is permitted on a lavatory?
- a. S – Trap
 - b. P – Trap
 - c. Drum trap
 - d. All of these
21. Lavatories shall have waste outlets not less than?
- a. 1 inch
 - b. 2 inch
 - c. 1-1/2 inch
 - d. 1-1/4 inch
22. All shower compartments shall have a minimum of _____ interior cross sectional area of?
- a. 9 x 9 x 14 feet
 - b. 800 square inches
 - c. 900 square inches
 - d. 6 x 6 x 12 feet
23. Where a water heater pan is utilized; the minimum depth of the pan is?
- a. 2 inches
 - b. 1-1/2 inches
 - c. 3 inches
 - d. At least 6 inches
24. The minimum pipe size for a hose Bibb is?
- a. 3/8"
 - b. 1"
 - c. 1/2"
 - d. 3/4"

25. The flow pressure (psi) for a urinal, valve is?
- a. 60 psi
 - b. 12 psi
 - c. 35 psi
 - d. 25 psi
26. The maximum distance of a fixture trap from the vent for a 2 inch trap with a $\frac{1}{4}$ " slope is?
- a. 12 foot
 - b. 5 foot
 - c. 6 foot
 - d. 8 foot
27. The minimum size of a vent pipe is?
- a. 1"
 - b. 1-1/4"
 - c. 2"
 - d. 1-1/2"
28. Stack-type Air admittance valves shall be located not less than?
- a. 6 inches above the flood level rim of the highest fixture being vented.
 - b. 12 inches above the outside wall
 - c. 3.5 inches in the wall outlet
 - d. 10 inches under the counter top
29. Vents exceeding 40 feet in developed length shall be increased by?
- a. 2 nominal pipe sizes for the entire developed length of the vent pipe.
 - b. 1 nominal pipe size for the entire developed length of the vent pipe.
 - c. 2 times the inside diameter of the vent.
 - d. 1-1/2 times the nominal pipe size.

30. The load value in water supply fixture units for hot water in a kitchen sink faucet private is?
- 1.0
 - 2.0
 - 6.0
 - .05
31. In a predominantly for flush valve supply system, with a WSFU load of 60, what is the demand in gallons per minute?
- 50.0
 - 32.0
 - 54.0
 - 58.0
32. What is the maximum developed length in feet, where a pressure range of 40 to 49 PSI with a meter and distribution pipe is $\frac{3}{4}$ " and 7 WSFU must be maintained?
- 13'
 - 100'
 - 5 inch
 - 6 inch
33. What best describes a vertical pipe?
- Any pipe or fitting that makes an angle of 45 degrees or more with horizontal.
 - A pipe fitting that changes direction of at least 90 degrees from horizontal.
 - A pipe or fitting required to make changes to the as built plans.
 - A strait piece of piping that is laid horizontal.
34. The minimum size waste outlet for a bathtub?
- 1-1/2 inches
 - 2 inches
 - 1-1/4 inches
 - 1 inch

35. The minimum required size of water service pipe is?
- 1"
 - $\frac{1}{2}$ "
 - $\frac{3}{4}$ "
 - No minimum size required.
36. When intended for domestic uses, the temperature of water from tank-less water heaters shall be a maximum of?
- 160 degrees F
 - 150 degrees F
 - 200 degrees F
 - 140 degrees F
37. How long should the 10 foot of head water be held for in a drainage and vent water test?
- 10 minutes
 - At least 30 minutes
 - 3 hours minimum
 - At least 15 minutes
38. What position can a sanitary tee used?
- Vertical to horizontal
 - Horizontal to vertical
 - Only on back to back water closets
 - Only on the back
39. Which trap is not an illegal trap?
- Bag-trap
 - S-trap
 - P-trap
 - Drum-trap

40. How many fittings are involved on a center to center measurement?
- a. 1
 - b. At least 6
 - c. 2
 - d. At least 4
41. What does DWV stand for?
- a. Drainage, windows, and vacuum system
 - b. Drainage, waste, and vent system
 - c. Dryer, washer, and vent system
 - d. Drainage, washer, and vacuum system
42. How many inspections are required?
- a. 2
 - b. 5
 - c. 1
 - d. 3
43. What type of venting system would catch drainage from another fixture?
- a. Dry vent
 - b. Wet vent
 - c. Loop vent
 - d. Circuit vent
44. On a building drain with a pipe diameter of 8" with a $\frac{1}{4}$ " slope per foot, what is the maximum DFU's?
- a. 6,000
 - b. 2,920
 - c. 1,900
 - d. 1,920

45. What is the maximum number of DFU's for a 6" horizontal branch?
- a. 656
 - b. 620
 - c. 640
 - d. 399
46. In an educational classification, what is the required number of water closets required for a male or female?
- a. 1 per 65
 - b. 1 per 100
 - c. 1 per 50
 - d. 1 per 75
47. On a grease interceptor, what is the grease retention capacity in pounds when a total flow through rating of 10 GPM is used?
- a. 15
 - b. 20
 - c. 25
 - d. 30
48. On hanger spacing, what is the maximum vertical spacing for steel pipe?
- a. 10 feet
 - b. 12 feet
 - c. 15 feet
 - d. 20 feet
49. What degree of hazard does a dual-check-valve-type backflow preventer protect against?
- a. High hazard
 - b. High or low hazard
 - c. Low hazard
 - d. May not be used

50. What is the maximum DFU load for a wet vent pipe size of 3"?
- 10
 - 4
 - 15
 - 12
51. On a common vent, with pipe size of 2", what is the maximum discharge from upper fixture drains?
- 3 DFU's
 - 4 DFU's
 - 6 DFU's
 - 10 DFU's
52. How many 1/8" are in 1/2"?
- 2
 - 4
 - 6
 - 8
53. What best describes a common vent?
- A vent connecting at the junction of two fixture drains or to a fixture branch and serving as a vent for both fixtures.
 - A vent connecting two or more fixtures which extends both horizontal and vertical to an air admittance valve.
 - An extension of an individual vent.
 - A loop vent connection for two or more fixtures.

54. When a drain pan is utilized for a water heater and extended to the exterior of the building it must terminate _____ above the adjacent ground surface?
- Not less than 3 inches and not more than 24 inches
 - Not less than 6 inches and not more than 24 inches
 - Not less than 6 inches and not more than 22 inches
 - Not less than 8 inches and not more than 30 inches
55. All hospitals shall have ____ water service pipes installed?
- 2
 - 3
 - 1
 - 4
56. The minimum slope of horizontal drainage piping for 8" or larger?
- $\frac{1}{4}$ "
 - $\frac{1}{2}$ "
 - $\frac{1}{16}$ "
 - $\frac{1}{8}$ "
57. When installing sewer piping larger than 4 inch, what is the minimum size cleanout required?
- 3"
 - 6"
 - 2"
 - 4"
58. Cleanouts on 6" and smaller pipes shall be provided with a clearance of not less than ____ inches for rodding?
- 18
 - 22
 - 10
 - 15

59. A kitchen sink has a DFU value as a load factor of?

- a. 1
- b. 2
- c. 3
- d. 4

60. A sewage pump receiving the discharge of a water closet shall have a minimum discharge pipe size of?

- a. 3"
- b. 2"
- c. 1"
- d. 4"