

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

21. Lavatories shall have waste outlets not less than
- 1 inch
  - 2 inch
  - 1-1/2 inch
  - 1-1/4 inch
22. All shower compartments shall have a minimum of \_\_\_\_\_ interior cross sectional area
- 9 x 9 x 14 feet
  - 800 square inches
  - 900 square inches
  - 6 x 6 x 12 feet
23. Where a water heater pan is utilized; the minimum depth of the pan is
- 2 inches
  - 1-1/2 inches
  - 3 inches
  - At least 6 inches
24. The minimum pipe size for a hose Bibb is
- 3/8"
  - 1"
  - 1/2"
  - 3/4"
25. The flow pressure (psi) for a urinal, valve is
- 60 psi
  - 12 psi
  - 35 psi
  - 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
- 12 foot
  - 5 foot
  - 6 foot
  - 8 foot
27. The minimum size of a vent pipe is
- 1"
  - 1-1/4"
  - 2"
  - 1-1/2"
28. Stack-type Air admittance valves shall be located not less than
- 6 inches above the flood level rim of the highest fixture being vented.
  - 12 inches above the outside wall
  - 3.5 inches in the wall outlet
  - 10 inches under the counter top
29. Vents exceeding 40 feet in developed length shall be increased by
- 2 nominal pipe sizes for the entire developed length of the vent pipe.
  - 1 nominal pipe size for the entire developed length of the vent pipe.
  - 2 times the inside diameter of the vent.
  - 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
- a. 160 degrees F
  - b. 150 degrees F
  - c. 200 degrees F
  - d. 140 degrees F
37. How long should the 10 foot of head water be held for in a drainage and vent water test
- a. 10 minutes
  - b. At least 30 minutes
  - c. 3 hours minimum
  - d. At least 15 minutes
38. What position can a sanitary tee used?
- a. Vertical to horizontal
  - b. Horizontal to vertical
  - c. Only on back to back water closets
  - d. Only on the back
39. Which trap is not an illegal trap?
- a. Bag-trap
  - b. S-trap
  - c. P-trap
  - d. 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"?
- a. 10
  - b. 4
  - c. 15
  - d. 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?
- a.  $\frac{1}{4}$ "
  - b.  $\frac{1}{2}$ "
  - c.  $\frac{1}{16}$ "
  - d.  $\frac{1}{8}$ "
57. When installing sewer piping larger than 4 inch, what is the minimum size cleanout required?
- a. 3"
  - b. 6"
  - c. 2"
  - d. 4"
58. Cleanouts on 6" and smaller pipes shall be provided with a clearance of not less than \_\_\_ inches for rodding?
- a. 18
  - b. 22
  - c. 10
  - d. 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"