

IPC Practice Exam #1

The following questions are based on Chapters 3 and 4 of the *International Plumbing Code* and cover general regulations, fixtures, faucets, and fixture fittings.

Study Tip

Tempered water shall be a maximum of 110°F

- 1.) Pipes passing through a concrete wall must be protected against corrosion. What is the minimum wall thickness of the protective sheathing?
 - a. 0.008"
 - b. 0.025"
 - c. 0.075"
 - d. 0.0375"
- 2.) Exterior water supply system piping shall be installed not less than _____ inches below the frost line.
 - a. 6
 - b. 12
 - c. 18
 - d. 24
- 3.) Sheet lead for pans shall not weigh less than _____ pounds per square foot.
 - a. 1
 - b. 2
 - c. 3
 - d. 4
- 4.) CPVC pipe 2 inches in diameter must be horizontally supported every _____ feet.
 - a. 3
 - b. 4
 - c. 10
 - d. 15

Study Tip

Urinals can be substituted for 67% of water closets in assembly and educational occupancies.

Urinals can be substituted for 50% of water closets in all other occupancies.

- 5.) Urinals shall NOT be substituted for more than _____ of the required water closets in assembly and educational occupancies.
- 25%
 - 33%
 - 50%
 - 67%
- 6.) What is the minimum size required for a floor drain?
- 1½"
 - 2"
 - 2½"
 - 3"
- 7.) Which of the following products or materials is required to be third party tested?
- Plumbing appliances
 - Backflow prevention devices
 - Plumbing fixtures
 - All of the above
- 8.) A 10,000 sq. ft. museum has a maximum occupant load of 1,500 people. What is the minimum number of water closets required for female patrons?
- 8
 - 10
 - 12
 - 23
- 9.) Trenches installed parallel to footings shall not extend below the _____ bearing plane of the wall.
- 20°
 - 45°
 - 60°
 - 90°

Study Tip

Backflow is pressure created in the water distribution system.

- 10.) A dishwasher shall be protected against backflow by a(n) _____.
- a. air break
 - b. air gap
 - c. vacuum breaker
 - d. check valve
- 11.) Joints at the roof and around vent pipes shall be properly flashed and made watertight by the use of _____ or other approved flashings or flashing materials.
- a. lead
 - b. galvanized steel
 - c. aluminum
 - d. All of the above
- 12.) 1½" inch copper tube shall have a maximum horizontal hanger spacing of _____ feet.
- a. 6
 - b. 10
 - c. 12
 - d. 15
- 13.) Patrons of a mall shall not be required to travel more than _____ feet to access toilet facilities.
- a. 100
 - b. 200
 - c. 300
 - d. 500
- 14.) Shower compartments shall have a minimum cross-sectional area of _____.
- a. 900 square feet
 - b. 900 square inch
 - c. 70 square inch
 - d. 30 square inch

Study Tip

Condensate piping shall be of approved corrosion-resistant material and not smaller than the drain connection to the appliance.

- 15.) Coin-operated laundries shall be provided with floor drains having a minimum outlet of _____ inches.
 - a. 2
 - b. 3
 - c. 4
 - d. None of the above
- 16.) What is the minimum slope required for the discharge of liquid combustion by products from condensing appliances?
 - a. 1%
 - b. 2%
 - c. 3%
 - d. 8%
- 17.) Which of the following pipes is not required to be protected by shield plates?
 - a. Copper pipe
 - b. PVC
 - c. Galvanized steel
 - d. Brass pipe
- 18.) How many water closets must be provided for a bar with a peak expected occupancy of 400?
 - a. 5
 - b. 8
 - c. 10
 - d. 12
- 19.) 15 water fountains are required to be installed in a facility. What is the maximum number of bottled water dispensers allowed to substitute these fountains?
 - a. 6
 - b. 7
 - c. 8
 - d. 9

Study Tip

Water fountains are prohibited in restrooms.

- 20.) Trough urinals are _____.
- a. required
 - b. permitted
 - c. allowed only when approved by an official
 - d. prohibited
- 21.) Which of the following is used to support piping?
- a. Hangers
 - b. Anchors
 - c. Supports
 - d. All of the above
- 22.) Shower receptors shall be constructed of _____ materials.
- a. impervious and non-absorbent
 - b. waterproof
 - c. noncorrosive
 - d. All of the above
- 23.) A galvanized steel pipe that passes through a foundation wall requires protection from a sleeve that is _____.
- a. twice its outside dimension size
 - b. two pipe sizes greater
 - c. one pipe size greater
 - d. More information is needed
- 24.) Marble vanity tops with an integral lavatory shall conform to _____.
- a. CSA B45.1
 - b. CSA B45.2
 - c. CSA B45.4
 - d. CSA B45.5

Study Tip

A strike plate prevents any physical damage to piping located in a concealed location.

- 25.) In a concealed location, piping shall be protected by a steel plate and shall extend a minimum of _____ inches above sole plate and below top plates.
- a. CSA B45.1
 - b. CSA B45.2
 - c. CSA B45.4
 - d. CSA B45.5

IPC Practice Exam #1 Answer Key

The following questions are based on Chapters 3 and 4 of the *International Plumbing Code* and cover general regulations, fixtures, faucets, and fixture fittings.

Study Tip

Tempered water shall be a maximum of 110°F

1.) Pipes passing through a concrete wall must be protected against corrosion. What is the minimum wall thickness of the protective sheathing?

- a. 0.008". 305.1
- b. 0.025"
- c. 0.075"
- d. 0.0375"

2.) Exterior water supply system piping shall be installed not less than _____ inches below the frost line.

- a. 6 305.4
- b. 12
- c. 18
- d. 24

3.) Sheet lead for pans shall not weigh less than _____ pounds per square foot.

- a. 1
- b. 2
- c. 3
- d. 4 402.4

4.) CPVC pipe 2 inches in diameter must be horizontally supported every _____ feet.

- a. 3
- b. 4 308.5
- c. 10
- d. 15

Study Tip

Urinals can be substituted for 67% of water closets in assembly and educational occupancies.

Urinals can be substituted for 50% of water closets in all other occupancies.

- 5.) Urinals shall NOT be substituted for more than _____ of the required water closets in assembly and educational occupancies.
- a. 25%
 - b. 33%
 - c. 50% 424.2
 - d. 67%
- 6.) What is the minimum size required for a floor drain?
- a. 1½"
 - b. 2" 413.3
 - c. 2½"
 - d. 3"
- 7.) Which of the following products or materials is required to be third party tested?
- a. Plumbing appliances
 - b. Backflow prevention devices
 - c. Plumbing fixtures 303.4
 - d. All of the above
- 8.) A 10,000 sq. ft. museum has a maximum occupant load of 1,500 people. What is the minimum number of water closets required for female patrons?
- a. 8
 - b. 10
 - c. 12
 - d. 23 Tables 403.1 and 403.2
- 9.) Trenches installed parallel to footings shall not extend below the _____ bearing plane of the wall.
- a. 20°
 - b. 45° 307.5
 - c. 60°
 - d. 90°

Study Tip

Backflow is pressure created in the water distribution system.

- 10.) A dishwasher shall be protected against backflow by a(n) _____.
- a. air break
 - b. air gap 409.2
 - c. vacuum breaker
 - d. check valve
- 11.) Joints at the roof and around vent pipes shall be properly flashed and made watertight by the use of _____ or other approved flashings or flashing materials.
- a. lead
 - b. galvanized steel
 - c. aluminum
 - d. All of the above 305.5
- 12.) 1½" inch copper tube shall have a maximum horizontal hanger spacing of _____ feet.
- a. 6
 - b. 10 Table 308.5
 - c. 12
 - d. 15
- 13.) Patrons of a mall shall not be required to travel more than _____ feet to access toilet facilities.
- a. 100
 - b. 200
 - c. 300 403.4
 - d. 500
- 14.) Shower compartments shall have a minimum cross-sectional area of _____.
- a. 900 square feet
 - b. 900 square inch 421.4
 - c. 70 square inch
 - d. 30 square inch

Study Tip

Condensate piping shall be of approved corrosion-resistant material and not smaller than the drain connection to the appliance.

- 15.) Coin-operated laundries shall be provided with floor drains having a minimum outlet of _____ inches.
- a. 2
 - b. 3** 413.4
 - c. 4
 - d. None of the above
- 16.) What is the minimum slope required for the discharge of liquid combustion by products from condensing appliances?
- a. 1%** 314.4
 - b. 2%
 - c. 3%
 - d. 8%
- 17.) Which of the following pipes is not required to be protected by shield plates?
- a. Copper pipe
 - b. PVC
 - c. Galvanized steel** 305.6
 - d. Brass pipe
- 18.) How many water closets must be provided for a bar with a peak expected occupancy of 400?
- a. 5
 - b. 8
 - c. 10** Table 403.1
 - d. 12
- 19.) 15 water fountains are required to be installed in a facility. What is the maximum number of bottled water dispensers allowed to substitute these fountains?
- a. 6
 - b. 7** 410.4
 - c. 8
 - d. 9

Study Tip

Water fountains are prohibited in restrooms.

- 20.) Trough urinals are _____.
- a. required
 - b. permitted
 - c. allowed only when approved by an official
 - d. prohibited 401.2
- 21.) Which of the following is used to support piping?
- a. Hangers
 - b. Anchors
 - c. Supports
 - d. All of the above 308.3
- 22.) Shower receptors shall be constructed of _____ materials.
- a. impervious and non-absorbent
 - b. waterproof
 - c. noncorrosive
 - d. All of the above 421.5
- 23.) A galvanized steel pipe that passes through a foundation wall requires protection from a sleeve that is _____.
- a. twice its outside dimension size
 - b. two pipe sizes greater 305.3
 - c. one pipe size greater
 - d. More information is needed
- 24.) Marble vanity tops with an integral lavatory shall conform to _____.
- a. CSA B45.1
 - b. CSA B45.2
 - c. CSA B45.4
 - d. CSA B45.5 419.2

Study Tip

A strike plate prevents any physical damage to piping located in a concealed location.

25.) In a concealed location, piping shall be protected by a steel plate and shall extend a minimum of _____ inches above sole plate and below top plates.

- a. CSA B45.1
- b. CSA B45.2
- c. CSA B45.4
- d. CSA B45.5 305.6

IPC Practice Exam #2

The following questions are based on Chapters 5 and 6 of the *International Plumbing Code* and cover water heaters, water supply, and distribution.

Study Tip

Interconnections between hot- and cold-water supply piping systems shall be made to prevent flow between such piping systems.

- 1.) Disregarding exceptions, all of the following are considered individual water supplies except _____.
 - a. drilled wells
 - b. dug wells
 - c. streams
 - d. land cisterns
- 2.) What is the maximum distance a pan drain can terminate above the adjacent ground surface?
 - a. 6"
 - b. 12"
 - c. 18"
 - d. 24"
- 3.) What is the maximum flow pressure of a temperature-controlled shower?
 - a. 8 psi
 - b. 15 psi
 - c. 20 psi
 - d. 25 psi
- 4.) Water service pipe and the building sewer are required to be separated by a minimum of _____ feet.
 - a. 5
 - b. 8
 - c. 10
 - d. 12

Study Tip

Two types of energy sources for water heaters are gas and electric.

- 5.) The overflow for a water supply tank shall be covered by a corrosion-resistant screen of not less than _____ mesh per inch.
 - a. 12 x 20
 - b. 16 x 20
 - c. 18 x 20
 - d. 20 x 20
- 6.) Hospital fixtures shall be protected against backflow with all of the following except:
 - a. Reduced pressure principal backflow preventer
 - b. Dual-check valve
 - c. Spill-proof vacuum breaker
 - d. Air gap
- 7.) When tankless water heaters are intended for domestic use, the temperature of the water shall not exceed _____ degrees.
 - a. 140
 - b. 160
 - c. 180
 - d. 200
- 8.) Water heaters operating above atmospheric pressure shall be provided with _____.
 - a. a levered pressure relief valve
 - b. a temperature valve
 - c. a self-closing pressure relief valve
 - d. a levered pressure relief valve and temperature valve or combination thereof
- 9.) Pumps installed in basements should be mounted on block not less than _____ inches above the floor.
 - a. 6
 - b. 12
 - c. 18
 - d. 24

Study Tip

Transition unions connect two different types of pipe.

- 10.) Joints used between copper and galvanized steel pipe shall be made with (a) _____.
- a. dielectric fitting
 - b. only a mechanical fitting
 - c. special approved adapter
 - d. None of the above
- 11.) Valves used in a water supply system shall have a maximum of _____ lead content.
- a. 0.2%
 - b. 2%
 - c. 4%
 - d. 8%
- 12.) Which of the following backflow prevention devices may be used in a high hazard application?
- a. Double check backflow prevention assembly
 - b. Backflow preventer with intermediate atmospheric vent
 - c. Barometric loop
 - d. Dual-check valve
- 13.) Hazardous piping systems must be identified and repeated at intervals not to exceed _____ feet.
- a. 25
 - b. 30
 - c. 50
 - d. 75
- 14.) Attics containing water heaters shall be provided with a passageway not less than _____.
- a. 30" x 30"
 - b. 22" x 30"
 - c. 20" x 30"
 - d. 20" x 22"

Study Tip

All appliances must be provided with access.

- 15.) Which of the following fixtures requires a minimum ½" supply pipe?
- a. Bidet
 - b. Drinking fountain
 - c. Flushing rim sink
 - d. Wall hydrant
- 16.) Unfired hot water storage tanks shall be insulated to _____.
- a. R-12.5
 - b. R-15
 - c. R-20
 - d. R-30
- 17.) What minimum pipe size should be used for water service?
- a. ½"
 - b. ¾"
 - c. 1"
 - d. 2"
- 18.) Which of the following joints is not permitted between polyethylene plastic pipe and tubing?
- a. Flared joints
 - b. Threaded joints
 - c. Heat fusion joints
 - d. Mechanical joints
- 19.) Shutoff valves are required to be installed in all of the following locations except for _____.
- a. kitchen sinks in a single-family dwellings
 - b. bathtubs in single-family dwellings
 - c. water supply pipe to each sill cock
 - d. water supply pipe to each appliance

Study Tip

A sill cock is an outside faucet used for connection to a garden hose.

- 20.) What is the maximum flow pressure for a private lavatory?
- a. 2 psi
 - b. 8 psi
 - c. 15 psi
 - d. 60 psi
- 21.) Which of the following water service pipes must conform to ASTM D 2672?
- a. Polybutylene plastic pipe
 - b. Ductile iron water pipe
 - c. Polyvinyl chloride plastic pipe
 - d. Chlorinated polyvinyl chloride plastic pipe
- 22.) The required drain size for a water tank that has a capacity of 1800 gallons is _____.
- a. 1"
 - b. 1 ½"
 - c. 2"
 - d. 2 ½"
- 23.) What size overflow pipe is required for a water supply tank if the supply line to the tank has a capacity of 150-200 gpm?
- a. 2"
 - b. 2 ½"
 - c. 3"
 - d. 4"
- 24.) Cross connections between private water supply and public supply shall be _____.
- a. permitted
 - b. required
 - c. prohibited
 - d. None of the above

Study Tip

A well is considered a private water supply.

- 25.) A 3-inch drain pipe can empty a water tank with a capacity of _____ gallons.
- a. 6,000
 - b. 4,000
 - c. 2,000
 - d. 1,000

IPC Practice Exam #2

The following questions are based on Chapters 5 and 6 of the *International Plumbing Code* and cover water heaters, water supply, and distribution.

Study Tip

Interconnections between hot- and cold-water supply piping systems shall be made to prevent flow between such piping systems.

1.) Disregarding exceptions, all of the following are considered individual water supplies except _____.

- a. drilled wells
- b. dug wells
- c. streams
- d. land cisterns 602.3.1

2.) What is the maximum distance a pan drain can terminate above the adjacent ground surface?

- a. 6"
- b. 12"
- c. 18"
- d. 24" 504.7.2

3.) What is the maximum flow pressure of a temperature-controlled shower?

- a. 8 psi
- b. 15 psi
- c. 20 psi Table 604.3
- d. 25 psi

4.) Water service pipe and the building sewer are required to be separated by a minimum of _____ feet.

- a. 5 603.2
- b. 8
- c. 10
- d. 12

Study Tip

Two types of energy sources for water heaters are gas and electric.

- 5.) The overflow for a water supply tank shall be covered by a corrosion-resistant screen of not less than _____ mesh per inch.
- a. 12 x 20
 - b. 16 x 20 606.5.4
 - c. 18 x 20
 - d. 20 x 20
- 6.) Hospital fixtures shall be protected against backflow with all of the following except:
- a. Reduced pressure principal backflow preventer
 - b. Dual-check valve 608.3.1
 - c. Spill-proof vacuum breaker
 - d. Air gap
- 7.) When tankless water heaters are intended for domestic use, the temperature of the water shall not exceed _____ degrees.
- a. 140 501.6
 - b. 160
 - c. 180
 - d. 200
- 8.) Water heaters operating above atmospheric pressure shall be provided with _____.
- a. a levered pressure relief valve
 - b. a temperature valve
 - c. a self-closing pressure relief valve
 - d. a levered pressure relief valve and temperature valve or combination thereof 504.4
- 9.) Pumps installed in basements should be mounted on block not less than _____ inches above the floor.
- a. 6
 - b. 12
 - c. 18 602.3.5.1
 - d. 24

Study Tip

Transition unions connect two different types of pipe.

- 10.) Joints used between copper and galvanized steel pipe shall be made with (a) _____.

a. dielectric fitting 605.23.1
b. only a mechanical fitting
c. special approved adapter
d. None of the above

- 11.) Valves used in a water supply system shall have a maximum of _____ lead content.

a. 0.2%
b. 2%
c. 4%
d. 8% 605.2

- 12.) Which of the following backflow prevention devices may be used in a high hazard application?

a. Double check backflow prevention assembly
b. Backflow preventer with intermediate atmospheric vent
c. Barometric loop Table 608.1
d. Dual-check valve

- 13.) Hazardous piping systems must be identified and repeated at intervals not to exceed _____ feet.

a. 25 608.9.2
b. 30
c. 50
d. 75

- 14.) Attics containing water heaters shall be provided with a passageway not less than _____.

a. 30" x 30"
b. 22" x 30" 502.3
c. 20" x 30"
d. 20" x 22"

Study Tip

All appliances must be provided with access.

- 15.) Which of the following fixtures requires a minimum ½" supply pipe?
- a. Bidet
 - b. Drinking fountain
 - c. Flushing rim sink
 - d. Wall hydrant
- Table 604.5
- 16.) Unfired hot water storage tanks shall be insulated to _____.
- a. R-12.5
 - b. R-15
 - c. R-20
 - d. R-30
- 505.1
- 17.) What minimum pipe size should be used for water service?
- a. ½"
 - b. ¾"
 - c. 1"
 - d. 2"
- 603.1
- 18.) Which of the following joints is not permitted between polyethylene plastic pipe and tubing?
- a. Flared joints
 - b. Threaded joints
 - c. Heat fusion joints
 - d. Mechanical joints
- 605.18
- 19.) Shutoff valves are required to be installed in all of the following locations except for _____.
- a. kitchen sinks in a single-family dwellings
 - b. bathtubs in single-family dwellings
 - c. water supply pipe to each sill cock
 - d. water supply pipe to each appliance
- 606.2

Study Tip

A sill cock is an outside faucet used for connection to a garden hose.

- 20.) What is the maximum flow pressure for a private lavatory?
- a. 2 psi
 - b. 8 psi
 - c. 15 psi
 - d. 60 psi
- Table 604.3
- 21.) Which of the following water service pipes must conform to ASTM D 2672?
- a. Polybutylene plastic pipe
 - b. Ductile iron water pipe
 - c. Polyvinyl chloride plastic pipe
 - d. Chlorinated polyvinyl chloride plastic pipe
- Table 605.3
- 22.) The required drain size for a water tank that has a capacity of 1800 gallons is _____.
- a. 1"
 - b. 1 ½"
 - c. 2"
 - d. 2 ½"
- Table 606.5.7
- 23.) What size overflow pipe is required for a water supply tank if the supply line to the tank has a capacity of 150-200 gpm?
- a. 2"
 - b. 2 ½"
 - c. 3"
 - d. 4"
- Table 606.5.4
- 24.) Cross connections between private water supply and public supply shall be _____.
- a. permitted
 - b. required
 - c. prohibited
 - d. None of the above
- 608.7.1

Study Tip

A well is considered a private water supply.

25.) A 3-inch drain pipe can empty a water tank with a capacity of _____ gallons.

a. 6,000

Table 606.5.7

b. 4,000

c. 2,000

d. 1,000

IPC Practice Exam #3

The following questions are based on Chapter 7 of the *International Plumbing Code* and cover sanitary drainage.

Study Tip

A cleanout plug is placed in drain pipe lines to afford access to the pipes for the purpose of cleaning their interior.

- 1.) What is the maximum temperature wastewater can be when discharged into the building drainage system?
 - a. 60°F
 - b. 140°F
 - c. 180°F
 - d. 200°F
- 2.) Cleanout plugs shall have a _____.
 - a. raised square head
 - b. countersunk square head
 - c. countersunk slot head
 - d. Any of the above
- 3.) A vertical pipe to which connections are made from the fixture side of a trap and through which vapor is removed from a device utilized on bedpan washers is known as a(n) _____.
 - a. stack vent
 - b. vent stack
 - c. individual vent
 - d. local vent stack
- 4.) A horizontal stack offset is located 5 branch intervals below the top of the stack. A horizontal branch interval shall not connect within _____ feet above or below such offset.
 - a. 1
 - b. 2
 - c. 3
 - d. 4

Study Tip

A joint in which compression is applied along the centerline of the pieces being joined is known as a mechanical joint.

- 5.) Cleanouts in a crawl space, where the height of such space is less than _____ inches, shall extend through and out to the surface of the wall providing easy access.
 - a. 18
 - b. 20
 - c. 24
 - d. 30
- 6.) What size pipe is required for a building drain on 1/16" slope accepting discharge from 2,700 fixture units?
 - a. 6"
 - b. 8"
 - c. 10"
 - d. 12"
- 7.) Joints between a cast iron and brass pipe shall be made with all of the following except _____.
 - a. welded joint
 - b. threaded joint
 - c. caulked joint
 - d. approved adapter fitting
- 8.) A quarter bend is used as a change of direction from vertical to horizontal. What is the maximum size fitting allowed?
 - a. 1 1/2"
 - b. 2"
 - c. 3"
 - d. 4"
- 9.) What is the minimum slope for a 5-inch horizontal drain pipe?
 - a. 1/2"
 - b. 1/4"
 - c. 1/8"
 - d. 1/16"

Study Tip

Federal law prohibits the use of solders containing over 0.2% lead in potable water systems.

- 10.) Which of the following types of pipe shall not be used for underground building drainage?
- a. Cast-iron pipe
 - b. Brass pipe
 - c. DWV
 - d. ABS
- 11.) Caulking ferrules for sanitary drainage shall be of _____.
- a. red brass
 - b. stainless steel
 - c. copper alloy
 - d. borosilicate glass
- 12.) Where more than one change of direction occurs in a run of piping, only one cleanout shall be required for each _____ feet of developed length of the drainage piping.
- a. 40
 - b. 50
 - c. 75
 - d. 100
- 13.) A _____ located on the discharge side of the check valve shall be installed in the pump or ejector discharge piping system between the pump or ejector and the gravity drainage system.
- a. check valve
 - b. full open valve
 - c. Both a and b
 - d. Neither a nor b
- 14.) A 4-inch horizontal drain can accommodate a maximum of _____ fixture units.
- a. 160
 - b. 170
 - c. 360
 - d. 400

Study Tip

A sewage ejector lifts sewage by entrain the sewage in a high-velocity jet of steam, air, or water.

- 15.) What is the minimum capacity of a sewage ejector with a 2 ½" discharge pipe?
- a. 21 gpm
 - b. 30 gpm
 - c. 46 gpm
 - d. 50 gpm
- 16.) A sump pit shall have a diameter at least _____ inches.
- a. 18
 - b. 24
 - c. 36
 - d. 48
- 17.) Solvent cement joints shall be permitted _____.
- a. above ground
 - b. below ground
 - c. both above and below ground
 - d. None of the above
- 18.) What is the drainage fixture unit value for a bidet?
- a. 1/2
 - b. 1
 - c. 2
 - d. 3
- 19.) Building sewers with manholes shall be located not more than _____ feet apart from the junction of the building sewer.
- a. 100
 - b. 200
 - c. 300
 - d. 400

Study Tip

A bidet requires connecting the bowl outlet to the DWV piping system through a P-trap.

- 20.) What is the fixture unit value for an unlisted fixture with a 3-inch trap?
- a. 2
 - b. 3
 - c. 4
 - d. 5
- 21.) What is the minimum size cleanout required for a 3" drain pipe?
- a. 1"
 - b. 2"
 - c. 3"
 - d. 4"
- 22.) A fixture having a continuous flow or 3gpm is equivalent to how many fixture units?
- a. 3
 - b. 4
 - c. 5
 - d. 6
- 23.) What is the minimum trap size for a water fountain?
- a. 1 ¼"
 - b. 1 ½"
 - c. 2"
 - d. 2 ½"
- 24.) What is the minimum clearance for rodding a cleanout of a 4-inch pipe?
- a. 18"
 - b. 24"
 - c. 30"
 - d. 36"

Study Tip

Water fountain rough-ins are correctly done when the supply and drain pipes are inside the enclosure of the unit.

- 25.) What is the total fixture unit value for six floor drains and three public water closets rated 1.6 gpf?
- a. 21 dfu
 - b. 24 dfu
 - c. 30 dfu
 - d. 36 dfu

IPC Practice Exam #3

The following questions are based on Chapter 7 of the *International Plumbing Code* and cover sanitary drainage.

Study Tip

A cleanout plug is placed in drain pipe lines to afford access to the pipes for the purpose of cleaning their interior.

1.) What is the maximum temperature wastewater can be when discharged into the building drainage system?

- a. 60°F
- b. 140°F 702.5
- c. 180°F
- d. 200°F

2.) Cleanout plugs shall have a _____.

- a. raised square head
- b. countersunk square head
- c. countersunk slot head
- d. Any of the above 708.1.6

3.) A vertical pipe to which connections are made from the fixture side of a trap and through which vapor is removed from a device utilized on bedpan washers is known as a(n) _____.

- a. stack vent
- b. vent stack
- c. individual vent
- d. local vent stack Chapter 2 definition

4.) A horizontal stack offset is located 5 branch intervals below the top of the stack. A horizontal branch interval shall not connect within _____ feet above or below such offset.

- a. 1
- b. 2 711.2
- c. 3
- d. 4

Study Tip

A joint in which compression is applied along the centerline of the pieces being joined is known as a mechanical joint.

5.) Cleanouts in a crawl space, where the height of such space is less than _____ inches, shall extend through and out to the surface of the wall providing easy access.

- a. 18
- b. 20
- c. 24 708.1.10
- d. 30

6.) What size pipe is required for a building drain on 1/16" slope accepting discharge from 2,700 fixture units?

- a. 6"
- b. 8"
- c. 10"
- d. 12" Table 710.1(1)

7.) Joints between a cast iron and brass pipe shall be made with all of the following except _____.

- a. welded joint 705.16.3
- b. threaded joint
- c. caulked joint
- d. approved adapter fitting

8.) A quarter bend is used as a change of direction from vertical to horizontal. What is the maximum size fitting allowed?

- a. 1 1/2"
- b. 2" Table 706.3 footnote
- c. 3"
- d. 4"

9.) What is the minimum slope for a 5-inch horizontal drain pipe?

- a. 1/2"
- b. 1/4"
- c. 1/8" Table 704.1
- d. 1/16"

Study Tip

Federal law prohibits the use of solders containing over 0.2% lead in potable water systems.

- 10.) Which of the following types of pipe shall not be used for underground building drainage?
- a. Cast-iron pipe
 - b. Brass pipe Table 702.2
 - c. DWV
 - d. ABS
- 11.) Caulking ferrules for sanitary drainage shall be of _____.
- a. red brass
 - b. stainless steel
 - c. copper alloy 705.18
 - d. borosilicate glass
- 12.) Where more than one change of direction occurs in a run of piping, only one cleanout shall be required for each _____ feet of developed length of the drainage piping.
- a. 40 708.1.4
 - b. 50
 - c. 75
 - d. 100
- 13.) A _____ located on the discharge side of the check valve shall be installed in the pump or ejector discharge piping system between the pump or ejector and the gravity drainage system.
- a. check valve
 - b. full open valve
 - c. Both a and b 712.2
 - d. Neither a nor b
- 14.) A 4-inch horizontal drain can accommodate a maximum of _____ fixture units.
- a. 160 Table 710.1(2)
 - b. 170
 - c. 360
 - d. 400

Study Tip

A sewage ejector lifts sewage by entrain the sewage in a high-velocity jet of steam, air, or water.

- 15.) What is the minimum capacity of a sewage ejector with a 2 ½" discharge pipe?
- a. 21 gpm
 - b. 30 gpm
 - c. 46 gpm
 - d. 50 gpm
- Table 712.4.2
- 16.) A sump pit shall have a diameter at least _____ inches.
- a. 18
 - b. 24
 - c. 36
 - d. 48
- 712.3.2
- 17.) Solvent cement joints shall be permitted _____.
- a. above ground
 - b. below ground
 - c. both above and below ground
 - d. None of the above
- 705.10.2
- 18.) What is the drainage fixture unit value for a bidet?
- a. 1/2
 - b. 1
 - c. 2
 - d. 3
- Table 709.1
- 19.) Building sewers with manholes shall be located not more than _____ feet apart from the junction of the building sewer.
- a. 100
 - b. 200
 - c. 300
 - d. 400
- 708.1.2

Study Tip

A bidet requires connecting the bowl outlet to the DWV piping system through a P-trap.

- 20.) What is the fixture unit value for an unlisted fixture with a 3-inch trap?
- a. 2
 - b. 3
 - c. 4
 - d. 5
- Table 709.2
- 21.) What is the minimum size cleanout required for a 3" drain pipe?
- a. 1"
 - b. 2"
 - c. 3"
 - d. 4"
- 708.1.5
- 22.) A fixture having a continuous flow or 3gpm is equivalent to how many fixture units?
- a. 3
 - b. 4
 - c. 5
 - d. 6
- 709.3
- 23.) What is the minimum trap size for a water fountain?
- a. 1 ¼"
 - b. 1 ½"
 - c. 2"
 - d. 2 ½"
- Table 709.1
- 24.) What is the minimum clearance for rodding a cleanout of a 4-inch pipe?
- a. 18"
 - b. 24"
 - c. 30"
 - d. 36"
- 708.1.9

Study Tip

Water fountain rough-ins are correctly done when the supply and drain pipes are inside the enclosure of the unit.

25.) What is the total fixture unit value for six floor drains and three public water closets rated 1.6 gpf?

- a. 21 dfu
- b. 24 dfu
- c. 30 dfu
- d. 36 dfu

Table 709.1

IPC Practice Exam #4

The following questions are based on Chapter 7 of the *International Plumbing Code* and cover drainage fixture unit values, horizontal, drains, and building drains.

Study Tip

The stub-out must be cut off and a valve installed before the water closet is put in position.

- 1.) A water closet flushing 1.6 gpm and a lavatory are connected to a horizontal branch in a dwelling unit. What is the fixture unit total that will be discharging into this branch?
 - a. 4 dfu
 - b. 5 dfu
 - c. 6 dfu
 - d. 8 dfu
- 2.) What size horizontal branch is required to convey the discharge to the building drain from question #1?
 - a. 1 ½"
 - b. 2"
 - c. 2 ½"
 - d. 3"
- 3.) A clothes washer, two compartment laundry tray, and a floor drain are connected to a horizontal branch in a home. What size pipe diameter is required for drainage?
 - a. 1 ½"
 - b. 2"
 - c. 2 ½"
 - d. 3"
- 4.) A four-story motel contains 6 sleeping rooms on each floor. All sleeping rooms include a bathroom group with a water closet flushing greater than 1.6 gpm. What is the total dfu value discharging into each branch interval?
 - a. 30
 - b. 36
 - c. 120
 - d. 144

Study Tip

A bathroom group consists of a water closet, lavatory, bathtub or shower, including or excluding a bidet, an emergency floor drain or both.

- 5.) An 8-inch stack is conveying 2,000 fixture units worth of drainage into the building drain. The building has five floors. How many dfus are emptying into this stack at each floor?
- a. 400
 - b. 2,000
 - c. 2,200
 - d. 3,600
- 6.) A 1/8"-inch sloped building drain receives discharge from 2 branch Intervals. Each branch interval conveys 120 fixture units worth of waste. What size building drain is required to transport the drainage to the sewer?
- a. 3"
 - b. 4"
 - c. 5"
 - d. 6"
- 7.) What is the maximum number of fixture units allowed to convey through a 6-inch building drain on a 1/2" slope?
- a. 575 dfu
 - b. 840 dfu
 - c. 1,000 dfu
 - d. 2,300 dfu
- 8.) Given: Horizontal branch #1 = 46 dfu
Horizontal branch #2 = 38 dfu
Horizontal branch #3 = 54 dfu
- Building drain's slope = 1/4"
- What size building drain is required to convey the discharge from the horizontal branches listed above?
- a. 3"
 - b. 4"
 - c. 5"
 - d. 6"

IPC Practice Exam #4

The following questions are based on Chapter 7 of the *International Plumbing Code* and cover drainage fixture unit values, horizontal, drains, and building drains.

Study Tip

The stub-out must be cut off and a valve installed before the water closet is put in position.

- 1.) A water closet flushing 1.6 gpm and a lavatory are connected to a horizontal branch in a dwelling unit. What is the fixture unit total that will be discharging into this branch?

a. 4 dfu
b. 5 dfu
c. 6 dfu
d. 8 dfu

Table 709.1

- 2.) What size horizontal branch is required to convey the discharge to the building drain from question #1?

a. 1 ½"
b. 2"
c. 2 ½"
d. 3"

Table 710.1(1) footnote

- 3.) A clothes washer, two compartment laundry tray, and a floor drain are connected to a horizontal branch in a home. What size pipe diameter is required for drainage?

a. 1 ½"
b. 2"
c. 2 ½"
d. 3"

Table 709.1 and Table 710.1(2) 2 + 2 + 2 = 6 dfu

- 4.) A four-story motel contains 6 sleeping rooms on each floor. All sleeping rooms include a bathroom group with a water closet flushing greater than 1.6 gpm. What is the total dfu value discharging into each branch interval?

a. 30
b. 36
c. 120
d. 144

Table 709.1

6 sleeping rooms x 6 dfu = 36

Study Tip

A bathroom group consists of a water closet, lavatory, bathtub or shower, including or excluding a bidet, an emergency floor drain or both.

- 5.) An 8-inch stack is conveying 2,000 fixture units worth of drainage into the building drain. The building has five floors. How many dfus are emptying into this stack at each floor?

a. 400 Table 710.1(2)
b. 2,000
c. 2,200
d. 3,600

- 6.) A 1/8"-inch sloped building drain receives discharge from 2 branch Intervals. Each branch interval conveys 120 fixture units worth of waste. What size building drain is required to transport the drainage to the sewer?

a. 3"
b. 4"
c. 5" Table 710.1(1)
d. 6"

- 7.) What is the maximum number of fixture units allowed to convey through a 6-inch building drain on a 1/2" slope?

a. 575 dfu
b. 840 dfu
c. 1,000 dfu Table 710.1(1)
d. 2,300 dfu

- 8.) Given: Horizontal branch #1 = 46 dfu
Horizontal branch #2 = 38 dfu
Horizontal branch #3 = 54 dfu

Building drain's slope = 1/4"

What size building drain is required to convey the discharge from the horizontal branches listed above?

a. 3"
b. 4" Table 710.1(1)
c. 5"
d. 6"

IPC Practice Exam #5

The following questions are based on Chapter 8 and 9 of the *International Plumbing Code* and cover indirect waste and vents.

Study Tip

At any point in the waste piping where there is a directional change, a relief vent will help eliminate backpressure buildup.

- 1.) All horizontal indirect waste pipes exceeding _____ feet must be trapped.
 - a. 2
 - b. 4
 - c. 6
 - d. 8
- 2.) Standpipes shall extend a maximum of _____ inches above the trap weir.
 - a. 12
 - b. 18
 - c. 36
 - d. 42
- 3.) A vent stack is required for every drainage stack that exceeds _____.
 - a. 2 branch intervals
 - b. 3 branch intervals
 - c. 4 branch intervals
 - d. 5 branch intervals
- 4.) The developed length of a relief vent is measured from the farthest point of vent connection to the drainage system, then, to the point of connection to the _____.
 - a. vent stack
 - b. stack vent
 - c. termination outside a building
 - d. All of the above

Study Tip

An air admittance valve allows air to enter the plumbing drainage system when negative pressure develops in the piping system.

- 5.) A sump pump, other than pneumatic, has a discharge capacity of 60 gpm. What diameter of vent pipe is required if the developed length is 78 feet?
- a. 1 ¼"
 - b. 1 ½"
 - c. 2"
 - d. 2 ½"
- 6.) Where fixture drains connect at different levels and share a common vent, which fixture is not permitted at the uppermost level?
- a. Water closet
 - b. Urinal
 - c. Three-compartment sink
 - d. Whirlpool spa
- 7.) Air admittance valves are required to be installed how far above insulation materials?
- a. 6"
 - b. 12"
 - c. 18"
 - d. 24"
- 8.) A dry vent shall rise to a minimum of _____ above the flood level rim of the highest trap.
- a. 4"
 - b. 6"
 - c. 8"
 - d. 10"
- 9.) In order for any harmful chemicals to be discharged into a plumbing system, what must first happen to prevent injury to the drain or sewer?
- a. Chemicals must be diluted
 - b. chemicals must be neutralized
 - c. Both a and b
 - d. None of the above

Study Tip

Flashing prevents water from leaking into the building around the stack.

- 10.) A trap seal of any fixture shall not be subjected to a pneumatic pressure differential of more than _____.
 - a. 0.5" WC
 - b. 1" WC
 - c. 2" WC
 - d. None of the above
- 11.) A vent that connects to a horizontal drainage branch and vents a minimum of two traps up to a maximum of eight is called a(n) _____.
 - a. common vent
 - b. circuit vent
 - c. branch vent
 - d. individual vent
- 12.) What is the maximum developed length of a 2 ½" vent?
 - a. 230'
 - b. 270'
 - c. 300'
 - d. 360'
- 13.) An individual vent serving as a common vent is permitted to vent _____ traps.
 - a. 2
 - b. 3
 - c. 4
 - d. 6
- 14.) A 20-foot branch vent is 2 inches in diameter. What size branch vent would be required if the developed length is increased to 50 feet?
 - a. Same size is required
 - b. Increase the diameter by one nominal size for entire developed length
 - c. Increase the diameter by two nominal sizes for entire developed length
 - d. Increase the diameter by two and one-half sizes for entire developed length

Study Tip

A common vent connects at the junction of two fixture drains.

- 15.) What is the maximum distance from the trap weir to the vent if the drain size is 1 1/4"?
- a. 3 1/2'
 - b. 5'
 - c. 6'
 - d. 10'
- 16.) Waste receptors shall be permitted in the form of a hub or pipe extending not less than _____ above a water-impervious floor and are not required to have a strainer.
- a. 1"
 - b. 1 1/2"
 - c. 2"
 - d. 2 1/4"
- 17.) What is the minimum size wet vent required if the fixture unit discharge to the wet vent is 5 dfus?
- a. 1 1/2"
 - b. 2"
 - c. 2 1/2"
 - d. 3"
- 18.) What size relief vent is required if connected to a 4-inch vent stack?
- a. 1"
 - b. 2"
 - c. 3"
 - d. None of the above
- 19.) An air admittance valve is used to vent fixtures _____.
- a. once every 2 floors
 - b. once every 3 floors
 - c. on the same floor level
 - d. None of the above

Study Tip

Fixtures discharging only liquid waste can be safely connected to a wet vent.

- 20.) What is the maximum wet vent size permitted?
- a. 1 ½"
 - b. 2"
 - c. 2 ½"
 - d. 3"
- 21.) What is the minimum size air gap required for a 1 ½" indirect waste pipe?
- a. 1 ½"
 - b. 2"
 - c. 2 ½"
 - d. 3"
- 22.) Vent terminals extending through a wall shall terminate a minimum of _____ feet from a lot line.
- a. 10
 - b. 15
 - c. 20
 - d. 25
- 23.) Sheet copper for vent flashings must weigh a minimum of _____ ounces per square foot.
- a. 4
 - b. 6
 - c. 8
 - d. 10
- 24.) What is the maximum distance allowed from a fixture trap to the vent if the trap size is 1 ½" on ¼" slope?
- a. 3 ½'
 - b. 5'
 - c. 6'
 - d. All of the above

Study Tip

Vent terminals shall not be used as a flag pole or television aerals.

- 25.) What is the minimum size stack vent allowed to serve a drain?
- a. 1 ¼"
 - b. 1 ½"
 - c. 2"
 - d. 2 ½"

IPC Practice Exam #5

The following questions are based on Chapter 8 and 9 of the *International Plumbing Code* and cover indirect waste and vents.

Study Tip

At any point in the waste piping where there is a directional change, a relief vent will help eliminate backpressure buildup.

1.) All horizontal indirect waste pipes exceeding _____ feet must be trapped.

- a. 2 802.3
- b. 4
- c. 6
- d. 8

2.) Standpipes shall extend a maximum of _____ inches above the trap weir.

- a. 12
- b. 18
- c. 36
- d. 42 802.4.3

3.) A vent stack is required for every drainage stack that exceeds _____.

- a. 2 branch intervals
- b. 3 branch intervals
- c. 4 branch intervals
- d. 5 branch intervals 904.2

4.) The developed length of a relief vent is measured from the farthest point of vent connection to the drainage system, then, to the point of connection to the _____.

- a. vent stack
- b. stack vent
- c. termination outside a building
- d. All of the above 906.3

Study Tip

An air admittance valve allows air to enter the plumbing drainage system when negative pressure develops in the piping system.

- 5.) A sump pump, other than pneumatic, has a discharge capacity of 60 gpm. What diameter of vent pipe is required if the developed length is 78 feet?
- a. 1 ¼"
 - b. 1 ½"
 - c. 2" Table 906.1
 - d. 2 ½"
- 6.) Where fixture drains connect at different levels and share a common vent, which fixture is not permitted at the uppermost level?
- a. Water closet 911.3
 - b. Urinal
 - c. Three-compartment sink
 - d. Whirlpool spa
- 7.) Air admittance valves are required to be installed how far above insulation materials?
- a. 6" 918.4
 - b. 12"
 - c. 18"
 - d. 24"
- 8.) A dry vent shall rise to a minimum of _____ above the flood level rim of the highest trap.
- a. 4"
 - b. 6" 905.4
 - c. 8"
 - d. 10"
- 9.) In order for any harmful chemicals to be discharged into a plumbing system, what must first happen to prevent injury to the drain or sewer?
- a. Chemicals must be diluted
 - b. chemicals must be neutralized
 - c. Both a and b 803.1
 - d. None of the above

Study Tip

Flashing prevents water from leaking into the building around the stack.

- 10.) A trap seal of any fixture shall not be subjected to a pneumatic pressure differential of more than _____.
a. 0.5" WC
b. 1" WC 901.2
c. 2" WC
d. None of the above
- 11.) A vent that connects to a horizontal drainage branch and vents a minimum of two traps up to a maximum of eight is called a(n) _____.
a. common vent
b. circuit vent 914.1 and Chapter 2
c. branch vent
d. individual vent
- 12.) What is the maximum developed length of a 2 ½" vent?
a. 230'
b. 270'
c. 300' Table 906.1
d. 360'
- 13.) An individual vent serving as a common vent is permitted to vent _____ traps.
a. 2 911.1
b. 3
c. 4
d. 6
- 14.) A 20-foot branch vent is 2 inches in diameter. What size branch vent would be required if the developed length is increased to 50 feet?
a. Same size is required
b. Increase the diameter by one nominal size for entire developed length 906.2
c. Increase the diameter by two nominal sizes for entire developed length
d. Increase the diameter by two and one-half sizes for entire developed length

Study Tip

A common vent connects at the junction of two fixture drains.

15.) What is the maximum distance from the trap weir to the vent if the drain size is 1 1/4"?

- a. 3 1/2' Table 909.1
- b. 5'
- c. 6'
- d. 10'

16.) Waste receptors shall be permitted in the form of a hub or pipe extending not less than _____ above a water-impervious floor and are not required to have a strainer.

- a. 1" 802.4.2
- b. 1 1/2"
- c. 2"
- d. 2 1/4"

17.) What is the minimum size wet vent required if the fixture unit discharge to the wet vent is 5 dfus?

- a. 1 1/2"
- b. 2"
- c. 2 1/2" 912.3
- d. 3"

18.) What size relief vent is required if connected to a 4-inch vent stack?

- a. 1"
- b. 2"
- c. 3"
- d. None of the above 908.2

19.) An air admittance valve is used to vent fixtures _____.

- a. once every 2 floors
- b. once every 3 floors
- c. on the same floor level 918.3
- d. None of the above

Study Tip

Fixtures discharging only liquid waste can be safely connected to a wet vent.

- 20.) What is the maximum wet vent size permitted?
- a. 1 ½"
 - b. 2"
 - c. 2 ½"
 - d. 3" Table 912.3
- 21.) What is the minimum size air gap required for a 1 ½" indirect waste pipe?
- a. 1 ½"
 - b. 2"
 - c. 2 ½"
 - d. 3" 802.2.1
- 22.) Vent terminals extending through a wall shall terminate a minimum of _____ feet from a lot line.
- a. 10 903.6
 - b. 15
 - c. 20
 - d. 25
- 23.) Sheet copper for vent flashings must weigh a minimum of _____ ounces per square foot.
- a. 4
 - b. 6
 - c. 8 902.2
 - d. 10
- 24.) What is the maximum distance allowed from a fixture trap to the vent if the trap size is 1 ½" on ¼" slope?
- a. 3 ½'
 - b. 5'
 - c. 6' Table 909.1
 - d. All of the above

Study Tip

Vent terminals shall not be used as a flag pole or television aerials.

25.) What is the minimum size stack vent allowed to serve a drain?

- a. 1 ¼" 906.1
- b. 1 ½"
- c. 2"
- d. 2 ½"

IPC Practice Exam #6

The following questions are based on Chapter 10 and 11 of the *International Plumbing Code* and cover traps, interceptors, separators, and storm drainage.

Study Tip

A leader is an exterior drain pipe for conveying storm water from roof or gutter drains.

- 1.) What is the maximum size liquid seal required for fixture traps?
 - a. 1 ½"
 - b. 2"
 - c. 3"
 - d. 4"
- 2.) A cast-iron subsoil drain pipe must conform to all of the following standards except _____.
 - a. ASTM B 74
 - b. ASTM A 888
 - c. CISPI 301
 - d. ASTM A 74
- 3.) What is the minimum slope required for the horizontal branches of a building storm drain?
 - a. 1/8 unit vertical in 12 units horizontal
 - b. 1/4 unit vertical in 12 units horizontal
 - c. 1/2 unit vertical in 12 units horizontal
 - d. 3/4 unit vertical in 12 units horizontal
- 4.) A 12,000 square foot roof has six leaders installed for storm drainage. How many square feet of roof area is each leader responsible for draining?
 - a. 6,000 sq. ft.
 - b. 4,000 sq. ft.
 - c. 2,000 sq. ft.
 - d. Not enough information

Study Tip

A drum trap is a vertically oriented cylinder with an inlet near the bottom outlet near the top.

- 5.) A sump pit shall be constructed from what type of material?
- a. Plastic
 - b. Steel
 - c. Tile
 - d. All of the above
- 6.) Discharge piping from an ejector in a dwelling unit is required to have what kind of valve?
- a. Check valve
 - b. Gate valve
 - c. Globe valve
 - d. No valve is required
- 7.) Which of the following is a prohibited trap?
- a. Bell trap
 - b. Crown-vented trap
 - c. Drum trap
 - d. All of the above
- 8.) Which of the following is permitted to discharge storm water out onto a street?
- a. A drug store having at least 25' of clearance in front of building
 - b. A ten-unit apartment complex
 - c. A convenience store surrounded by a concrete parking lot
 - d. A two-family dwelling
- 9.) Two gpm of continuous discharge into building storm drain is equivalent to _____ of roof area.
- Given: 1 inch per hour rainfall rate
- a. 96 sq. ft.
 - b. 192 sq. ft.
 - c. 288 sq. ft.
 - d. 384 sq. ft.

Study Tip

Grease interceptors shall receive waste only from fixtures and equipment that allows fats, oils, or grease to be discharged.

- 10.) Roof drains have strainers which must extend a minimum of _____ inches above the roof's surface.
 - a. 1 ½"
 - b. 2"
 - c. 3"
 - d. 4"
- 11.) What is the maximum distance allowed from a fixture outlet to a trap weir?
 - a. 12"
 - b. 18"
 - c. 24"
 - d. 36"
- 12.) What is the retention capacity of a grease trap with a 7-gpm flow through rating?
 - a. 14 lbs.
 - b. 18 lbs.
 - c. 20 lbs.
 - d. 24 lbs.
- 13.) When an oil separator is required, it shall have a depth of not less than _____ below the invert of the discharge drain.
 - a. 24"
 - b. 28"
 - c. 32"
 - d. 34"
- 14.) What is the minimum diameter of a subsoil drain?
 - a. 2"
 - b. 3"
 - c. 4"
 - d. 6"

Study Tip

A common vent connects at the junction of two fixture drains.

- 15.) A sump pit's discharge piping must include a _____.
a. a full flow check valve
b. double check valve
c. gate valve
d. gate valve and full flow check valve
- 16.) What is the minimum number of roof drains required to be installed on a 10,000 square foot roof area?
a. 2
b. 4
c. 5
d. 10
- 17.) Subsoil drains shall discharge to a _____.
a. sump
b. dry well
c. approved location above ground
d. All of the above
- 18.) Which of the following is not required to have an oil separator?
a. A mechanics garage
b. Commercial parking garage storing automobiles
c. A parking garage which dispenses gasoline
d. Car wash
- 19.) Slip joints shall be installed only _____.
a. on the trap inlet
b. on the trap outlet
c. within the trap seal
d. All of the above
- 20.) Sand interceptors shall have a water seal not less than _____.
a. 6"
b. 12"
c. 18"
d. 24"

Study Tip

In sizing roof drains and storm drainage piping, one half of the area of any vertical wall that diverts rainwater to the roof shall be added to the projected roof area.

- 21.) What size trap is required for a 4-inch storm drain connected to a combined sewer?
- a. 3"
 - b. 4"
 - c. 5"
 - d. None of the above
- 22.) What is the minimum size water seal required of an outlet opening to an oil separator?
- a. 6"
 - b. 12"
 - c. 18"
 - d. 24"
- 23.) What is the capacity of a 4' x 5' vertical leader?
- a. 92 gpm
 - b. 192 gpm
 - c. 360 gpm
 - d. 563 gpm
- 24.) A 15,000 square foot roof area is required to have at least how many roof drains?
- a. 2
 - b. 4
 - c. 5
 - d. 10
- 25.) Where an acid-resisting trap is installed underground, it must be embedded in concrete extending _____ inches beyond the bottom and sides of the trap.
- a. 3
 - b. 4
 - c. 5
 - d. 6

IPC Practice Exam #6

The following questions are based on Chapter 10 and 11 of the *International Plumbing Code* and cover traps, interceptors, separators, and storm drainage.

Study Tip

A leader is an exterior drain pipe for conveying storm water from roof or gutter drains.

- 1.) What is the maximum size liquid seal required for fixture traps?
 - a. 1 ½"
 - b. 2"
 - c. 3"
 - d. 4" 1002.4

- 2.) A cast-iron subsoil drain pipe must conform to all of the following standards except _____.
 - a. ASTM B 74 Table 1102.5
 - b. ASTM A 888
 - c. CISPI 301
 - d. ASTM A 74

- 3.) What is the minimum slope required for the horizontal branches of a building storm drain?
 - a. 1/8 unit vertical in 12 units horizontal 1106.2
 - b. 1/4 unit vertical in 12 units horizontal
 - c. 1/2 unit vertical in 12 units horizontal
 - d. 3/4 unit vertical in 12 units horizontal

- 4.) A 12,000 square foot roof has six leaders installed for storm drainage. How many square feet of roof area is each leader responsible for draining?
 - a. 6,000 sq. ft.
 - b. 4,000 sq. ft.
 - c. 2,000 sq. ft. 12,000 sq. ft. / 6 leaders = 2,000
 - d. Not enough information

Study Tip

A drum trap is a vertically oriented cylinder with an inlet near the bottom outlet near the top.

5.) A sump pit shall be constructed from what type of material?

- a. Plastic
- b. Steel
- c. Tile
- d. All of the above 1113.1.2

6.) Discharge piping from an ejector in a dwelling unit is required to have what kind of valve?

- a. Check valve 1113.1.4 Exception
- b. Gate valve
- c. Globe valve
- d. No valve is required

7.) Which of the following is a prohibited trap?

- a. Bell trap
- b. Crown-vented trap
- c. Drum trap
- d. All of the above 1002.3

8.) Which of the following is permitted to discharge storm water out onto a street?

- a. A drug store having at least 25' of clearance in front of building
- b. A ten-unit apartment complex
- c. A convenience store surrounded by a concrete parking lot
- d. A two-family dwelling 1101.2

9.) Two gpm of continuous discharge into building storm drain is equivalent to _____ of roof area.

Given: 1 inch per hour rainfall rate

- a. 96 sq. ft.
- b. 192 sq. ft. 1109.1
- c. 288 sq. ft.
- d. 384 sq. ft.

Study Tip

Grease interceptors shall receive waste only from fixtures and equipment that allows fats, oils, or grease to be discharged.

10.) Roof drains have strainers which must extend a minimum of _____ inches above the roof's surface.

- a. 1 ½"
- b. 2"
- c. 3"
- d. 4" 1105.1

11.) What is the maximum distance allowed from a fixture outlet to a trap weir?

- a. 12"
- b. 18"
- c. 24" 1002.1
- d. 36"

12.) What is the retention capacity of a grease trap with a 7-gpm flow through rating?

- a. 14 lbs. Table 1003.3.5.1
- b. 18 lbs.
- c. 20 lbs.
- d. 24 lbs.

13.) When an oil separator is required, it shall have a depth of not less than _____ below the invert of the discharge drain.

- a. 24" Table 1106.2
- b. 28"
- c. 32"
- d. 34"

14.) What is the minimum diameter of a subsoil drain?

- a. 2"
- b. 3"
- c. 4" 1111.1
- d. 6"

Study Tip

A common vent connects at the junction of two fixture drains.

15.) A sump pit's discharge piping must include a _____.

- a. a full flow check valve
- b. double check valve
- c. gate valve
- d. gate valve and full flow check valve 1113.1.4

16.) What is the minimum number of roof drains required to be installed on a 10,000 square foot roof area?

- a. 2 1110.4
- b. 4
- c. 5
- d. 10

17.) Subsoil drains shall discharge to a _____.

- a. sump
- b. dry well
- c. approved location above ground
- d. All of the above 1111.1

18.) Which of the following is not required to have an oil separator?

- a. A mechanics garage
- b. Commercial parking garage storing automobiles 1003.4.2.1
- c. A parking garage which dispenses gasoline
- d. Car wash

19.) Slip joints shall be installed only _____.

- a. on the trap inlet
- b. on the trap outlet
- c. within the trap seal
- d. All of the above 1002.2

Study Tip

In sizing roof drains and storm drainage piping, one half of the area of any vertical wall that diverts rainwater to the roof shall be added to the projected roof area.

20.) Sand interceptors shall have a water seal not less than _____.

- a. 6" 1003.5
- b. 12"
- c. 18"
- d. 24"

21.) What size trap is required for a 4-inch storm drain connected to a combined sewer?

- a. 3"
- b. 4" 1103.3
- c. 5"
- d. None of the above

22.) What is the minimum size water seal required of an outlet opening to an oil separator?

- a. 6"
- b. 12"
- c. 18" 1003.4.2.1
- d. 24"

23.) What is the capacity of a 4' x 5' vertical leader?

- a. 92 gpm
- b. 192 gpm
- c. 360 gpm
- d. 563 gpm Table 1106.3

24.) A 15,000 square foot roof area is required to have at least how many roof drains?

- a. 2
- b. 4 1110.4
- c. 5
- d. 10

25.) Where an acid-resisting trap is installed underground, it must be embedded in concrete extending _____ inches beyond the bottom and sides of the trap.

a. 3

b. 4

c. 5

d. 6

1002.9