

## TEAM Architect Question Bank

### Multiple Choice

Identify the choice that best completes the statement or answers the question.

- \_\_\_\_\_ 1. The Cape Cod is one of the earliest and best known of the traditional \_\_\_\_\_ styles.  
A. Southern  
B. Colonial  
C. Eastern  
D. European
- \_\_\_\_\_ 2. The basic roof style of the ranch style is a(n) \_\_\_\_\_ roof.  
A. flat  
B. gabled  
C. mansard  
D. hip
- \_\_\_\_\_ 3. The \_\_\_\_\_ home style is basically a long, low, one-story house that originated in the southwestern part of the country.  
A. contemporary  
B. split-level  
C. Ranch  
D. Cape Cod
- \_\_\_\_\_ 4. What type of houses were portable, mass-produced, unassembled, and available through catalogs?  
A. Federal/Adam  
B. Cape Cod  
C. Mail-order  
D. Bungalow
- \_\_\_\_\_ 5. Which feature is considered to be the main feature of the Greek Revival style?  
A. Covered entry or porch with classical columns  
B. Flat roofs  
C. Built from adobe blocks  
D. Centrally located chimney
- \_\_\_\_\_ 6. The reason that a ranch design is generally more expensive to build than a two-story home of the same square footage is that \_\_\_\_\_.  
A. it requires more roof area and more foundation length  
B. it requires more windows and doors  
C. builders do not like to build ranch homes  
D. a building permit for a ranch home is more costly
- \_\_\_\_\_ 7. One-and-one-half-story homes generally have \_\_\_\_\_ to enhance the look of the exterior and to provide light and additional usable space in the attic area.  
A. skylights  
B. glass sliding doors  
C. picture windows  
D. dormers
- \_\_\_\_\_ 8. One disadvantage of a two-story house is that \_\_\_\_\_.  
A. it is more costly to heat because of the heights

- B. it has little resale value
- C. general exterior maintenance is usually more difficult and costly
- D. the second floor is too far from the furnace

- \_\_\_ 9. The amount of \_\_\_ space in an attic is determined by the width and height of the house.
- A. uninhabitable
  - B. habitable
  - C. storage
  - D. None of the above.
- \_\_\_ 10. Which of the following is a disadvantage of the one-and-one-half-story design?
- A. Costs more than other designs to build.
  - B. Stairs, dormers, and complicated roofs add to building costs.
  - C. Free movement of air among all levels of the house increases heating and cooling costs.
  - D. No room for expansion.
- \_\_\_ 11. Which of the following best describes a two-story design?
- A. Little hall space is needed and the sleeping, living, and service areas are on different levels.
  - B. It is possible to expand living space into the attic.
  - C. It is economical to build, requires a smaller lot, and has a small roof and foundation area compared to interior space of most other designs.
  - D. It is built on one level, allowing patios, porches, and terraces to be built outside any room.
- \_\_\_ 12. Which of the following house designs takes advantage of a sloping or hilly lot?
- A. One-story ranch design.
  - B. One-and-one-half-story design.
  - C. Two-story design.
  - D. Split-level design.
- \_\_\_ 13. The academic credentials required for an architect are generally a(n) \_\_\_\_.
- A. few years of work experience
  - B. associate degree
  - C. bachelor's degree
  - D. master's degree
- \_\_\_ 14. A(n) \_\_\_ generally draws the details of working drawings and makes tracings from original drawings that the architect or designer has prepared.
- A. junior architect
  - B. architectural drafter
  - C. architectural illustrator
  - D. construction technologist
- \_\_\_ 15. The job of the \_\_\_ is to prepare all the necessary written information needed to describe materials, methods, and fixtures to be used in the structure.
- A. architectural illustrator
  - B. estimator
  - C. construction technologist
  - D. specifications writer
- \_\_\_ 16. The educational requirement for an estimator frequently includes \_\_\_\_.
- A. only high school graduation
  - B. an associate degree in building construction

- C. a bachelor's degree
- D. None of the above.

- \_\_\_ 17. Opportunities to teach architectural drawing exist in \_\_\_\_.
- A. high schools and trade or vocational schools
  - B. community colleges
  - C. universities
  - D. All of the above.
- \_\_\_ 18. A registered architect is qualified to \_\_\_\_.
- A. determine the boundary lines of a site
  - B. design structures that meet the standards for health, safety, and property
  - C. select the furnishings and color scheme for a dwelling
  - D. None of the above.
- \_\_\_ 19. To become an architectural drafter, a person should have completed high school, possess a knowledge of architectural drawing, and \_\_\_\_.
- A. be familiar with a CAD system
  - B. have an art background
  - C. possess an understanding of economics
  - D. All of the above.
- \_\_\_ 20. Employability skills \_\_\_\_.
- A. help you get and keep a job
  - B. can be learned or developed through experience
  - C. are needed in addition to job skills
  - D. All of the above.
- \_\_\_ 21. Workplace skills include \_\_\_\_ skills.
- A. communication
  - B. personal management
  - C. teamwork
  - D. All of the above.
- \_\_\_ 22. Which of the following is an example of good business etiquette?
- A. Taking a phone call during a meeting.
  - B. Interrupting a speaker during a presentation.
  - C. Turning your cell phone off before entering a meeting.
  - D. Teasing a coworker.
- \_\_\_ 23. Which plan locates switches, electrical outlets, ceiling fixtures, and television and cable jacks?
- A. Foundation.
  - B. Plumbing.
  - C. Plot.
  - D. Electrical.
- \_\_\_ 24. Which of the following items will be found on a plot plan?
- A. The direction of joists and major supporting members.
  - B. A description of how the structure has been designed to accommodate future expansion.
  - C. Location of the house on the site, utilities, topographical features, and site dimensions.
  - D. Exterior and interior walls, doors, windows, patios, walks, decks, and fireplaces.

- \_\_\_ 25. A(n) \_\_\_ plan illustrates all exterior and interior walls, doors, windows, patios, walks, decks, fireplaces, mechanical equipment, built-in cabinets, appliances, and bathroom fixtures.
- A. foundation
  - B. furniture
  - C. floor
  - D. roof
- \_\_\_ 26. Which of the following are examples of special-purpose rooms?
- A. Atrium, greenhouse, sunroom.
  - B. Darkroom, family recreation room, greenhouse.
  - C. Shop, darkroom, living room.
  - D. Kitchen, atrium, sunroom.
- \_\_\_ 27. An average-size living room is about \_\_\_ square feet.
- A. 100
  - B. 150
  - C. 200
  - D. 250
- \_\_\_ 28. To accommodate a person using a wheelchair, a space of \_\_\_ is needed for passing between furniture pieces or walls.
- A. 24"
  - B. 32"
  - C. 40"
  - D. 48"
- \_\_\_ 29. For efficient use, the dining room should be adjacent to the \_\_\_ and the kitchen.
- A. foyer
  - B. master bedroom
  - C. living room
  - D. utility room
- \_\_\_ 30. A(n) \_\_\_ has few walls in the living area of the home.
- A. two-story plan
  - B. ranch-style plan
  - C. closed plan
  - D. open plan
- \_\_\_ 31. Sliding doors are often used on \_\_\_ entries.
- A. main
  - B. service
  - C. special-purpose
  - D. All of the above.
- \_\_\_ 32. Outdoor spaces that is partially or fully enclosed by walls or a roof are called \_\_\_.
- A. porches
  - B. balconies
  - C. courtyards
  - D. decks
- \_\_\_ 33. It is necessary for each bedroom to have a(n) \_\_\_.
- A. bathroom
  - B. closet

- C. double window
- D. ceiling fan

- \_\_\_ 34. The minimum recommended depth of a clothes closet is \_\_\_\_.
- A. 12"
  - B. 18"
  - C. 24"
  - D. 30"
- \_\_\_ 35. The usual height of an interior door is \_\_\_\_.
- A. 6'-0"
  - B. 6'-2"
  - C. 6'-4"
  - D. 6'-8"
- \_\_\_ 36. A 5' × 8' bath would be considered a(n) \_\_\_\_ bath.
- A. small
  - B. average
  - C. large
  - D. very large
- \_\_\_ 37. A(n) \_\_\_\_ receptacle should be used in the bathroom.
- A. shielded
  - B. vertical
  - C. waterproof
  - D. ground fault circuit interrupter
- \_\_\_ 38. Approximately \_\_\_\_ of the house is devoted to the sleeping area, which includes bedrooms, bathrooms, and accessory rooms.
- A. 1/2
  - B. 1/4
  - C. 1/3
  - D. 3/4
- \_\_\_ 39. The \_\_\_\_ normally determines the number of bedrooms a house will have.
- A. size of the family
  - B. size of the neighborhood
  - C. number of guests
  - D. None of the above.
- \_\_\_ 40. Place grab bars where the \_\_\_\_ is located.
- A. toilet
  - B. tub
  - C. shower
  - D. All of the above.
- \_\_\_ 41. In a split bedroom plan, the \_\_\_\_ is separated from the remaining bedrooms for additional privacy.
- A. smallest bedroom
  - B. nursery
  - C. guest bedroom
  - D. master bedroom

- \_\_\_ 42. \_\_\_ toilets make access easier for elderly people, disabled people, and other people who have limited mobility.
- A. Regular-height
  - B. Elongated
  - C. Comfort-height
  - D. Low-flush
- \_\_\_ 43. The most desirable location for a closet is \_\_\_.
- A. on an outside wall
  - B. in the hall near the bedroom
  - C. on an interior wall
  - D. None of the above.
- \_\_\_ 44. A bedroom between \_\_\_ square feet provides ample space for a twin or double bed, chest of drawers, dresser, and other small pieces of furniture.
- A. 65 and 70
  - B. 90 and 100
  - C. 125 and 175
  - D. 200 and 225
- \_\_\_ 45. The best location for a bedroom door is \_\_\_.
- A. on a long wall
  - B. near a corner
  - C. in the center of a wall
  - D. on an exterior wall
- \_\_\_ 46. To accommodate a wheelchair, doorways should be at least \_\_\_ wide.
- A. 2'-6"
  - B. 2'-8"
  - C. 2'-10"
  - D. 3'-0"
- \_\_\_ 47. A toilet that is \_\_\_ high provides easy transfer from a wheelchair.
- A. 17" to 19"
  - B. 20" to 21"
  - C. 22" to 23"
  - D. 25" to 26"
- \_\_\_ 48. For wheelchair access to a bathtub, the bathtub rim should not be lower than \_\_\_ from the floor.
- A. 18"
  - B. 20"
  - C. 22"
  - D. 24"
- \_\_\_ 49. A 1/2 bath is one that usually has only a(n) \_\_\_.
- A. toilet and bidet
  - B. toilet and lavatory
  - C. toilet and shower
  - D. toilet and tub
- \_\_\_ 50. Which of the following is *not* a common sense rule to help prevent a fire in your home?
- A. Do not overload electrical circuits.

- B. Keep matches and lighters out of the hands of children.
- C. Keep flammable liquids in the closet.
- D. Dispose of trash on a regular schedule.

- \_\_\_ 51. CO detectors should be located \_\_\_\_.
- A. on the hallway ceiling outside the bedrooms
  - B. in the furnace room
  - C. near any combustion equipment
  - D. All of the above.
- \_\_\_ 52. Fire safety code requirements mandate that all stairs must be at least \_\_\_\_ wide.
- A. 28"
  - B. 32"
  - C. 36"
  - D. 40"
- \_\_\_ 53. A tropical storm is classified as a hurricane when sustained winds reach \_\_\_\_ miles per hour.
- A. 64
  - B. 74
  - C. 84
  - D. 94
- \_\_\_ 54. Which three months are considered to be the tornado season in the United States?
- A. January, February, March.
  - B. April, May, June.
  - C. July, August, September.
  - D. October, November, December.
- \_\_\_ 55. Which natural hazard is responsible for more property damage and deaths than any destructive force of nature in the United States?
- A. Fires.
  - B. Tornadoes.
  - C. Hurricanes.
  - D. Flooding.
- \_\_\_ 56. Which of the following states have more tornadoes than other states?
- A. Florida, Georgia, and Alabama.
  - B. Missouri, Ohio, and Illinois.
  - C. Texas, Oklahoma, and Kansas.
  - D. Nebraska, North Dakota, and Minnesota.
- \_\_\_ 57. The concept of sustainability includes \_\_\_\_.
- A. meeting the needs of humans for food, housing, and other needs and wants
  - B. not using up resources that cannot be replaced
  - C. not affecting the environment negatively
  - D. All of the above.
- \_\_\_ 58. Green building strives to \_\_\_\_.
- A. use materials and processes more efficiently
  - B. reduce pollution
  - C. cause as little damage to the environment as possible
  - D. All of the above.

- \_\_\_ 59. Which of the following is *not* an element of sustainable building design?
- A. Improved energy choices and use
  - B. Water conservation and protection
  - C. Use of nonrenewable materials
  - D. Adaptability to meet multiple purposes
- \_\_\_ 60. The design stage of building a home is critical to its long-term \_\_\_\_.
- A. resale cost
  - B. sustainability
  - C. maintenance costs
  - D. financing
- \_\_\_ 61. One of the basic principles of designing a net zero building is relying completely on renewable \_\_\_\_ sources.
- A. energy
  - B. electric
  - C. propane
  - D. gas
- \_\_\_ 62. Dioxins and heavy metals are known as \_\_\_\_.
- A. volatile organic compounds
  - B. semi-volatile organic compounds
  - C. persistent bioaccumulative toxicants
  - D. All of the above.
- \_\_\_ 63. Gray water is water than has been used in \_\_\_\_.
- A. toilets
  - B. baths
  - C. kitchen sinks
  - D. dishwashers
- \_\_\_ 64. The floor plan is actually a(n) \_\_\_\_ drawing.
- A. elevation
  - B. pictorial
  - C. typical top view
  - D. section
- \_\_\_ 65. An exterior frame wall composed of 5/8" siding, 3/4" insulation board, 2" × 4" studs, and 1/2" drywall is exactly \_\_\_\_ inches thick.
- A. 3-7/8
  - B. 6
  - C. 5-3/8
  - D. 5-7/8
- \_\_\_ 66. A good policy to follow when locating dimensions on a floor plan is to \_\_\_\_.
- A. group them all together in one corner
  - B. leave out everything that may be obvious
  - C. locate dimensions where one would logically look for them
  - D. follow your hunches
- \_\_\_ 67. Which of the following dimension formats is correct for floor plans?
- A. 0'-1/2"
  - B. 6.125"
  - C. 1'-6"



D. 10.6'

- \_\_\_ 68. One of the most frequent errors in dimensioning is that \_\_\_\_.
- A. partial dimensions do not add up to the total distance
  - B. the numbers cannot be read
  - C. dimensions face the wrong direction
  - D. dimensions are too close together
- \_\_\_ 69. The floor plan is normally started \_\_\_\_.
- A. first
  - B. last
  - C. after the elevations
  - D. after the electrical plan
- \_\_\_ 70. In manual drafting, interior stud walls with drywall on both sides are often drawn as a(n) \_\_\_\_ nominal thickness.
- A. 4" or 8"
  - B. 5"
  - C. 6"
  - D. 8", 10", or 12"
- \_\_\_ 71. The \_\_\_\_ opening should be shown for windows.
- A. rough
  - B. sash
  - C. finished
  - D. None of the above.
- \_\_\_ 72. Recommended spacing between dimension lines is \_\_\_\_ inch.
- A. 1/4 or 3/8
  - B. 3/8 or 1/2
  - C. 1/2 or 5/8
  - D. None of the above.
- \_\_\_ 73. The preferred method of dimensioning interior walls is to the \_\_\_\_ of the wall.
- A. inside
  - B. outside
  - C. center
  - D. All of the above.
- \_\_\_ 74. The scale commonly used for residential floor plans is \_\_\_\_.
- A. half size
  - B. 1" = 1'-0"
  - C. 1/2" = 1'-0"
  - D. 1/4" = 1'-0"
- \_\_\_ 75. In manual drafting, the interior and exterior walls may be darkened after \_\_\_\_.
- A. the doors, windows, stairs, and fireplaces have been drawn
  - B. the kitchen cabinets, appliances, and bathroom fixtures are drawn
  - C. checking the drawing for accuracy
  - D. construction is underway
- \_\_\_ 76. Outside features such as patios, walks, or decks should be drawn \_\_\_\_.
- A. before the exterior walls are drawn

- B. after the house has been built
- C. before the kitchen cabinets, appliances, and bathroom fixtures have been drawn
- D. after all interior features have been drawn

- \_\_\_ 77. Kitchen base cabinets are drawn \_\_\_ inches deep while wall cabinets are \_\_\_ inches deep.
- A. 24; 12
  - B. 12; 24
  - C. 16; 10
  - D. 36; 24
- \_\_\_ 78. The type of line used on a drawing to indicate ceiling beams is a(n) \_\_\_\_.
- A. section line
  - B. object line
  - C. centerline
  - D. hidden line
- \_\_\_ 79. When groundwater is present, a \_\_\_\_ is generally required to prevent water in the basement.
- A. dry well
  - B. tight basement wall
  - C. thicker footing
  - D. sump pump
- \_\_\_ 80. A brick veneer structure is dimensioned to the \_\_\_\_.
- A. outside of the brick veneer
  - B. inside of the brick veneer
  - C. outside of the rough stud wall
  - D. inside of the rough stud wall
- \_\_\_ 81. The basement plan is \_\_\_\_.
- A. a combination foundation plan and floor plan
  - B. no different than a foundation plan
  - C. easier to draw than a foundation plan
  - D. required for all houses
- \_\_\_ 82. Which one of the following steps is included in drawing a foundation plan, but *not* a basement plan?
- A. Locate and draw the beam and supports or bearing wall partition.
  - B. Locate the supporting beam, if one is required, and draw the beam using a thick centerline.
  - C. Design the room layout and darken in the lines.
  - D. Show electrical switches, outlets, and fixtures.
- \_\_\_ 83. Prior to drawing the foundation plan, you should \_\_\_\_.
- A. study available information to make a decision about the size of the footings and foundation walls
  - B. determine the frost penetration depth for the area where the dwelling will be built
  - C. check with local building codes to be sure that the requirements are being met
  - D. All of the above.
- \_\_\_ 84. The proper format for describing the bearing of a property line is \_\_\_\_.
- A. S 45° N
  - B. N 45° 60' 15" E
  - C. N 90° E
  - D. S 75° 30' 62" W

- \_\_\_ 85. A \_\_\_ roof is similar to a flat roof, but has more pitch.
- A. shed
  - B. gable
  - C. mansard
  - D. butterfly
- \_\_\_ 86. A gambrel roof is sometimes called a \_\_\_ roof.
- A. French
  - B. winged gable
  - C. folded plate
  - D. barn
- \_\_\_ 87. The \_\_\_ roof is an example of a modern roof that is experimental for residential housing structures.
- A. parasol
  - B. warped
  - C. free-form
  - D. All of the above.
- \_\_\_ 88. If sufficient \_\_\_ is *not* provided in the attic, moisture will probably form on the underside of the roof sheathing.
- A. headroom
  - B. ventilation
  - C. insulation
  - D. heating ductwork
- \_\_\_ 89. Wood trusses commonly used in residential construction include \_\_\_ trusses.
- A. W-type and king-post
  - B. king-post and scissors
  - C. W-type and scissors
  - D. All of the above.
- \_\_\_ 90. A roof type more suited to houses in warm, dry climates than in cold, wet climates is a(n) \_\_\_ roof.
- A. flat
  - B. hip
  - C. shed
  - D. A-frame
- \_\_\_ 91. The width of a narrow box cornice is normally between \_\_\_ inches.
- A. 4 and 8
  - B. 5 and 10
  - C. 6 and 12
  - D. 7 and 14
- \_\_\_ 92. The recommended total area of ventilator openings in the attic space should be a minimum 1/300th of the ceiling area. How much ventilator area should be planned for a house with a ceiling area of 1800 square feet?
- A. At least 6 square feet.
  - B. At least 9 square feet.
  - C. At least 3 square feet.
  - D. None of the above.
- \_\_\_ 93. Two requirements of roofing materials are to provide waterproofing for the roof and many years of service. The most popular type is \_\_\_.
- A. asphalt

- B. wood
- C. copper
- D. clay

- \_\_\_ 94. When the roof pitch is 12:12 and the span is 24', how high is the roof ridge above the top plate?
- A. 4'
  - B. 8'
  - C. 12'
  - D. 24'
- \_\_\_ 95. The plot plan provides the necessary dimensions required for \_\_\_\_.
- A. locating all windows and doors on the plan
  - B. building the house foundation
  - C. securing a building permit
  - D. staking out the location of the house on the site
- \_\_\_ 96. The exact location of a proposed house foundation is maintained through the use of \_\_\_\_.
- A. angle boards
  - B. batter boards
  - C. construction boards
  - D. building boards
- \_\_\_ 97. A \_\_\_\_ spreads the weight of a building over a broad area.
- A. floating slab
  - B. footing
  - C. site foundation
  - D. rebar
- \_\_\_ 98. Reinforcement bars are required in footings \_\_\_\_.
- A. for all residential structures
  - B. when the house is built in the 100-year flood plain
  - C. when uneven settlement of the structure is anticipated
  - D. to prevent frost heave
- \_\_\_ 99. Stepped footings are frequently necessary when \_\_\_\_.
- A. the house has more than one floor level
  - B. building on hilly or sloped terrain
  - C. brick veneer is used
  - D. two different materials are used
- \_\_\_ 100. Foundation walls are normally the part of the house that extends from the \_\_\_\_.
- A. first floor to the footing
  - B. first floor to the soffit
  - C. frost line to the grade
  - D. footing to the eaves line
- \_\_\_ 101. Nails and other fasteners used in an all-weather wood foundation should be made from \_\_\_\_.
- A. aluminum, silicon bronze, or copper
  - B. brass, copper, or aluminum
  - C. silicon bronze, copper, or hot-dipped zinc-coated steel
  - D. copper, brass, or hot-dipped zinc-coated steel
- \_\_\_ 102. When using an all-weather wood foundation for a basement, \_\_\_\_.

- A. the site is excavated 12" deeper than the regular depth
  - B. a basement sump is installed in poorly drained soils
  - C. no foundation drainage is necessary
  - D. All of the above.
- \_\_\_ 103. The floor joists or trusses of an all-weather wood foundation are placed on the \_\_\_\_.
- A. double top plate of the foundation wall
  - B. inside of the foundation wall
  - C. basement floor slab
  - D. None of the above.
- \_\_\_ 104. Concrete block basement walls should be damp-proofed by \_\_\_\_.
- A. painting the outside of the blocks with oil-base paints
  - B. applying a 1/4" coat of fire clay
  - C. applying two 1/4"-thick coats of cement-mortar or plaster and then a coat of bituminous waterproofing
  - D. All of the above.
- \_\_\_ 105. To eliminate water damage to basements in wet or poorly drained soils, \_\_\_\_.
- A. install a check valve in the floor drain to keep water from flowing in through the drain
  - B. reinforce the floor slab to resist uplift from groundwater pressure
  - C. install a sump pump to remove any water that seeps in
  - D. None of the above.
- \_\_\_ 106. A float is used in finishing concrete to \_\_\_\_.
- A. put the final finish on the surface
  - B. work fine aggregate to the bottom of the form
  - C. condense mortar to a surface ready for final steel troweling
  - D. All of the above.
- \_\_\_ 107. When ordering concrete, allow \_\_\_\_ cubic feet to the yard.
- A. 20
  - B. 25
  - C. 30
  - D. 35
- \_\_\_ 108. Concrete slabs are normally placed on a base of compacted sand \_\_\_\_ inches thick.
- A. 4 to 6
  - B. 5 to 7
  - C. 6 to 8
  - D. 9 to 10
- \_\_\_ 109. Dimensions on the elevation drawing are \_\_\_\_ dimensions.
- A. location
  - B. height
  - C. size
  - D. Dimensions are not used on the elevation.
- \_\_\_ 110. The existing grade line for each outside wall may be obtained from the \_\_\_\_ plan.
- A. site or floor
  - B. plot or site
  - C. floor or plot
  - D. foundation

- \_\_\_ 111. A two-point perspective has \_\_\_ vanishing points.  
A. one  
B. two  
C. three  
D. zero
- \_\_\_ 112. The height of the observer's eye is represented by the distance between the \_\_\_\_\_.  
A. horizon line and picture plane  
B. horizon line and ground line  
C. ground line and picture plane  
D. station point and picture plane
- \_\_\_ 113. When an object is placed behind the picture plane and the station point is above the ground line, \_\_\_\_\_.  
A. the object must touch the ground line in the perspective of the object  
B. the perspective of the object will be above the ground line  
C. the object will extend below the ground line  
D. None of the above.
- \_\_\_ 114. Two-point perspectives are good communication tools because \_\_\_\_\_.  
A. they are photo-like drawings that are very accurate in detail  
B. the objects are drawn true to size  
C. they are quite simple to draw  
D. None of the above.
- \_\_\_ 115. The \_\_\_\_\_ rendering method is often used for presentation plot plans.  
A. felt-tipped pen  
B. pencil  
C. airbrush  
D. ink
- \_\_\_ 116. A rendered elevation \_\_\_\_\_.  
A. is an orthographic-type drawing  
B. uses material symbols and entourage to give the appearance of depth  
C. is sometimes used instead of an exterior perspective  
D. All of the above.
- \_\_\_ 117. Which of the following statements about presentation plans is *false*?  
A. Presentation elevations take longer to draw than exterior perspectives.  
B. Presentation plot plans show the relationship between the site and the structure.  
C. A presentation plot plan gives a bird's eye view of the layout.  
D. Presentation plans may be used for advertising.
- \_\_\_ 118. Most outlets in the home are 120 volt, \_\_\_\_\_-type.  
A. simplex  
B. quiet  
C. duplex  
D. mercury
- \_\_\_ 119. On the electrical plan, a \_\_\_\_\_ can be used to show the connection from a switch to the outlet it operates.  
A. curved line  
B. thin hidden line  
C. centerline

D. All of the above.

- \_\_\_ 120. Which of the following statements about ESL bulbs is *false*?
- A. ESL bulbs are up to 70% more energy-efficient than incandescent bulbs.
  - B. ESL bulbs contain mercury.
  - C. ESL bulbs use a technology similar to cathode ray technology.
  - D. All of the above.
- \_\_\_ 121. The least expensive type of switch used to operate lights is the \_\_\_ switch.
- A. toggle
  - B. quiet
  - C. mercury
  - D. dimmer
- \_\_\_ 122. The entire plumbing system is usually planned around the \_\_\_\_.
- A. water supply system
  - B. water and waste removal system
  - C. heating system
  - D. kitchen
- \_\_\_ 123. The minimum waste line size for a water closet is \_\_\_\_.
- A. 2"
  - B. 3"
  - C. 4"
  - D. 6"
- \_\_\_ 124. Waste lines depend on \_\_\_ to move the waste.
- A. vacuum
  - B. pressure
  - C. gravity
  - D. lots of water
- \_\_\_ 125. The usual scale of a plumbing plan is \_\_\_\_.
- A.  $1/8" = 1'-0"$
  - B.  $1/4" = 1'-0"$
  - C.  $3/8" = 1'-0"$
  - D.  $1/2" = 1'-0"$
- \_\_\_ 126. The plumbing plan is usually traced from the \_\_\_\_.
- A. site plan
  - B. floor plan
  - C. plot plan
  - D. elevations
- \_\_\_ 127. The \_\_\_ should be planned first as the plumbing system is usually designed around that feature.
- A. hot water main
  - B. cold water main
  - C. waste lines
  - D. None of the above.
- \_\_\_ 128. The position of the water softener, filter, and water storage tank should be shown on the plumbing plan along the \_\_\_\_.
- A. building main

- B. waste lines
- C. house drain
- D. All of the above.

- \_\_\_ 129. Plan the size of hot and cold water branch lines so that they will be large enough to supply water to the \_\_\_\_.
- A. hose bib
  - B. water heater
  - C. building main
  - D. fixtures
- \_\_\_ 130. Show the location of floor drains in basements and attached garages. These drains are usually connected to the \_\_\_\_.
- A. storm sewer or dry well
  - B. sanitary sewer system
  - C. building main
  - D. None of the above.
- \_\_\_ 131. The minimum diameter floor drain pipe size is \_\_\_\_.
- A. 1"
  - B. 2"
  - C. 3"
  - D. 4"
- \_\_\_ 132. The scale of a residential climate control plan is generally \_\_\_\_.
- A.  $1/8" = 1'-0"$
  - B.  $1/4" = 1'-0"$
  - C.  $3/8" = 1'-0"$
  - D.  $1/2" = 1'-0"$
- \_\_\_ 133. There should be at least \_\_\_\_ register(s) or baseboard unit(s) in each large area to be heated or cooled.
- A. one
  - B. two
  - C. three
  - D. four
- \_\_\_ 134. If a room has more than \_\_\_\_ feet of exterior wall, then two or more outlets (registers) should be used.
- A. 5
  - B. 10
  - C. 15
  - D. 20
- \_\_\_ 135. Two basic types of ductwork systems are the radial system and the \_\_\_\_ system.
- A. round pipe
  - B. extended plenum
  - C. perimeter
  - D. underground
- \_\_\_ 136. If a rectangular plenum is to serve six 6" round ducts, the plenum duct should be \_\_\_\_.
- A.  $8" \times 14"$
  - B.  $8" \times 16"$
  - C.  $8" \times 18"$
  - D.  $8" \times 20"$



- \_\_\_ 137. A complete climate control plan will show a summary of the \_\_\_\_.
- A. length of pipe/ductwork required
  - B. number of fittings required for the job
  - C. hours needed to install the system
  - D. heat loss calculations
- \_\_\_ 138. The heat loss for each room should be calculated for a hydronic system to determine \_\_\_\_.
- A. whether an extended plenum or radial system should be used
  - B. the size of the baseboard unit or convector cabinet
  - C. the size of pipe to use
  - D. All of the above.
- \_\_\_ 139. A diffuser \_\_\_\_.
- A. is the same as a grille
  - B. can be used for both supply and return air
  - C. directs air flow in a specific direction
  - D. None of the above.
- \_\_\_ 140. Today, most architects and home designers use standard forms called \_\_\_\_ that have been developed by reputable organizations.
- A. master plan
  - B. master specifications
  - C. preference lists
  - D. None of the above.
- \_\_\_ 141. Which of the following is usually a major heading under building operations in the specifications?
- A. Countertops.
  - B. Millwork.
  - C. Drywall.
  - D. Glazing.
- \_\_\_ 142. The architect generally writes the complete specifications for a house when it is being constructed for \_\_\_\_.
- A. sale
  - B. a private owner
  - C. Both A and B.
  - D. None of the above.
- \_\_\_ 143. When using one of the two rough estimate methods for residential cost determination, what is the first step?
- A. Calculate the area of the house.
  - B. Count the number of rooms.
  - C. Determine the volume of the house.
  - D. List all of the materials to be used.
- \_\_\_ 144. A 24' × 60' house with a 20' × 20' detached garage has \_\_\_\_ square feet of living space.
- A. 1840
  - B. 1440
  - C. 400
  - D. None of the above.
- \_\_\_ 145. The cost of the living area of a house is calculated at \_\_\_\_ the rate of garage space using the square foot method.
- A. one-half

- B. the same rate as
- C. twice
- D. None of the above.

- \_\_\_ 146. Using the square foot method, how much would a 20' × 20' garage cost to build if the rate is \$50 per square foot?
- A. \$2,000
  - B. \$20,000
  - C. \$100,000
  - D. None of the above.
- \_\_\_ 147. How much would a 24' × 60' house and 20' × 20' garage cost to build if the cost per square foot for the living space is \$100?
- A. \$144,000
  - B. \$164,000
  - C. \$92,000
  - D. None of the above.
- \_\_\_ 148. It is reasonable to expect the labor cost to build a new home to be \_\_\_ percent of the total cost.
- A. 20–40
  - B. 30–50
  - C. 40–60
  - D. 60–80
- \_\_\_ 149. In addition to materials and labor, which other items should be included in the cost of building a house?
- A. Fee for permits and hookups.
  - B. Cost of insurance to protect materials and workers.
  - C. Both A and B.
  - D. None of the above.
- \_\_\_ 150. Prices of the building materials should be obtained from \_\_\_.
- A. sources where the materials will be purchased
  - B. taking an average of the prices in the geographic area where the house will be built
  - C. the supplier with the lowest prices regardless of quality
  - D. None of the above.

## Architect Answer Section

1. ANS: B
2. ANS: B
3. ANS: C
4. ANS: C
5. ANS: A
6. ANS: A
7. ANS: D
8. ANS: C
9. ANS: B
10. ANS: B
11. ANS: C
12. ANS: D
13. ANS: C
14. ANS: B
15. ANS: D
16. ANS: C
17. ANS: D
18. ANS: B
19. ANS: A
20. ANS: D
21. ANS: D
22. ANS: C
23. ANS: D
24. ANS: C
25. ANS: C
26. ANS: A
27. ANS: D
28. ANS: B
29. ANS: C
30. ANS: D
31. ANS: B
32. ANS: C
33. ANS: B
34. ANS: C
35. ANS: D
36. ANS: A
37. ANS: D
38. ANS: C
39. ANS: A
40. ANS: D
41. ANS: D
42. ANS: C
43. ANS: C
44. ANS: A
45. ANS: B

46. ANS: D
47. ANS: A
48. ANS: A
49. ANS: B
50. ANS: C
51. ANS: D
52. ANS: C
53. ANS: B
54. ANS: B
55. ANS: D
56. ANS: C
57. ANS: D
58. ANS: D
59. ANS: C
60. ANS: B
61. ANS: A
62. ANS: C
63. ANS: B
64. ANS: D
65. ANS: C
66. ANS: C
67. ANS: C
68. ANS: A
69. ANS: A
70. ANS: B
71. ANS: B
72. ANS: A
73. ANS: C
74. ANS: D
75. ANS: A
76. ANS: C
77. ANS: A
78. ANS: D
79. ANS: D
80. ANS: C
81. ANS: A
82. ANS: B
83. ANS: D
84. ANS: C
85. ANS: A
86. ANS: D
87. ANS: D
88. ANS: B
89. ANS: D
90. ANS: A
91. ANS: C

92. ANS: A
93. ANS: A
94. ANS: C
95. ANS: D
96. ANS: B
97. ANS: B
98. ANS: C
99. ANS: B
100. ANS: A
101. ANS: C
102. ANS: B
103. ANS: A
104. ANS: C
105. ANS: D
106. ANS: C
107. ANS: B
108. ANS: A
109. ANS: B
110. ANS: B
111. ANS: B
112. ANS: B
113. ANS: B
114. ANS: A
115. ANS: A
116. ANS: D
117. ANS: A
118. ANS: C
119. ANS: D
120. ANS: B
121. ANS: A
122. ANS: B
123. ANS: B
124. ANS: C
125. ANS: B
126. ANS: B
127. ANS: C
128. ANS: A
129. ANS: D
130. ANS: A
131. ANS: B
132. ANS: B
133. ANS: A
134. ANS: C
135. ANS: B
136. ANS: A
137. ANS: D
138. ANS: B

- 139. ANS: C
- 140. ANS: B
- 141. ANS: B
- 142. ANS: A
- 143. ANS: A
- 144. ANS: B
- 145. ANS: C
- 146. ANS: B
- 147. ANS: B
- 148. ANS: D
- 149. ANS: C
- 150. ANS: A