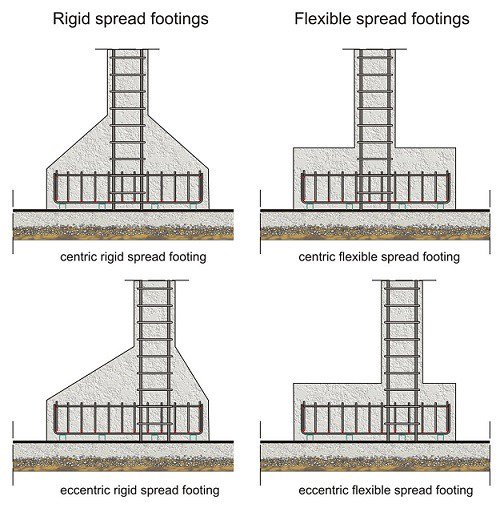
1. Protection of a steel frame structure against fire is usually achieved by
   1. Encasing the steel in concrete and between members using fire resistant paint
   2. Increasing the size of the member
   3. Providing an air gap

Painting the steel with a sealer

1. A concrete basin constructed below the basement floor that collects the water that seeps into the basement from the outside soil is known as
   1. septic tank
   2. imhoff tank
   3. French drain
   4. sump pit
2. The beam set over an opening in a brick wall in order to carry the above it is called a
   1. Stringer beam
   2. Cantilever beam
   3. Lintel beam
   4. Soldier beam
3. The hip rafter in a wood frame building would most likely be found in the
   1. Foundation
   2. Walls
   3. Floors
   4. Roof
4. The vertical wood members in the walls of a one-story wood frame residence are called
   1. Sills
   2. Sleepers
   3. Headers
   4. Studs
5. The joint on cast iron soil pipe is generally
   1. Tongue and groove
   2. Flanged
   3. Bell and spigot
   4. A Dresser coupling
6. The aggregate in wall plaster is usually
   1. Gypsum
   2. Cement
   3. Gravel
   4. Sand
7. The unit pressure in pounds per square inch on the bottom of a tank containing water is a function of the
   1. Shape of the tank
   2. Cross section of the tank
   3. Depth of the water
   4. Volume of water in the tank
8. The specific gravity of water is most nearly
   1. 0.1
   2. 1.0
   3. 10
   4. 100
9. Fresh concrete is composed of water
   1. Gravel, lime, and sand
   2. Cement, lime, and sand
   3. Cement, gypsum, and sand
   4. Cement, sand, and gravel
10. Common brick is composed primarily of
    1. Gypsum
    2. Clay
    3. Sand
    4. Cement
11. When a 1:2:4 concrete mix is stated that means it is comprised of
    1. 1 part sand, 2 parts cement, 4 parts water by volume
    2. 1 part sand, 2 parts cement, 4 parts water by weight
    3. 1 part cement, 2 parts sand, 4 parts gravel by volume
    4. 1 part gravel, 2 parts sand, 4 parts cement by volume
12. Formwork for concrete walls is generally erected by
    1. Unskilled laborers
    2. Carpenters
    3. Steel workers
    4. Foreman
13. Steel reinforcing bars are put into concrete primarily because
    1. Concrete is weak in compression
    2. It improves the appearance of the concrete
    3. Concrete is weak in tension
    4. The quality of concrete is uncertain
14. Steel columns are tied to concrete foundations by
    1. Grout
    2. Anchor bolts
    3. Cement paste
    4. Gunite
15. A carrying scraper would most likely be employed on a
    1. Sewer project
    2. Building foundation excavation
    3. Highway project
    4. Tunnel project
16. The engines of bulldozers are mostly
    1. Steam
    2. Gasoline
    3. Diesel
    4. Kerosene
17. A vibrator is used in concrete primarily to insure
    1. Proper separation of the ingredients in the concrete
    2. Better curing of the concrete
    3. Faster placing of the concrete
    4. Complete filling of the forms
18. A crane is used primarily to
    1. Hoist heavy objects
    2. Drain a foundation
    3. Reproduce drawings
    4. Survey a tract
19. In riveted structural steel work the type of member that usually connects a beam to a column is
    1. An angle
    2. A channel
    3. A gusset plate
    4. A tee
20. A stud, in wood frame building, is a wood member that
    1. Acts as a joist to which the flooring is nailed
    2. Acts as a joist to which the roofing material is nailed
    3. Is vertical and is used in partitions and outside walls
    4. Supports the posts and super structure of the building
21. Fire rating of materials used in fire protected structures is expressed in units of
    1. Degrees
    2. Hours
    3. Inches
    4. Feet
22. A lintel is used in a building to
    1. Waterproof a masonry wall at the flor level
    2. Support a masonry wall over an opening
    3. Fireproof around an opening
    4. Carry a masonry wall at the floor level
23. A solid, brownish black, combustible mixture of bituminous hydrocarbons, found native in various parts of the world and also obtained as a residue in the refining of petroleum is know as
    1. Asbestos
    2. Teflon
    3. Asphalt
    4. Neoprene
24. A section of roadway consists of a 6” layer of concrete, and a 1.5” layer of finish course, and a 1.5” layer of course graded binder. The order in which these layers is placed is
    1. Concrete course on top, binder course in middle, and finish course on bottom
    2. Finish course on top, concrete in the middle, and binder on the bottom
    3. Finish course on top, binder in the middle, and concrete on the bottom
    4. Binder course on top, finish course in the middle, and concrete on the bottom
25. Galvanized iron is iron coated with
    1. Copper
    2. Aluminum
    3. Zinc
    4. Tin
26. A bolt threaded at both ends is called a
    1. Machine bolt
    2. Carriage bolt
    3. Lag bolt
    4. Stud bolt
27. The reinforcing bar designation number of a ½” diameter bar is
    1. #2
    2. #3
    3. #4
    4. #5
28. Cement used in ordinary concrete is most often made from
    1. Clay
    2. Gneiss
    3. Hematite
    4. Schist
29. Water has the greatest density at
    1. 0 Celsius
    2. 2 Celsius
    3. 4 Celsius
    4. 6 Celsius
30. Of the following materials, the one that is most compressible is
    1. Peat
    2. Marble
    3. Shale
    4. Pumice
31. The white powdery salty substance that appears on the outside surfaces of some brick masonry walls is know as
    1. Fungus
    2. Efflorescence
    3. Honeycomb
    4. Dry rot
32. The soil with the lowest bearing power is usually
    1. Clay
    2. Sand
    3. Peat
    4. Gravel
33. The primary reason for providing manholes in a sewer is to
    1. Facilitate construction
    2. Facilitate inspection and repairs
    3. Minimize settlement
    4. Aid in locating final street grades
34. Quoting from the specifications “ Approved sheep foot rollers shall be used for compacting all parts of the embankment which they can reach” The above quotation most likely refers to the construction of
    1. A skyscraper
    2. A large monolithic sewer
    3. An earth dam
    4. An aqueduct
35. Which is the most restrictive traffic sign
    1. No stopping
    2. No standing
    3. No parking
    4. Bus stop
36. Of the following the one that is most often used to strike off excess concrete from the surface of freshly poured concrete pavement is a
    1. Squeegee
    2. Plow
    3. Trowel
    4. Screed
37. Salt thrown on icy pavements mainly
    1. Provides an abrasive material that will grip the ice
    2. Lowers the freezing temperature of the water
    3. Breaks the bond between the ice and the pavement
    4. Ionizes ice crystals
38. Specifications require a 1:2:4 concrete mix. The first number represents the amount of
    1. Cement
    2. Water
    3. Sand
    4. Stone
39. An 8’x6’ footing carries a load of 196000 pounds. The unit pressure on the soil, in pounds per square foot, is most nearly
    1. 3,800
    2. 4,100
    3. 4,500
    4. 4,800
40. A substance that absorbs moisture from the air is said to be
    1. Autogenous
    2. Hygroscopic
    3. Effervescent
    4. Saprophytic
41. Joints in cast iron water lines are generally sealed with
    1. Mortar
    2. Lead and oakum
    3. Dresser couplings
    4. Quick set cement
42. The joints generally used in cast iron pipe are
    1. Tongue and groove
    2. Flanged
    3. Slip
    4. Bell and spigot
43. In brickwork, common bond refers to
    1. Type of mortar
    2. Pattern of brickwork
    3. Insurance on the bricklayer
    4. Quality of the brick
44. Mortar for brickwork generally consists of
    1. Gypsum, cement and water
    2. Sand, gypsum and water
    3. Cement, sand and water
    4. Small rounded gravel, cement, sand, and water
45. Concrete is generally ordered by the
    1. Barrel
    2. Ton
    3. Cubic foot
    4. Cubic yard
46. The major difference between gravel and crushed stone is in
    1. Density
    2. Color
    3. Shape
    4. Mass
47. The main difference between mortar and concrete is
    1. A better grade of cement is used in mortar
    2. Lime is always used in mortar
    3. No gravel is used in mortar
    4. There is less water in mortar
48. The strength of a concrete mix can be increased by increasing the amount of
    1. Gravel
    2. Cement
    3. Sand
    4. Water
49. A 1:3 mortar for brickwork is usually 1 part
    1. Cement to 3 parts sand
    2. Gypsum to 3 parts cement
    3. Cement to 3 parts lime
    4. Sand to 3 parts lime

Questions 51 to 53 refer to the following diagram

[](https://www.google.com/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=0ahUKEwi9sdzM1Z3YAhXPRN8KHSULCp8QjRwIBw&url=https://theconstructor.org/structural-engg/design-of-reinforced-concrete-foundations/7325/&psig=AOvVaw0A8suRg6e_L_IdrWnjBrvK&ust=1514033751762386)

1. The footings are composed of
   1. Air entrained concrete
   2. Lightweight concrete
   3. Plain concrete encasing structural steel
   4. Reinforced concrete
2. Each drawing illustrates a footing consisting of concrete
   1. Steel
   2. Galvanized wire
   3. Copper
   4. Felt
3. In order to properly distribute the weight of the footings, \_\_\_\_\_\_\_ are put sub structurally and tie into the footing
   1. Tie Backs
   2. Pilings
   3. Stone
   4. Wingwalls

General Construction Test Answers

1. A 41. B

2. D 42. B

3. C 43. D

4. D 44. B

5. D 45. C

6. C 46. D

7. A 47. C

8. C 48. C

9. B 49. B

10. D 50. A

11. B 51. D

12. C 52. A

13. B 53. B

14. C

15. B

16. C

17. C

18. D

19. A

20. A

21. C

22. B

23. B

24. C

25. C

26. C

27. D

28. C

29. A

30. C

31. A

32. B

33. C

34. B

35. C

36. B

37. D

38. B

39. A

40. B