

41/2015

Maximum : 100 marks

Time : 1 hour and 15 minutes

1. Common type of stone used as railway ballast is :
(A) Basalt and Trap (B) Marble
(C) Slate (D) Sand stone
2. Which is not used for building construction?
(A) Pre-stressed concrete (B) P.C.C.
(C) R.C.C. (D) None of these
3. Bulking of sand is greater for _____ sand at a particular moisture content.
(A) Fine (B) Medium
(C) Coarse (D) Gravelly
4. The commonly used vehicle in oil paint are :
(A) Zinc Oxide (B) Turpentine oil
(C) White lead (D) Linseed oil
5. Coarse aggregate used for production of concrete is :
(A) Sand (B) Stone chips
(C) Cement (D) All of the above
6. TMT stands for :
(A) Thermo Mechanically Treated (B) Twisted, Moulded and Tied
(C) Thermo Mechanically Twisted (D) Tested and Mechanically Twisted
7. Most commonly used retarder in cement manufacture :
(A) Calcium chloride (B) Gypsum
(C) Calcium carbonate (D) None of these
8. The initial and final setting time of OPC is :
(A) 15 minutes and 45 minutes (B) 20 minutes and 1 hour
(C) 30 minutes and 10 hours (D) 5 minutes and 30 minutes

9. The process of heating of lime to redness is called :
- (A) Carbonation (B) Oxidation
(C) Calcination (D) Hydration
10. Which of the following is an ingredient present both in cement and bricks?
- (A) Iron oxide (B) Magnesium
(C) Alumina (D) Alkalies
11. The full strength of concrete is achieved after :
- (A) 7 days (B) 14 days
(C) 21 days (D) 28 days
12. M20 stands for the mix proportion :
- (A) 1 : 3 : 6 (B) 1 : 2 : 4
(C) 1 : 1½ : 3 (D) 1 : 1 : 2
13. Apparatus used to determine normal consistency of cement is :
- (A) Compression testing machine (B) Slump cone
(C) Impact testing machine (D) Vicat's apparatus
14. Addition of potassium permanganate to impure water makes it :
- (A) Odourless (B) Colourless
(C) Transparent (D) Non - turbid
15. Which of the following industry consumes more than a million quantity of water?
- (A) Tyre (B) Steel
(C) Printing press (D) Paper
16. The domestic consumption of water supply in India is maximum for :
- (A) Bathing (B) Cooking
(C) Washing (D) Drinking

17. A thermo hydrograph is a continuous record of :
- (A) Temperature and pressure of atmosphere
 - (B) Temperature and humidity of atmosphere
 - (C) Solar radiation and wind speed of atmosphere
 - (D) None of the above
18. The problems faced during irrigation through canals are :
- (A) Silting
 - (B) Weed and plant growth
 - (C) Weaker bank failure
 - (D) All of these
19. The shape given to a canal with lining is :
- (A) Trapezoidal
 - (B) Semi circular
 - (C) Parabolic
 - (D) Elliptic
20. Instrument used to measure humidity is :
- (A) Hydrometer
 - (B) Hygrometer
 - (C) Anemometer
 - (D) Speedometer
21. The ingredient of stainless steel which makes it corrosive :
- (A) Nickel
 - (B) Carbon
 - (C) Sulphur
 - (D) Chromium
22. Paints most resistant to fire are :
- (A) Enamel paint
 - (B) Asbestos paint
 - (C) Aluminium paint
 - (D) Cement paint
23. Couple close roof is suitable for span up to :
- (A) 2.5 m
 - (B) 3.5 m
 - (C) 4.5 m
 - (D) 5.5 m
24. Hydraulic lime sets under water within :
- (A) 2 to 5 days
 - (B) 7 to 30 days
 - (C) 2 to 3 months
 - (D) 3 to 6 months

25. The opening of flat roof for lighting purposes is :
- (A) Sky light (B) Dormer window
(C) Gable window (D) Lantern window
26. For construction of 100 mm thick partition wall, it is preferable to use :
- (A) Garden bond (B) Header bond
(C) Stretcher bond (D) Flemish bond
27. Average weight of bricks is :
- (A) 2 to 2.5 kg (B) 3 to 3.5 kg
(C) 5 to 5.5 kg (D) 4 to 4.5 kg
28. The measurement of depth under water surface is called :
- (A) Reduced level (B) Bench mark
(C) Elevation (D) Sounding
29. The process by which water flows out from fresh concrete is called :
- (A) Segregation (B) Hydration
(C) Bleeding (D) Sagging
30. The full form of GPS is :
- (A) Geographical positioning system (B) Geopositioning system
(C) Global positioning system (D) None
31. The full form of SONAR is :
- (A) Sound Navigation and Ranging
(B) Solar Navigation and Ranging
(C) Sonographic Navigation and Ranging
(D) Sonographic Navigation and Resourcing
32. Rock containing large quantities of clay are called :
- (A) Siliceous (B) Calcareous
(C) Argillaceous (D) None of these

33. Cement contains _____ % of lime.
- (A) 55 (B) 3
(C) 62 (D) 75
34. Bricks should not absorb water more than _____ % of its weight, when immersed in water for 24 hrs.
- (A) 5 (B) 20
(C) 10 (D) 30
35. Which of the bricks are used for acidic lining?
- (A) Refractory bricks (B) Silica bricks
(C) Both (A) and (B) (D) None of the above
36. Vertical posts placed at start and end of a flight are called :
- (A) Balustrade (B) Balusters
(C) Intrados (D) Newel posts
37. The inner vertical sides of door and window openings are called :
- (A) Reveal (B) Intrado
(C) Extrado (D) Jambs
38. Clinkers are formed at a temperature of about :
- (A) 500 °C (B) 1000 °C
(C) 1200 °C (D) 1500 °C
39. The ingredient which imparts plasticity to bricks is :
- (A) Lime (B) Alumina
(C) Silica (D) Iron Oxide
40. A comfortable air temperature for comfort air conditioning is :
- (A) 15 °C (B) 18 °C
(C) 21 °C (D) 27 °C
41. Sunshade is an example of :
- (A) Cantilever beam (B) Simply supported beam
(C) Fixed beam (D) Continuous beam

42. Educational buildings belong to :
- (A) Group A (B) Group B
(C) Group C (D) Group D
43. Roof slab curing is carried out as :
- (A) Spray curing (B) Membrane curing
(C) Ponding (D) Curing using jute bags
44. A row of arch in succession is called :
- (A) Conclave (B) Multiple arch
(C) Arch line (D) Arcade
45. The term "Haunch" is related to :
- (A) Floor (B) Stair
(C) Masonry (D) Arch
46. Maximum number of steps in a flight is limited to :
- (A) 10 (B) 12
(C) 15 (D) 20
47. Which of the following has lowest bearing capacity?
- (A) Fine sand (B) Moist clay
(C) Coarse sand (D) Gravel
48. Slump required for mass concreting is :
- (A) 25 to 50 mm (B) 50 to 100 mm
(C) 100 to 125 mm (D) 125 to 150 mm
49. The optimum number of revolutions by which concrete is required to be mixed in a concrete mixer machine is :
- (A) 10 (B) 20
(C) 50 (D) 100

50. RMC means :
- (A) Ready Mix Concrete (B) Ready Made Concrete
(C) Random Mix Concrete (D) Random Made Concrete
51. Best location for D.P.C in a building is at :
- (A) Ground level (B) Sill level
(C) Plinth level (D) Basement
52. Quarter turn stair turns through an angle of :
- (A) 180° (B) 0°
(C) 90° (D) 270°
53. The angle of intersection of the two plane mirrors of an optical square is :
- (A) 30° (B) 45°
(C) 60° (D) 90°
54. In a 30 m chain, tallies are fixed at every :
- (A) 1 m (B) 2 m
(C) 3 m (D) 5 m
55. In a change point :
- (A) Only back sight is taken (B) Only fore sight is taken
(C) Both back and fore sights are taken (D) Intermediate sight is taken
56. Invar tape is an alloy of :
- (A) Brass and copper (B) Steel and copper
(C) Steel and Nickel (D) Nickel and chromium
57. A well conditioned triangle has angles between :
- (A) 20° and 100° (B) 30° and 120°
(C) 40° and 150° (D) 60° and 120°
58. A plumb line is a :
- (A) Line parallel to vertical line (B) A vertical line
(C) A line perpendicular to level line (D) None of these

59. The vertical distance between any two consecutive contours is called :
- (A) Contour interval (B) Contour Gradient
(C) Vertical Equivalent (D) Horizontal equivalent
60. A map represents the Earth's surface of :
- (A) Smaller territory (B) Equal territory
(C) Much smaller territory (D) Larger territory
61. The height or depth of a point above or below the assumed datum is called :
- (A) Bench mark (B) Reduced level
(C) MSL (D) Datum
62. Optical square is based on the principle of :
- (A) Optical reflection (B) Optical refraction
(C) Optical double reflection (D) Optical double refraction
63. Process of turning the telescope in vertical plane through 180° about the trunnion axis of the theodolite is called :
- (A) Swinging (B) Transiting
(C) Plunging (D) Reversing
64. Collimation method is otherwise called :
- (A) Rise and fall method (B) Height of instrument method
(C) Profile levelling (D) Differential levelling
65. The horizon glass in an optical square is :
- (A) Fully silvered (B) Fully unsilvered
(C) $1/4^{\text{th}}$ silvered and $3/4^{\text{th}}$ unsilvered (D) Half silvered and half unsilvered
66. The fundamental principle of surveying is to :
- (A) Work from whole to part (B) Work from part to whole
(C) Work from lower to higher level (D) Work from higher to lower level