

174/2016

Maximum : 100 marks

Time : 1 hour and 15 minutes

1. Length of an Engineer's chain is :  
(A) 100 ft (B) 66 ft  
(C) 20 m (D) 33 ft
2. The most accurate tape is :  
(A) Linen tape (B) Invar tape  
(C) Steel tape (D) Metallic tape
3. Identify an instrument used for marking stations :  
(A) chain (B) tape  
(C) peg (D) cross staff
4. Least count of a levelling staff :  
(A) 5 cm (B) 5 m  
(C) 1 mm (D) 5 mm
5. The line passing through the optical centre of the objective traversing the eye piece and entering the eye is known as :  
(A) line of sight (B) line of collimation  
(C) optical centre of a lens (D) axis of the telescope
6. The first sight taken on a levelling staff held at a point of known elevation is called :  
(A) F.S (B) B.S  
(C) H.I (D) I.S
7. The scale on which three dimensions can be measured known as :  
(A) Chord scale (B) Plain scale  
(C) Diagonal scale (D) None of the above

8. A triangle is said to be well conditioned if none of the angles is less than :
- (A)  $90^\circ$  (B)  $60^\circ$   
(C)  $45^\circ$  (D)  $30^\circ$
9. A line joining some fixed points on the main survey lines :
- (A) Tie line (B) Check line  
(C) Base line (D) None of the above
10. Equidistant and parallel contours represent \_\_\_\_\_ areas.
- (A) Flat (B) Gentle slope  
(C) Steep slope (D) Slope
11. The vertical distance between any two consecutive contours is called :
- (A) vertical equivalent (B) horizontal equivalent  
(C) contour interval (D) contour gradient
12. If R.L. of a B.M. is 200.000 m, back sight is 1.525 m and fore sight is 3.285 m. R.L. of the forward station is :
- (A) 201.700 m (B) 201.525 m  
(C) 204.810 m (D) 198.240 m
13. Rocks formed by cooling of magma is :
- (A) Metamorphic rocks (B) Igneous rocks  
(C) Sedimentary rocks (D) None of the above
14. Slate in the form of tiles is used :
- (A) for paving  
(B) as road metal  
(C) as an excellent roof covering material  
(D) none of the above
15. An example for silicious rock is :
- (A) Marble (B) Slate  
(C) Lime stone (D) Sand stone

16. Heaviness of a stone is indicated by its :
- (A) Specific gravity
  - (B) Resistance to abrasive force
  - (C) To withstand stresses due to vibrations
  - (D) Resistance to compressive force
17. Type of stone used for electrical switch boards :
- (A) Granite
  - (B) Gneiss
  - (C) Marble
  - (D) Lime stone
18. The heating of lime stone to redness without contact with air or in absence of air is known as :
- (A) oxidation
  - (B) burning
  - (C) carbonisation
  - (D) calcination
19. The constituent which makes the brick earth plastic and tends the brick to hardness :
- (A) Silica
  - (B) Clay
  - (C) Lime
  - (D) Iron oxide
20. For one cubic metre of brick masonry the number of bricks required are :
- (A) 500
  - (B) 400
  - (C) 450
  - (D) 550
21. The approximate weight of a brick should be :
- (A) 3.2 kg
  - (B) 3.5 kg
  - (C) 4.0 kg
  - (D) 4.5 kg
22. The chemical reaction between cement and water is called :
- (A) consistency
  - (B) soundness
  - (C) hydration
  - (D) setting time
23. The soundness of cement is tested by :
- (A) Vicat's apparatus
  - (B) Sieve analysis
  - (C) Slumptest
  - (D) Le-Chatelier apparatus

24. The specific surface of a good portland cement should not be less than :
- (A) 3200 cm<sup>2</sup>/gm (B) 2250 cm<sup>2</sup>/gm  
(C) 1100 cm<sup>2</sup>/gm (D) 500 cm<sup>2</sup>/gm
25. Cement used for dam, retaining wall construction etc is :
- (A) ordinary portland cement (B) rapid hardening cement  
(C) low heat cement (D) air entrained cement
26. A plant having neither leaves nor flowers. This is due to :
- (A) Fungus (B) Chemical decay  
(C) White rots (D) Termites
27. The horizontal thin fibrous tissues which extended radially from pith towards cambium or from cambium towards the pith is called :
- (A) Sap wood (B) Medullary rays  
(C) Outer Bark (D) Annual rings
28. The type of defect of timber which separates the whole or part of one annual ring from another is :
- (A) Heart shakes (B) Star shakes  
(C) Radial shakes (D) Cup shakes
29. Which one is not a method of preservation of timber?
- (A) curing (B) tarring  
(C) charring (D) creosoting
30. The seasoning of timber is done to:
- (A) Heat the timber (B) Expel the moisture  
(C) Make it water proof (D) Increase its strength
31. If knotting is not properly done resins from knots spoils the paint. It is called :
- (A) Chalking (B) Scaling  
(C) Exudation (D) Wrinkling

32. The liquid part of a paint is called :
- (A) Pigment (B) Solvent  
(C) Drier (D) Vehicle
33. The volatile diluent added to a paint is known as :
- (A) Drier (B) Pigment  
(C) Solvent (D) Thinner
34. The steel used in RCC :
- (A) Cast iron (B) Stainless steel  
(C) Mild steel (D) Chromium steel
35. Coating the surface of steel by thin layer of zinc is known as :
- (A) normalizing (B) galvanizing  
(C) spraying (D) heating
36. Glass made of several layers of plate glass and alternate layers consists of Vinyl-resin plastic is :
- (A) Bullet proof glass (B) Block glass  
(C) Fibre glass (D) Flint glass
37. Initial setting time of rapid hardening cement should not be less than :
- (A) 45 minutes (B) 15 minutes  
(C) 30 minutes (D) 60 minutes
38. The maximum size of aggregates particles recommended for beams, columns etc is :
- (A) 80 mm (B) 40 mm  
(C) 10 mm (D) 20 mm
39. Continuous strain with time which the concrete structure undergone due to application of external load is :
- (A) Workability (B) Creep  
(C) Bleeding (D) Segregation

40.  $M_{20}$  concrete is :
- (A)  $1 : 1\frac{1}{2} : 3$  (B)  $1 : 2 : 4$   
 (C)  $1 : 3 : 6$  (D)  $1 : 5 : 10$
41. The slump value required for road construction :
- (A) 40 to 50 mm (B) 20 to 40 mm  
 (C) 70 to 80 mm (D) 80 to 150 mm
42. The course of a masonry provided at ceiling level of the roof projecting outside the surface of the wall of the building :
- (A) String course (B) Corbel  
 (C) Cornice (D) Block-in-course
43. Rubble masonry used for the construction of low boundary walls of ordinary houses :
- (A) Random Rubble masonry (B) Coursed Rubble masonry  
 (C) Dry Rubble masonry (D) Un-coursed Rubble masonry
44. A brick laid with its length parallel to the face or front or direction of a wall is called :
- (A) stretcher (B) header  
 (C) bed (D) closer
45. In brick masonry, the frog of the brick is normally kept on the :
- (A) Interior face (B) Exposed face  
 (C) Top face (D) Bottom face
46. The vertical joints between bricks in longitudinal or cross directions are known as :
- (A) Cross joint (B) Hearting  
 (C) Bed joints (D) Perpend
47. A component part of a scaffolding which are the horizontal members parallel to the wall :
- (A) Ledgers (B) Putlog  
 (C) Transoms (D) Braces
48. Temporary support to the structures is called :
- (A) foundation (B) shoring  
 (C) scaffolding (D) underpinning

49. The wedge shaped units forming the courses of an arch :
- (A) Skewback (B) Voussoir  
(C) Crown (D) Key
50. Type of arch consists of two curves which are meeting at the apex of a triangle is called :
- (A) inverted arch (B) flat arch  
(C) segmental arch (D) pointed arch
51. The highest point of the extrados is :
- (A) crown (B) key  
(C) springing points (D) abutment
52. The inner surface of the arch is called :
- (A) Intrados (B) Extrados  
(C) Soffit (D) Haunch
53. The total area of the window openings should be atleast \_\_\_\_\_ of floor area of room.
- (A) 15% (B) 18%  
(C) 20% (D) 12%
54. Outside vertical member of the shutter of a door or a window is :
- (A) Frame (B) Head  
(C) Style (D) Horn
55. A horizontal member which is employed to sub-divide a window opening horizontally :
- (A) shutter (B) jamb  
(C) mullion (D) transom
56. The door suitable for buildings where there is heavy rush of foot traffic is :
- (A) Ledged door (B) Revolving door  
(C) Sliding door (D) Swing door
57. Vertical windows provided on the sloping roof is :
- (A) Gable window (B) Lanterns  
(C) Dormer window (D) Bay window

58. Windows projecting outside the external walls of a room :
- (A) Gable window (B) Lanterns  
(C) Dormer window (D) Bay window
59. Roof suitable for span upto 2.4 m :
- (A) Lean-to-roof (B) Couple roof  
(C) Couple-close roof (D) Collar beam roof
60. Wooden blocks, bolts and yokes are related to :
- (A) Formwork for walls (B) Formwork for columns  
(C) Formwork for stair (D) None
61. An unbroken series of steps between the landings is :
- (A) Flight (B) Baluster  
(C) Handrail (D) Scotia
62. The finishing of mortar joints of either stone masonry or brick masonry is :
- (A) Guniting (B) Plastering  
(C) Painting (D) Pointing
63. Thin plastic covering applied on the surfaces of walls and ceiling is :
- (A) Pointing (B) Plastering  
(C) Guniting (D) Painting
64. Dot and screed are related to :
- (A) Pointing (B) Painting  
(C) Plastering (D) Curing
65. The defect in plastering indicated by a very small loose mass on the plastered surface is known as :
- (A) Cracks (B) Flaking  
(C) Efflorescence (D) Uneven surface
66. Polyvinyl acetate, synthetic resins etc are the binding materials in :
- (A) Colloidal paint (B) Enamel paint  
(C) Emulsion paint (D) Oil paint