

70/2019

Maximum : 100 marks

Time : 1 hour and 15 minutes

1. IS 10714 : 2001 refers to :
(A) scales (B) lines
(C) lettering (D) projection methods
2. A2 size sheet has the dimensions :
(A) 297 mm × 210 mm (B) 420 mm × 297 mm
(C) 594 mm × 420 mm (D) 841 m × 594 mm
3. Which one of the following is not a reduction scale?
(A) 1 : 200 (B) 5 : 6
(C) 1 : 1 (D) 3/250
4. The preferred line width for letter group of 7 mm is :
(A) 1 mm (B) 0.7 mm
(C) 0.5 mm (D) 0.25 mm
5. The symbol 'S ϕ ' indicates :
(A) sectional diameter (B) spherical diameter
(C) squared diameter (D) straight diameter
6. A diagonal scale of RF 10 is constructed to measure maximum distance of 10 mm. The LC of this scale would be :
(A) 0.01 mm (B) 0.1 mm
(C) 1 mm (D) 10 mm
7. Which one of the following is an input device?
(A) Mouse (B) Monitor
(C) Plotter (D) Pen drive
8. The most effective command used to draw symmetrical objects is :
(A) COPY (B) ARRAY
(C) LENGTHEN (D) MIRROR

A

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[P.T.O.]

9. The command used to erase the object partly is :
- (A) ERASE (B) EXPLODE
(C) TRIM (D) EXTEND
10. Which one of the following is not a toolbar in AutoCAD?
- (A) Draw (B) Properties
(C) Standard (D) Edit
11. A scale that is used to represent three units of measurements, such as meters, decimeters and centimeters is called :
- (A) Plain scale (B) Vernier scale
(C) Comparative scale (D) Diagonal scale
12. In drawing, letters and numbers are designated by their :
- (A) width (B) height
(C) thickness (D) none of these
13. In third angle projection top view is drawn :
- (A) above XY line (B) below XY line
(C) Left of front view (D) Right of front view
14. The most common input device used today is the :
- (A) Mother board (B) Key board
(C) Central Processing Unit (D) Plotter
15. A line is placed in the first quadrant in such a way that the line is inclined to HP and parallel to VP. The elevation will be lies in :
- (A) VP (B) below VP
(C) HP (D) XY line
16. Combining two or more plots as a single plot is called :
- (A) Frontage (B) Bifurcation
(C) Building setback (D) Amalgamation
17. Which is not a type of building?
- (A) Educational building (B) Mercantile building
(C) Institutional building (D) Domestic building

18. The LEED system rates buildings platinum on the basis of :
- (A) 26–32 points (B) 33–38 points
(C) 39–51 points (D) 52 or more
19. Head room in a staircase should not be less than :
- (A) 1.8 m (B) 1.9 m
(C) 2.0 m (D) 2.1 m
20. On the basis of fire resistance, National Building Code of India, a building with fire resistance more than 4 hours is classified as :
- (A) Type 1 (B) Type 2
(C) Type 3 (D) Type 4
21. From the consideration of earthquake resistance the plan of a building preferred is :
- (A) square (B) rectangular
(C) T-shaped (D) L-shaped
22. The building plan is a section at the level :
- (A) ground (B) basement
(C) roof (D) sill
23. Key plans are drawn :
- (A) not to scale (B) 1 : 400 scale
(C) 1 : 800 scale (D) 1 : 1000 scale
24. The built up covered area of a building measured at the floor level of any storey :
- (A) floor area (B) circulation area
(C) plinth area (D) livable area
25. The most suitable flooring for dance hall is :
- (A) Marble flooring (B) Stone flooring
(C) Wooden flooring (D) Concrete flooring
26. The headquarters of Survey of India is located at :
- (A) New Delhi (B) Mumbai
(C) Manali (D) Dehradun

27. The line to be measured accurately in a chain survey is
- (A) main line (B) base line
(C) check line (D) detail line
28. For hilly region the ideal method of contouring is :
- (A) direct method (B) method of squares
(C) cross-section method (D) radial line method
29. Magnetic meridian and true meridian are :
- (A) always parallel (B) parallel at the equator
(C) parallel near the poles (D) never parallel
30. Which unit in total station processes data collected?
- (A) data collector (B) EDM
(C) storage system (D) microprocessor
31. GIS deals with which kind of data :
- (A) numeric data (B) binary data
(C) spatial data (D) complex data
32. TIN stands are :
- (A) Traffic Internet Network (B) Triangulated Irregular Network
(C) Temporal Interest Network (D) Temperature Interface Node
33. The contours which are parallel and equidistant on an area, then that area should be :
- (A) flat (B) steep slope
(C) gentle slope (D) uniform slope
34. The method of orienting a plane table with two inaccessible points is known as :
- (A) resection (B) intersection
(C) two point problem (D) back sighting
35. Size of a theodolite is specified by :
- (A) The diameter of lower plate (B) The diameter of upper plate
(C) The length of telescope (D) Diameter of vertical scale

36. In levelling a station is a point where :
- (A) staff is placed (B) instrument is set up
(C) bench mark is marked (D) none of the above
37. A plane surface on a contour map is indicated by:
- (A) Far apart lines
(B) Close together lines
(C) Series of straight, parallel and equal spaced contours
(D) Mutually crossing contours
38. The rocks having clay as their major constituent are known as:
- (A) Igneous rocks (B) Argillaceous rocks
(C) Siliceous rocks (D) Calcareous rocks
39. Most weather resisting metamorphic rock is:
- (A) Lime stone (B) Slate
(C) Marble (D) Quartzite
40. The minimum water cement ratio required for making concrete:
- (A) 0.4 (B) 0.5
(C) 0.6 (D) 0.8
41. Product of blast furnace is known as :
- (A) Cast iron (B) Pig iron
(C) Wrought iron (D) Chilled iron
42. Due to attack of dry rot, the timber :
- (A) Cracks (B) Twists
(C) Shrinks (D) Hardens
43. The maximum size of the aggregate used in a damp proof course is about :
- (A) 6 mm (B) 10 mm
(C) 15 mm (D) 20 mm

44. The window provided on the sloping roof of a building is called as :
- (A) Dormer window (B) French window
(C) Bay window (D) Sky light window
45. The roof having slope in all four directions is called :
- (A) Hip-pitch roof (B) Shed roof
(C) Gambrel roof (D) North light roof
46. A step approximately triangular in shape is known as :
- (A) Angular steps (B) Radial steps
(C) Winders (D) Spandril
47. In a three coat plastering, the third coat known as :
- (A) Peripheral coat (B) Setting coat
(C) Bonding coat (D) Floating coat
48. Type of pointing in which V shaped projection is provided outside the wall surface is called :
- (A) Struck pointing (B) Toothed pointing
(C) Groove pointing (D) Recessing
49. The amount of gypsum, usually added in manufacture of cement is :
- (A) 0.1 to 0.5% (B) 0.5 to 1%
(C) 1 to 3% (D) 3 to 5%
50. Modulus of rigidity may be defined as the ratio of :
- (A) linear stress to lateral strain (B) lateral strain to linear strain
(C) linear stress to linear strain (D) shear stress to shear strain
51. The moment of inertia of an area is always least with respect to :
- (A) vertical axis (B) central axis
(C) bottom most axis (D) radius of gyration
52. If a stable simply supported beam have roller support at one end, then the other end will be :
- (A) free (B) hinged
(C) fixed (D) on rollers

53. The bending moment diagram for a cantilever carrying uniformly distributed load will be :
- (A) a triangle (B) a rectangle
(C) a parabola (D) a cubic parabola
54. The product EI is also known as :
- (A) Flexural rigidity (B) Polar moment
(C) Stiffness (D) Modulus of rigidity
55. The beam section has to be redesigned if the shear stress exceeds the allowable shear stress by :
- (A) 2 times (B) 4 times
(C) 6 times (D) 10 times
56. A simply supported beam is considered as a deep beam if the ratio of effective span to overall depth is less than :
- (A) 1 (B) 2
(C) 3 (D) 4
57. The maximum strain in concrete at the outer most fibre is :
- (A) 0.002 (B) 0.003
(C) 0.0035 (D) 0.0025
58. The anchorage value of 90° hook is :
- (A) 12ϕ (B) 16ϕ
(C) 15ϕ (D) 8ϕ
59. Shear taken by bent up bars is limited to :
- (A) V_s (B) $V_s/3$
(C) $V_s/2$ (D) $2V_s$
60. Which one of the following is the mode of failure in fillet weld material?
- (A) Tension (B) Shear
(C) Bearing (D) Crushing

61. Maximum spacing of vertical stiffeners in plate girder is :
- (A) 1.33 d (B) 1.25 d
(C) 1.5 d (D) 1.75 d
62. For welding, the partial safety factor for site welding is taken as :
- (A) 1.25 (B) 1.2
(C) 1.5 (D) 1.4
63. When the bolts are staggered at equal intervals and gauge does not exceed?
- (A) 70 mm (B) 75 mm
(C) 80 mm (D) 90 mm
64. The upper yield point in the stress-strain curve in structural steel can be avoided by :
- (A) cold working (B) hot working
(C) quenching (D) galvanizing
65. In measuring form work no deduction is made for opening:
- (A) $1 m^2$ (B) $0.5 m^2$
(C) $0.4 m^2$ (D) $0.01 m^2$
66. Original cost of property minus depreciation is:
- (A) book value (B) salvage value
(C) reliable value (D) obsolescence value
67. The volume is measured correct to the nearest:
- (A) 0.01 cum (B) 0.02 cum
(C) 0.03 cum (D) 0.04 cum
68. The expected out turn for earth work in excavation in ordinary soil per mazdoor per day is:
- (A) 1.00 cum (B) 2.00 cum
(C) 3.00 cum (D) 4.00 cum
69. The ratio of cost of labour to the total cost of the building is:
- (A) 1:10 (B) 1:4
(C) 1:1 (D) 6:10

70. A work costing less than Rs. 20,000 is termed as:
- (A) petty work (B) minor work
(C) major work (D) casual work
71. Which one is overhead expenditure of the following items?
- (A) Rent and taxes (B) Establishment charges
(C) Office stationery items (D) Workmen's compensation
72. The estimated quantity of cement required in cement mortar (1:6) per cubic meter will be :
- (A) 5.6 bags (B) 4.8 bags
(C) 8 bags (D) 3 bags
73. The fresh detailed estimate of the additional work in addition to the original one is called :
- (A) revised estimate
(B) detailed estimate
(C) supplementary estimate
(D) abstract rate
74. The area of cross section of trapezoidal section is of formation width '**B**', central depth '**d**' and side slope '**S**' is:
- (A) $Bd + Sd^2$ (B) $Bd - Sd^2$
(C) $B \times d$ (D) $0.5 (B + d)$
75. For computing the quantity of earth work using prismoidal formula the number of required sectional area will be:
- (A) any number (B) even
(C) odd (D) four
76. Length of common rafter in a tiled roofing, when the rise of roof is 1/3 span is:
- (A) 0.45 eave span (B) 0.50 eave span
(C) 0.55 eave span (D) 0.60 eave span
77. Which one of the following is not surface water?
- (A) from river diversion (B) from natural spring
(C) from reservoir storage (D) from natural lake

78. Maximum permissible colour of water for domestic supply on cobalt scale is:
- (A) 5 to 10 ppm (B) 10 to 20 ppm
(C) 20 to 30 ppm (D) 30 to 40 ppm
79. Flootation is a method of water purification by:
- (A) gas transfer (B) ion transfer
(C) solid transfer (D) solute stabilization
80. Process of killing pathogenic bacteria from water is known as:
- (A) filtration (B) sedimentation
(C) coagulation (D) disinfection
81. In treating swimming pool, water the filtration system to be used is:
- (A) slow sand filters (B) rapid sand filters
(C) pressure filters (D) any of the above
82. Water from kitchen, bathrooms and washbasin is called:
- (A) sullage (B) sewage
(C) combined sewage (D) none of these
83. Which soil can take maximum dose of sewage?
- (A) Loam soil (B) Clayey soil
(C) Sandy loam soil (D) Sandy soil
84. In an office building one water closet should be provided for every _____ number of male personnel.
- (A) 5 (B) 10
(C) 15 (D) 25
85. Bacteria that survive in the absence of oxygen are known as :
- (A) aerobic bacteria (B) anaerobic bacteria
(C) facultative bacteria (D) pathogenic bacteria
86. In case of public water supplies, the permissible upper limit of chloride content is:
- (A) 100 ppm (B) 150 ppm
(C) 200 ppm (D) 250 ppm

87. The colour of fresh sewage is:
(A) blue (B) green
(C) grey (D) pink
88. The minimum depth of water seal in a good trap is:
(A) 2.5 to 7.5 cm (B) 10 to 15 cm
(C) 15 to 25 cm (D) 30 to 35 cm
89. The total depth of water required by a crop during the entire period the crop is in the field, is known as:
(A) duty (B) delta
(C) base period (D) crop period
90. Among the following, which crop has the highest value to delta?
(A) wheat (B) vegetables
(C) rice (D) cotton
91. Irrigation canals are generally aligned along:
(A) contour line (B) water shed
(C) straight line (D) valley line
92. The standard height of a standard rain gauge is:
(A) 10 cm (B) 20 cm
(C) 30 cm (D) 40 cm
93. The best irrigation method that suits area where scarcity of irrigation water is:
(A) check flooding (B) furrow irrigation
(C) drip irrigation (D) sprinkler irrigation
94. Which of the following is not a Rabi crop?
(A) Potato (B) Ground nut
(C) Wheat (D) Sugarcane

95. The road connecting a district headquarters of one state to the district headquarters of a neighboring state is called:
- (A) State highway (B) National highway
(C) Major district road (D) Other district road
96. Warning signs are shown on a rectangular board of size:
- (A) 500×400 (B) 300×400
(C) 400×400 (D) 450×400
97. The headquarter of the Indian Road Congress is at:
- (A) Mumbai (B) Kolkata
(C) Chennai (D) New Delhi
98. Mandatory signs are displayed on a disc having a diameter:
- (A) 100 cm (B) 50 cm
(C) 30 cm (D) 60 cm
99. Regulatory signs are shown at a height of _____ from road surface.
- (A) 2.8 m (B) 2.0 m
(C) 1.5 m (D) 3.0 m
100. Which one of the following is not an informatory sign?
- (A) cross road ahead (B) name of destination
(C) name of road (D) speed limit

SPACE FOR ROUGH WORK

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