

53/2015

Maximum : 100 marks

Time : 1 hour and 15 minutes

1. The whole circle bearing of a line is  $283^{\circ} 20'$ , its corresponding quadrantal bearing is :  
(A) N  $77^{\circ} 20'$ E (B) N  $76^{\circ} 20'$  W  
(C) S  $76^{\circ} 40'$  E (D) N  $76^{\circ} 40'$  W
2. During the measurement, variable tension in tape results \_\_\_\_\_ error.  
(A) Cumulative (B) Compensative  
(C) Instrumental (D) None of the above
3. The Gunter's chain is \_\_\_\_\_ ft. long and its link length is \_\_\_\_\_ ft.  
(A) 66 ft long and 0.66 ft (B) 33 ft long and .33 ft  
(C) 33 ft long and  $2\frac{1}{16}$  ft (D) 100 ft long and 1.0 ft
4. The Earth shape may be treated as :  
(A) Oblate spheroid (B) Ellipsoid  
(C) Ovaloid (D) All of the above
5. The levelling operation across a river is termed as :  
(A) Fly levelling (B) Compound levelling  
(C) Differential levelling (D) Reciprocal levelling
6. The operation of keeping the plane table parallel to the position it occupied at the first station :  
(A) Resection (B) Centring  
(C) Intersection (D) Orientation
7. The bulking of sand, which is used for good concrete, is maximum when moisture content is around :  
(A) 5% (B) 24%  
(C) 0% (D) 14 %

8. The number of standard modular bricks required to make one cubic metre of masonry is :
- (A) 450 (B) 1000  
(C) 500 (D) 650
9. The sensitivity of a bubble tube can be increased by :
- (A) Decreasing the radius of curvature of tube  
(B) Decreasing cross sectional diameter of tube  
(C) Increasing the radius of curvature of tube  
(D) None of the above
10. In quantity surveying, the measurement of steel grills is taken in terms of :
- (A) Volume (B) Weight  
(C) Area (D) Number of bars
11. The rounded projected part of the tread beyond the face of the riser is :
- (A) Scotia (B) Soffit  
(C) Nosing (D) Going
12. The line joining the optical centre of the object glass and the centre of the eye piece :
- (A) Vertical axis (B) Axis of telescope  
(C) Axis of level tube (D) Line of collimation
13. The principle of working of an optical square is based upon :
- (A) Internal reflection (B) Total reflection  
(C) Double reflection (D) Horizon reflection
14. In a Planimeter the multiplier constant 'M' is calculated by the formula = \_\_\_\_\_  
When 'L' = Length of tracing arm, 'r' = Radius of the roller or wheel.
- (A)  $M = 2\pi rL$  (B)  $M = \pi rL$   
(C)  $M = \pi r^2L$  (D) None of the above
15. The difference in level between the inner and outer edges of a road along the curved path is :
- (A) Formation (B) Gradient  
(C) Camber (D) Super elevation



16. A set of close contours with higher values outside and lower figures inside indicate :
- (A) Depressions (B) Vertical cliff  
(C) Hill (D) Ridge
17. The best example for both ranging and chaining obstructed :
- (A) Slopping ground (B) Water body  
(C) Open tract of land (D) Building
18. One bag of ordinary Portland cement weights :
- (A) 40 kg (B) 50 kg  
(C) 60 kg (D) None of the above
19. The Instrument which register the number of paces of the person carrying it :
- (A) Passometer (B) Pedometer  
(C) Odometer (D) Speedometer
20. The gauge length of Broad gauge Indian railway is :
- (A) 1676 mm (B) 1768 mm  
(C) 1000 mm (D) 762 mm
21. The surveys which is performed for mapping of large water bodies for the purpose of navigation :
- (A) Cadastral survey (B) Hydrographic surveys  
(C) Underground survey (D) Topographical survey
22. The point where the bending moment changes its sign is :
- (A) Point of curvature (B) Neutral axis  
(C) Point of inflexion (D) Point of contraflexure
23. The vertical member which is provided to sub-divide window or door opening vertically :
- (A) Transom (B) Rail  
(C) Style (D) Mullion
24. A semi-rigid material which forms a durable and impervious layer for damp proofing :
- (A) Mastic asphalt (B) Asphaltic felts  
(C) Metal sheets (D) Hot bitumen

25. The deformation per unit length, due to the action of a system of force :
- (A) Stress (B) Strain  
(C) Modulus of elasticity (D) Bulking
26. The error due to curvature in levelling operation is = \_\_\_\_\_, where 'D' is the length of sight in kilometers
- (A)  $0.0113 D^2$  metre (B)  $0.0673 D^2$  metre  
(C)  $0.0785 D^2$  metre (D) None of the above
27. King-post truss is suitable for spans of range :
- (A) 8 to 12 metres (B) 12 to 15 metres  
(C) 2.5 to 5 metres (D) 5 to 8 metres
28. A thin layer between sap wood and inner bark is :
- (A) Medullary rays (B) Outer bark layer  
(C) Layer of Heart wood (D) Cambium layer
29. In a Dumpy level, the telescope :
- (A) Can be taken out of its support and reverse  
(B) Is rigidly fixed to the leveling head  
(C) Can be tilted, for an extent, in a vertical plane  
(D) None of the above
30. The property of a material to absorb moisture from air :
- (A) Hygroscopicity (B) Bulking  
(C) Hydrography (D) Permeability
31. The portion of the road surface which is used for vehicular traffic :
- (A) Right of way (B) Formation  
(C) Carriage way (D) Shoulder
32. The vertical wall face of an opening which supports the frame of door is :
- (A) Holdfast (B) Rebate  
(C) Horn (D) Jamb



33. Segregation of concrete may results :
- (A) Honey combing (B) Thermal expansion  
(C) Impermeability (D) None of the above
34. The minimum diameter of longitudinal bars in an RCC column is :
- (A) 10 mm (B) 16 mm  
(C) 8 mm (D) 12 mm
35. A projecting stone which is usually provided to serve as support for joist, roof truss etc, is :
- (A) Cornice (B) Corbel  
(C) Blocking course (D) String course
36. The least count of prismatic compass is :
- (A) 30' (B) 10'  
(C) 20" (D) 60'
37. A special type of brick which gives maximum amount of ventilation through its cylindrical holes :
- (A) Perforated brick (B) Refractory brick  
(C) Forsterite bricks (D) Squint brick
38. The Instrument used for enlarging, reducing or reproducing the plans :
- (A) Planimeter (B) Clinometer  
(C) Eidograph (D) None of the above
39. The ratio of the shrunk length to the actual length is :
- (A) Representative factor (B) Factor of safety  
(C) Shrinkage factor (D) Compaction factor
40. More water in concrete during the time of preparation results :
- (A) Decreasing the strength of concrete (B) No changes in the quality of concrete  
(C) Increasing the strength of concrete (D) None of the above
41. One mile = \_\_\_\_\_ yard.
- (A) 1760 (B) 5280  
(C) 1.609 (D) 100

42. The standard size of A2 drawing sheet in mm is :
- (A)  $841 \times 1189$  (B)  $297 \times 420$   
(C)  $397 \times 420$  (D)  $420 \times 594$
43. A level surface is a \_\_\_\_\_
- (A) Horizontal surface tangential to the mean earth surface  
(B) Horizontal surface perpendicular to the plumb line  
(C) Curved surface parallel to the mean spheroidal surface of the earth  
(D) Surface which includes the plane of plumb line
44. Final setting time of ordinary Portland cement should not be more than :
- (A) 30 minute (B) 15 hour  
(C) 1 hour (D) 10 hour
45. The instrument used for setting out perpendicular offsets is :
- (A) Levelling staff (B) Clinometer  
(C) Cross staff (D) Target staff
46. Convert the quadrantal bearing S  $69^{\circ}30'$  E in to whole circle bearing :
- (A)  $249^{\circ} 30'$  (B)  $69^{\circ}30'$   
(C)  $110^{\circ} 30'$  (D) None of the above
47. The Instrument having common disc for measuring both vertical and horizontal angle is :
- (A) Sextant (B) Theodolite  
(C) Surveyors compass (D) Prismatic compass
48. For a well-conditioned triangle the angle should be in between :
- (A)  $90^{\circ}$  and  $180^{\circ}$  (B)  $0^{\circ}$  and  $45^{\circ}$   
(C)  $30^{\circ}$  and  $120^{\circ}$  (D)  $45^{\circ}$  and  $150^{\circ}$
49. The curved-triangular space formed between the extrados and horizontal line through the crown in an arch :
- (A) Voussoirs (B) Spandril  
(C) Skew back (D) Soffit



50. The nominal mixes corresponding to the grade of M 25 concrete is :
- (A) 1 : 3 : 6 (B) 1 : 1 : 2  
(C) 1 : 1.5 : 3 (D) 1 : 2 : 4
51. The survey undertaken for exploring the mineral wealth :
- (A) Archaeological survey (B) Engineering survey  
(C) Mine survey (D) Geological survey
52. The magnetic bearing of a line is S 61° 45' E and declination is 3°15' W, what is its true bearing?
- (A) S 65°0' E (B) S 58° 30' E  
(C) N 61°45' W (D) None of the above
53. In prismatic compass 180° is marked at :
- (A) West (B) North  
(C) South (D) East
54. The instrument used to draw non-circular curve :
- (A) Protractor (B) Scale of chord  
(C) French curve (D) Small bow compass
55. The horizontal distance between any two consecutive contours is :
- (A) Contour interval (B) Contour gradient  
(C) Horizontal equivalent (D) Level difference
56. When 2 inch in a drawing represents 12 yard on the ground, the representative fraction of the scale is :
- (A) 2 : 12 (B) 1 : 216  
(C) 1 : 120 (D) 1 : 432
57. The inert material in the concrete is :
- (A) Admixture (B) Water  
(C) Cement (D) Aggregate
58. The number of steps in a flight should not be less than :
- (A) 6 nos (B) 12 nos  
(C) 3 nos (D) 10 nos

59. The Dip of the needle at earth magnetic pole :
- (A)  $180^\circ$  (B)  $90^\circ$   
 (C) Exactly  $45^\circ$  (D) Zero
60. Isoclinic lines are the imaginary lines joining the points having same value of :
- (A) Declination (B) Dip  
 (C) Elevation (D) None of the above
61. The anti clockwise Traverse 'MNOP' is square. Fore Bearing of line 'MN' =  $290^\circ$  then the back bearing of line 'PM' is :
- (A)  $290^\circ$  (B)  $110^\circ$   
 (C)  $200^\circ$  (D)  $20^\circ$
62. Number of links in a 30 metre metric chain is :
- (A) 100 (B) 66  
 (C) 180 (D) None of the above
63. Eccentricity is always \_\_\_\_\_ for an Ellipse.
- (A) Less than One (B) Greater than One  
 (C) Equal to One (D) None of the above
64. A polygon having four equal sides, the opposite sides are parallel but adjacent sides are not perpendicular, the exact name of the quadrilateral is :
- (A) Square (B) Rectangle  
 (C) Parallelogram (D) Rhombus
65. Trough compass is used for :
- (A) Indicating North (B) Taking bearing  
 (C) Drawing large circles (D) None of the above
66. The equatorial axis of earth is nearly \_\_\_\_\_ than the polar axis.
- (A) 265.0 m lesser (B) 43.0 km greater  
 (C) 265.0 Sq km greater (D) 43.0 km smaller
67. A piece of brick which is used to prevent vertical joint in brick masonry :
- (A) Header (B) Squint quoin  
 (C) Frog (D) Closer



68. A line drawn for the purpose of checking the accuracy of the work is :
- (A) Proof line (B) Tie line  
(C) Auxiliary line (D) None of the above
69. The line of force of the earth magnet travel from :
- (A) North magnetic pole to south magnetic pole  
(B) South magnetic pole to north magnetic pole  
(C) South geographical pole to north geographical pole  
(D) Both (A) and (C)
70. The command used in Auto cadd for breaking a compound object into its component objects :
- (A) Extrude (B) Explode  
(C) Stretch (D) Break
71. The bond consists of alternative courses of stretchers and headers :
- (A) Dutch bond (B) Flemish bond  
(C) English bond (D) Header bond
72. The brick laid with its length perpendicular to the face of the wall is :
- (A) Closer (B) Header  
(C) Stretcher (D) Bat
73. The angle of inclination of reflecting surfaces of horizon mirror and index mirror of an optical square is :
- (A)  $60^\circ$  (B)  $45^\circ$   
(C)  $90^\circ$  (D)  $120^\circ$
74. The edges formed by the intersection of plane surfaces of brick are :
- (A) Frog (B) Bed  
(C) Arrises (D) Perpend
75. The first staff reading taken on a point of known elevation after the temporary adjustment of a levelling instrument is :
- (A) Bench mark (B) Fore bearing  
(C) Back sight (D) Fore sight

76. The water absorption of a good brick should not exceed \_\_\_\_\_ of its dry weight, when it is immersed for period of 24 hours.
- (A) 20% (B) 15%  
(C) 10% (D) 27%
77. A chain may get elongated always due to :
- (A) Change in temperature during measurement  
(B) Difference in pull  
(C) Kinks in links  
(D) Opening of rings of chain
78. A small reflecting instrument used for fixing intermediate points on a survey line is :
- (A) Optical square (B) Line Ranger  
(C) Cross staff (D) None of the above
79. The sight towards a known station and a line is drawn through the plotted position of that station towards the instrument station is :
- (A) Back sight (B) Resector  
(C) Fore sight (D) None of the above
80. The size of the theodolite is determined by
- (A) Diameter of the lower plate  
(B) Diameter of the upper plate  
(C) Radius of the Vernier plate  
(D) Diameter of the vertical circle
81. Where is 'Chilka Lake' located?
- (A) Orissa (B) Andhra Pradesh  
(C) Tamil Nadu (D) West Bengal
82. Which of the following mountain the peak 'Guru Shikhar' is located?
- (A) Himalayan mountain (B) Aravalli mountain  
(C) Vindhyan mountain (D) Western Ghats
83. The region receives lowest rainfall during South-West monsoon season in India :
- (A) Kerala coast (B) Gujarat coast  
(C) Bengal coast (D) Tamil Nadu coast



84. Most extensively seen soil in Kerala :
- (A) Black soil (B) Red soil  
(C) Laterite soil (D) Alluvial soil
85. Agasthiyamala Biosphere reserve is located :
- (A) Wayanad-Kasarkode (B) Kollam-Thiruvananthapuram  
(C) Idukki-Kottam (D) Idukki-Padanamthitta
86. The state having lowest sex-ratio in 2011 census :
- (A) Haryana (B) Bihar  
(C) Kerala (D) Goa
87. The National Bank for Agriculture and Rural Development (NABARD) was setup in :
- (A) 1972 (B) 2002  
(C) 1992 (D) 1982
88. The Revolt of 1857 was led by Nana Sahib at :
- (A) Meerut (B) Delhi  
(C) Kanpur (D) Lahore
89. In which of the following year Non-Co-Operation movement was withdrawn :
- (A) 1919 (B) 1820  
(C) 1920 (D) 1922
90. Who was the Commander of Women's Regiment of INA?
- (A) Lakshmi Saigal (B) Sarojini Naidu  
(C) Vijayalakshmi Pandit (D) Kripalani Sucheta
91. The Ezhava memorial was submitted on 1896 under the leadership of :
- (A) Vagbhatananda (B) Dr. Palpu  
(C) Chattambi Swami (D) A.K. Gopalan
92. Father of Kerala's Renaissance :
- (A) Mannathu Padmanabhan (B) Sree Narayana Guru  
(C) Vakkom Moulavi (D) Blessed Kuriakose Elias

93. Who was the founder of 'Sadhujana Paripalana Sangam'?
- (A) Sahodaran Ayyappan (B) Thycaud Ayya  
(C) Ayyankali (D) Ayya Vaikundar
94. 'Vedanta Sarum' is famous work of :
- (A) Pandit Karuppan (B) Chattampi Swami  
(C) Kumaranasan (D) V.T. Bhattathirippad
95. Which of the following movement was led by V.T. Bhattathirippad?
- (A) Pattini Jatha (B) Channar Revolt  
(C) Ya Chana Yathra (D) Savarna Jatha
96. Human Resource Development Minister at present :
- (A) Smrithi Zubin Irani (B) Smithra Mahajan  
(C) Uma Bharati (D) Sushma Swaraj
97. World Champion of Twenty 20 cricket :
- (A) India (B) West Indies  
(C) England (D) Sri Lanka
98. Which of the following film won palm 'd' ore award at the 67<sup>th</sup> 'Cannes film' festival?
- (A) Winter Sleep (B) Mr. Turner  
(C) Fox Catcher (D) Party Girl
99. The Nobel prize in Literature 2013 was awarded :
- (A) Arunthathiroy (B) Margret Thatcher  
(C) Shobha De (D) Alice Munro
100. The first indigenously developed air to air missile of India test fired recently :
- (A) INSAT (B) Bhaskara  
(C) Astra (D) Aryabhata