Maximum : 100 marks

Time : 1 hour and 15 minutes

1. Length of gunters chain is :

   (A) 20 meter
   (B) 66 feet
   (C) 16 feet
   (D) 100 feet

2. One hectares is equal to :

   (A) 40.46 M^2
   (B) 100 M^2
   (C) 10000 M^2
   (D) 1000^2

3. Total number of links in 20 M chain is :

   (A) 100
   (B) 150
   (C) 66
   (D) 33

4. Area of A0 trimmed size drawing sheet is ———— M^2.

   (A) 1.25 M^2
   (B) 1 M^2
   (C) 1.5 M^2
   (D) 0.75 M^2

5. Angle of dip at pole is ———— degree.

   (A) 30°
   (B) 60°
   (C) 90°
   (D) 120°

6. The area enclosed in an irregular curve can be formed out by :

   (A) Planimeter
   (B) Pentagraph
   (C) Clinometer
   (D) Prism square

7. The quadrantal bearing of a line is S40° W; its whole circle bearing is :

   (A) 40°
   (B) 400°
   (C) 220°
   (D) 140°

8. In ———— field book is eliminated.

   (A) Chain surveying
   (B) Plane table surveying
   (C) Compass surveying
   (D) Theodolite surveying

9. Curvature correction for leveling is always :

(A) Additive
(B) Subtractive
(C) Either additive or subtractive
(D) None of these

10. _____ is a chord between two successive regular stations on a curve.

(A) Long chord
(B) Sub chord
(C) Normal chord
(D) Short chord

11. If the two tangents are produced in a simple curve they will meet at a point, the point is called :

(A) Vertex
(B) Appex
(C) Point of tangency
(D) Curve tangent point

12. The horizontal distance between two consecutive contour line is known as :

(A) Horizontal interval
(B) Horizontal equivalent
(C) Horizontal scale
(D) Contour interval

13. 2.54 inch is equal to :

(A) 64.516 mm
(B) 60451 mm
(C) 6.451 cm
(D) 64.516 cm

14. In a triangle when two adjacent sides a & b and their included angle 'C' are given then its area will be :

(A) ½ ab cos C
(B) ½ ab tan C
(C) ½ ab sin C
(D) ab sin C

15. If the radius of a half circle is given by 'r' then its perimeter will be :

(A) πr
(B) $2\pi r$
(C) $\pi(r+2)$
(D) $2(\pi + r)$

16. The height of a chimney is 'h' meter and the observer is located at a distance of 's' meter. Its angle of elevation 'ϕ' will be :

(A) $\tan^{-1}(s/h)$
(B) $\sin^{-1}(s/h)$
(C) $\tan^{-1}(h/s)$
(D) $\sin^{-1}(h/s)$

17. If the perimeter of circle is 50 cm, its area will be :

(A) 189.04 cm^2 (B) 199.04 cm^2

(C) 209.04 cm^2 (D) 50 cm^2

18. The length, breadth, height of a rectangular prism are 20 cm, 15 cm and 10 cm respectively. Its whole surface area will be :

(A) 1000 cm^2 (B) 1200 cm^2

(C) 1100 cm^2 (D) 1300 cm^2

19. 5/12 + 12/7 is equal to :

(A) 0.213095 (B) 21.3095

(C) 0.0213095 (D) 2.13095

20. A cubical tanks is filled with water, if each side of a cube is 1 meter, weight of water will be :

(A) 1026 kg (B) 10 tonne

(C) 960 kg (D) 1 tonne

21. For a cantilever beam :

(A) Both end supported

(B) One end fixed and other end free

(C) Both end fixed

(D) One end fixed and other end overhanging

22. In AutoCAD design centre is :

(A) A drop down menu (B) A right click menu

(C) A palette (D) A dialog

23. While ranging a line, the code of indication of left arm extend indicates :

(A) Continue to move left (B) Continue to move right

(C) Fix (D) Correct

24. _____ is an instrument used for enlarging or reducing maps.

(A) Ghat tracer (B) Clinometer

(C) Planimeter (D) Pentagraph

25. The product of mass and velocity is :

(A) Momentum (B) Moment

(C) Velocity (D) Torque

26. The number of verticals posts in a King post truss is :

(A) Nil (B) Three

(C) Two (D) One

27. The staff reading taken on a bench mark or a point of known reduced level is :

(A) Inter sight (B) Back sight

(C) Reduced level (D) Fore sight

28. One mile is equal to :

(A) 1016 Km (B) 0.609 Km

(C) 1.609 Km (D) 1.016 Km

29. One Joule is equal to :

(A) 10^7 erg (B) 10^5 erg

(C) 10^3 erg (D) 10^2 erg

30. –40°C is equal to :

(A) –80°F (B) 40°F

(C) 80°F (D) –40°F

31. One radian is equal to ———————— degree.

(A) $\pi \times 180$ (B) $180/\pi$

(C) 180 (D) $\pi/180$

32. A regular polygon having eight sides is called :

(A) Pentagon (B) Hexagon

(C) Heptagon (D) Octagon

33. The ratio of 15 cm : 2 meters is equal to :

(A) 3 : 40 (B) 1 : 40

(C) 40 : 3 (D) 40 : 1

34. The value of π is :

(A) 21/7 (B) 7/22

(C) 22/7 (D) 27/7

35. Mass is a ———— quantity.

(A) Vector (B) Scalar

(C) Fixed (D) Variable

36. One standard measurement 190 × 90 × 90 × mm is :

(A) Standard size of brick (B) Standard size of rubble

(C) Standard size of late rite (D) Standard size of ashlars

37. Foundation of a building consists of R.C.C slab covering the entire area in plan is called :

(A) Grillage foundation (B) Well foundation

(C) Pile foundation (D) Raft foundation

38. The bottom surface of a door or a window opening is known as :

(A) Plinth (B) Sill

(C) Lintel (D) Step

39. ———— line is used for dimension line.

(A) Continuous thick (B) Continuous thin Zigzag

(C) Continuous thin (D) None of these

40. Scale 1:x designated as :

(A) Reduced scale (B) Full size

(C) Enlarged scale (D) None of these

41. On a diagonal scale, it is possible to measure :

(A) One dimension (B) Three dimensions

(C) Two dimensions (D) Four dimensions

42. Accidental errors are :

(A) Natural error (B) Instrumental error

(C) Cumulative error (D) Compensating error

43. Error due to sag in chaining is :

(A) Cumulative and positive
(B) Cumulative and negative
(C) Compensative and positive
(D) Compensative and negative

44. A declination of 2° east means :

(A) The magnetic north is 2° west of true north
(B) The true north is 2° east of magnetic north
(C) The magnetic north is 2° east of true north
(D) None of these

45. The whole circle bearing of a line is 300°, its quadrantal, bearing is :

(A) N60°W
(B) W30°N
(C) W60°N
(D) N30°W

46. If the fore bearing of a line is zero degree its back bearing is _____ degree.

(A) 0
(B) 360
(C) 90
(D) 180

47. If the magnetic bearing of a line is 35°30' the magnetic declination 3°30'W, the true bearing of the line will be :

(A) 39°
(B) 32°
(C) 37°
(D) 38°

48. The line joining points of equal dip are called :

(A) Agonic lines
(B) Isogonics lines
(C) Aclinic lines
(D) Isoclinic lines

49. Line joining places of zero magnetic declination are known as _____ lines.

(A) Isoclinic
(B) Aclinic
(C) Agonic
(D) Isogonics

50. The annual variation of magnetic declination at a place is caused because of the rotation of :

(A) Earth about Sun
(B) Moon about Earth
(C) Earth about its own axis
(D) Moon about Sun

51. The operation of centering is facilitated by providing an additional arrangement called ———— for a theodolite.

(A) Shifting clamp
(B) Centering fork
(C) Shifting centre
(D) Moving centre

52. For a theodolite transiting is the operation of revolving the telescope through ———— degree in vertical plane about horizontal axis.

(A) 0°
(B) 180°
(C) 90°
(D) 270°

53. The telescope is said to be normal when its vertical circle is :

(A) Left of the vertical axis
(B) Right of the vertical axis
(C) Left of the observer
(D) Right of the observer

54. For a theodolite, revolving the telescope in the horizontal plane, about its vertical axis is called :

(A) Swinging
(B) Transiting
(C) Balancing
(D) Face changing

55. For balancing the traverse ———— rule is used when the linear and angular measurements are equally precise.

(A) Transit rule
(B) Simpson's rule
(C) Bowditch rule
(D) Trapezoidal rule

56. Still water surface is an example for :

(A) Still surface
(B) Level surface
(C) Mean surface level
(D) Horizontal surface

57. The imaginary line tangential to the longitudinal curve of the bubble tube at its midpoint is known as :

(A) Tangent of bubble table
(B) Line of collimation
(C) Axis of telescope
(D) Axis of bubble tube

58. G.T.S. stands for :

(A) Great Traverse Survey
(B) Gale's Traverse Survey
(C) Geodetic Trigonometric Survey
(D) Great Trigonometric Survey

59. BM in surveying designates :

(A) Bench mark
(B) Bending moment
(C) Bending mark
(D) All the above

60. The average refraction correction can be taken as ———— of the curvature correction.

(A) $1/12^{th}$
(B) $1/7^{th}$
(C) $1/6^{th}$
(D) $1/14^{th}$

61. A church is situated on the far side of a river and is inaccessible. It can be located by ———— method in plane table surveying.

(A) Radiation
(B) Intersection
(C) Resection
(D) Traversing

62. The lines having equal gradient along a slope are called :

(A) Contour intervals
(B) Centre slope
(C) Grade contour
(D) Contour gradient

63. ———— where the contour lines intersect each other.

(A) Vertical cliff
(B) Spur
(C) Valley
(D) Overhanging cliff

64. If the angle of intersection of a curve is ϕ, then deflection angle will be :

(A) $180 + \phi$
(B) $180 - \phi$
(C) $90 - \phi$
(D) $90 + \phi$

65. The angle subtended the long chord of a simple circular at its centre is equal to :

(A) Deflection angle
(B) 180°– deflection angle
(C) 180° – deflection angle /2
(D) Two times the deflection angle

66. The essential condition for the application of Simpson's rule to find the area, the number ordinates should be :

(A) Even
(B) Odd or even
(C) Odd
(D) None of the above

67. Droparrow is an instrument associated with ———— in chain survey :

(A) Offsetting
(B) Chain angle
(C) Reciprocal ranging
(D) Stepping method

68. Combined correction for curvature and refraction for a distance of 3 Km is :

(A) 0.6057 mm (B) 0.6057 cm

(C) 0.6057 km (D) 0.6057 m

69. A well conditioned triangle should not have angles more than ———— degrees.

(A) 60 (B) 120

(C) 45 (D) 90

70. Invar tape is made of an alloy of :

(A) Copper and nickel (B) Steel and zinc

(C) Steel and nickel (D) Copper and zinc

71. Hypotenuses allowance to be applied to each 20 m chain length along a slope ϕ degree is:

(A) $20(\sec\theta - 1)$ m (B) $20(\text{cosec}\,\theta - 1)$

(C) $20(1 - \sec\theta)$ m (D) $20(1 - \text{cosec}\,\theta - 1)$

72. The angle between horizon mirror and index mirror of an optical square is ———— degree.

(A) 135 (B) 120

(C) 90 (D) 45

73. Which of the following figure are equal to one acre?

(A) 10 sq engineers chain (B) 10 sq grunter's chain

(C) 10 sq metric chain (D) 10 sq revenue chain

74. Parallax can be eliminated by focusing :

(A) Eye piece (B) Objective

(C) Eye piece and objective (D) None of these

75. Scale of chord is used to measure:

(A) Angle (B) Area

(C) Length (D) Radius

76. The average length of one pace is taken as :

(A) 90 cm (B) 100 cm

(C) 70 cm (D) 80 cm

77. Compensative errors of length L is proportional to :

(A) L (B) L^2

(C) L^3 (D) $\sqrt{L}$

78. The staff reading taken on a bench mark or a point of known elevation is known as :

(A) Fore sight (B) Back sight

(C) Intermediate sight (D) Line of sight

79. An example for obstacles to both chaining and ranging is :

(A) A river (B) A lake

(C) A jungle (D) A building

80. By using a chromatic lens in a telescope the optical defect ———— can be eliminated.

(A) Spherical abbration (B) Chromic abbration

(C) Both (A) and (B) (D) None of these

81. The first politician received 'Bharat Ratna' the highest Civilian Award of India?

(A) Jawaharlal Nehru (B) Dr. S. Radhakrishnan

(C) C. Raja Gopalachari (D) Indira Gandhi

82. Who among the following was not a disciple (Citar) of 'Ayya Vaikundar'?

(A) Dharma citar (B) Karma citar

(C) Bhima citar (D) Nakulan citar

83. Indira Awaas Yojana (IAY) was initiated in:

(A) 1985 (B) 1975

(C) 1986 (D) 1976

84. The Head Quarters of International Water Management Institute situated in:

(A) New York (B) Colombo

(C) Stockholm (D) New Delhi

85. Birth Place of Sankaracharya:

(A) Aluva (B) Kaladi

(C) Ankamali (D) Ernakulam

86. Founder of the political party 'Forward Bloc', (a faction within the congress) in 1939 :

(A) Jawaharlal Nehru (B) A.O. Hume

(C) Gokhale (D) Subhash Chandra Bose

87. The first Indian Satellite 'Aryabhatta' was launched on :

(A) 19 April 1975 (B) 20 April 1975

(C) 18 April 1975 (D) 25 April 1975

88. 'ERNET' means :

(A) External Networking Technology

(B) Employment and Regeneration Technology

(C) International Networking Technology

(D) The Education and Research Network

89. Who was the owner of the Newspaper 'Swadeshabhimani'?

(A) K. Ramakrishna Pillai (B) A. Ramakrishna Pillai

(C) Abdul Rehiman (D) Vakkom Abdul Khader Maulavi

90. Human Right's Day :

(A) 10th December (B) 10th October

(C) 20th December (D) 20th October

91. 'Moksha Pradheepam' was the book written by:

(A) Ayya Vaikundar (B) Vaghbhatananda

(C) Brahmananda Shivayogi (D) Chattampi Swamikal

92. The First Five Year plan was launched in:

(A) 1951 (B) 1949

(C) 1950 (D) 1948

93. First chairman of the 'Atomic Energy Commission in India'?

(A) Vikram SaraBhai (B) C.V. Raman

(C) Homi. J. Bhabha (D) S. N. Bose

94. India Government declared internal emergency on:

(A) 25th June 1975 (B) 25th July 1975

(C) 27th June 1975 (D) 27th July 1975

95. Which country was the runner-up of 2014 World Cup Foot Ball?

(A) Argentina (B) Germany

(C) Holland (D) Brazil

96. Who discovered South-west Monsoon wind in 45 AD?

(A) Pliny, the Elder (B) Hippalus

(C) Horodotus (D) Greek Merchants

97. Gandhiji's First experiment of satyagraha in India :

(A) Kheda Satya Graha (B) Sabarmathi

(C) Champaran (D) Ahammedabad

98. 1857 revolt or Sepoy mutiny in India was broke out in :

(A) Surat (B) Meerut

(C) Delhi (D) Kanpur

99. 'Samatva Samajam', the organization was founded by:

(A) Chattampi Swamikal (B) Pt. Karuppan

(C) Vaikunda Swamikal (D) Sree Narayana Guru

100. Total Number of West flowing rivers in Kerala:

(A) 44 (B) 43

(C) 3 (D) 41