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1. A rectilinear figure bounded by more than five sides :

    (A) Trapezium
    (B) Polygons
    (C) Rhombus
    (D) Quadrilateral

2. A line 135 m long represents 22.5 on plan, then R.F is :

    (A) 1/100
    (B) 1/200
    (C) 1/300
    (D) 1/600

3. As per Indian standard, the length of one link in 30 meter chain is :

    (A) 30 cm
    (B) 20 cm
    (C) 40 cm
    (D) 10 cm

4. Limit of areas at which the survey is treated as plain is :

    (A) 100 KM^2
    (B) 150 KM^2
    (C) 200 KM^2
    (D) 260 KM^2

5. The total number of zeros graduated on surveyor's compass is :

    (A) One
    (B) Two
    (C) Three
    (D) Four

6. If the whole circle bearing of a line is 250°, its reduced bearing is :

    (A) N 70° W
    (B) S 70° W
    (C) S 70° E
    (D) N 70° E

7. In plane table survey measuring of lines and angles is mostly dispensed, but they are obtained :

    (A) Graphically
    (B) By trigonometrically
    (C) By calculations
    (D) All the above

A   3   [P.T.O.]

8. The alidade used in plane table survey, its beveled edges is also known as :

    (A) Ruling edge   (B) Working edge

    (C) Fiducial edge   (D) All the above

9. Scale of chord is used to measure :

    (A) Angles   (B) Area

    (C) Length   (D) Diameter

10. A King post truss consists of two longer inclined member known as :

    (A) Struts   (B) Principal rafter

    (C) King post   (D) Beam

11. Survey conducted for unearthing relics of antiquity :

    (A) Geological survey   (B) Mine survey

    (C) Military survey   (D) Archeological survey

12. The maximum value of measurement in quadrilateral bearing is:

    (A) 0°   (B) 360°

    (C) 90°   (D) 180°

13. Lines passing through points having same declination at a given point is:

    (A) Isogonic line   (B) Agonic line

    (C) Bearing of line   (D) Contour line

14. ———————— is done to set the plane table in meridian at successive station.

    (A) Centering   (B) Leveling

    (C) Orientation   (D) Both (A) and (B)

15. To locate an electric pole near the plane table station :

    (A) Intersection   (B) Radiation

    (C) Traversing   (D) Offsetting

16. The method used for locating station points only by sighting towards well defined objects :

    (A) Intersection   (B) Radiation

    (C) Traversing   (D) Resection

17. Leveling is the art of finding the —————————— of the objects on the surface of the earth.

    (A)   Relative heights and depths   (B)   Relative angles

    (C)   Distance   (D)   Depth only

18. Reduced level is also known as :

    (A)   Datum   (B)   Bench mark

    (C)   Elevation of the point   (D)   Change point

19. The error is leveling operation during settlement of tripod on turning point is :

    (A)   Instrumental error   (B)   Natural

    (C)   Personal   (D)   All the above

20. The staff reading on a certain peg is 1.680 when the staff is held 0.25 m out of the plumb in its total length of 4 m. The correct reading for the staff held vertical is :

    (A)   1.80 m   (B)   1.780 m

    (C)   1.670 m   (D)   1.676 m

21. In rise and fall method of reduction of levels provides a check on :

    (A)   Back sight only   (B)   Fore sight only

    (C)   Intermediate sight only   (D)   All the sights

22. Crop period is the time elapsed between :

    (A)   First watering to last watering   (B)   First watering before sowing

    (C)   Last watering before harvesting   (D)   Sowing to harvesting

23. For a closed traverse the algebraic sum of the deflection angle is equal to :

    (A) $90°$ (B) $180°$

    (C) $270°$ (D) $360°$

24. The constant vertical distance between two consecutive contours is called :

    (A)   Horizontal equivalent   (B)   Rise

    (C)   Level difference   (D)   Contour interval

25. In Theodolite traversing method consists in measuring the several angles successively and finally closing the horizon at the starting point :

    (A) Repetition method
    (B) Reiteration method
    (C) Ordinary method
    (D) Direct method

26. The vertical circle of the instrument is on the left of the observer while taking a reading, the position is called :

    (A) Face right observation
    (B) Face left observation
    (C) Normal position
    (D) Both (B) and (C)

27. The functional 1 key for ortho command used in CAD :

    (A) F₅
    (B) F₆
    (C) F₇
    (D) F₈

28. The CAD command used to lengthen or shorten the lines or object is :

    (A) Stretch
    (B) Extend
    (C) Offset
    (D) Distance

29. The drafting setting used to pick a geometric point on an object is :

    (A) SNAP
    (B) O-SNAP
    (C) ORTHO
    (D) POLAR TRACKING

30. The CAD command used to join 2 parallel line is :

    (A) Chamfer
    (B) Extend
    (C) Fillet
    (D) Stretch

31. In a well conditioned triangle, no angle should be less than :

    (A) 30°
    (B) 40°
    (C) 50°
    (D) 60°

32. Number of arrows accompanying each chain :

    (A) 12
    (B) 10
    (C) 8
    (D) 6

33. In one setting up of the level the maximum number of back sight and fore sight is :

    (A) One and two   (B) Two each

    (C) One each   (D) Two and one

34. In Leveling station is a point where :

    (A) Staff is held   (B) Instrument is fixed

    (C) Ranging rod is fixed   (D) Peg is marked

35. Contour map is used for :

    (A) Inter visibility between ground points (B) Quantities of earth work

    (C) Tracing route   (D) All the above

36. Plunging or reversing of the theodolite telescope is also called :

    (A) Swinging   (B) Transisting

    (C) Change the face   (D) None of these

37. The type of bond employed in brick work consist of alternate courses of headers and stretchers :

    (A) English   (B) Flemish

    (C) Dutch   (D) Heading

38. Agate cap is fitted with a :

    (A) Cross staff   (B) Level

    (C) Chain   (D) Prismatic compass

39. The closing error in a closed traverse is adjusted by :

    (A) Lehmann's rule   (B) Trapezoidal rule

    (C) Bowditch's rule   (D) Simpson's rule

40. For ranging a line number of ranging rod required is :

    (A) atleast 3   (B) atleast 4

    (C) atleast 5   (D) atleast 2

41. Curvature effect of the earth is taken into account in :

    (A) Geodetic survey   (B) Plane survey

    (C) Plane table survey   (D) Hydrographic survey

42. The T- square is used for drawing :

    (A) Vertical   (B) Horizontal

    (C) Inclined   (D) Curve

43. To prevent warping of the board ————————— are cleared at its back.

    (A) Packing   (B) Wooden block

    (C) Battens   (D) Blades

44. The first dimension line should be placed atleast :

    (A) 10 mm from the construction line   (B) 12 mm from the construction line

    (C) 8 mm from the construction line   (D) 9 mm from the construction line

45. The sum of the included angle of a hexagon is :

    (A) 720°   (B) 540°

    (C) 900°   (D) 360°

46. The angle of inclined letters :

    (A) 30°   (B) 60°

    (C) 45°   (D) 75°

47. The standard size of B$_2$ imperial drawing is :

    (A) 700 × 600   (B) 800 × 600

    (C) 800 × 500   (D) 700 × 500

48. The lowest part of the structure which transmit the load to the soil is :

    (A) Superstructure   (B) Basement

    (C) Plinth   (D) Substructure

49. Area of trimmed A$_0$ sheet designated by ISO is :

    (A) 1 m²   (B) 0.5 m²

    (C) 0.25 m²   (D) 0.125 m²

50. A right angled parallelogram with its opposite sides are equal :

    (A) Pentagon   (B) Triangle

    (C) Rectangle   (D) Trapezium

51. Number of bricks required for one cubic meter :

    (A) 600
    (B) 900
    (C) 800
    (D) 500

52. A lintel is provided :

    (A) Over a door opening
    (B) Below a door opening
    (C) Inner a door opening
    (D) Side a door opening

53. The Diameter of the graduated circle on the lower plate determines the :

    (A) Size of theodolite
    (B) Length of theodolite
    (C) Thickness of theodolite
    (D) Accuracy of theodolite

54. In Theodolite the verniers A and B are marked in :

    (A) Upper plate
    (B) Lower plate
    (C) Vertical plate
    (D) Graduated circle

55. Pantograph is used for :

    (A) Measuring right angles
    (B) Enlarging and reducing plans
    (C) Measuring distances
    (D) Measuring volume

56. Simplify : $44 - [33 - \{44(33 - 44 - 33)\}]$.

    (A) 11
    (B) 1925
    (C) −11
    (D) 33

57. Factorize : $49x^2 - 81y^2 =$

    (A) $(7x - 9y)(7x - 9y)$
    (B) $(7x + 9y)(7x - 9y)$
    (C) $(7x + 9y)(7x + 9y)$
    (D) $(7x + 6y)(7x - 9y)$

58. Volume of a sphere is given by :

    (A) $\frac{4}{3}\pi r^3$
    (B) $\frac{3}{4}\pi r^2$
    (C) $\frac{4}{3}\pi r$
    (D) $\frac{4}{3}\pi r^2$

59. Volume of a cylinder is given by :

(A) πr^3

(B) πr^2

(C) $\pi r^2 h$

(D) $\pi d h$

60. The equation of a straight line in a graph is shown by :

(A) $y = mx^2$

(B) $y = mx$

(C) $y = mx$

(D) $y = mx^3$

61. The volume of a cube with each side measures 2 m is :

(A) 4 m²

(B) 8 m²

(C) 4 m³

(D) 8 m³

62. The value of sine 90° is:

(A) 1

(B) 0

(C) 5

(D) $1/\sqrt{2}$

63. The value of $1 + \tan^2 \theta$ is :

(A) $\csc^2 \theta$

(B) $\sec^2 \theta$

(C) $\cot \theta$

(D) $\sec \theta$

64. The value of sin 2A :

(A) $1 - \sin^2 A$

(B) $1 - \cos^2 A$

(C) $2 \sin A / \cos A$

(D) $2 \sin A \cos A$

65. One chain is :

(A) 22 yards

(B) 11 yards

(C) 27 yards

(D) 10 yards

66. The base unit of length in S.I system :

(A) Yards

(B) Meter

(C) Feet

(D) Inch

67. The multiple factor of the prefix deci is :

    (A) 0.1   (B) 0.01

    (C) 0.01   (D) 0.001

68. The rate at which work is done:

    (A) Energy   (B) Force

    (C) Power   (D) Work

69. The unit of velocity is :

    (A) Rate of change of position of 1 m per second

    (B) Rate of change of one radian per second

    (C) One radian per second

    (D) Watt

70. A combination of two reverse curve used to avoid intervening obstructions like buildings etc :

    (A) Simple curve   (B) Compound

    (C) Reverse   (D) Deviation

71. A quantity having both magnitude and direction is :

    (A) Scalar   (B) Scale

    (C) Vector   (D) Co-ordinate

72. The eccentricity of a parabola is usually :

    (A) >1 (B) <1

    (C) 1   (D) $\neq 1$

73. The value of "g"(acceleration due to gravity) is :

    (A) 9.8 m/s^2 (B) 8.9 m/s^2

    (C) 9.6 m/s^2 (D) 98 m/s^2

74. The change in dimension per unit dimension of a body is called :

    (A) Stress   (B) Strain

    (C) Tension   (D) Plasticity

75. Hook's law holds upto :

    (A) Yield point
    (B) Elastic limit
    (C) Plastic limit
    (D) Breaking point

76. Solder is an alloy of :

    (A) Alumina and lead
    (B) Alumina and tin
    (C) Copper and Zinc
    (D) Lead and tin

77. An optical instrument used in modern surveying, archaeology, investigation and for military service etc. :

    (A) Theodolite
    (B) Total - station
    (C) Dumpy level
    (D) Prismatic compass

78. An triangle is obtain by joining the pole, zenith and any star on the sphere by arc of great circle is :

    (A) Spherical triangle
    (B) Celestial triangle
    (C) Astronomical triangle
    (D) Terrestrial triangle

79. The science and art of collecting information about objects, area or phenomena from distance without being in physical contact with them :

    (A) Remote sensing
    (B) Surveying
    (C) Hydrographic survey
    (D) Contouring

80. The reverse process of surveying in with the data are transferred from drawing to the ground :

    (A) Ranging
    (B) Chaining
    (C) Both (A) and (B)
    (D) Setting out

81. 'Tatwa Prakasika Ashram' was started by :

    (A) Vagbhatananda
    (B) Chattampi Swamikal
    (C) Kumaraguru
    (D) V.T. Bhattatirippad

82. The device, that measures the depth of the sea :

    (A) Barometer
    (B) Fathometer
    (C) Manometer
    (D) Lactometer

83. 'The Darsanamala', famous work of Sree Narayana Guru, was written in ——————
    language.

    (A) Prakrith   (B) Tamil

    (C) Sanskrit   (D) Pali

84. The Practice of 'Sati' was banned by :

    (A) Dalhousie   (B) Cornwallis

    (C) Rippon   (D) William Bentinck

85. Ezhuthachan Award Winner of 2014 :

    (A) Vishnu Narayanan Namboothiri   (B) Attoor Ravi Varma

    (C) Dr. M.K. Sanu   (D) P. Narayana Kuruppu

86. Who was the author of 'Anandakkummi'?

    (A) Pandit K.P. Karuppan   (B) Brahmananda Swami Sivayogi

    (C) Ayya Vaikundar   (D) Thycaud Ayya

87. 'The Partition of Bengal' was revoked in :

    (A) 1905   (B) 1909

    (C) 1911   (D) 1907

88. Who directed the film 'Kuttisrank'?

    (A) Salim Ahammed   (B) M.T. Vasudevan Nair

    (C) Adoor Gopalakrishnan   (D) Shaji N. Karun

89. The editor of 'Yuktivadi Magazine' :

    (A) K. Ayyappan   (B) C. Krishnan

    (C) Vakkom Moulavi   (D) Swadesabhimani Ramakrishna Pillai

90. 'Durand Cup' associated with :

    (A) Cricket   (B) Foot ball

    (C) Polo   (D) Weight lifting

91. One of the Nobel Prize winner of Chemistry in 2014 :

    (A) Jean Tirole   (B) Hiroshi Amano

    (C) Eric Betzig   (D) Patrick Modiano

92. Who was the author of the work 'Lanka Mardhanam'?

    (A) Pandit K.P. Karuppan   (B) Kumaranasan

    (C) Mannathu Padmanabhan   (D) Poikayil Yohannan

93. The renaming of Planning commission called 'NITI Aayog' was formed on :

    (A) 8th February 2015   (B) 1st January 2015

    (C) 11th January 2015   (D) 8th December 2014

94. 'Saptanga Theory' of state was associated with :

    (A) Aristotle   (B) Patanjali

    (C) Megasthanese   (D) Kautilya

95. The first Kerala State Political Conference was held on 23rd April 1921 at Ottappalam under the Presidentship of :

    (A) K. Madhavan Nair   (B) T.Prakasam

    (C) Annie Besant   (D) K.P. Kesava Menon

96. The head quarters of UNICEF :

    (A) Newyork   (B) Washington

    (C) Paris   (D) Geneva

97. 'Blue Revolution' aims for increasing ———————— cultivation.

    (A) Milk   (B) Fruits

    (C) Fish   (D) Cotton

98. The Pictures carved at Edakkal caves in Wayanad noticed by ———————— for the first time.

    (A) Alexander Cunningham   (B) B.K. Thaper

    (C) John Marshall   (D) Faucett

99. The Government of India appointed the 'Hunter Committee' to investigate into and report on :

    (A) Wagon Tragedy   (B) Education Committee

    (C) Jallianwalla Bagh Massacre   (D) Famine Commission

100. 'Melmundu kalapam' was started by ———————— community.

    (A) Pulaya   (B) Kurichya

    (C) Ezhava   (D) Channar