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1. In which triangle all the three angles are less than 90° and unequal :

   (A) Equilateral triangle

   (B) Acute angled triangle

   (C) Right angled triangle

   (D) Scalene triangle

2. A quadrilateral having opposite sides are equal and parallel and opposite angles are equal is known as :

   (A) Rectangle

   (B) Trapezoid

   (C) Rhomboid

   (D) Rhombus

3. Continuous thin lines are used as :

   (A) Dimension line

   (B) Cutting plane

   (C) Outline of adjacent part

   (D) Line of symmetry

4. Which one of the following statement is not correct in the case of aligned system?

   (A) Dimension value placed perpendicular to the dimension line

   (B) Dimension can be read only from the bottom edge of the drawing sheet

   (C) Dimension can be read from the bottom edge or right hand edge of the drawing sheet

   (D) Dimension should be placed near the middle and above but clear of the dimension line

5. A regular pentagon having an angle of :

   (A) 90°

   (B) 540°

   (C) 180°

   (D) 108°

6. A plane figure bound by a curve, formed by the Locus of a point which moves so that, it is always at a fixed distance from a stationery point is called :

   (A) Cycloid

   (B) Ellipse

   (C) Circle

   (D) Involute

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7. Which scale is suitable to convert Fahrenheit into Celcius?

   (A) Comparative scale   (B) Diagonal scale

   (C) Vernier scale   (D) Retrograde vernier

8. Line AB 30° incline to HP and parallel to VP. If the line is at first quadrant which one of the following statement is correct?

   (A) Elevation will be of actual length 30° inclined and below XY line

   (B) Elevation will be shorter than actual length and above XY line

   (C) Elevation will be shorter than actual length 30° inclined and below XY line

   (D) Elevation will be of actual length 30° inclined and above XY line

9. The length of a line in an isometric projection will be :

   (A) Equal to the actual length of the line

   (B) 0.82 times the actual length of the line

   (C) 1.82 times the actual length of the line

   (D) None of these

10. When a cone is cut inclined to the axis or base is called?

    (A) Frustum of cone   (B) Frustum of pyramid

    (C) Truncated cone   (D) Truncated pyramid

11. How many links are in a Gunter's chain?

    (A) 16   (B) 66

    (C) 33   (D) 100

12. 1 Hectare is equal to :

    (A) 10000 sq.m   (B) 1000 sq.m

    (C) 4047 sq.m   (D) 404.7 sq.m

13. For a highest precision work the baseline measurement is done with :

    (A) Metric chain   (B) Steel tape

    (C) Invar tape   (D) Metallic tape

14. What should be the limit of overall length of 30 m chain?

    (A) ± 5 mm   (B) ± 8 mm

    (C) ± 4 mm   (D) ± 6 mm

15. For the flexibility of chain :

    (A) Links are made up with mild steel wire of 4 mm

    (B) Handles are provided at the end with swivel joint

    (C) Links are connected together by means of three circular rings

    (D) None of these

16. Line ranger is used when :

    (A) The line is short   (B) The ends of line are not intervisible

    (C) There is obstruction   (D) The line is too long

17. The lateral measurement taken at right angle to the survey line is called :

    (A) Perpendicular offset   (B) Tie line

    (C) Check line   (D) Oblique offset

18. Survey work is recorded by measurements and sketches in :

    (A) Field notes   (B) Survey book

    (C) Field book   (D) All of the above

19. Which one of the following is an example of vision obstructed and chaining free type?

    (A) Building   (B) Rising ground

    (C) Pond   (D) River

20. The angle of sloping ground in chain surveying is taken with :

    (A) Clinometer   (B) Abney level

    (C) Theodolite   (D) All of the above

21. In a traverse surveying the direction of lines are measured with a :

    (A) Chain   (B) Clinometer

    (C) Compass   (D) Tape

22. In Simpson's rule the number of ordinates must be :

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

23. The area of figure having irregular or curved boundaries are determined by :

   (A) Using Pentagraph
   (B) Simpson's rule
   (C) Trapezoidal rule
   (D) Using Planimeter

24. Which one of the following is required while preparing a site plan?

   (A) North direction
   (B) Main survey line
   (C) Road
   (D) All of the above

25. The accuracy of the whole of the details in a survey work depends upon the straightness and accuracy of the :

   (A) Offset line
   (B) Base line
   (C) Check line
   (D) Tie line

26. The level designated as self aligning level :

   (A) Tilting level
   (B) Dumpy level
   (C) Wye level
   (D) Auto level

27. The least count of levelling staff is :

   (A) 0.0005 m
   (B) 0.005 m
   (C) 0.05 m
   (D) 0.5 m

28. The imaginary line joining the intersection of the cross hairs and the optical centre of the objective is :

   (A) Line of collimation
   (B) Axis of telescope
   (C) Axis of sight
   (D) None of these

29. A Bench mark is a :

   (A) reference point
   (B) The very first station
   (C) The last station where the Survey closes
   (D) Point of known elevation

30. The main function of levelling is :

   (A) To prepare a plan or map

   (B) To determine the area

   (C) To determine the elevations of the points

   (D) To calculate the volume of earthwork

31. Which line is normal to plumb line at all points?

   (A) Curved line   (B) Level line

   (C) Vertical line   (D) Horizontal line

32. The very first reading taken in a levelling operation is called :

   (A) Back sight   (B) Fore sight

   (C) Intermediate sight   (D) Invert

33. The telescope of a dumpy level :

   (A) Can be taken out of its support and reversed

   (B) Permits interchange of eyepiece and object glass

   (C) Rigidly fixed to the levelling head

   (D) Can be tilted in a vertical plane

34. An inverted staff reading is taken when the point is :

   (A) having high elevation   (B) Above the line of sight

   (C) Below the line of sight   (D) Below the ground level

35. A change point is :

   (A) The very first station

   (B) The last station

   (C) The intermediate station where FS and BS are taken

   (D) None of these

36. Which of the following is not an instrumental error?

    (A) The error due to imperfect permanent adjustment

    (B) Error due to sluggish bubble

    (C) Error due to movement of objective slide

    (D) Error due to settlement of staff

37. The apparent movement of the image relatively to the cross hairs is :

    (A) Parallax   (B) Refraction

    (C) Transit   (D) Tilting

38. Correction for curvature for a distance of 1 km is :

    (A) 0.0112 m   (B) 0.0673 m

    (C) 0.0785 m   (D) 0.0673 km

39. If the RL of the BM is 100 m and BS is 1.725, Find the height of instrument at the station :

    (A) −98.275   (B) +98.275

    (C) −101.725   (D) +101.725

40. The bench mark established for short duration such as the end of a days work is :

    (A) Arbitrary BM   (B) Temporary BM

    (C) Permanent BM   (D) GTS BM

41. The imaginary line joining the points of same elevation is :

    (A) Horizontal line   (B) Isohyets

    (C) Contour line   (D) Isobars

42. Closely spaced contour line indicates :

    (A) Steep slope   (B) Gentle slope

    (C) Plane surface   (D) Vertical cliff

43. Contour lines look cross to each other in case of :

(A) Overhanging cliff   (B) A dam

(C) A steep hill   (D) A deep valley

44. The method used for interpolating contour points between two points :

(A) Rise and fall method   (B) Double sighting method

(C) Graphical method   (D) Reiteration method

45. Suitable contour interval for Reservoir planning is :

(A) 0.2 to 0.5 m   (B) 0.5 to 2.0 m

(C) 1.0 to 3.0 m   (D) 2.0 to 5.0 m

46. The difference in elevation between two successive contours is :

(A) Level difference   (B) Contour Gradient

(C) Contour interval   (D) Contour profile

47. Locating points on a given contour gradient can be done by :

(A) Clinometer   (B) Pentagraph

(C) Planimeter   (D) Subtense bar

48. Contour lines :

(A) end abruptly   (B) cross each other

(C) are uniformly spaced   (D) close somewhere

49. A 'T' shaped wooden rod used for setting out proper gradient between two points :

(A) 'T' square   (B) Arrow

(C) Boning rod   (D) Cross pole

50. The presmoidal formula for finding Volume of earth work is applicable only when the ordinates are :

(A) Even   (B) Odd

(C) Limited   (D) None of these

51. Size of survey field book is :

(A) 15 × 25 cm

(B) 12 × 20 cm

(C) 21 × 29.7 cm

(D) 20 × 30 cm

52. Area of an irregular shaped figure is determined by :

(A) Plani meter

(B) Pentagraph

(C) Speedo meter

(D) Cross staff

53. The main principle of survey is :

(A) Work from part to whole

(B) Work from centre to sides

(C) Work from whole to part

(D) Work from anywhere

54. Cadastral survey is used to :

(A) Prepare revenue maps of states

(B) Find the angular measurements

(C) Find the height of points in the site

(D) Locate the features in the site

55. Length of Surveyor's chain is :

(A) 11 yard

(B) 22 yard

(C) 33 yard

(D) 50 yard

56. In Auto CAD, the function key of GRID command is :

(A) F9

(B) F8

(C) F7

(D) F10

57. The short key for remove italic format for select text is :

(A) Ctrl + B

(B) Ctrl + I

(C) Ctrl + U

(D) Ctrl + A

58. In Auto CAD, the command used to create a repeating pattern of the selected object :

(A) Array

(B) Trim

(C) Erase

(D) Rotate

59. In Auto CAD, the key stroke used for the function 'redo' :

    (A)   Ctrl + O

    (B)   Ctrl + S

    (C)   Ctrl + U

    (D)   Ctrl + Y

60. The Auto CAD command which is used to breaks a polyline into its individual segments :

    (A)   Extend

    (B)   Explode

    (C)   Extrude

    (D)   Break

61. Function key F10 is used in Auto CAD to :

    (A)   Snap ON/OFF

    (B)   Ortho ON/OFF

    (C)   Polar tracking ON/OFF

    (D)   Grid ON/OFF

62. Which command is used to exit from a drawing file in Auto CAD?

    (A)   Exit

    (B)   Quit

    (C)   Escape

    (D)   Undo

63. Which command is used to erase a part of an object between two points?

    (A)   Close

    (B)   Break

    (C)   Remove

    (D)   Delete

64. In a computer, ROM means :

    (A)   Read Only Memory

    (B)   Random Access Memory

    (C)   Random Only Memory

    (D)   None of the above

65. To draw a line parallel to the first line, the command used in Auto CAD is :

    (A)   Extend

    (B)   Mirror

    (C)   Trim

    (D)   Offset

66. The estimated value of the property at the end of life period without being dismantled :

    (A)   Scrap value

    (B)   Salvage value

    (C)   Book value

    (D)   Market value

67. The value of the property fetch down than the market value is :
    (A) Salvage value
    (B) Market value
    (C) Distress value
    (D) Monopoly value

68. Painting constant for a venetian door for both sides is :
    (A) Its surface area
    (B) 2 times its surface area
    (C) 2.25 times its surface area
    (D) 3 times its surface area

69. To get one cubic metre wet cement concrete, the total quantity of dry materials are :
    (A) 1.2 cubic metre
    (B) 1.54 cubic metre
    (C) 0.30 cubic metre
    (D) 2 cubic metre

70. Unit weight of cement is :
    (A) 1000 kg
    (B) 2000 kg
    (C) 1440 kg
    (D) 2300 kg

71. The carpet area of a residential building is taken as :
    (A) 50 to 65% of the plinth area
    (B) 70 to 75% of the plinth area
    (C) 25 to 50% of the plinth area
    (D) 75 to 90% of the plinth area

72. The capacity of doing work by a skilled labour in the form of quantity of work per day :
    (A) Efficiency
    (B) Power
    (C) Out-turn
    (D) Out put

73. Horizontal circulation area of a building is taken as :
    (A) 5 to 10% of the plinth area
    (B) 10 to 15% of the plinth area
    (C) 20 to 30% of the plinth area
    (D) 50 to 60% of the plinth area

74. The number of modular bricks required for 10 m³ brick masonry :
    (A) 500
    (B) 1000
    (C) 50000
    (D) 5000

75. The quantity of cement required for 100 m³ of M15 grade cement concrete is :
   (A)   660 bags
   (B)   840 bags
   (C)   1155 bags
   (D)   462 bags

76. Which of the following statement is/are correct about Total station?
   (i)   Quick setting of the instrument on the tripod using laser plummet.
   (ii)   Their use provides hard copies of field nots. Hence it may be easy for the surveyor while surveying.
   (iii) Greater accuracy in area computation.
   (A)   Only (i) and (ii)
   (B)   Only (i) and (iii)
   (C)   All of these above (i), (ii) and (iii)
   (D)   Only (ii) and (iii)

77. Which of the following statement is/are wrong about EDM?
   (i)   Precise measurement of distance.
   (ii)   Capable of measuring long distances.
   (iii) Accuracy is not affected by atmospheric conditions.
   (A)   Only (i)
   (B)   Only (ii)
   (C)   Only (iii)
   (D)   All of these above (i), (ii) and (iii)

78. Which of the following statement is/are correct about Total station?
   (i)   The modern versions of survey total station called robotic total station.
   (ii)   The EMD system minimizes some of the horizontal and vertical angle errors occurred normally in conventional.
   (iii) Various atmosphere corrections, geodetic corrections, and elevation factors can be input and applied.
   (A)   Only (i) and (ii)
   (B)   Only (i) and (iii)
   (C)   All of these above (i), (ii) and (iii)
   (D)   Only (ii) and (iii)

79. Which of the following is/are wrong statement about prism in total station survey?
   (i)   The quality of the prism is determined by the flatness of the surface and the perpendicularity of the 45° surface.
   (ii)   Prisms are used with electro-optical EDM instruments to reflect the transmitted signal.
   (iii) Prisms have the property of reflecting rays back precisely in the same direction.
   (A)   Only (i)
   (B)   Only (ii)
   (C)   Only (iii)
   (D)   Only (i), (ii)

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80. Which of the following statement is/are wrong about good practice in Total station?
    (i)   Never mix prism types and brands on same project.
    (ii)   Calibrate the instrument regularly.
    (iii) Set the electronic signal precisely on the prism center.
    (A) Only (i) and (ii)   (B) None of the above (i), (ii) and (iii)
    (C) Only (ii) and (iii)   (D) All of these above (i), (ii) and (iii)

81. Which of the following statement is/are correct about Total station survey instrument?
    (i)   Total stations are dependant on batteries and electronics.
    (ii)   The LCD screen does not work well when it is cold.
    (iii) Total stations are ideal for collecting large numbers of points.
    (A) Only (i)   (B) Only (ii)
    (C) Only (iii)   (D) All of these above (i), (ii) and (iii)

82. Which of the following statement is correct?
    (i)   Sum of interior angles of a pentagon is 720°
    (ii)   Sum of interior angles of a Heptagon is 900°
    (iii) Sum of interior angles of a Quadrilateral is 540°
    (A) Only (i)   (B) Only (ii)
    (C) Only (iii)   (D) All of these above (i), (ii) and (iii)

83. The sequence of various engineering surveys which are carryout for the choice of a new highway project from beginning are :
    (i)   Location survey
    (ii)   Preliminary survey
    (iii) Reconnaissance survey
    (A) (i), (ii) and (iii)   (B) (i), (iii) and (ii)
    (C) (ii), (iii) and (i)   (D) (iii), (ii) and (i)

84. The Golden Quadrilateral project connects :
    (A) Srinagar to Kanyakumari
    (B) Delhi, Mumbai, Chennai and Kolkata
    (C) Porbandar (Gujarat) to Silchar (Assam)
    (D) Punjab to Kolkata

85. Which of the following statement is/are correct about the methods of solving the three points problem in plane table survey?

    (i)   By mechanical method

    (ii)   By Bessel's method

    (iii) By direct observation method

    (A)   Only (i) and (ii)   (B)   Only (i) and (iii)

    (C)   All of these above (i), (ii) and (iii)   (D)   Only (ii) and (iii)

86. Which of the following statement is/are correct about the Road way width as per recommendations of I.R.C.?

    (i)   National and State Highway is 12.0 m

    (ii)   Major District Roads is 10.0 m

    (iii) Other district roads is 8.0 m

    (A)   Only (i) and (ii)   (B)   Only (i) and (iii)

    (C)   All of these above (i), (ii) and (iii)   (D)   Only (ii) and (iii)

87. Which of the following statement is/are correct about AutoCAD Toggle drawing modes?

    (i)   F7-Toggle grid mode.

    (ii)   F8-Toggle polar mode.

    (iii) F9-Toggle snap mode.

    (A)   Only (i) and (ii)   (B)   Only (ii) and (iii)

    (C)   All of these above (i), (ii) and (iii)   (D)   Only (i) and (iii)

88. Which of the following statement is/are correct about AutoCAD?

    (i)   OOPS command reinserts the last erased objects even if it was not the last command issued.

    (ii)   PEDIT command edits polylines and 3D polygon meshes.

    (iii) QVLAYOUT command displays preview images of model spaces and layouts in a drawing.

    (A)   Only (i) and (ii)   (B)   Only (ii) and (iii)

    (C)   All of these above (i), (ii) and (iii)   (D)   Only (i) and (iii)

89. Which of the following statement is correct about Max. Road Gradient?

    (i)   Plain or rolling is 1 in 20

    (ii)   Mountainous and steep terrain with elevation upto 3000 m is 1 in 25

    (iii) Elevation more than 3000 m is 1 in 30

    (A) Only (i)   (B) Only (ii)

    (C) Both (A) and (B)   (D) Only (iii)

90. Which is the sequence of reconnaissance survey to be conducted for a project from the given statements?

    (i)   Aerial reconnaissance

    (ii)   Study of topographical survey sheets

    (iii) Ground reconnaissance

    (A) (i), (ii) and (iii)   (B) (i), (iii) and (ii)

    (C) (ii), (iii) and (i)   (D) (ii), (i) and (iii)

91. Which of the following type of error when occurred while reading a levelling staff against the top or bottom hair instead of central hair?

    (i)   Instrumental Error

    (ii)   Errors in manipulation

    (iii) Errors in reading staff

    (A) Only (i)   (B) Only (ii)

    (C) Only (iii)   (D) Both (A) and (B)

92. Which of the following statement is/are correct about the uses of contour maps?

    (i)   To compute quantity of earth work required for a road project.

    (ii)   To draw longitudinal section and cross section to ascertain the nature of the ground in any desired direction.

    (iii) To determine the capacity of the reservoirs.

    (A) Only (i) and (ii)   (B) Only (ii) and (iii)

    (C) All of these above (i), (ii) and (iii)   (D) Only (i) and (iii)

93. Choose the correct full form of GPS :

    (i)   Ground Positioning System
    (ii) Global Positioning System
    (iii) Geodetic Polar System
    (iv) Geodetic Positioning System

    (A) Only (i)   (B) Only (ii)
    (C) Only (iii)   (D) Only (iv)

94. Which of the following is/are the advantages of GPS survey?

    (i)   Three dimensional
    (ii) Site inter visibility not needed
    (iii) Rapid data processing with quality control
    (iv) Very few skilled personnel needed.

    (A) Only (i) and (ii)   (B) Only (ii) and (iii)
    (C) Only (i) and (iii)   (D) All of these above (i), (ii), (iii) and (iv)

95. Which of the following statement is/are correct?

    (i)   The coordinate systems used in GPS navigation are DMS, DDM and UTM
    (ii) The minimum Segments to the GPS system are Space, Orbit and User
    (iii) It is not possible to track the position of a receiver using GPS satellites.

    (A) Only (i) and (ii)   (B) Only (i) and (iii)
    (C) All of these above (i), (ii) and (iii)   (D) Only (ii) and (iii)

96. Which of the following statement is/are wrong about GPS?

    (i)   The GPS itself does not require an internet connection.
    (ii) GPS receivers do not transmit any information.
    (iii) Three GPS satellite signals are used to compute the position in three dimension and time offset in the receiver clock.

    (A) Only (i)   (B) Only (ii)
    (C) Only (iii)   (D) All of these above (i), (ii) and (iii)

97. Which of the following statement is/are correct?

    (i)   GPS is a satellite-based navigation system.

    (ii)   Triangulation is the basis of GPS from satellites.

    (iii) In GPS the minimum constellation to meet the objectives of the DOD is 24 operational satellites.

    (A)   Only (i)   (B)   Only (ii)

    (C)   Only (iii)   (D)   All of these above (i), (ii) and (iii)

98. Which of the following statement is/are correct about GPS?

    (i)   MoBIC is an application of GPS for visually impaired.

    (ii)   Drishti is an application of GPS in agriculture.

    (iii) The principal behind GPS is the measurement of distance between the receiver and the satellites

    (A)   Only (i) and (ii)   (B)   Only (ii) and (iii)

    (C)   Only (i) and (iii)   (D)   All of these above (i), (ii) and (iii)

99. Which of the following is/are incorrect statement?

    (i)   GPS can be used for the prescription of telemedicine.

    (ii)   GPS can be used in the ground to get satellite images.

    (iii) GPS has developed into cost effective tool for updating GIS or CAD system.

    (A)   Only (i)   (B)   Only (ii)

    (C)   Only (iii)   (D)   Only (i), (iii)

100. Which of the following are the components of GPS receiver?

    (i)   Antennas with preamplifier.

    (ii)   RF section with signal identification and signal processing.

    (iii) Microprocessor for receiver control data sampling, data processing.

    (iv) User interface, command and display panel.

    (A)   Only (i) and (ii)   (B)   Only (ii) and (iii)

    (C)   Only (i) and (iii)   (D)   All of these above (i), (ii), (iii) and (iv)