Teachingninja.in

⭐ **Latest Govt Job updates**

⭐ **Private Job updates**

⭐ **Free Mock tests available**

Visit - teachingninja.in

'Deputy Surveyors & Town Planning Building Overseer

SUBJECT: DRAWING & SURVEYING

FINAL KEY

1. What is the size of the **A3** drawing sheet?

   297 mm x 420 mm

2. A continuous thin line in drawing indicates?

   All the above

3. The slope of the single stroke inclined lettering is ……………

   Leaning 67.5^0 to 75^0 to the right.

4. What is the ratio of shorter side to longer side of a standard drawing sheet?

   $1/\sqrt{2}$

5. What is the minimum width of border for **A0** and **A1** sheets?

   20mm

6. What is the formula for calculating the length of the scale?

   Maximum length to be measured x R.F.

7. What is the minimum ratio of thick line to thin line in a drawing

   2:1

8. Visible edges and visible outlines are drawn using

   Continuous thick line

9. Chain thin double dashed line is used to denote

   Centroidal line

10. The minimum spacing between parallel lines including hatching lines should never be less than …………….. times the thickness of heaviest line.

    2

11. Which grade of pencil is used for drawing arrowheads?

    2H

12. The minimum spacing between the base lines in lettering using **d=h/10** is…..….

    (14/10) h

13. What is the general application of the line shown below?

    Cutting planes

14. A leader line should be terminated

    All the above

15. How many equal sides are there in a regular Octagon?

    8

16. What are the different types of projections used in orthographic projections?

    First Angle, Third Angle

17. In first angle projection, top view is drawn

    Below the front view

18. What is the equation used to find out the total interior angle of a polygon with '**n**' number of sides?

    (n-2)x180

19. If the three sides of a triangle are equal, it is called as

    Equilateral triangle

20. A cone is resting on HP with its base. What is the shape of the front view?
    Triangle

21. If an object lies in a fourth quadrant, what is its position with respect to reference plane?

    Below HP, in front of VP

22. If an object is cut by a cutting plane parallel to VP and perpendicular to HP, the cutting section is visible in
    Front view

23. The example for axonometric projection is

    Isometric projection

24. When the projections are parallel to each other and also perpendicular to the reference plane, the projection is called

    Orthographic Projection

25. In oblique projection, the plane of projection is

    Parallel to cutting plane

26. If the horizontal trace [**HT**] of a point in 1st quadrant is 50 mm below reference line [**xy**], then its position will be
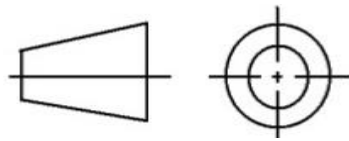
    50 mm in front of VP

27. A cone is resting on the HP with its base. If is cut by a section parallel to HP and perpendicular to axis of the cone. What will be the shape of the cutting plane in top view
    Circle

28. What is the angle between two lines P_1 and P_2, if P_1 is passing from [0,0] to [1,1] and P_2 is passing from [0,0] to [1,0]

    45^0

29. The Fig. given below is ………… projection

First angle

30. The three angles of a quadrilateral are 60^0, 90^0 and 75^0. What will be the fourth angle?

135^0

31. When the diagonals of a quadrilateral are perpendicular to each other, then it is called as

Rhombus

32. The front view of an object resting in first quadrant is shown on

Vertical plane

33. A line is of 3 m long. If **RF is 1/100**, what is its length in the drawing

3cm

34. Which of the following is not a reducing scale

2:2

35. Graphical representation of a scale is always better than numerical representation because

To prevent errors due to shrinkage

36. The diagonal scale is used, when measurements are required in ………. units

3

37. An area of **10,000 m^2** is represented in **100 cm^2** area in a map. The RF of the scale is ………..

1/1,000

38. If a line intersects a circle at two points and does not pass through the centre, the line segment inside the circle is referred as

Chord

39. Which scale is used, if you need to measure small distances more accurately?

   Vernier scale

40. Scales having same RF, but graduated to read different units are called

   Comparative scale

41. Which scale is used in surveying instrument like compass, theodolite?

   Circular Vernier scale

42. The distance between two points in a map is 15cm which are 30 km apart on the ground. What would be the map distance, if the ground distance is 5 km?

   2.5cm

43. Name of the solid having two bases that are having 5 sided parallel and equal polygons

   Pentagonal prism

44. In a hexagonal pyramid, how many triangular faces are there?

   Six

45. The name of the solid having 4 equal faces, each of it is an equilateral triangle is

   Tetrahedron

46. ………. is a solid generated by the revolution of a semi-circle about its diameter as the axis.

   Sphere

47. The straight line drawn from the apex to the circumference of the base of a cone is called
   Generator

48. When a cone is cut by a plane at an angle such that, it cuts all the generators of it.The conic formed is

Ellipse

49. If the distance from focus is **15 cm** and the distance from directrix is **30 cm**. what is the eccentricity?

    0.5

50. A surface obtained by revolving a parabola around its axis, generally used in mirrors and antenna dishes is called……

    Paraboloid

51. If the eccentricity of a conic is more than one, it is called…..

    Hyperbola

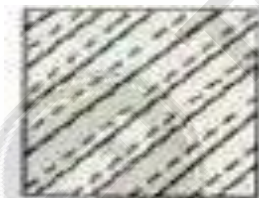52. The eccentricity of a circle is……

    0

53. The conventional sign shown in below figure represents a ....

    Glass

54. The conventional sign shown in below figure represents a ....

    Stone masonry

55. The conventional sign shown in below figure represents a ....

    Tile

56. The conventional sign shown in below figure represents a ....
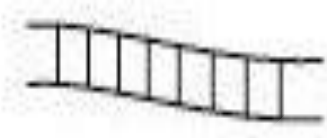
Revolving

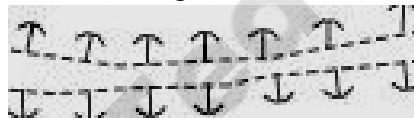57. The conventional sign shown in below figure represents a ....

Church

58. The conventional sign shown in below figure represents a ....

Railway line- double

59. The conventional sign shown in below figure represents a ....
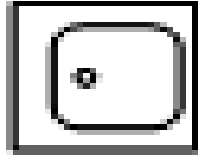
Embankment

60. The conventional sign shown in below figure represents a ....

River

61. The conventional sign shown in below figure represents a ....

Basin

62. The conventional sign shown in below figure represents a ....

MH OR IC

Both Man hole and Inspection chamber

63. The conventional sign shown in below figure represents a ....

Buzzer

64. The conventional sign shown in below figure represents a ....

Light plugs

65. The conventional sign shown in below figure represents a ....

Single light pendant

66. The conventional sign shown in below figure represents a ....

Bracket fan

67. The conventional sign shown in below figure represents a ....

Ashlar stone masonry

68. The brick laid with its breadth parallel to the face of wall, is known as
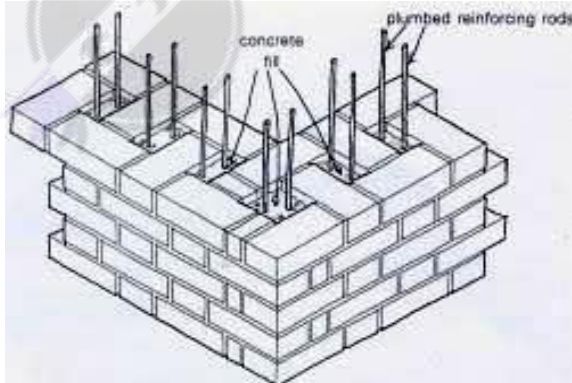
Header

69. The piece of a brick cut along its one corner equivalent to half the length and half the width of a full brick. Is known as

King closer

70. To construct a 10 cm thick partition wall, you will prefer

Stretcher bond

71. Choose the technical term for the following figure

Quetta bond

72. Height of stones after dressing should not be less than ……….. nor greater than …………… inclusive of thickness of joints for high class work

    15cm, 30cm

73. Which stone commonly used in building construction is ……………

    All The Above

74. In ………………type of construction; the stones of irregular sizes are used.

    Rubble masonry

75. What is the example for the deep foundation among the following

    Pier foundation

76. The minimum depth of the foundation as per the NBC

    50 cm below natural ground level

77. The safe bearing capacity of a soil is equal to its ultimate bearing capacity divided by a …………………………..

    Factor of safety

78. In ordinary residential and public buildings, the damp proof course is generally provided at

    Plinth level

79. For providing in vertical DPC………….. is the thickness of cement plaster

    20 mm

80. A …………… layer is in proportion 1:2:4 is generally provided at the plinth level to work as a damp proofing course.

    Cement concrete

81. A door frame essentially consists of two vertical members known as ………..

Style

82. This is the most common type of doors made in different designs, but glass panes are fixed in these doors

Glazed and panalled doors

83. This is a fixed window provided on the sloping surface of a pitched roof ……..

Sky light window

84. The term ……………. is used to describe the free movement of fresh air through the building.

Ventilation

85. This truss is used for spans of 5m to 8m

King Post Roof Truss

86. Steel roof trusses are better than

Timber trusses

87. ……………truss differs from King post Truss in having two vertical members.

Queen post truss

88. The geometrical reference point from where the curve of the arch is drawn

Centre

89. An arch constructed with finely dressed stones, is known

Ashlar arch

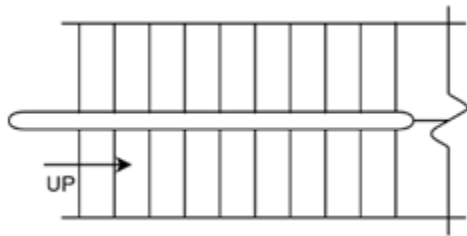90. ……………..floors are preferred for buildings at hill stations, auditoriums, ball rooms etc.,

Timber

91. Part of the buildings accommodating the stair is known as …….

Staircase

92. In this type of stair all the steps are tapering in shape of winders

   Spiral stair

93. The figure below represents a:

   Dog-legged stairs

94. When the water is not available throughout the year

   Tube well irrigation

95. In gravity canals FSL is

   Only few centimeters above the ground level

96. …………………are a set of drawings or two-dimensional diagrams used to describe a place or object, or to communicate building or fabrication instructions.

   Plans

97. A ………………is a structural element in masonry construction that provides support at openings in the masonry. Alternate names are "flat arch" and "straight arch".

   Jack arch

98. For a four layer flexible pavement, there is a surface course, base course, and ……… constructed over a compacted, natural soil sub-grade.

   Sub-base course

99. The Indian Roads Congress was formed in the year?

1934

100.   In Broad gauge, the clear distance between two parallel rails is ……
        1.676 m

101.   The track and ballast form the ………………

        Permanent way

102.   The life of ……………… is more than 100 years

        Cast iron pipe

103.   ……………. tool is used to hold the pipe for cutting and to provide threads the pipe

        Pipe vice

104.   In ……………. Joint, the ends of pipes are gasket adjusted

        Collar

105.   When two plates are placed end to end and are joined by two cover plates , the joint is known as ……………

        Double cover butt joint

106.   Why is double cover butt joint preferred over single cover butt joint or lap joint?

        Eliminates eccentricity

107.   The Main Principle of surveying is ………………..

        Work from whole to part

108.   As per Indian Standards, the number of links in a 30 meters chain is ………….

        150

109.   The area of plot to be surveyed ismore than260 km^2 , the most suitable method is ……………

        Geodetic surveying

110.   Ranging is a process of …………

Aligning the chain in straight line between two extremities

111. Cross staff is an instrument used for ………….

   Setting out right angles

112. Example of an obstacle to both chaining and ranging is …………..

   Tall building

113. Offset rods are useful to ……………..

   Measure the short offset

114. An open cross-staff is commonly used for setting out **………….**

   Short Offsets

115. The obstacle which obstructs vision but not chaining is a …………..

   Hill

116. The most accurate method for the measurement of the base line is ……….

   EDM

117. In chain surveying, field work is limited to **………………..**

   Linear Measurements only

118. The correction for sag is ……….

   Always negative

119. A triangle is said to be well conditioned triangle, when its angles lie between ……….

   30° and 120°

120. Which of the following is not used in measuring perpendicular offsets?

   Line ranger

121.   Handles of chains are made up of …………

   Brass

122.   The length of an Engineer's chain is ……………

   100 feet

123.   The length of a link of Gunter's chain is ……………

   0.66'

124.   Indirect ranging is adopted when the two ends of chain line are …………….

   Mutually not visible

125.   Reciprocal ranging is adopted when the following is encountered

   A Hillock

126.   A ………….. field book is convenient for large scale and detail dimensions

   Single line

127.   Measurements and sketches of chain survey are booked in a …………………

   Field book

128.   The rise and fall method of leveling provides a complete check on

   All the above

129.   If the R.L of a B.M is 100.00 m, the back sight is 1.215 m and fore sight is 1.870 m, the R.L of the forward station is …………..

   99.345 m

130.   Smallest division of a Levelling staff is …………

   0.005 m

131.   Vertical distance of the point above the MSL is known as ……………

   Altitude

132.   Combined correction for curvature and refraction is always ………
    –ve

133.   A Levelling station is a place where ……………

    The level staff is held

134.   A plumb line is   …………

    A line perpendicular to level line

135.   Line of collimation …………

    The line joining point of intersection of cross hairs and optical centre of object glass

136.   The very first reading taken is called ………..

    Back sight

137.   A change point is ………..

    The intermediate station where FS and BS are taken

138.   The telescope of a Dumpy Level ………

    Is rigidly fixed to the levelling head

139.   A bench mark is a ……………

    Point of known elevation

140.   An invert is taken when the point is ………….

    Above the line of sights

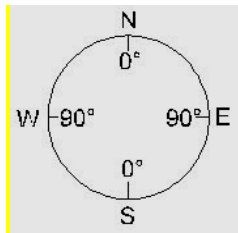141.   Contour lines ………..

    Close somewhere

142.   Contour lines look to cross each other in case of ……….

    An overhanging cliff

143. A freely floating needle slightly gets inclined to the horizontal anywhere except on the equator. It is called

Dip

144. The graduation on a surveyor's compass is ………..

145. The reduced bearing of a line is N 67° E. Its Whole Circle Bearing is ………

67°

146. The Fore bearing of a line is 225°. The back bearing of the line in quadrantal system is ……………………

N 45°E

147. The sum of the exterior angles of a closed traverse of side's **n** is equal to ………..

(2n+4) * 90

148. The bearing of a line AB is 190°0'and that of BC is 260° 30' the included angle ABC is ……………

109⁰ 30'

149. The horizontal angle between the true meridian and magnetic meridian at a place is called ……………

Declination

150. The Fore bearing and Back bearing of a line whose end stations are free from local attractions, should differ by ………

180°