034/22

Question Booklet Alpha Code

A

A

Total Number of Questions : 100   **Time : 90 Minutes**

Maximum Marks : 100

INSTRUCTIONS TO CANDIDATES

1. The Question Paper will be given in the form of a Question Booklet. There will be four versions of Question Booklets with Question Booklet Alpha Code viz. **A, B, C** & **D**.

2. The Question Booklet Alpha Code will be printed on the top left margin of the facing sheet of the Question Booklet.

3. The Question Booklet Alpha Code allotted to you will be noted in your seating position in the Examination Hall.

4. If you get a Question Booklet where the alpha code does not match to the allotted alpha code in the seating position, please draw the attention of the Invigilator IMMEDIATELY.

5. The Question Booklet Serial Number is printed on the top right margin of the facing sheet. If your Question Booklet is un-numbered, please get it replaced by new Question Booklet with same alpha code.

6. The Question Booklet will be sealed at the middle of the right margin. Candidate should not open the Question Booklet, until the indication is given to start answering.

7. Immediately after the commencement of the examination, the candidate should check that the Question Booklet supplied to him/her contains all the 100 questions in serial order. The Question Booklet does not have unprinted or torn or missing pages and if so he/she should bring it to the notice of the Invigilator and get it replaced by a complete booklet with same alpha code. This is most important.

8. A blank sheet of paper is attached to the Question Booklet. This may be used for rough work.

9. **Please read carefully all the instructions on the reverse of the Answer Sheet before marking your answers.**

10. Each question is provided with four choices **(A), (B), (C)** and **(D)** having one correct answer. Choose the correct answer and darken the bubble corresponding to the question number using Blue or Black Ball Point Pen in the OMR Answer Sheet.

11. **Each correct answer carries 1 mark and for each wrong answer 1/3 mark will be deducted. No negative mark for unattended questions.**

12. No candidate will be allowed to leave the examination hall till the end of the session and without handing over his/her Answer Sheet to the Invigilator. Candidates should ensure that the Invigilator has verified all the entries in the Register Number Coding Sheet and that the Invigilator has affixed his/her signature in the space provided.

13. Strict compliance of instructions is essential. Any malpractice or attempt to commit any kind of malpractice in the Examination will result in the disqualification of the candidate.

1. Thickness of centre line and locus line is
   A) 10 cm   B) .20 mm   C) 10 mm   D) .25 mm

2. Angle is formed between two
   A) angular lines   B) straight lines
   C) parallel lines   D) all of these

3. Scale represent three different units such as metre, decimetre and centimetre
   A) Vernier scale   B) Plane scale
   C) Diagonal scale   D) None of these

4. All ellipse has _____ vertics and _____ foci.
   A) two, two   B) one, two   C) one, one   D) two, one

5. Which grade of pencil is used for drawing arrow heads ?
   A) 2B   B) 2H   C) 5H   D) H

6. Following is an enlarge scale
   A) 1 : 2   B) 1 : 1   C) 2 : 1   D) 3 : 1

7. The front view of a line perpendicular to
   A) point   B) a line of total length
   C) a line of true length   D) none of these

8. 10 centimetre is _____ decimetre.
   A) 10 mm   B) 1 cm
   C) 1 decimetre   D) None of the above

9. The unit measurement is in trusses for steel works and its parts in
   A) kilogram   B) quintel
   C) numbers   D) centimetre

10. One cubic metre of mild steel weight
   A) 1000 kg   B) 7865 kg   C) 7850 kg   D) 6248 kg

A

11. The rate of payment is made for 100 cum (per of cum) in case of
    A) rock cutting
    B) earth work in excavation
    C) excavation in trenches in foundation
    D) all of these

12. Which area is included in floor area ?
    A) varandhas   B) supported porches
    C) balconies   D) walls

13. Damp proof course (DPC) is measured in
    A) sqm   B) cum   C) metre   D) none of these

14. What is scrap value at the end of utility period of building ?
    A) 5%   B) 10%   C) 6%   D) 3%

15. How much cum metre of cement is equal to one bag of cement ?
    A) 0034 cum   B) 0.0034 cum   C) 0.034 cum   D) 0.34 cum

16. What is the name of the useful area or liveable area in building ?
    A) plinth area   B) floor area
    C) circulation area   D) carpet area

17. Which estimate is called item rate estimate ?
    A) plinth area estimate   B) detailed estimate
    C) abstract estimate   D) preliminary estimate

18. What is the unit of measurement in MKS for brick work of thin partition wall ?
    A) sq inch   B) sq cm   C) sq ft   D) sq m

19. What is the unit measurement in the excavation of foundation ?
    A) cum   B) sq m   C) metre   D) cum cm

20. The total estimate cost of a building sanitary and water supply work usually account for
    A) 3%   B) 18%   C) 8%   D) 10%

A

21. The increase in volume of dry sand when water is added is called
    A) Honey combing
    B) Bulking
    C) Segregation
    D) Bleeding

22. The aggregate is called coarse aggregate if it is completely retained on
    A) 475 mm seive
    B) 15 mm seive
    C) 219 mm seive
    D) 4.75 mm seive

23. The compressive strength of stone is found out by
    A) Attrition test
    B) Crushing test
    C) Hardness test
    D) Impact test

24. The quantity of one bag of cement is
    A) 0.035 m^3
    B) 0.35 m^3
    C) 0.0035 m^3
    D) 3.05 m^3

25. The Kiln used for the manufacture of terra-cotta is
    A) Rotary Kiln
    B) Blast Furnace
    C) Muffle Furnace
    D) Intermittent Kiln

26. The compressive strength of fire-bricks varies from
    A) 200 to 220 N/mm^2
    B) 30 to 35 N/mm^2
    C) 20.00 to 22.00 N/mm^2
    D) 2000 to 2200 N/mm^2

27. The heating of limestone to redness in contact with air is known as
    A) Hydraulicity
    B) Calcination
    C) Setting
    D) Slaking

28. An example for shrinkage-reducing admixture is
    A) Propyline glycol
    B) Lignosulfonates
    C) Tartaric acid
    D) Asphalt

29. The part of tree, which hold together the annual rings of Hard wood and Sap wood is
    A) Medullary rays
    B) Inner bark
    C) Annual rings
    D) Cambium layer

30. The carbon content of steel is
    A) 1.0 to 2.5 Percent
    B) 0.10 to 0.25 Percent
    C) 10 to 25 Percent
    D) 0.01 to 0.025 Percent

31. The most common material used as vehicle of a paint is
    A) Nut oil
    B) Poppy oil
    C) Tung oil
    D) Linseed oil

32. The ability of materials to get stretched into a wire by pulling or drawing is
    A) Ductility
    B) Malleability
    C) Brittleness
    D) Fatigue

33. Horizontal Projections of head or sill beyond the face of door and window frame is
    A) Head
    B) Horn
    C) Style
    D) Rail

34. The window which is provided in a room which has greater ceiling height than the
    surrounding room
    A) Clere-storey window
    B) Bay window
    C) Dormer window
    D) Lantern window

35. A short sections of wood or steel which are fixed on the principal rafters of trusses
    to support the purlin is
    A) Template
    B) Post plate
    C) Cleats
    D) Wall plate

36. The process of joining two wooden members at an angle is called
    A) Scribing
    B) Housing
    C) Rebatting
    D) Mitring

37. In a residential building , the average value of stair width is
    A) 700 mm
    B) 900 mm
    C) 1000 mm
    D) 800 mm

A

38. In ordinary residential building the DPC may be provided
    A) Between ground level and water table level
    B) At ground level
    C) At plinth level
    D) At sill level

39. Which chemical is used as a soil treatment in termite proofing ?
    A) Aldrin   B) Chlorine
    C) Bromine   D) Potassium hydroxide

40. Type of bond in brick masonry consisting of alternate course of headers and stretchers is called
    A) Flemish bond
    B) Heading bond
    C) Stretching bond
    D) English bond

41. The portion of the brick left after removing the corner equal to half the width and half the length
    A) Closer   B) King closer
    C) Queen closer   D) Mitred closer

42. The portion of the wall which support an arch is wall which
    A) Abutment   B) Column
    C) Pier   D) Skew back

43. An arrangement for supporting an unsafe structure temporarily, till it is rendered safe of dismantled
    A) Scaffolding   B) Shoring
    C) Jacking   D) Underpinning

44. When two footings are connected by a beam the, foundation is called
    A) Combined footing
    B) Mat footing
    C) Strap footing
    D) Strip footing

A

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45. The corresponding proportion of M 7.5 concrete is
    A) 1 : 1½ : 3   B) 1 : 2 : 4
    C) 1 : 4 : 8   D) 1 : 5 : 10

46. Slump height of concrete for canal lining is
    A) 20 to 40   B) 70 to 80
    C) 25 to 50   D) No slump

47. Pile which are driven to an inclination to resist large horizontal or inclined forces is
    A) Fender piles   B) Anchor piles
    C) Batter piles   D) Tension piles

48. An example for four centered arch is
    A) Florentine arch   B) Venetion arch
    C) Ogee arch   D) Horse shoe arch

49. The maximum strength out of the shearing and bearing strength of the rivet for a particular joint is
    A) Rivet - value
    B) Shear strength
    C) Tearing strength
    D) Efficiency of joint

50. As per IS 456, Modular ratio for M30 grade concrete is
    A) 10   B) 9.33
    C) 3.66   D) 6.75

51. The sign convention for bending moments is that a beam in "hogging" condition is
    A) Positive   B) Negative
    C) Positive or Negative   D) None of these

52. Nominal cover provided for concrete exposed to moderate exposure should not be less than
    A) 75 mm   B) 40 mm
    C) 45 mm   D) 30 mm

A

53. _____ is to make clear that which is not perfectly evident from numerals and sketches.
    A) Data book
    B) Explanatory notes
    C) Map
    D) Symbols

54. The difference between two measured value of the same quantity
    A) True error
    B) Accuracy
    C) Discrepancy
    D) None of these

55. Which of the following instrument is used radio wave for distance measurement ?
    A) Geodimeter
    B) Telluro meter
    C) Radiography
    D) None of these

56. IS CODE for metric surveying chain
    A) IS 1464-1970
    B) IS 1492 -1970
    C) IS 1491-1970
    D) IS 1462-1970

57. If the chain is stretched out of the line the measured distance will always be
    A) Less
    B) More
    C) Equal
    D) None of these

58. The true bearing of a line is a _____ quantity.
    A) Varying
    B) Constant
    C) Non predictable
    D) None of these

59. The whole circle bearing of a line is 170 degree 12 minute what will be the reduced bearing
    A) 9 degree 48 minute
    B) 10 degree 14 minutes
    C) 9 degree 30 minutes
    D) 9 Degree 88 minutes

A

60. When the distance between the two point and the instrumentation is either too large or cannot be measured which method is used in plane table ?
   A) Radiation
   B) Intersection
   C) Resection
   D) traversing

61. _____ is a line passing through out on the surface of the ground and preserving a constant inclination to the horizontal.
   A) Datum
   B) Slope
   C) Contour gradient
   D) All of these

62. The prismoidal correction is always
   A) Additive
   B) Zero
   C) Subtractive
   D) None of these

63. _____ the method is based on the principle that the angle between the tangent and the chord is equal to the angle which that code is subtended in the opposite segment.
   A) Offsets from the tangent
   B) Rankines method
   C) Two theodolite method
   D) None of these

64. _____ of a survey line may be defined as its co-ordinate length measured parallel to an assumed Meridian direction.
   A) Latitude
   B) Departure
   C) Altitude
   D) None of these

65. _____ allows the user to capture collect and transform spatial and the thematic data into digital form.
   A) Data storage system
   B) Data manipulation
   C) Data input system
   D) None of these

A

66. Which program is used for erecting perpendicular line to base line ?

   A) Stakeout

   B) PlayStation

   C) Reference line

   D) The distance

67. What is the distance of the load from the fulcrum called ?

   A) Load distance

   B) Moment

   C) Load arm

   D) None of these

68. The work done in unit time is called

   A) Newton

   B) Power

   C) Dyne

   D) Force

69. One metric HP is _____ watts.

   A) 735.5

   B) 700.3

   C) 753.5

   D) 753.3

70. The capacity of a body to do work is known as

   A) Work

   B) Power

   C) Energy

   D) None of these

71. How many litres of water in a cylindrical tank of radius 75 cm and height 100 cm can hold ?

   A) 1765.25 lit

   B) 1763.5 to litres

   C) 1766.25 lit

   D) 1760.25 l

72. Deformation per unit length in the direction of force is known as

   A) Strain

   B) Lateral strain

   C) Linear strain

   D) Linear stress

A

73. The axis used to show depth in AutoCAD

    A) W axis   B) X axis

    C) Y axis   D) Z axis

74. Which command convert discrete object in polyline ?

    A) Union   B) Subtract

    C) Join   D) Polyline

75. _____ sets the spacing between the dimension lines of a base line dimension.

    A) Line type   B) Spacing

    C) Base line spacing   D) None of these

76. What setting gradient allows us to fill an open area ?

    A) Gap   B) Tolerance

    C) Transparency   D) Open

77. Which of the following file extension cannot open the AutoCAD ?

    A) dwg.   B) dxfc.

    C) dot   D) dws

78. What is the minimum allowable number of layers in a drawing ?

    A) 0   B) 5

    C) 1   D) 2

79. Which of the following is not a property of an object ?

    A) Line weight   B) Measure

    C) Hyperlink   D) Elevation

80. The mechanical advanlag of an ideal machine is 100. For moving the local through 2 m, the effert moves through

    A) 0.02 m   B) 2 m

    C) 2.5 m   D) 20 m

A

81. The percentage of C.C.A. proposed to be irrigated seasonally is called

    A) Gross Commanded Area

    B) Uncultivated Area

    C) Culturable Uncultivated Area

    D) Intensity or irrigation

82. When seepage water is sufficient for the growth of the crop and if no addition surface watering is necessary, such a dam is called

    A) Debris dam

    B) Diversion dam

    C) Water spread dam

    D) Gravity dam

83. Ganga Canal System is an example of

    A) Direct irrigation

    B) Storage irrigation

    C) Combined direct and storage

    D) None of the above

84. An opening provided in one side of a reservoir, with upstream liquid level below the top edge of opening is called

    A) Orifice   B) Notch

    C) Weir   D) Mouthpiece

85. Structure provided to protect the land and property which is likely to be submerged during ponding of water of during floods is

    A) Groynes

    B) Divide wall

    C) Marginal embankments

    D) Under-sluice

A

86. Mechanism that receives data from the wind vane and instructs the wind turbine to rotate to be facing the wind is called

A) Anemometer
B) Controller
C) Yaw motor
D) Yaw drive

87. When wheels slide without revolving the phenomenon is called

A) Skidding
B) Sliding
C) Slip
D) Spalling

88. Recommended land width of major district roads in open areas in plain and rolling terrain in meters

A) 15
B) 20
C) 25
D) 45

89. The method of construction of cement concrete roads where entire width of the road is constructed continuously from one end to the other is called

A) Strip method
B) Continuous bay method
C) Full width method
D) All of the above

90. Culvert suitable in high discharge areas and low debris flow areas are

A) Arch culvert
B) Box culvert
C) Pipe culvert
D) None of the above

91. Which pier is adopted, if the longitudinal beams or girders of the superstructure of bridge are closely spaced ?

A) Dumb-bell piers
B) Cylinder piers
C) Pile bents
D) Column bents

92. Structure made of stones or concrete blocks or mattresses, placed on the bottom or banks of a river for minimizing and controlling the erosion

A) Scuppers
B) Revetment
C) Apron
D) Cribs

93. Standard size of ballast for C.T.S.-9 and steel sleepers
    A) 20 mm
    B) 25 mm
    C) 40 mm
    D) 50 mm

94. The defect caused when the rail with its end or ends bent in vertical direction is called
    A) Wear of rails
    B) Bending of rails
    C) Hogging of rails
    D) Creep of rails

95. Which is the structure constructed in the form of a chamber along the sewer line to admit clear rain water into the combined sewer ?
    A) Catch basin
    B) Drop manhole
    C) Clean out
    D) Trap

96. Slow sand filter is unsuitable for waters having turbidity more than
    A) 40 ppm
    B) 50 ppm
    C) 60 ppm
    D) 75 ppm

97. What is the yield of rapid sand filters as compared to slow sand filter ?
    A) 15 times
    B) 25 times
    C) 30 times
    D) 45 times

98. Water taps are also known as
    A) Bib cocks
    B) Goose neck
    C) Ferrule
    D) Stop cocks

99. Valves provided to remove the accumulated silt is called
    A) Mud valve
    B) Scour valve
    C) Blow off valve
    D) All of the above

100. The sloped floor of a manhole or inspection chamber on both side and above the top of the channel is called
    A) Bedding
    B) Barrel
    C) Cleaning eye
    D) Benching

A

Space for Rough Work