116/23

Question Booklet Alpha Code

A

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. What is the area of A0 size drawing sheet ?

   A) 0.00 square metre
   B) 1.00 square metre
   C) 2.00 square metre
   D) 4.00 square metre

2. What is the use of french curves ?

   A) To draw smooth curves
   B) To draw irregular curves
   C) To draw circles, ellipses, arcs
   D) To write letters and numerals

3. What is the description of G2 in lines of symmetry ?

   A) Chain thin
   B) Chain thin double dashed
   C) Dashed thick
   D) Continuous thick

4. Which is a small shaped instrument of the drafting machine ?

   A) T scale
   B) Scale set
   C) Mini drafter
   D) Planimeter

5. What is the height in mm for title of drawing ?

   A) 3, 4
   B) 10, 12
   C) 6, 8
   D) 4, 5

6. Which of the following is not a linear scale ?

   A) Plain scale
   B) Diagonal scale
   C) Scale of chord
   D) Comparative scale

7. What is the line of intersection of the picture plane with ground plane ?

   A) Station point
   B) Picture plane
   C) Ground plane
   D) Ground line

A

8. What is the sum of the interior angle and the corresponding external angle of a polygon ?

A) 0°   B) 180°   C) 90°   D) 360°

9. What is the standard line thickness of the border line ?

A) 0.10 mm   B) 0.60 mm   C) 0.15 mm   D) 0.20 mm

10. What is the point at which the conic cuts its axis ?

A) Locus   B) Axis

C) Directrix   D) Vertex

11. How many metres equals one nautical mile ?

A) 100 m   B) 1000 m

C) 1674 m   D) 1852 m

12. What is the length of one link in Engineers chain ?

A) 20 centimetres   B) 30 centimetres

C) 1 foot   D) 2 1/16 feet

13. What is the angle which the needle makes with horizontal ?

A) Declination   B) Dip

C) Bearing   D) Local attraction

14. What is the name of triangle formed by joining the three ground points in plane table survey ?

A) Well conditioned triangle   B) Equilateral triangle

C) Great triangle   D) Scalene triangle

15. Which test is done to make the horizontal axis perpendicular to vertical axis of a theodolite ?

A) Plate level test   B) Cross hair ring test

C) Collimation test   D) Spire test

A

16. Where two contours of different elevation cross each other ?

    A) Vertical cliff   B) Overhanging cliff

    C) Uniform slope   D) Valley

17. Where 0° is marked in prismatic compassis ?

    A) North   B) South   C) East   D) West

18. What is used to take inclined line of sights in plane table surveying ?

    A) U frame   B) Plain alidade

    C) Telescopic alidade   D) Prismatic compass

19. What colour is used for symbol for road metalled ?

    A) H-green   B) Burnt sienna

    C) Crimpson lake   D) Burnt blue

20. What is the fullform of UTM ?

    A) Universal Transverse Meridian

    B) Universal Transverse Mercator

    C) Universal Transportation Media

    D) Universal Traverse Median

21. The permissible closing error for accurate levelling is expressed as

    A) $E \pm 0.100 \sqrt{Km}$ B) $E \pm 0.025 \sqrt{Km}$

    C) $E \pm 0.012 \sqrt{Km}$ D) $E \pm 0.006 \sqrt{Km}$

22. What is the term used for rotating telescope in clockwise direction about its vertical axis ?

    A) Transiting   B) Right swing

    C) Left swing   D) Plunging

A

23. What is meant by the departure of a line ?

    A) Projection onto the east-west meridian

    B) Projection onto the north-east meridian

    C) Projection onto the south-east meridian

    D) Projection onto the north-west meridian

24. What is the term used for line joining the optical centre of the object glass and the centre of the eye piece ?

    A) Line of collimation   B) Horizontal line

    C) Axis of telescope   D) Height of instrument

25. What is the basis of GPS ?

    A) Traversing   B) Trianulation

    C) Resection   D) Radiation

26. Which of the following is the choice of co-ordinate for specifying the position of a point ?

    A) Latitude, departure and elevation

    B) Southing, latitude, departure

    C) Northing, southing, easting

    D) Latitude, longitude and elevation

27. The shortcut key for undo last action in AutoCAD

    A) Ctrl+Z   B) Ctrl+Y

    C) Ctrl+Shift+C   D) Ctrl+Shift+V

28. What is dpi in printing ?

    A) Dash per inch   B) Dots per inch

    C) Dash printing ink   D) Dot printing ink

29. What factor mainly determines the quality of a monitor ?

    A) CPU   B) Colour

    C) Resolution   D) Hard disk

A

30. Which command controls the extents of the display of the grid ?

    A) Area
    B) Dimension
    C) Limits
    D) Display

31. Which command reinserts the last erased set of objects ?

    A) OOPS
    B) REINSERT
    C) REDO
    D) COPY

32. Which is the shortcut key for polar tracking ON/OFF ?

    A) F3
    B) F7
    C) F8
    D) F10

33. Which of the following command is used to copy the properties from one object to one or more objects ?

    A) CHPROP
    B) Block
    C) Match properties
    D) Insert block

34. To study the mineral constituents grain size etc. is _____ test.

    A) Microscopic
    B) Smiths
    C) Water absorption
    D) Acid

35. The total height of a clamp kiln is about

    A) 30 cm to 4 mm
    B) 4 m to 6 m
    C) 10 cm to 20 cm
    D) 3 m to 4 m

36. I.S. code of clay terracing tiles

    A) 1464 – 1959
    B) 654 – 1972
    C) 2690 – 1964
    D) 712 – 1973

37. I.S. code of psc

    A) 455 – 1989
    B) 12330 – 1988
    C) 12600 – 1989
    D) T40 – 1985

A

38. The purpose of this test is to assess the plasticity of lime

    A) Impurity test   B) Workability test

    C) Plasticity test   D) Ball test

39. In a mortar, the binding material is

    A) Sand   B) Cement

    C) Surkhi   D) Clay

40. The sand particles which sand pass through 1.5875 mm is sieves are known as

    A) Coarse sand   B) Gravelly sand

    C) Mud sand   D) Fine sand

41. Grass or air bubbles are introduced into the plastic-cement mortar mix to produce a material with a cellular structure

    A) Cellular concrete   B) Light weight concrete

    C) No fines concrete   D) Heavy weight concrete

42. Hot rolled deforming bars conforming to I.S. code

    A) 1139   B) 1785

    C) 1566   D) 226

43. These piles are driven at an inclination to resist larger horizontal or inclined forces

    A) Sheet piles   B) Anchor piles

    C) Fender piles   D) Batter piles

44. Minimum height 50 mm only three stones are to be used to make up the height of one course, mortar joint is 16 mm

    A) Coursed rubble (1st sort)   B) Coursed rubble (2nd sort)

    C) Coursed rubble (3rd sort)   D) Coursed rubble (4th sort)

45. It prevent the tendency of stone joint to pull apart. This joint is used instead of dowel joint.

    A) Cramped joint   B) Plugged joint

    C) Butt joint   D) Dowelled joint

46. _____ roof has four sloping sides with zero vertical roof lines.

    A) Gable   B) Hip

    C) Sheet   D) Gambrel

47. This truss is in the form of a bow

    A) Steel truss   B) Truncated truss

    C) Latticed roof truss   D) Mansard truss

48. Single joist timber floor is adopted for maximum span of

    A) 4.6 m   B) 3.6 m   C) 7.5 m   D) 4 m

49. Vertical members of brick layers scaffolding are called

    A) Ridge   B) Put logs

    C) Improved   D) Standards

50. For protecting the coping and parapets _____ should be provided at various
    locations.

    A) D.P.C.   B) White wash

    C) Cement   D) Plaster

51. Garnet hinge used in

    A) Batten, ledged and braced door   B) Lantern window

    C) Sky light window   D) Gate

52. Minimum slope of ramp

    A) 1 in 30   B) 1 in 20   C) 1 in 10   D) 1 in 50

53. This step has a curved rise and tread

    A) Lift step   B) Dancing step

    C) Commode step   D) Splayed step

54. The timber of evergreen trees that are soft in nature

    A) Hard wood   B) Annual rings

    C) Medullary rays   D) Soft wood

A

55. A projecting moulded stone having its under surface throated is called

    A) Drip stone   B) Hard stone

    C) Soft stone   D) Through stone

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

    A) Ring course   B) Crown

    C) Centre   D) Clear span

57. Front open space residential building should be provided with a front yard of minimum width of _____ m.

    A) 3   B) 6   C) 3.50   D) 6.50

58. The minimum width of a habitable room shall be _____ m.

    A) 3.4   B) 4.40   C) 5.40   D) 3.00

59. NBC of India 1979 types of buildings Group – E

    A) Business building   B) Assembly building

    C) Institutional building   D) Residential building

60. The total usable covered area of a building

    A) Covered area   B) Plinth area

    C) Floor area   D) Open area

61. Horizontal circulation area it may be _____ of plinth area.

    A) 10% to 12%   B) 10% to 15%

    C) 10% to 13%   D) 10% to 20%

62. Estimation process helps in working out the _____ of construct.

    A) Labour   B) Rate of materials

    C) Plot value   D) Cost

63. Unit of payment in cement lime concrete on terracing is

    A) Cu : m   B) Sq : m   C) S : ft   D) C : ft

A

64. Construction work is allowed after receiving of

   A) Cost   B) Bill of materials

   C) Contingencies   D) Technical sanction

65. Unit of payment in damp proof course of cement concrete

   A) sq.m   B) cm^2 C) cft   D) cu.m

66. Portable pipes or larger hoses may also be used in place or ditches

   A) Border flooding   B) Free flooding

   C) Basin flooding   D) Check flooding

67. When the water is available at a higher level, and it is supplied to lower level by the mere action of gravity, then it is called

   A) Artificial irrigation   B) Flow irrigation

   C) Lift irrigation   D) Well irrigation

68. It is the ratio of the mean supply discharge to the full capacity discharge

   A) Time factor   B) Base factor

   C) Intensity factor   D) Capacity factor

69. Masonry gravity dams are now-a-days constructed of only _____ height.

   A) Small   B) Big

   C) Medium   D) Full width

70. A gravity dam may be either _____ plan.

   A) Curved   B) Beveled   C) Circle   D) Straight

71. The water thus accumulated in the form of an artificial lake is known as

   A) Pond   B) Reservoir   C) River   D) Streams

72. A gravity dam is the one in which the external force such as

   A) Vacuum pressure   B) Wind pressure

   C) Waver pressure   D) Pressure in pipe

A

73. A notch is usually made of _____ plate.

   A) Metallic
   B) Iron
   C) Aluminium
   D) G. I.

74. Canal over the drainage

   A) Super passage
   B) Canal siphon
   C) Aqueduct
   D) Level crossing

75. The use of water for raising the crops is known as

   A) Irrigation
   B) Water supply
   C) Field
   D) Corps

76. The structure, made to pass surplus flood water from reservoir to the downstream of the dam is known as

   A) Canal
   B) Spill way
   C) Weir
   D) River

77. The solid obstruction constructed across the river to raise the water level in river is known as

   A) Canal
   B) Dam
   C) Weir
   D) Reservoir

78. It is passage for the flow of surplus water or waste in a weir or conduct

   A) Head work
   B) Heard regulator
   C) Spill way
   D) Level passage

79. It include the waste discharge from sink, bath and wash basin

   A) Garbage
   B) Sullage
   C) Sewer
   D) Sewerage

80. The flow of the water in the channel may be continuous for the whole year or seasonal

   A) Lift irrigation
   B) Non-perennial irrigation
   C) Artificial irrigation
   D) Perennial irrigation

A

81. The dam made of earth is known as

   A) Earthen dam
   B) Rock filling dam

   C) Arch dam
   D) Gravel dam

82. A _____ is a horizontal member which lintel is placed across an to support the position of the structure above it.

   A) Bottom rail
   B) Lock frame

   C) Sill level
   D) Door frame

83. What is the minimum area of window with respect to floor area ?

   A) 10% of floor area
   B) 25% of floor area

   C) 5% of floor area
   D) 2% of floor area

84. Hydraulic turbines are the machines which convert water energy into

   A) Solar energy
   B) Electrical energy

   C) Power energy
   D) Mechanical energy

85. Pelton wheel is a

   A) Tangential flow turbine
   B) Radial flow turbine

   C) Mixed flow turbine
   D) Axial flow turbine

86. Irrigation capacity of a unit of water is

   A) Delta
   B) Base period

   C) Time factor
   D) Duty

87. Trees grow length wise through their ends

   A) Exogenous
   B) Endogenous

   C) Soft wood
   D) Hard wood

A
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88. Cement paint is added in

    A) Water   B) Thinner

    C) Spirit   D) Turpentine

89. 1000 cubic feet = _____ litres.

    A) 28317   B) 28.317

    C) 283.17   D) 0.28317

90. Difference between circumference and diameter of a circle is 60 cm. Find the radius of the circle.

    A) 10 cm   B) 12 cm   C) 14 cm   D) 16 cm

91. Unit of temperature in SI system

    A) Kelvin   B) °Fahrenheit

    C) °Celcius   D) Calorie

92. What is the height of a cylindrical tank of base area 154 Sq.cm and Volume 3080 Cub.mtr ?

    A) 50 m   B) 40 m   C) 30 m   D) 20 m

93. How many spherical balls of 2 cm radius can be made from a sphere of 24 cm diameter ?

    A) 216 balls   B) 316 balls

    C) 214 balls   D) 314 balls

94. 1 HP = _____ Kg.m/s.

    A) 4500   B) 33000

    C) 75   D) 550

95. The ratio between the ultimate stress and the working stress is called

    A) Factor of safety   B) Load Factor

    C) Young's Modulus   D) Safe Stress

96. Find the efficiency of a machine having velocity ratio 5, if a force of 250 kg is applied to lift a weight of 1000 kg with the help of simple machine.

    A) 75 %
    B) 80 %
    C) 85 %
    D) 90 %

97. Which of the following is not a unit of power ?

    A) Nm/s
    B) J/s
    C) Watt
    D) Nm

98. Which force act on rivet ?

    A) Tensile Force
    B) Shear Force
    C) Compressive Force
    D) Bending Force

99. A stone is thrown vertically upwards with a velocity of 30 m/s. Find the maximum height to which it travels. (Taken $g = 10$ m/s^2)

    A) 45 m
    B) 50 m
    C) 55 m
    D) 60 m

100. The ratio of stress to strain within elastic limit is known as

    A) Modulus of Elasticity
    B) Poisson's Ratio
    C) Factor of Safety
    D) Yield Point

Space for Rough Work