

90/25

Question Booklet Alpha Code

A

Question Booklet Sl. No.

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.

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1. The size of drawing board designation D2 is in \_\_\_\_\_ mm.  
A)  $1500 \times 1000 \times 25$  B)  $500 \times 350 \times 15$   
C)  $700 \times 500 \times 15$  D)  $900 \times 1250 \times 25$
2. The area of A0 paper is nearest  
A)  $2 \text{ m}^2$  B)  $1.5 \text{ m}^2$  C)  $0.5 \text{ m}^2$  D)  $1 \text{ m}^2$
3. The drawing board is made of narrow strips joined together by tongue and groove joints to  
A) Prevent warping B) Get roughness  
C) Get smoothness D) Get length
4. The line H chain thin, thick at ends and changes of direction is used to indicate  
A) Hidden outline B) Cutting plane C) Centre line D) Visible outline
5. The isometric projection of a sphere is  
A) Ellipse B) Circle C) Semi circle D) Parabola
6. Irregular curves neither circles nor circular arcs are drawn by using  
A) Flexible curve B) Stencils C) Templates D) French curves
7. A straight line joining any two parts on a conic in a parabola is known as  
A) Focus B) Chord C) Axis D) Ordinate
8. In Gothic lettering, the thickness of stems vary from  
A)  $1/5$  to  $1/10$  B)  $1/10$  to  $1/15$  C)  $1/15$  to  $1/20$  D)  $1/20$  to  $1/25$
9. An estimate to know the approximate amount of expenditure  
A) Revised estimate B) Complete estimate  
C) Preliminary estimate D) Quantity estimate
10. For public halls, cinema halls or library buildings etc. \_\_\_\_\_ is more accurate.  
A) Preliminary estimate B) Plinth area estimate  
C) Number of unit estimate D) Cubic rate estimate

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11. The unit of supplying and stacking stone aggregate 50 mm nominal size is  
A) Sq.m.                      B) Cu.m.                      C) 100 Sq.m.                      D) m
12. The quantity of work per day for RCC flooring is  
A) 8 to 10 m<sup>2</sup>                      B) 6 to 8 m<sup>2</sup>                      C) 10 to 11 m<sup>2</sup>                      D) 11 to 12 m<sup>2</sup>
13. The amount paid every year towards the capital invested by a party is known as  
A) Sinking fund                      B) Capital value  
C) Annuity                      D) Mortgage
14. The book value represents  
A) Annual value                      B) Accommodation value  
C) Distress value                      D) Actual book cost
15. An amount required to deposit by the contractor with tender document as a guarantee to the department is known as  
A) Security Deposit                      B) Miscellaneous Expenses  
C) Earnest Money Deposit                      D) Cost of Tender
16. An intermediate storage area laying between two main floors is known as  
A) Stair cover                      B) Balcony  
C) Store                      D) Loft
17. Which of the following is not considered in plinth area ?  
A) Stair cover                      B) Porch  
C) Courtyard                      D) Balcony
18. The procedure of valuing an item on the basis of the materials and labours used actually is known as  
A) Hour work                      B) Day work                      C) Sub work                      D) Prime work
19. The measurement of Damp Proof Course is taken in \_\_\_\_\_ stating thickness.  
A) 10 m<sup>2</sup>                      B) 10 m<sup>3</sup>                      C) 1 m<sup>3</sup>                      D) m<sup>2</sup>
20. White washing area shall be worked out to the nearest  
A) 0.01 m<sup>2</sup>                      B) 10 m<sup>3</sup>                      C) 0.01 m<sup>3</sup>                      D) 10 m<sup>2</sup>

**A**

21. The art of extracting stone from the rock beds is called
  - A) Dressing of stones
  - B) Digging stones
  - C) Blasting of stones
  - D) Quarrying
22. What is the water absorption capacity of second class bricks, when soaked in cold water for 24 hrs ?
  - A) 15%
  - B) 20%
  - C) 22%
  - D) 25%
23. Lime containing more than 30 percentage impurities like clay is called
  - A) Poor limes
  - B) Eminently hydraulic lime
  - C) Semi-hydraulic lime
  - D) Fat lime
24. What is the temperature in burning zone while manufacturing of cement ?
  - A) 650° C to 1100° C
  - B) 1000° C to 1200° C
  - C) 1200° C to 1300° C
  - D) 1400° C to 1500° C
25. Which of the following that increase the flow ability and reduce water-cement ratio of concrete ?
  - A) Accelerators
  - B) Retarders
  - C) Superplasticizers
  - D) Water reducer and accelerator
26. Why avoid the use of sea sand for engineering works ?
  - A) Early setting of mortar
  - B) Make the mortar economical
  - C) Increases the density of mortar
  - D) Causes dampness and efflorescence
27. A term which is used to indicate substances that are able to resist high temperature
  - A) Stoneware
  - B) Porcelain
  - C) Refractories
  - D) Terra-cotta
28. The mortar having bulk density of 15 km/mm<sup>3</sup> or more are known as
  - A) Heavy mortar
  - B) Light weight mortar
  - C) Gauged mortar
  - D) Surkhi mortar
29. The process which expels entrapped air from freshly placed concrete and packs the aggregate particles together and increase the density of concrete is called
  - A) Mixing of ingredients
  - B) Mixing of concrete
  - C) Consolidation of concrete
  - D) Segregation

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30. The timber which is fully or partially covered with resin and then cured at a temperature of about  $150^{\circ}\text{C}$  –  $160^{\circ}\text{C}$  is known as
  - A) Block board
  - B) Laminated board
  - C) Compreg timbers
  - D) Impreg timbers
31. A substance which hold the ingredients of a paint in a liquid suspension is called
  - A) Base
  - B) Vehicle
  - C) Drier
  - D) Solvent
32. An alloy of copper and tin is known as
  - A) Bronze
  - B) Brass
  - C) Duralumin
  - D) Gun metal
33. What is the name of horizontal member parallel to the wall in single scaffolding ?
  - A) Standards
  - B) Ledgers
  - C) Putlogs
  - D) Raker
34. How many days after casting the form work of beam soffit can be removed ?
  - A) 7 days
  - B) 3 days
  - C) 14 days
  - D) 21 days
35. Safe bearing capacity of soil is equal to
  - A) Nominal strength  $\times$  factor of safety
  - B) Ultimate bearing power/factor of safety
  - C) Ultimate tensile strength/factor of safety
  - D) Ultimate compressive strength/factor of safety
36. Minimum clear cover for columns should be
  - A) 25 mm
  - B) 50 mm
  - C) 30 mm
  - D) 40 mm
37. Unit weight of 25 mm diameter of bar is
  - A) 3.85 kg/m
  - B) 2.98 kg/m
  - C) 4.83 kg/m
  - D) 2.47 kg/m
38. Which type of light weight scaffolding is used for painting in high rise buildings ?
  - A) Trestle scaffolding
  - B) Suspended scaffolding
  - C) Single scaffolding
  - D) Double scaffolding
39. The vertical sides of a finished opening for door and windows is known as
  - A) Corbel
  - B) Sill
  - C) Reveal
  - D) Jamb

40. What is the primary purpose of 'frog' in a brick ?
- A) To increase durability of brick
  - B) To reduce weight
  - C) To improve bonding with mortar
  - D) To provide decorative pattern
41. What is the purpose of cofferdam in construction ?
- A) To support foundation of the structure
  - B) To protect the construction site from strong winds
  - C) To prevent water entering the construction area
  - D) To provide light and ventilation
42. The end support of the arch is known as
- A) Pier
  - B) Springer
  - C) Abutment
  - D) Skew back
43. The lower half of the arch between the crown and skewback is known as
- A) Arcade
  - B) Haunch
  - C) Springer
  - D) Voussoirs
44. The apex line of a sloping roof is known as
- A) Pitch
  - B) Verge
  - C) Hip
  - D) Ridge
45. The inclined structural member supporting the roof covering is called
- A) Ridge
  - B) Rafter
  - C) Eave
  - D) Purlin
46. A valley in a sloping roof is
- A) The point where two sloping roofs meet to form an external angle
  - B) The point where two sloping roofs meet to form an internal angle
  - C) The horizontal edge of roof
  - D) The overhanging edge of roof

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47. Which type of flooring is considered eco-friendly and sustainable ?  
A) Marble flooring  
B) Granite flooring  
C) Ceramic flooring  
D) Bamboo flooring
48. What is the main disadvantage of wooden flooring ?  
A) Poor appearance  
B) Poor durability  
C) Slippery surface  
D) High cost
49. The process of joining steel components by melting and fusing them together is called  
A) Riveting  
B) Bolting  
C) Welding  
D) Bracing
50. For a U shaped hook, the additional length required for one hook is  
A) 9 D  
B) 7 D  
C) 12 D  
D) 18 D
51. What is the name of the projecting part of tread beyond the face of riser ?  
A) Stringer  
B) Nosing  
C) Scotia  
D) Baluster
52. The pitch of a stair should not exceed  
A) 15°  
B) 25°  
C) 35°  
D) 40°
53. The neat hand sketch of the area which is prepared during reconnaissance survey is known as  
A) Reference sketch  
B) Index sketch  
C) Hand sketch  
D) Rough sketch
54. In compass surveying, to obtain relative closing error the following formula is used  
A) Amount of closing error/Perimeter of traverse  
B) Perimeter of traverse/Amount of closing error  
C) Amount of closing error/Area of traverse  
D) Area of traverse/Amount of closing error



55. The DGPS technique is based on using at least \_\_\_\_\_ GPS receivers.
- A) 2  
B) 3  
C) 4  
D) 5
56. The magnetic bearing of a line AB is S 30°15' W. Find its true bearing, if the declination is 10°15' E.
- A) S 40°30' E  
B) S 20°30' E  
C) S 40°30' W  
D) S 20°30' W
57. The principle of plane tabling is
- A) Parallelism  
B) Reflection  
C) Traversing  
D) Double reflection
58. Any line lying on the horizontal plane is known as
- A) Inclined line  
B) Vertical line  
C) Level line  
D) Horizontal line
59. The angle between the horizontal line and tangent line is known as
- A) Azimuth  
B) Dip of the horizon  
C) True bearing  
D) Bearing
60. For plotting of profile (longitudinal section) vertical scale is \_\_\_\_\_ times the horizontal scale.
- A) 1/10  
B) 10  
C) 1000  
D) 1/1000
61. The line of intersection of a level surface with the ground surface is known as
- A) Horizontal line  
B) Vertical line  
C) Contour line  
D) Level line
62. Indirect method of contouring using squares, the size of square varies from
- A) 5 -10 m  
B) 5 -15 m  
C) 5 - 20 m  
D) 5 - 25 m

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63. What is the quantity of filling, given the ground level as 115.20 and formation level as 116.50 ?  
A) 1.30  
B) -1.30  
C) 1.04  
D) -1.04
64. In railway curves the unit chords (peg intervals) are generally taken between  
A) 5 and 10 m  
B) 10 and 15 m  
C) 15 and 20 m  
D) 20 and 30 m
65. It is the angle which a survey line makes with the extension of the preceding line is  
A) Vertical angle  
B) Included angle  
C) Deflection angle  
D) Horizontal angle
66. While using total station quick setting of the instrument on the tripod by using  
A) Foot screws  
B) Collimator  
C) Levelling screws  
D) Laser plummet
67. Which dam is constructed to impound water to its upstream side during the period of excess supply in the river ?  
A) Rigid Dam  
B) Storage Dam  
C) Detention Dam  
D) Diversion Dam
68. Based on the function of canal, the canal has been classified into  
A) Feeder canal, power canal, main canal, productive canal  
B) Protective canal, perennial canal, branch canal, link canal  
C) Irrigation canal, power canal, navigation canal, link canal  
D) Minor canal, flood canal, productive canal, feeder canal

69. The area in which crop can be grown satisfactorily
- A) Culturable Command Area
  - B) Unculturable Command Area
  - C) Gross Command Area
  - D) Catchment Area
70. Which is provided in diversion head work to scour away silt deposited ?
- A) Groynes
  - B) Fish Ladder
  - C) Barrage
  - D) Under Sluice
71. The ratio of the number of cumec days to the number of days canal has actually been used for irrigation is
- A) Time factor
  - B) Open discharge
  - C) Overlap allowance
  - D) Capacity factor
72. Large pipes for carrying water under pressure from storage reservoirs to turbines
- A) Penstock
  - B) Fore Bay
  - C) Anchor Blocks
  - D) Surge Tanks
73. Which of the following statement is correct in case of guide or channelling island ?
- i. Controlling the speed of vehicles
  - ii. For the removal or diversion of water from highway
  - iii. Protection of pedestrians
  - iv. Providing structural stability to the pavement
- A) Only i and ii
  - B) Only i and iii
  - C) Only ii and iv
  - D) All of the above
74. For earthen roads, the camber should be
- A) 1 in 10 to 1 in 15
  - B) 1 in 15 to 1 in 20
  - C) 1 in 20 to 1 in 24
  - D) 1 in 30 to 1 in 48

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75. Vignoles rail is also known as

- |                       |                      |
|-----------------------|----------------------|
| A) Flat footed rail   | B) Bull headed rail  |
| C) Double headed rail | D) None of the above |

76. Rail chairs are mainly used to fix

- A) Flat footed rail and bull headed rail on sleepers
- B) Bull headed rail and double headed rail on sleepers
- C) Double headed rail and flat footed rail on sleepers
- D) None of the above

77. Ballast size used for wooden sleeper track should be

- |          |          |
|----------|----------|
| A) 20 mm | B) 30 mm |
| C) 40 mm | D) 50 mm |

78. Which of the following statement is correct in case of through bridge ?

- A) The flooring of the bridge which carries the traffic is supported at the top of the main girder of bridge
- B) The flooring of the bridge which carries the traffic is supported at the bottom of the main girder of bridge
- C) The flooring of the bridge which carries the traffic is supported at intermediate level of the main load bearing superstructure of bridge
- D) None of the above

79. The heading up of the water above its normal level while passing under the bridge, is known as

- |              |               |
|--------------|---------------|
| A) Clearance | B) Free board |
| C) Afflux    | D) Scour      |

80. The standard size of a wooden sleeper for a Broad Gauge (BG) track

- |                                 |                                 |
|---------------------------------|---------------------------------|
| A) $275 \times 25 \times 13$ cm | B) $183 \times 20 \times 11$ cm |
| C) $152 \times 15 \times 10$ cm | D) $250 \times 26 \times 12$ cm |

81. How many millimeters are there in one inch ?  
 A) 2.54 mm  
 B) 25.4 mm  
 C) 24.5 mm  
 D) 2.45 mm
82. Capacity of a body to do work is called  
 A) Energy  
 B) Power  
 C) Acceleration  
 D) Force
83. What is the side of a square whose area is  $625 \text{ mm}^2$  ?  
 A) 15 mm  
 B) 20 mm  
 C) 25 mm  
 D) 30 mm
84. How many degrees is equal to one radian ?  
 A)  $\frac{\pi^\circ}{360}$   
 B)  $\frac{360^\circ}{\pi}$   
 C)  $\frac{\pi^\circ}{180}$   
 D)  $\frac{180^\circ}{\pi}$
85. What is the unit of strain ?  
 A)  $\text{kg/cm}^2$   
 B)  $\text{Newton/meter}^2$   
 C) Meter  
 D) No unit
86. In an ideal machine  
 A) Velocity ratio > mechanical advantage  
 B) Velocity ratio =  $0.5 \times$  mechanical advantage  
 C) Velocity ratio < mechanical advantage  
 D) Velocity ratio = mechanical advantage
87. Both ends of the pipes are plain or spigot the joint used is  
 A) Mechanical joint  
 B) Spigot joint  
 C) Simplex joint  
 D) Flexible joint

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88. The drainage pipe that carries liquid waste containing human excreta
- A) Soil pipe
  - B) Vent pipe
  - C) Waste pipe
  - D) Cowl pipe
89. The water treatment in which very fine colloidal and suspended particles and micro organisms are removed
- A) Screening
  - B) Coagulation
  - C) Filtration
  - D) Disinfection
90. The structure constructed in the form of a chamber along the sewer line to admit clear rain water into the combined sewer
- A) Lamp holes
  - B) Clean outs
  - C) Catch basins
  - D) None of these
91. BOD stands for
- A) Biological Oxygen Demand
  - B) Bio-chemical Oxygen Demand
  - C) Biological Odour Demand
  - D) None of these
92. These are small sized screw down types of sluice valves installed in service connections
- A) Bib cocks
  - B) Fire hydrants
  - C) Relief valve
  - D) Stop cocks
93. What is the command to the first icon in the draw panel ?
- A) Line
  - B) Arc
  - C) Circle
  - D) Segment

94. Which command is used to create a line of infinite length ?  
A) XREF  
B) XLINE  
C) XBIND  
D) XCLIP
95. Command for saving current document file is  
A) Ctrl+C  
B) Shift+S  
C) Ctrl+S  
D) Shift+C
96. Shortcut key for polar tracking on/off command is  
A) F9                      B) F6                      C) F8                      D) F10
97. Select a modifying command  
A) Line                      B) Rotate  
C) Arc                      D) XLINE
98. Which command is used to get a 3D view of an object ?  
A) UNION  
B) VPORT  
C) SAND  
D) DIM
99. Which file format is used to review 2D drawings in 3D programs ?  
A) DWG                      B) DOT  
C) WMF                      D) ISO
100. Which command is used to set a drawing screen to A4 size ?  
A) MTXT                      B) MVSETUP  
C) ZOOM                      D) LIMIT
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Space for Rough Work

A