

**DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE TOLD TO DO SO**

Booklet Serial No. **010177**

Test Booklet Series

**QUESTION BOOKLET FOR THE EXAMINATION TO THE POST OF  
DRAFTSMAN CIVIL  
OMR Examination - 2023**

**A**

**Time Allowed: 2 Hours**

**Maximum Marks: 120**

**INSTRUCTIONS**

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET **DOES NOT** HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS, ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
2. Please note that it is the candidate's responsibility to encode and fill in the Roll Number and Test Booklet Series Code A, B, C or D carefully and without any omission or discrepancy at the appropriate places in the OMR Answer /Response Sheet. Any omission/discrepancy will render the Response Sheet liable for rejection.
3. You have to enter your Roll Number on the Test Booklet in the Box provided alongside. **DO NOT** write anything else on the Test Booklet.  

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4. This Test booklet contains 120 items (questions). Each item comprises of four responses (answers). You will select the response which you want to mark on the Answer Sheet/Response Sheet. In case you feel that there is more than one correct response, mark the response which you consider the appropriate. In any case, choose **ONLY ONE** response for each item.
5. You have to mark all your responses **ONLY** on the separate Answer /Response Sheet provided. See directions in the Response Sheet.
6. All items carry equal marks.
7. After you have completed filling in all your responses on the Response Sheet and the examination has concluded, you should hand over to the Invigilator **only the Answer /Response Sheet**. You are permitted to take away with you the Test Booklet and **Candidate's Copy of the Response Sheet**.
8. Sheets for rough work are appended in the Test Booklet at the end.
9. While writing Centre Code and Roll No. on the top of the Answer Sheet/Response Sheet in appropriate boxes use "**ONLY BALL POINT PEN**".
10. **Penalty for wrong answers:**

**THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY THE CANDIDATE IN THE WRITTEN TEST (OBJECTIVE TYPE QUESTIONS PAPERS).**

- (i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate,  $(\frac{1}{4})$  of the marks assigned to that question will be deducted as penalty.
- (ii) If a candidate gives more than one answer, it will be treated as a wrong answer even if one of the given answers happens to be correct and there will be same penalty as above for that question.
- (iii) If a question is left blank, i.e., no answer is given by the candidate, there will be no penalty for that question.

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**(Set-A)24-Sept-2023**



OTOT22

(Set-A)

(2)

1. What is the designation of  $297 \times 420$  mm size paper as per BIS?
  - A) A1
  - B) A2
  - C) A3
  - D) A4
2. The maximum length of title block can be
  - A) 150 mm
  - B) 165 mm
  - C) 170 mm
  - D) 175 mm
3. Consider that the apex angle of the cone is  $2\theta$  when the cone is cut by a section plane at an angle  $= \alpha$  where  $\alpha$  is more than half of the apex angle i.e.,  $\theta$  and less than  $90^\circ$ , the curve of the section will be
  - A) Circle
  - B) Hyperbola
  - C) Ellipse
  - D) Parabola
4. When the object is situated in First quadrant, that is, in front of Vertical Plane and above Horizontal Plane, the projections obtained on these planes is called
  - A) Fourth angle projection
  - B) Third angle projection
  - C) Second angle projection
  - D) First angle projection
5. For orthographic projection, the following statement is true:
  - A) The projectors are parallel to each other and perpendicular to the plane of projection.
  - B) The projectors are inclined to each other and parallel to the plane of projection.
  - C) The projectors are intersecting to each other and parallel to the plane of projection.
  - D) The projectors are curved lines and inclined at an angle of  $60^\circ$  to the plane of projection.
6. The figure shown below represents



- A) Microphone outlet
- B) Horn or Hooter
- C) Receiver Outlet
- D) Amplifier

7. Flood irrigation method of irrigating field, works best on
- Level or gently rolling terrain
  - Steeply rolling terrain
  - Both A and B
  - None of the above
8. "Duty on capacity" is also called
- Capacity factor
  - Outlet duty
  - Full supply coefficient
  - Quantity duty
9. In plain areas, the irrigation canals are usually aligned along
- Ridge lines
  - Contour lines
  - Valley lines
  - Across the contours
10. The minimum recommended free board for lined canals carrying discharge of more than 10 cumecs is
- 0.35 m
  - 0.65 m
  - 0.75 m
  - 1.2 m
11. Which of the below joints is used for masonry in arches?
- Butt
  - Table
  - Rebated
  - Dowel
12. Gypsum consists of
- $H_2O$  and  $CO_2$
  - $CaSO_4$  and  $H_2O$
  - Sand stone and  $H_2O$
  - $CO_2$  and  $CaCO_3$
13. The Efflorescence test is applicable to
- Fine sand
  - Coarse aggregate
  - Cement
  - Brick

14. The stainless steel alloy is able to resist corrosion due to  
A) Carbon  
B) Hydrogen  
C) Chrome  
D) Chromium
15. Design loads (other than earthquake) for buildings and structures are calculated from  
A) IS 875 Part 1  
B) IS 875 Part 2  
C) IS 875 Part 3  
D) IS 875 Part 4
16. The horizontal upper portion of step is known as  
A) Tread  
B) Riser  
C) Nosing  
D) Flight
17. Which of the below is added to make mortar fire proof?  
A) Powdered glass  
B) Aluminous cement  
C) Gypsum  
D) Asbestos cement
18. When the thickness of doors and windows is provided, the estimates of woodwork is prepared in following unit  
A) Cubic meters  
B) Square meters  
C) Meters  
D) Ton
19. If the property fetches a net annual income of Rs. 1000 after deducting all outgoings. What is the capitalized value of property if the ROI is 10% per annum?  
A) Rs. 16,000  
B) Rs. 15,000  
C) Rs. 10,000  
D) None of the above
20. The unit of payment of cement concrete in foundation is  
A) Per sqm  
B) Per cum  
C) Per Qunital  
D) Kilograms

- 21.** What is the shortcut for zoom command?
- A) Z Command
  - B) Rotate mouse wheel
  - C) Zoom Command
  - D) All of the above
- 22.** In Autocad the nearest osnap is indicated by
- A) Triangle symbol
  - B) Triangular hourglass symbol
  - C) Rectangle symbol
  - D) Circle
- 23.** The rise and fall method for obtaining the reduced levels of points provides a check on
- 1) Foresight
  - 2) Backsight
  - 3) Intermediate sight
- Which of the above statements are correct?
- A) 1 and 2 only
  - B) 1 and 3 only
  - C) 2 and 3 only
  - D) 1, 2 and 3
- 24.** Theory of probability is applied to
- A) Cumulative errors only
  - B) Accidental errors only
  - C) Both accidental and cumulative
  - D) None of the above
- 25.** Consider the following statements
- i) Using trigonometry for length determination is a direct measurement.
  - ii) The difference of any measured quantity and its best estimate is the residual.
- A) Both statements are true
  - B) Both statements are false
  - C) (i) is true and (ii) is false
  - D) (i) is false and (ii) is true

- 26.** Consider the following statements
- i) The largest scaled maps of Survey of India are at a scale of 1:1Million.
  - ii) Reconnaissance is the last step of a survey work.
- A) Both statements are true
  - B) Both statements are false
  - C) (i) is true and (ii) is false
  - D) (i) is false and (ii) is true
- 27.** In great survey networks, typically
- A) Either of triangulation or trilateration are used
  - B) Vertical control is established by re-section
  - C) Not all angles and lengths are measured for triangles
  - D) None of the above
- 28.** The test used to check the collimation error is
- A) Chain test
  - B) Two peg test
  - C) Both A and B
  - D) None of the above
- 29.** Which of the following processes is the most commonly used for setting the tangent?
- A) Rankines method
  - B) Two theodolite method
  - C) Trial and error method
  - D) Tachometer method
- 30.** Which grade of pencil is used for drawing arrowheads?
- A) 2H
  - B) 2B
  - C) 7H
  - D) H

- 31.** What does the Single Stroke lettering mean?
- A) Cursive writing
  - B) Uniformity in letters as obtained in one stroke of the pencil
  - C) Writing in one stroke without lifting the pencil
  - D) Writing only with hard, small diameter lead pencil
- 32.** In orthographic projection, each projection view represents how many dimensions of an object?
- A) 1
  - B) 2
  - C) 3
  - D) 0
- 33.** Which of the following scale is a reducing scale?
- A) 3:2
  - B) 1:3
  - C) 1:1
  - D) 1:0.4
- 34.** Sandstone consists of
- A) Quartz and lime
  - B) Quartz and silica
  - C) Quartz, lime and silica
  - D) Silica, lime and alumina
- 35.** The commonly used lime for works under water or in damp situation is
- A) Fat lime
  - B) Lean lime
  - C) Feebly hydraulic lime
  - D) Eminently hydraulic lime
- 36.** The bearing capacity of soil depends upon
- A) Grain size of the soil
  - B) Size of the footing
  - C) Shape of the footing
  - D) All of the above
- 37.** A type of flooring made with a special aggregate of marble chips mixed with white and coloured cement is called
- A) Granolithic flooring
  - B) Terrazzo flooring
  - C) Mosaic flooring
  - D) Asphalt flooring

38. The perpendicular distance between the intrados and extrados of an arch is called
- A) Pitch of an arch
  - B) Depth of an arch
  - C) Width of an arch
  - D) Thickness of an arch
39. The term pitch in connection with pitched roofs is defined as
- A) Apex line of the sloping roof
  - B) Inclination of the sides of a roof to the horizontal plane
  - C) Horizontal distance between the internal faces of the walls
  - D) Triangular upper part of a wall formed at the end of a pitched roof
40. The pitch of stair should never exceed
- A)  $20^\circ$
  - B)  $25^\circ$
  - C)  $30^\circ$
  - D)  $40^\circ$
41. The term \_\_\_\_\_ is used to mean the external views as seen from certain rooms of the building.
- A) Aspect
  - B) Prospect
  - C) Elegance
  - D) Roominess
42. The lowest part of the structure which transmit the load to the soil is known as
- A) Superstructure
  - B) Plinth
  - C) Foundation
  - D) Basement
43. In plane surveying,
- A) The curvature of the earth is taken into consideration
  - B) The curvature of the earth is not taken into consideration
  - C) The surveys extend over a small area
  - D) The surveys extend over large areas
44. Contour lines cross ridge or valley lines at
- A)  $30^\circ$
  - B)  $45^\circ$
  - C)  $60^\circ$
  - D)  $90^\circ$

- 45.** Bitumen is derived from
- A) Destructive distillation of coal tar
  - B) Destructive distillation of petroleum
  - C) Fractional distillation of petroleum
  - D) Naturally occurring ores
- 46.** At the time of construction of railway in India, the gauge adopted as a standard gauge was
- A) 1.435 m
  - B) 1.524 m
  - C) 1.676 m
  - D) 1.843 m
- 47.** The standard size of wooden sleepers on metre gauge railway track is
- A) 1.52 m × 15 cm × 10 cm
  - B) 1.83 m × 20 cm × 11 cm
  - C) 2.74 m × 25 cm × 13 cm
  - D) Any one of the above
- 48.** Bridge over a dry valley is known as
- A) Causeway
  - B) Minor bridge
  - C) Vent
  - D) Viaduct
- 49.** The irrigation is necessary in an area
- A) Where there is a scanty rainfall
  - B) Where the rainfall is non uniform
  - C) Where commercial crops require more water
  - D) All of the above
- 50.** Identify the method that is not used for the computation of average rainfall in a catchment having n number of stations
- A) Arithmetic average method
  - B) Thiessen polygon method
  - C) Isohyetal method
  - D) Hyetograph method
- 51.** Run-off is measured in
- A)  $m^3/\text{sec}$
  - B)  $m^3/\text{min}$
  - C)  $m^3/\text{hr}$
  - D) None of these
- 52.** Cross regulators are provided
- A) To raise the water level to its upstream during the period of low discharges in the parent channel
  - B) To help in closing the supply to downstream of the parent channel
  - C) To absorb fluctuations in the various sections of the canal system
  - D) All the above
- 53.** An aggregate having all the pores filled with water but having dry surface is called
- A) Very dry aggregate
  - B) Dry aggregate
  - C) Saturated surface dry aggregate
  - D) Moist aggregate

54. Which of the following is not a classification of labour?
- A) Skilled first class
  - B) Skilled second class
  - C) Unskilled
  - D) Unskilled fourth class
55. Which of the following is the correct order of stages of estimation of concrete road?
- A) Earthwork excavations, Cement concrete for base course (1:4:8) and cement concrete for the wearing course (1:2:8)
  - B) Earthwork excavations, Cement concrete for wearing course (1:4:8) and cement concrete for the base course (1:2:8)
  - C) Earthwork excavations, Cement concrete for base course (1:6:9) and cement concrete for the wearing course (1:7:9)
  - D) Cement concrete for base course (1:2:3), cement concrete for the wearing course (2:7:9) and earthwork excavations.
56. A program that looks through the internet for web pages on a particular topic is called
- A) Browser
  - B) Search engine
  - C) RAM
  - D) None of these
57. Which command displays only file and directory names without size, date and time information?
- A) Dir/w
  - B) Dir a:
  - C) Dir/b
  - D) Dir/s
58. What does UCS means? (in the context of CAD)
- A) User coordinate system
  - B) United CAD software
  - C) United coordinate system
  - D) User CAD software
59. Which of these benefits is absent in rapid hardening cement?
- A) Faster construction
  - B) Short curing period
  - C) Light in weight
  - D) Higher final setting time
60. Playground which is  $16\text{m}^2$  consists of an area of  $1\text{ m}^2$  on the city plan. What is the scale of the city plan?
- A) 1:16
  - B) 1:8
  - C) 1:32
  - D) 1:4

**61.** Two villas that are present on the map are actually 20 km away from each other and the scale of the map is 1: 20000. Calculate the distance on the map between two villas?

- A) 100cm    B) 100mm  
C) 1000cm    D) 2000mm

**62.** Consider the following

- a. 50:1 is enlargement scale  
b. 50:1 is reduction scale  
c. 1:1 is full scale  
d. 1:50 is reduction scale

Which of the following statement is /are correct

- A) c only    B) c and d only  
C) a, c and d only                                    D) b, c and d only

**63.** Consider the following statements pertaining to folding of drawing sheets as per IS 962

- a. Fold horizontally  
b. Fold vertically  
c. Folded drawing to be of A4 size  
d. Title block to be on the topmost fold

Which of the following is the correct order as per IS962

- A) abcd    B) bacd  
C) dabc    D) cdba

**64.** Consider the following pairs:

1. Plain Graphic Scale  
2. Diagonal Graphic Scale  
3. Comparative Graphic Scale  
4. Vernier Graphic Scale

- a. This type of graphic scale uses diagonal lines to indicate measurements, providing a compact representation.  
b. A graphic scale that employs vernier principles to offer more precise measurements in a limited space.  
c. A simple graphic scale with evenly spaced divisions that represent equal units of measurement.  
d. This scale compares two different units of measurement on the same scale for easy conversion.

Which of the pairs given above is/are correctly matched?

- A) 1-b, 2-d, 3-a, 4-c  
B) 1-d, 2-b, 3-c, 4-a  
C) 1-a, 2-c, 3-b, 4-d  
D) 1-c, 2-a, 3-d, 4-b

- 65.** When the projectors are at 63.26 degrees to the plane of projection, and receding lines are half the true length the oblique drawing is called \_\_\_\_\_
- A) Cavalier projection
  - B) Oblique projection
  - C) Cabinet projection
  - D) Perspective projection
- 66.** Mention the name of vertical member which is made up of wood or metal supporting the hand rail is called
- A) Baluster
  - B) Nosing
  - C) Going
  - D) Rise
- 67.** Masonry which possesses regular stones or rectangular shape with accurate bed joints is
- A) Random rubble
  - B) Ashlar fine
  - C) Flint rubble
  - D) Uncoursed rubble
- 68.** Choose the right sequence of stages during burning/firing of bricks is
- A) Dehydration – Oxidation – Vitrification – Cooling
  - B) Vitrification – Oxidation – Dehydration - Cooling
  - C) Vitrification – Dehydration – Oxidation - Cooling
  - D) Oxidation – Dehydration – Vitrification – Cooling
- 69.** In a bridge truss, what is the sequence of load transmission?
- A) Side trusses to floor beams to stringers
  - B) Side trusses to stringers to floor beams
  - C) Stringers to floor beams to side trusses
  - D) Floor beams to stringers to side trusses
- 70.** The vertical window provided on the pitched roof is known as
- A) Gable window
  - B) Dormer window
  - C) Lantern window
  - D) Louver window
- 71.** In which type of shear failure does the failure surface NOT extend upto the ground surface when a strip footing rests on loose sand or soft clay?
- A) Local shear failure
  - B) General shear failure
  - C) Meyerhof's failure
  - D) Punching shear failure

72. Consider the following statements
- General shear failure occurs in the soil at that load and the failure surface extends to the ground surface
  - Short vertical joints in the face of the wall that fall vertically over one another is known as arrises
  - Freeze are the coarse of stones placed immediately below the cornice to improve the appearance
  - IS 875 Part-2 is used for taking the live load for different types of building
- Which of the following statements is/are correct
- a and b
  - c and b
  - a and c
  - d and a
73. Match the term with its description in construction management.
- |                  |  |
|------------------|--|
| 1. Critical Path | a. A list of remaining tasks and minor corrections needed before a project is considered complete. |
| 2. Gantt Chart   | b. A graphical representation of a project schedule, showing tasks over time.                      |
| 3. Change Order  | c. A formal request to modify project scope, schedule, or resources.                               |
| 4. Punch List    | d. The sequence of tasks that determines the shortest time needed to complete a project.           |
- 1-c, 2-d, 3-a, 4-b
  - 1-b, 2-d, 3-c, 4-a
  - 1-d, 2-b, 3-c, 4-a
  - 1-c, 2-b, 3-a, 4-d
74. How is speed of the train related to the gauge distance provided?
- Directly proportional
  - Inversely proportional
  - Not related to the gauge distance provided
  - Varies according to the topography of the place
75. A straight line tangential to the level line at a point which is also perpendicular to the plumb line is known as
- Vertical line
  - Horizontal line
  - Mean sea level
  - None of these

76. The least count of target staff is
- A) 0.001 ft
  - B) 0.005 ft
  - C) 0.05 ft
  - D) 0.01 ft
77. Consider the following statements
- a. On the broad gauge tracks, 0.04% per degree of curve or  $70/R$ , whichever is minimum should be provided
  - b. On meter gauge tracks, 0.02% per degree of curve OR  $35/R$ , whichever is minimum should be provided
  - c. Broad gauge used in Indian railways has a length of 1.676m
  - d. The last reading from a level before changing its place is called the foresight
- Which of the following statements is/are correct
- A) b, c and d
  - B) d, c and a
  - C) a, b and c
  - D) a, b, c and d
78. Consider the following pairs:
- |                      |  |
|----------------------|--|
| 1. Theodolite        | a. Used for measuring angles in horizontal and vertical planes.                |
| 2. Prismatic Compass | b. Measures the area of a closed figure on a map or drawing.                   |
| 3. Planimeter        | c. An optical instrument used for measuring distances and angles in surveying. |
| 4. Leveling Rod      | d. Used to measure height differences or elevations during leveling.           |
- Which of the pairs given above is/are correctly matched?
- A) 1-a, 2-b, 3-d, 4-c
  - B) 1-c, 2-a, 3-b, 4-d
  - C) 1-d, 2-b, 3-a, 4-c
  - D) 1-b, 2-c, 3-d, 4-a
79. Match the bridge-related term with its description.
- |                                |  |
|--------------------------------|--|
| 1. Component Parts of a Bridge | a. Guidelines specifying sizes of various bridge elements.               |
| 2. Culverts                    | b. Small structures allowing water to flow under roads or railways.      |
| 3. Bridge Location             | c. Different elements that together make up a complete bridge structure. |
| 4. Tunnel Rules                | d. Determining suitable placement for constructing a bridge.             |
- A) 1-b, 2-d, 3-a, 4-c
  - B) 1-d, 2-c, 3-b, 4-a
  - C) 1-c, 2-b, 3-d, 4-a
  - D) 1-b, 2-c, 3-a, 4-d

80. The IS sieve which is used for measuring the fineness of cement is
- A) 150 Micron
  - B) 300 micron
  - C) 90 micron
  - D) 10 micron
81. Superpassage is a canal cross-drainage structure in which
- A) Canal water flows under pressure below a natural stream
  - B) Natural stream water flows under pressure below a canal
  - C) Natural stream water flows with free surface below a canal
  - D) Canal water flows with free surface below a natural stream
82. Consider the following pairs:
- |                     |   |
|---------------------|---|
| 1. Irrigation Canal | a. A canal designed to carry water for agricultural purposes, supplying water to fields and crops.                      |
| 2. Navigation Canal | b. A canal that diverts water from a water source, like a river, to the main canal system for distribution.             |
| 3. Aqueduct         | c. A structure that carries a canal over a river, valley, or other obstacle, allowing the canal to maintain its course. |
| 4. Feeder Canal     | d. A canal constructed for the purpose of facilitating navigation and transportation of goods and people.               |
- Which of the pairs given above is/are correctly matched?
- A) 1-a, 2-d, 3-c, 4-b
  - B) 1-b, 2-d, 3-a, 4-c
  - C) 1-d, 2-c, 3-b, 4-a
  - D) 1-c, 2-a, 3-d, 4-b
83. \_\_\_\_\_ is constructed outside the building to carry wastewater discharge.
- A) P trap
  - B) S trap
  - C) Gully trap
  - D) Floor trap
84. The permissible limit of chlorides in potable water used for RCC is \_\_\_\_\_ mg/L.
- A) 200
  - B) 400
  - C) 500
  - D) 2000
85. The component of a computer system provides visual interaction through icons and menu is
- A) CPU
  - B) GUI
  - C) RAM
  - D) OS

86. Which command is used to display the Windows version in the Command Prompt?  
A) VER    B) OSINFO  
C) SYSVERSION    D) MOD
87. The layer that can be deleted from the layer property manager,  
A) Layer 0  
B) Frozen layer not containing objects  
C) Layer containing objects  
D) Defpoints
88. Consider the following pairs:  
1. Residential Building Planning                      a. Essential utilities such as water, electricity, and sewage that constitute a functional dwelling.  
2. Building Bylaws of Local Authorities              b. The rules and regulations set by local urban development authorities and improvement trusts.  
3. BIS Codes    c. National standards issued by the Bureau of Indian Standards for construction practices.  
4. Service Utilities in Dwelling House                d. Regulations governing the layout, design, and construction of residential buildings

Which of the pairs given above is/are correctly matched?

- A) 1-a, 2-d, 3-c, 4-b  
B) 1-d, 2-c, 3-b, 4-a  
C) 1-d, 2-b, 3-c, 4-a  
D) 1-a, 2-b, 3-c, 4-d
89. POL is the command to be used for drawing a polygon of minimum sides 3 and maximum sides \_\_\_\_\_  
A) 1024  
B) 496  
C) 784  
D) 2184
90. The symbol shown below is \_\_\_\_\_



- A) Radius  
B) Depth  
C) Diameter  
D) Angle

91. Match the following.

<b>Line type</b>	<b>Application</b>
a. Chain thin, with thick ends	i) Cutting Planes
b. Chain thin, double-dashed	ii) Center lines
c. Chain thin, long-dashed	iii) Indicates surfaces to which special requirements are needed
d. Chain thick, long-dashed	iv) Centroidal lines
A) a-ii, b-i, c-iv, d-iii	
B) a-i, b-iv, c-ii, d-iii	
C) a-iv, b-i, c-ii, d-iii	
D) a-iii, b-i, c-ii, d-iv	
92. Using $30^\circ - 60^\circ - 90^\circ$ and $45^\circ - 45^\circ - 90^\circ$ set squares, which of the following angle is not possible to draw?	
A) $45^\circ$	
B) $30^\circ$	
C) $10^\circ$	
D) $90^\circ$	
93. In engineering drawing, which type of arrowhead is used?	
A) Open ( $90^\circ$ )	
B) Small open circle	
C) Closed and filled	
D) Oblique stroke	
94. Which of the following is incorrect for Lettering of an engineering drawing?	
A) Upper-case letters are mainly used for lettering	
B) Lettering type A is preferred	
C) Inclined letters are right inclined with $75^\circ$ slope with horizontal	
D) Guidelines are drawn to obtain a uniform height of letters and numerals	
95. What should be observed ideally when two bricks are struck together?	
A) Dull sound	
B) Sides shatter	
C) Clear ringing sound	
D) Brick breaks	
96. Sands should pass through:	
A) BIS 480 sieve	
B) BIS 8 sieve	
C) BIS 5 sieve	
D) BIS 6 sieve	

97. The form work from the slabs excluding props, can be removed only after
- A) 1 day
  - B) 4 days
  - C) 7 days
  - D) 14 days
98. In any good staircase, the maximum and minimum pitch respectively should be
- A)  $90^\circ$  and  $0^\circ$
  - B)  $75^\circ$  and  $30^\circ$
  - C)  $60^\circ$  and  $10^\circ$
  - D)  $40^\circ$  and  $25^\circ$
99. **Assertion A:** Shishum is used for decorative woodwork.  
**Reason R:** Shishum can be polished to an excellent finish.  
Select your answer according to the coding system given below:
- A) Both A and R is true and R is the correct explanation of A
  - B) Both A and R is true but R is not the correct explanation of A
  - C) A is true but R is false
  - D) A is false but R is true
100. Pick up the correct statement from the following:
- A) In a king post truss, principal rafter and tie beams are jointed together with a bridle joint
  - B) Joint between the principal rafter and the king post is made by making tenon and mortise respectively
  - C) Joint between strut and king post, is generally of mortise and tenon type
  - D) All the above
101. As compared to top rail, the bottom and lock rails in a door frame are normally
- A) Thinner
  - B) Thicker
  - C) Wider
  - D) Narrower
102. In escalators, the angle of inclination with the horizontal plane should be in the range of:
- A)  $5^\circ$ - $10^\circ$
  - B)  $20^\circ$ - $30^\circ$
  - C)  $30^\circ$ - $35^\circ$
  - D)  $10^\circ$ - $15^\circ$

**103.** \_\_\_\_\_ are used in case of mortise and tenon joint.

- A) Bolts
- B) Nuts
- C) Wedges
- D) Spikes

**104.** Which type of foundation is used for the construction of building on black cotton soil?

- A) Inverted arch foundation
- B) Floating foundation
- C) Mat/Raft foundation
- D) Grillage foundation

**105.** After fixing the plane table to the tripod, the main operations which are needed at each plane table station are

- i) Levelling
- ii) Orientation
- iii) Centering

The correct sequence of these operations is

- A) (i), (ii), (iii)
- B) (i), (iii), (ii)
- C) (iii), (i), (ii)
- D) (ii), (iii), (i)

**106.** Which of the following is not required for chain surveying?

- A) Dumpy level
- B) Pegs
- C) Arrows
- D) 20 m chain

**107.** The maximum number of cities and towns are connected by which type of highway?

- A) State highway
- B) Village road
- C) National highway
- D) Major district road

**108.** Which of the following is not a requirement of a good ballast for Railway track?

- A) Rounded
- B) Cheap
- C) Tough
- D) Wear resistant

109. The number of sleepers per rail length is called as \_\_\_\_\_

- A) Sleeper spacing
- B) Sleeper density
- C) Sleeper gravity
- D) Sleeper gradient

110. Height of bridge is kept \_\_\_\_\_ above high flood level.

- A) 0.2 to 1.5 m
- B) 1.2 to 1.5 m
- C) 1.8 to 2.1 m
- D) 2.2 to 2.5 m

111. Following table shows a part of level field book. The value of X should be

Station	BS	IS	FS	HI	RL	Remark
A	2.300			102.300	100.000	BM
B		1.300			101.000	
C			2.300		X	

- A) 98.700
- B) 100.00
- C) 102.300
- D) 103.300

112. The uplift pressure on a dam can be controlled by

- i) Constructing cut-off under upstream face
- ii) Constructing drainage channels between the dam and its foundation
- iii) By pressure grouting in foundation

The correct answer is

- A) Only (i)
- B) Both (i) and (ii)
- C) Both (i) and (iii)
- D) (i), (ii) and (iii)

113. Which of the following canal structures is used to remove surplus water from an irrigation channel into a natural drain?

- A) Canal fall
- B) Canal outlet
- C) Canal escape
- D) Canal regulator

114. Which type of canal is most useful in hilly areas?

- A) Side Slope Canal
- B) Contour Canal
- C) Watershed Canal
- D) Field Channel

**115.** Pick up the incorrect statement from the following. Intake of water supply should

- A) Be nearer to the treatment plant
- B) Receive water from purer zone of the source
- C) Be located downstream of waste water disposal point
- D) Remain easily accessible during floods

**116.** According to ISI method of measurement, the order of the sequence is

- A) Length, breadth, height
- B) Breadth, length, height
- C) Height, length, breadth
- D) None of these

**117.** \_\_\_\_\_ is a large open space located within a building. It is often used to light a central circulation or public area by daylight admitted through a glass roof or wall.

- A) Atrium
- B) Solarium
- C) Translucent walls
- D) Skylights

**118.** Which of the following is storage type

- A) CPU
- B) Key Board
- C) Pen Drive
- D) Mouse

**119.** Which of the following is not the Operating System?

- A) DOS
- B) Linux
- C) Windows
- D) Oracle

**120.** Origin of the AutoCAD drawing space is,

- A) 0,0
- B) 1,0
- C) 0,1
- D) 1,1

# **ROUGH WORK**

AL WORK

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(Set-A)

(24)