

Candidate
Seat No. : _____

Question
Booklet
Code : _____

B

SEAL
B SDSC - 2023

Candidate's Signature _____

Block Supervisor's Sign. _____

DO NOT OPEN QUESTION BOOKLET UNTIL INSTRUCTED.

INSTRUCTIONS FOR CANDIDATE:

1. Check Number printed on your OMR SHEET and Question Paper with your SEAT No. before answering the questions. Consult block supervisors in case the above mentioned numbers do not match with your seat number.
2. There are total 100 questions. For answer of each question A, B, C, D options are given in OMR SHEET. All questions are compulsory. For Example:
Which state of India has the longest sea shore ?
A ☐ B ☐ C ☒ D ☐
(A) Maharashtra (B) Tamilnadu
(C) Gujarat (D) Andhra Pradesh
In this example, the right answer is (C). Therefore, the Circle of (C) has been darkened (encoded). Candidate should not give the answer "Gujarat" in writing.
3. Candidates are not permitted to leave examination hall during examination.
4. Candidates must strictly enter SEAT NO. in the designated space provided in OMR SHEET as well as Question Paper neatly as soon as they receive the OMR SHEET & Question Paper.
5. If candidate gives more than one option as answer for one question in answer sheet (OMR SHEET), or gives wrong answer or not attempts a question, then the candidate will be allotted Zero (0) marks. The options once darkened/answered by candidate cannot be changed.
6. OMR SHEET must be signed by supervisor. Unsigned OMR SHEET will not be considered for evaluation.
7. Candidates must not write name or put any identification sign/symbol on OMR SHEET. In such case strict disciplinary action will be taken against candidate & will be considered disqualified/ineligible. Only Seat No. must be entered at designated space provided in OMR SHEET.
8. Both, Candidate's & Supervisor's signature must be done on Certificate of OMR SHEET. Unsigned OMR SHEET would not be considered for evaluation.
9. Candidates are not permitted to use or carry with them any kind of literature, guide, hand written notes, or printed books, mobile phone, pagers, smart watches, camera, calculator or any electronic gadgets to examination hall.
10. Candidates are not permitted to talk/discuss in the Examination Hall. Any candidate found violating supervisor's instructions will be disqualified.
11. Candidates must fully darken circle A, B, C, D accordingly with Blue / Black ball pen. If answers are marked with any other coloured ball pen, pencil, white ink (whitner), any corrections are done by candidate by means of blade or rubber or whitner will not be considered for evaluation.
12. Candidates may carry QP with them after Examination.
13. Candidate will get 1 Mark for every correct answer. (Marking Scheme as follows.)
 $(\text{No. of Correct answers} \times 1) = (\text{Obtained Marks})$

Submit the OMR SHEET to the block supervisor after completion of examination without fail before leaving

1. Narmad central library was inaugurated in _____
(A) 1960 (B) 1991
☒ (C) 2001 (D) 2011
2. SMIMER hospital was opened in _____ year
(A) 2004 (B) 2005
(C) 2006 (D) 2007
3. Surat Municipal Corporation enjoys pivotal place in the Mumbai and Ahmedabad corridor. It is _____ km away from Ahmedabad and _____ km away from Mumbai. Fill in the blanks.
(A) 130, 158 (B) 258, 230
(C) 230, 258 (D) 158, 130
4. Under Bombay Provincial Municipal Corporation Act, the powers are delegated under which section
(A) Section 7 (B) Section 6
(C) Section 5 (D) Section 4
5. There are _____ members in Town Planning Committee
☒ (A) 9 (B) 8
(C) 7 ☒ (D) 6
6. The first Mayor of Surat Municipal Corporation was _____
(A) Shri V. B. Shastri (B) Shri N. M. Gajjar
(C) Shri G. R. Chokhawala (D) Shri C. V. Patel
7. Dy. Engineer at zonal level is working under _____ as per organization structure
(A) Zonal Chief (B) Dy. Medical Officer of Health
☒ (C) Zonal Officer (D) Chairman, PWD Committee
8. Evaluate the statement.
1. The general board is the supreme body of corporation
2. Four members are elected from each ward.
(A) Only 1 is correct (B) Only 2 is correct
(C) Both 1 and 2 are not correct ☒ (D) Both 1 and 2 are correct

- (A) Only 1 is correct
(B) Only 2 is correct
(C) Both 1 and 2 are correct
(D) Both 1 and 2 are not correct
10. There are _____ special committees and _____ sub-committees
(A) 9, 3
(B) 10, 4
(C) 12, 3
(D) 15, 5
11. Bhagvad Gita contains 700 shlokas in 18 chapters. How many shlokas was spoken by Lord Krishna ?
(A) 650 shlokas
(B) 527 shlokas
(C) 547 shlokas
(D) 574 shlokas
12. In which year Swami Vivekanand participated in "The World Religious conference" in Chicago in U.S.A. ?
(A) 1857
(B) 1947
(C) 1847
(D) 1893
13. _____ will be called as The Bad Bank in India.
(A) National Credit Banks
(B) National Asset Reconstruction Ltd. (NARC)
(C) Banks has no staff Association
(D) Banks which are not doing business for loans
14. Which of the following is not a renewable energy source ?
(A) Solar energy
(B) Coal
(C) Wind energy
(D) Hydro energy
15. Which of the following's signature is there on one rupee bill in India ?
(A) RBI - Dy. Governor
(B) Finance Secretary
(C) Finance Minister
(D) RBI - Governor
16. Who invented steam engine ?
(A) Herison
(B) Pristly
(C) James Watt
(D) Jyorge Seli
17. Who is the founder of Yog Darshan ?
(A) Swami Vivekanand
(B) Parshuram Muni

- ~~(A)~~ 21st June (B) 21st August
(C) 23rd December (D) 26th June
19. Which of the following is not a Union Territory ?
(A) Diu - Daman ~~(B)~~ Pondicherry
(C) Lakshadweep ~~(D)~~ Goa
20. Which of the following is full form of "RTGS" ?
(A) Real Trust Goods Services (B) Right Time Good Settlement
~~(C)~~ Real Time Gross Settlement (D) Right Theme Going Service
21. Which of the following is the highest mountain in Gujarat
(A) Kalo Dungar (B) Girnar
~~(C)~~ Pavagadh (D) Saputara
22. How many talukas are there in the Surat district ?
(A) 10 ~~(B)~~ 12
(C) 9 (D) 8
23. Which of the following is full form of "CBDC" pilot project launched by RBI in India ?
(A) Central Bank Depository Currency (B) Current Bank Digital Currency
~~(C)~~ Central Bank Digital Currency (D) Central Bank Donation Currency
24. On which day lunar eclipse can be seen ?
(A) Amavasya day (B) Bij day
~~(C)~~ Any day ~~(D)~~ Poonam day
25. Who is known as a "Manbhattach" in Gujarati literature ?
(A) Premanand (B) Narmad
(C) Shamal (D) Dayaram
26. CPU in desktop PC consists of
(A) Only ALU ~~(B)~~ Only Control Unit
(C) Only Registers ~~(D)~~ ALU + Control Unit + Registers
27. Which of the following standard is used in PCs to store key strokes ?
(A) ANSI (B) ISO
~~(C)~~ ASCII (D) None of the above

29. For which of the following, page down key is used in MS Word ?
 (A) To move cursor one line down (B) To move cursor one screen down
 (C) To move cursor one page down (D) None of the above
30. Command Edit → Fill Across Worksheet is active only when
 (A) When no sheet is selected (B) One sheet is selected
 (C) When many sheets are selected (D) None of the above
31. In MS Excel, which of the following can be protected ?
 (A) Contents (B) Objects
 (C) Scenarios (D) All of the above
32. What is the extension of file that stores Power Point design template ?
 (A) .ppt (B) .pot
 (C) .ptt (D) .dtp
33. Deleted mails are stored in _____ folder
 (A) Inbox (B) Spam
 (C) Trash (D) Sent
34. Which of the following software is used to display web pages ?
 (A) Web Crawler (B) Web Browser
 (C) Web Streaming (D) All of the above
35. VPN stands for
 (A) Virtual Passive Network (B) Virtual Permanent Network
 (C) Virtual Post Network (D) Virtual Private Network
36. A good quality of stone must absorb water less than...
 (A) 15% (B) 10%
 (C) 20% (D) 25%
37. The stone that exhibits least compressive strength is
 (A) Slate (B) Sandstone
 (C) Laterite (D) Granite

39. The crushing strength of first class brick should not be less than
 (A) 3.5 N/mm² (B) 7.0 N/mm²
~~(C) 10.5 N/mm²~~ ~~(D) 14.0 N/mm²~~
40. Excess Alumina in brick earth
~~(A) Makes the brick brittle and weak~~
 (B) Makes the brick crack and warp on drying
 (C) Changes colour of the brick from red to yellow
 (D) Improves impermeability and durability of the brick
41. The brick laid with its length parallel to the face of the wall is called a
 (A) Course ~~(B) Stretcher~~
 (C) Header (D) Closer
42. The standard size of brick is
 (A) 20 cm × 10 cm × 10 cm ~~(B) 19 cm × 9 cm × 9 cm~~
 (C) 18 cm × 9 cm × 9 cm (D) 18 cm × 8 cm × 8 cm
43. The strength of timber is maximum when load is applied
~~(A) Parallel to grain~~ (B) Perpendicular to grain
 (C) Inclined at 45° to grain (D) Inclined at 60° to grain
44. The separation of fibre extended along the grain in wood, when found on face is called
 (A) decay (B) knot
 (C) rot ~~(D) checks~~
45. The plywood is made by bonding together thin wooden sheet in such a way that the angle between grains of any layer to the grains of adjacent layer is
~~(A) 0°~~ (B) 30°
 (C) 60° (D) 90°
46. The commonly used thinner in oil paints is
 (A) naphtha ~~(B) turpentine~~
 (C) olive oil (D) both (A) and (B)

- ... for making mortar is
- (A) quick lime (B) ☒ fat lime
 (C) ☒ hydraulic lime (D) lump lime
48. The maximum crushing and impact values of coarse aggregate to be used in concrete for wearing surface are respectively
 (A) ☒ 20% and 25% (B) 30% and 30%
 (C) 30% and 45% (D) 30% and 50%
49. In high tensile steel, carbon should be less than
 (A) ☒ 0.1% (B) 0.15%
 (C) 0.7% (D) ☒ 1.5%
50. As per IS specification, the minimum time for initial setting of ordinary Portland cement is
 (A) 20 min. (B) ☒ 30 min.
 (C) 60 min. (D) 10 hrs.
51. If e = void ratio and n = porosity of soil, then which one from the below given option is correct ?
 (A) ☒ $e = \frac{n}{1-n}$ and $n = \frac{e}{1+e}$ (B) $e = \frac{n}{1-n}$ and $n = \frac{n}{1+n}$
 (C) $e = \frac{n}{1+n}$ and $n = \frac{n}{1-n}$ (D) $e = \frac{n}{1+n}$ and $n = \frac{n}{1+n}$
52. Which of the following method is suitable for determination of in situ unit weight in case of hard and gravelly soils ?
 (A) Core - cutter method (B) Sand - replacement method
 (C) Water displacement method (D) ☒ All of the above
53. When water content is decreased in soil, reduction in volume is observed in
 (A) Liquid state (B) Plastic state
 (C) Semi solid state (D) ☒ All of the above
54. Maximum size of clay particle is
 (A) 0.2 mm (B) ☒ 0.002 mm
 (C) 0.0002 mm (D) 0.02 mm
55. The uniformity co-efficient of soil is defined as the ratio of
 (A) D_{40} to D_{10} (B) ☒ D_{60} to D_{30}
 (C) D_{60} to D_{40} (D) D_{60} to D_{10}

(A) Cohesive soil

(B) Cohesionless soil

(C) Both (A) and (B)

~~(D) Soil in confined space~~

57. The permeability of a given soil is

~~(A) Directly proportional to average grain size~~

(B) Inversely proportional to average grain size

(C) Directly proportional to the square of average grain size

(D) Inversely proportional to the square of average grain size

58. The critical gradient of the seepage of water in soil medium is

(Where G = Specific Gravity of soil and e = Void Ratio)

(A) $\frac{1-G}{1+e}$

(B) $\frac{G-1}{1+e}$

(C) $\frac{1+e}{1-G}$

~~(D) $\frac{1+e}{G-1}$~~

59. The frictional resistance of clayey soil is _____ sandy soil

~~(A) Less than~~

(B) More than

(C) Same as

(D) None of the above

60. Is not a field method of determining bearing capacity of soil

(A) Plate Load Test

~~(B) Standard Penetration Test (SPT)~~

(C) Static Cone Penetration Test (SCPT)

~~(D) Proctor Test~~

61. For R.C.C. footing, minimum value of nominal cover is

(A) 30 mm

(B) 40 mm

~~(C) 50 mm~~

(D) 60 mm

62. The horizontal distance between parallel main reinforcement bars in R.C.C. slab shall not be more than _____ in any case

~~(A) 300 mm~~

(B) 200 mm

(C) 450 mm

~~(D) 150 mm~~

63. The minimum number of longitudinal bars in R.C.C. column shall be _____ in rectangular column and _____ in circular column.

(A) Six, Four

~~(B) Four, Six~~

(C) Four, Four

(D) Six, Six

65. Anchorage value of steel bar having dia. d and 90° bend is
~~(A) $4d$~~ (B) $8d$
 (C) $12d$ (D) $16d$
66. R.C.C. beam having breadth = b and total depth = D , The maximum area of tension reinforcement shall not exceed
 (A) $0.02 bD$ ~~(B) $0.025 bD$~~
 (C) $0.035 bD$ (D) $0.04 bD$
67. As per IS - 800 - 2007, unit mass of structural steel is
 (A) 7850 kg/m^3 (B) 7800 kg/m^3
~~(C) 7950 kg/m^3~~ (D) 7900 kg/m^3
68. ISMB - Hot rolled steel section is
 (A) Angle - section (B) Tee - section
 (C) Channel - section ~~(D) I - section~~
69. For the 20 mm nominal diameter of bold standard clearance is kept
 (A) 1 mm (B) 2 mm
 (C) 3 mm ~~(D) 4 mm~~
70. If S = size of weld, throat thickness t_t of weld is
 (A) $0.7 S$ ~~(B) $0.5 S$~~
 (C) S (D) $0.8 S$
71. The true length of a line is known to be 200 m. When this is measured with a 20 m tape, length is 200.80 m. The correct length of the 20 m tape is
 (A) 19.92 m (B) 19.98 m
~~(C) 20.04 m~~ (D) 20.08 m
72. The magnetic bearing of a line was observed 30° and the magnetic declination is 2°E . The true bearing of line is
~~(A) 30°~~ (B) 32°
 (C) 28° (D) 0°

74. A discrepancy is difference between
~~(A)~~ true value and error
 (B) measured value and actual value
~~(C)~~ two measured values of the same quantity
 (D) None of the above
75. The sag correction is always
 (A) Positive (B) Negative
 (C) Zero ~~(D)~~ Both (A) and (B)
76. The longest line passing through the centre of the area is known
 (A) Base line (B) Tie line
 (C) Check line ~~(D)~~ All of the above
77. A staff reading taken on bench mark or a point of known elevation is called
 (A) fore sight reading ~~(B)~~ back sight reading
 (C) intermediate sight ~~(D)~~ Any of these
78. Contour lines are perpendicular to
 (A) ridge line (B) valley line
 (C) both (A) and (B) ~~(D)~~ None of the above
79. The combined correction for refraction and earth's curvature (in meters) in leveling observation is
 (A) $0.00785 D^2$ ~~(B)~~ $0.0785 D^2$
 (C) $0.0112 D^2$ ~~(D)~~ $0.0673 D^2$
80. The multiplying constant for the tacheometer is
 where, f = focal length of the objective
 i = interval between stadia line
 d = horizontal distance from optical centre to the vertical axis of the tacheometer
 (A) f/i (B) i/f
~~(C)~~ f/d (D) $f+d$

82. Under normal conditions, the average domestic consumption per day in litres is
 (A) 105 ~~(B) 135~~
 (C) 180 (D) 215
83. The presence of calcium and magnesium chloride in water causes
~~(A) softening~~ (B) bad taste
 (C) hardness (D) turbidity
84. The gas mainly responsible for explosion in sewers is
 (A) carbon monoxide ~~(B) carbon dioxide~~
 (C) methane (D) ammonia
85. The sewage filter used in modern sewage treatment work is
 (A) Intermittent sand filter (B) The contact beds
 (C) The trickling filters ~~(D) None of the above~~
86. The angle between two forces when the resultant is maximum and minimum respectively are
~~(A) 0° and 180°~~ (B) 180° and 0°
 (C) 90° and 180° (D) 90° and 0°
87. Two non-collinear equal parallel forces acting in opposite direction will have
 (A) No resultant force and no moment (B) A moment but no resultant force
~~(C) A resultant force but no moment~~ (D) A moment and a resultant force
88. The ratio of static friction to dynamic friction is always
 (A) equal to one (B) less than one
~~(C) greater than one~~ ~~(D) none of the above~~
89. L - section is symmetrical about
 (A) only X-axis ~~(B) only Y-axis~~
 (C) Both X and Y-axis (D) Not about X and Y-axis
90. In ideal machine, mechanical advantage is _____ velocity ratio
~~(A) equal to~~ (B) less than
~~(C) greater than~~ (D) twice

- (C) 3.8 m (D) 1.58 m
92. As per Indian Road Congress, value of ruling gradient in plains
~~(A) 1 in 10~~ (B) 1 in 15
(C) 1 in 20 (D) 1 in 30
93. For the horizontal curve design, the lateral co-efficient of friction recommended by Indian Road Congress
(A) 0.15 ~~(B) 0.25~~
(C) 0.35 (D) 0.4
94. A bitumen grade 80/100 means
~~(A) The penetration value of bitumen ranges from 80 to 100~~
(B) The fire and flash points are 80°C and 100°C
(C) The fire and flash points are 100°C and 80°C
(D) The fluidity ranges between 80°C and 100°C
95. The broad gauge is _____ wide
(A) 1.435 m ~~(B) 1.524 m~~
~~(C) 1.676 m~~ (D) 1.843 m
96. Value of Reynolds number for pipe flow to be laminar
(A) less than 2000 ~~(B) Greater than 4000~~
(C) Between 2000 and 4000 (D) Can not be decided by Reynolds number
97. Bernoulli's equation is applicable for
~~(A) Viscous and compressible fluid flow~~ (B) Inviscid and compressible fluid flow
(C) Inviscid and incompressible fluid flow (D) Viscous and incompressible fluid flow
98. The flow in a pipe or channel is said to be uniform when
~~(A) The liquid particles at all sections have same velocities~~
(B) The liquid particles at different sections have different velocities
(C) The quantity of liquid flowing per second is constant
(D) None of the above

~~(C)~~ same as breadth

~~(D)~~ one third the breadth

100.

The most economical channel section for a given cross sectional area is one for which has maximum

(A) Velocity

~~(B)~~ Discharge

(C) Depth

(D) Wetted perimeter