

**Time: 120Minutes**

**Maximum Marks: 100**

**CHANDIGARH NTSE STAGE 1 (2020-21) MENTAL ABILITY TEST -**

**Instructions to the Candidates**

**Read the following instructions carefully before you answer the questions:**

1. Answer are to be given on a SEPRATE ANSWER SHEET.
2. Please write your eleven digits Roll Number very clearly on the Test-booklet and Answer Sheet as given in your admission card.
3. Please note and follow the instructions given on the answer sheet for writing the answers.
4. Darken the CIRCLE with pen for answering the question in the appropriate space against the number corresponding to the question you are answering.
5. There are 100 question in the test.
6. Since all questions are compulsory, do not try read the whole question paper before beginning to answer it.
7. If you do not know the answer to any question, do not spend much time on it and pass on to the next one. Time permitting, you can come back to the question, which you have left in the first instance and try them again.
8. Since the time allotted for this question paper is very limited you should make the best use of it by not spending too much time on any one question.
9. Rough work can be done anywhere in the booklet but not on Answer sheet/loose paper.
10. Every correct answer will be awarded one mark.
11. Please return the answer sheet to the invigilator after the test.

**Please turn over the page and start your work.**

**Directions (1–10):** In the following questions, four items (numbers, number pairs/letter groups) are given. Three of them are alike in a certain way and one is different. Find the odd one out from the alternative.

- |                            |                         |
|----------------------------|-------------------------|
| 1. (A) DE<br>(C) TU        | (B) PQ<br>(D) WY        |
| 2. (A) CFI<br>(C) HKO      | (B) DGJ<br>(D) FIL      |
| 3. (A) 11<br>(C) 17        | (B) 15<br>(D) 19        |
| 4. (A) ZW<br>(C) SP        | (B) TQ<br>(D) NL        |
| 5. (A) 441<br>(C) 289      | (B) 343<br>(D) 625      |
| 6. (A) SWU<br>(C) STR      | (B) CGE<br>(D) OSQ      |
| 7. (A) VUWH<br>(C) EFGD    | (B) JKLI<br>(D) STUR    |
| 8. (A) Carrot<br>(C) Apple | (B) Mango<br>(D) Orange |
| 9. (A) 25<br>(C) 49        | (B) 4<br>(D) 8          |
| 10. (A) 22<br>(C) 333      | (B) 4444<br>(D) 5555    |

**Directions (11 –20):** In the following questions, there is a relationship between two figures on the left of the sign (::). The same relationship exists between the figures to the right of the sign (::) of which one is missing. Find the missing one from the alternatives.

- |  |                    |
|--|--------------------|
| 11. 213:48::33: ?<br>(A) 96<br>(C) 58        | (B) 78<br>(D) 46   |
| 12. 27 : 51 :: 82: ?<br>(A) 102<br>(C) 138   | (B) 117<br>(D) 123 |
| 13. ADH: CFJ :: LOS: ?<br>(A) NQU<br>(C) NQT | (B) MPS<br>(D) NPR |
| 14. DCB: WXY :: HGF: ?<br>(A) SRQ<br>(C) RPM | (B) STU<br>(D) RST |
| 15. 11:25::17: ?<br>(A) 33<br>(C) 37         | (B) 28<br>(D) 41   |
| 16. 9 : 16 :: 49 : ?<br>(A) 81<br>(C) 100    | (B) 64<br>(D) 121  |
| 17. A : 2 :: D : ?<br>(A) Y<br>(C) X         | (B) S<br>(D) W     |
| 18. 2 : 16 :: 5 : ?<br>(A) 125<br>(C) 425    | (B) 625<br>(D) 55  |

19. DELHI : EDMGJ :: MUMBAI: ?  
 (A) NTNABH (B) NVNCBJ  
 (C) LVLCBJ (D) NVLMCDE
20. BDI : 942 :: GFH: ?  
 (A) 786 (B) 876  
 (C) 867 (D) 678

**Directions (21–25): Read carefully the information given between then answer the questions 21 to 25.**

1. A and B teach Hindi and English.
2. C and B teach English and Geography.
3. D and A teach Mathematics and Hind.
4. E and B teach History and Punjabi.

21. Out of these teachers who teaches maximum number of subjects ?  
 (A) A (B) B  
 (C) C (D) D
22. Out of the following, which pair of teachers teach both Geography and Hindi.  
 (A) A and B (B) B and C  
 (C) C and D (D) None of these
23. Which subject is taught by more than two teachers?  
 (A) History (B) Hindi  
 (C) Punjabi (D) Math
24. which are the subjects taught by all three– D.B and A.  
 (A) Only English (B) Hindi and English  
 (C) Only Hindi (D) Hindi and Math
25. Out of the following, which teachers teaches less than two subjects.  
 (A) A (B) B  
 (C) C (D) E

**Directions (26–35): In the following questions, numbers/words are written in a certain sequence. Find the missing number/word to replace the questions mark from the given alternatives.**

26. 5, 11, 23, 47, ?, 191  
 (A) 83 (B) 98  
 (C) 97 (D) 95
27. 8, 19, 41, 85, ? 349  
 (A) 173 (B) 168  
 (C) 178 (D) 171
28. A.E, I, M, Q, U, ?  
 (A) V (B) W  
 (C) Z (D) Y
29. 2, 4, 8, 16, 32, 64, ?  
 (A) 96 (B) 112  
 (C) 128 (D) 132
30. BP, EG, HJ, KM, ?  
 (A) NQ (B) NP  
 (C) OP (D) NM
31. 2, 5, 9, ? 20, 27  
 (A) 14 (B) 16  
 (C) 18 (D) 24
32. AN, BO, CP, DQ, ?  
 (A) EJ (B) ES  
 (C) EQ (D) ER
33. 20, 19, 17, ? 10, 5  
 (A) 12 (B) 13  
 (C) 14 (D) 15

34. G, I, L, P, U, ?  
 (A) A (B) B  
 (C) Z (D) Y
35. 240, 120, 40, ?, 2  
 (A) 5 (B) 10  
 (C) 20 (D) 15
36. **Gourav** is **Sunita's** brother. **Sunita** is **Jyoti's** daughter. **Jyoti** is Prem's wife. What is the relation of **Prem** with **Gourav**?  
 (A) Father (B) Brother  
 (C) Grand Father (D) Uncle
37. Seema is **Sachin's** sister. **Sachin** and **Sourav** are brothers and **Sorav** is **Kamla's** son. What is the relation of **Kamla** with **Seema**?  
 (A) Sister (B) Daughter  
 (C) Sister in law (D) Mother
38. In a family, there is one head of the family, his wife, three sons and their wives. Every son has two sons and one daughter. How many male members are there in the family?  
 (A) 4 (B) 10  
 (C) 8 (D) 12
39. If the word READING is codes as RNIDAEG, how can the word HISTORY be coded?  
 (A) HRSTOY (B) HROTSY  
 (C) HROTISY (D) HRTOSY
40. If the word PINK is coded as RGPI, how can the word BLUE be coded?  
 (A) DJCW (B) DWJC  
 (C) DJW (D) DCJW
41. If the word MADRAS is coded as NBESBT, how can the word BOMBAY be coded?  
 (A) CPNCBX (B) CPOCBZ  
 (C) CQOCB (D) CPNCBZ
42. If the word SUCCESS is coded as VXFFHV, how can the word VICTORY be coded?  
 (A) YLFWRUB (B) YLFXRUB  
 (C) YLFWSUB (D) YLFVSUB
43. If the word COBRA is coded as 3152181, how can the word ZEBRA be coded?  
 (A) 2652811 (B) 2652181  
 (C) 265211 (D) 2651182
44. In a certain code language 851 is a code for, "Good sweet apple", 783, 783 for "Good red rose" and 341 for "Rose and apple". Find the code number for "Sweet".  
 (A) 8 (B) 1  
 (C) 5 (D) 3
45. If green colour is called yellow, yellow is called blue, is called black, black is called red. Red is called purple, then what is the colour of human blood?  
 (A) Red (B) Purple  
 (C) Blue (D) Green
46. If in a certain language FASHION is coded as FOIHSAN, how is PROBLEM coded in that language?  
 (A) ROBLEMP (B) PELBORM  
 (C) PRBOELM (D) PELBROM
47. If the code for HINDUSTAN is 110 what will be the code for AUSTRALIA?  
 (A) 100 (B) 102  
 (C) 104 (D) 116
48. If the code for CONSTABLE is 91 what will be code for STABLE?  
 (A) 97 (B) 59  
 (C) 79 (D) 75
49. If NIGHT is coded as 58 what will be code for TOMORROW?  
 (A) 111 (B) 113  
 (C) 115 (D) 137

50. If ROSE is coded as 6821, CHAIR as 73456, FRENCH as 961473 then SEARCH will be coded as:  
 (A) 246173 (B) 214678  
 (C) 214763 (D) 214673
51. If TOM is coded as 48 and DICK is 27 then HARRY means  
 (A) 67 (B) 50  
 (C) 60 (D) 70
52. If REST is 0987 and BEAST is 29187 then BREAST is  
 (A) 229187 (B) 209187  
 (C) 219187 (D) 201987
53. If SLIGHT is 426875 then GIST is  
 (A) 6845 (B) 8645  
 (C) 4568 (D) 4586
54. Rohan is taller than Aman but shorter **Siya**. Kamal is taller than **Pooja** but shorter than **Aman**. **Deepak** is taller than **Kamal** but shorter than **Siya**. Who among them is the tallest.  
 (A) **Rohan** (B) **Siya**  
 (C) **Aman** (D) **Deepak**
55. If SKY is called SEA. SEA is called WATER, WATER is called AIR, AIR is called CLOUD and CLOUD is called RIVER, then what do we drink when we are thirsty  
 (A) SKY (B) AIR  
 (C) WATER (D) SEA

The following questions consist of two words each that have a certain relationship with each other. Select the pair that has the same relationship as the original pair of words

56. Sale : Purchase  
 (A) Give : Receive (B) Shop: Market  
 (C) Cash : Credit (D) Profit : Loss
57. Graphite : Lubricant  
 (A) Movement : Friction (B) Iron : Steel  
 (C) Carbon : Non Metal (D) diamond : Abrasive
58. War : Death  
 (A) Chimney : Smoke (B) Coal : Fire  
 (C) Fire : Smoke (D) Smoke : Pollution
59. Import : Export  
 (A) Expenditure : Revenue (B) Expenditure : Debt  
 (C) Expenditure : Tax (D) Deficit : Expenditure
60. Geologist : Earth  
 (A) Architect : Building (B) Aquarium : Fish  
 (C) Archaeologist : Artifacts (D) Biology : Science
61. Green : Colour  
 (A) Night : Dark (B) Child : Play  
 (C) Walk : Health (D) snake : Reptile
62. Brass : Alloy  
 (A) Car : Road (B) Truck : Loud  
 (C) Pencil : Stationary (D) Police : Thief
63. Cream : Cosmetics  
 (A) Mountain : Valley (B) Tiger : Forest  
 (C) Magazine : Editor (D) Teak : Wood
64. Family : Members  
 (A) Nations : States (B) Country : Citizens  
 (C) Town : Village (D) Minister : M.P.
65. Sprain : Fracture  
 (A) Devotion : Blessing (B) Excitement : Frenzy  
 (C) Sleep : Dream (D) Fever : Malaria

**Directions (66–70):** In the following questions, you are given a combination of letters/numbers followed by four alternatives 1, 2, 3 and 4. Choose the alternative, which most closely resembles the mirror image of the given combination.

66. SCHOOL

(A) 

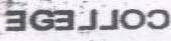
(B) 

(C) 

(D) 

67. COLLEGE

(A) 

(B) 

(C) 

(D) 

68. 98724

(A) 

(B) 

(C) 

(D) 

69. CLASS

(A) 

(B) 

(C) 

(D) 

70. AMBULANCE

(A) 

(B) 

(C) 

(D) 

**Directions (71–75):** In the following questions, you are given a combination of letters/numbers followed by four alternatives 1, 2, 3 and 4. Choose the alternative, which most closely resembles the water image of the given combination.

71. RAJ

(A) 


(B) 

(C) 

(D) 

72. VAYU36

(A) 

(B) 

(C) 

(D) 

73. FROG

(A) 

(B) 


(C) 

(D) 

74. FAMILY

(A) 

(B) 

(C) 

(D) 

75. WROTE

(A)

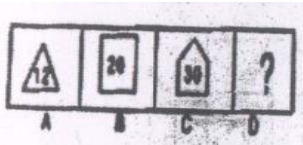
(B)

(C)

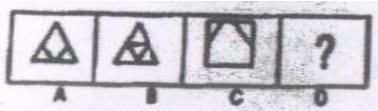
(D)

Directions (76–80) in the following questions left hands is problem figure in which there is one? On the right hand side are answer figures. Choose the correct option to replace the?

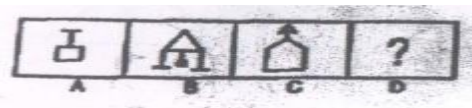
76.



77.



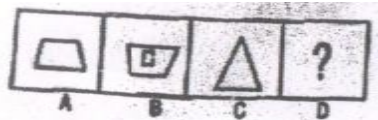
78.



79.

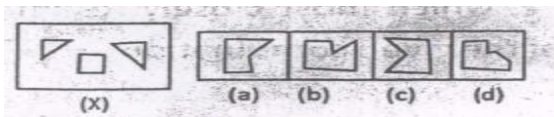


80.

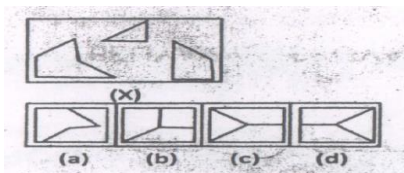


Directions (81–85) In each of the following questions out which of the figures (a), (b), (c), (d) can be formed the pieces of given figure X.

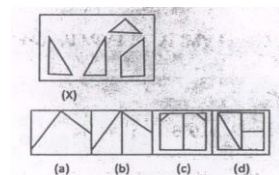
81.



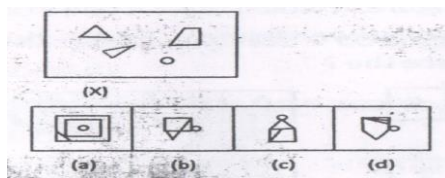
82.



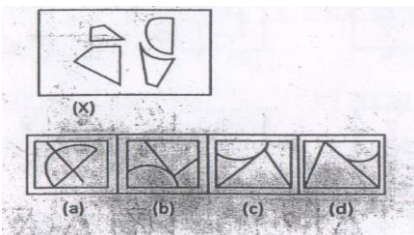
83.



84.

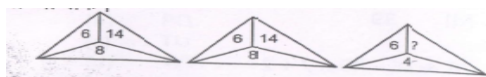


85.



Directions (86 –90) In the following questions there is a different rule according to which celles are filled and one is left empty with a?. From the given alternative find the correct option that can replace the?

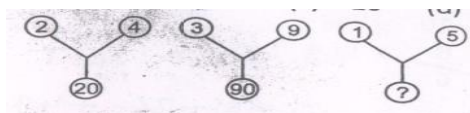
86.



- (A) 6  
(C) 10

- (B) 8  
(D) 14

87.



- (A) 75  
(C) 25

- (B) 26  
(D) 20

88.

6	11	25
8	6	16
12	5	?

- (A) 18  
(C) 12

- (B) 16  
(D) 10

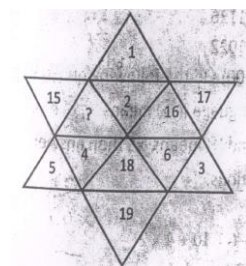
89.

3C	2B	4A
27A	?	64B
9C	4A	16B

- (A) 8C  
(C) 16C

- (B) 12B  
(D) 18C

90.



- (A) 13  
(C) 20

- (B) 14  
(D) 21



**Directions (91–95):** In the following questions, in certain code language of “+” means ‘x’, ‘–’ means ‘÷’, ‘x’ means ‘+’ and “÷” means ‘+’, then answer the following questions.

91.  $16 + 4 \div 2 - 21 \times 7 \div 21$   
 (A) 33 (B) 44  
 (C) 48 (D) 39
92.  $28 \div 36 - 49 \times 7 + 2$   
 (A) 12 (B) 10  
 (C) 8 (D) 6
93.  $8 \div 6 \ 9 \times 12 + 4$   
 (A) 5 (B) 7  
 (C) 9 (D) 13
94.  $225 \times 15 - 196 \times 14 \div 625 \times 25$   
 (A) 8 (B) 16  
 (C) 4 (D) 12
95.  $23 + 46 - 80 \times 20 \div 40$   
 (A) 1122 (B) 1048  
 (C) 1126 (D) 1022

**Directions (96 –100):** In the following questions, in a certain code language if ‘+’ means ‘–], ‘–’ means ‘x’, ‘x’ means ‘÷’, and ‘÷’, means ‘x’, then answer the following questions.

96.  $14 \times 2 - 6 + 10 + 4 \times 2$   
 (A) 30 (B) 40  
 (C) 1 (D) 16
97.  $15 \div 5 + 15 \div 10 \times 2$   
 (A) 54 (B) 205  
 (C) 0 (D) 225
98.  $11 \div 5 + 15 \div 10 \times 2$   
 (A) 54 (B) 205  
 (C) 0 (D) 225
99.  $13 + 3 - 5 - 20 + 25$   
 (A) –314 (B) 313  
 (C) 318 (D) –312
100.  $196 \times 14 \div 25 \times 5 + 225 \times 15$   
 (A) 70 (B) 55  
 (C) 85 (D) 196

## **CHANDIGARH NTSE STAGE 1 2020-21 (SAT) ANSWER KEY**

1. C	2. C	3. B	4. D	5. A
6. B	7. D	8. A	9. **	10. C
11. C	12. C	13. D	14. C	15. B
16. C	17. B	18. B	19. A	20. D
21. D	22. D	23. B	24. B	25. D
26. A	27. C	28. A	29. B	30. B
31. C	32. B	33. C	34. C	35. B
36. D	37. D	38. C	39. A	40. C
41. C	42. D	43. D	44. B	45. A
46. A	47. C	48. C	49. A	50. A
51. C	52. D	53. D	54. B	55. B
56. C	57. B	58. C	59. B	60. D
61. B	62. A	63. B	64. B	65. A
66. C	67. B	68. C	69. A	70. A
71. A	72. C	73. D	74. B	75. B
76. B	77. C, D	78. A	79. C	80. D
81. B	82. C	83. D	84. B	85. A
86. D	87. A	88. A	89. C	90. C
91. D	92. B	93. D	94. A	95. B
96. B	97. D	98. B	99. D	100. B

**\*\* Not option is correct.**