## NTSE Sample Paper For MAT-1

Directions: (1 to 3) study the figure given below. It shows that how many men and women in a certain area are educated and employed. Each part of the figure is numbered. Your task is to answer the questions that are given at the end.


1. Which number depicts educated unemployed man?
(a) 2
(b) 1
(c) 4
(d) 3
2. What does number 5 depict?
(a) Educated unemployed women
(b) Uneducated unemployed women
(c) Uneducated employed women
(d) Educated employed women
3. Uneducated employed men are depicted by number:
(a) 4
(b) 3
(c) 2
(d) 1

Directions: (4 to 8) Find the missing number in the following series.
4. $2,3,5,9,17,33, \ldots$.
(a) 65
(b) 37
(c) 63
(d) 64
5. $4,7,12, \ldots ., 28,39$
(a) 19
(b) 24
(c) 14
(d) 16
6. $0,0, ?, 3,7,15,8,26,80$
(a) 0
(b) 1
(c) 2
(d) 3
7. $-1,-1,5,23$,?
(a) 41
(b) 47
(c) 49
(d) 59
8. $4,8,12,24,36,72, \ldots .$.
(a) 108
(b) 98
(c) 92
(d) 96

Directions ( 9 to 11): correct the following equations by interchanging two signs
9. $5-9 \times 45+15 \div 3=5$
(a) + and -
(b) $\times$ and +
(c) $\times$ and $\div$
(d) $\times$ and -
10. $4 \times 2+6 \div 2-12=2$
(a) $\div$ and $\times$
(b) + and -
(c) $\times$ and +
(d) $\div$ and -
11. $5 \times 15 \div 7-20+4=77$
(a) - and +
(b) $\times$ and $\div$
(c) + and $\div$
(d) + and $\times$

Directions (12 to 14):In answering the question below, use the following information:
$X \cup Y$ means divide $X$ by $Y$
$X \uparrow Y$ means multiply $X$ by $Y$
X \# Y means subtract Y from X
$\mathrm{X} \cap \mathrm{Y}$ means add Y to X
12. The simple interest of an amount is calculated by multiplying P and T and R and dividing the value by 100 . This can be written as:
(a) $\mathrm{P} \uparrow \mathrm{T} \cap \mathrm{R} 100$
(b) $(\mathrm{P} \uparrow \mathrm{T}) \cup \mathrm{R} 100$
(c) $(\mathrm{P} \uparrow \mathrm{T} \uparrow \mathrm{R}) \cup 100$
(d) can't be determined
13. One-fifth of one-tenth of two-third of a number X is given by
(a) $X \uparrow(1 \cup 5) \uparrow(1 \cup 10) \uparrow(2 \cup 3)$
(b) $\mathrm{X}(1 \uparrow 5)(1 \uparrow 10)(2 \uparrow 3)$
(c) $X(1 \uparrow 5)(1 \uparrow 10)(2 \uparrow 3)$
(d) can't be determined
14. A receives X number of balls. He gives $10 \%$ of his ball to $\mathrm{B}, 15 \%$ of his ball to C and $12 \%$ of his ball to D . How many balls does he have with him now?
(a) $\mathrm{X} \cap \mathrm{X} \uparrow(10 \cup 100) \cap \mathrm{X} \uparrow(15 \cup 100) \# \mathrm{X} \uparrow(12 \cup 100)$
(b) $\mathrm{X} \cap \mathrm{X} \uparrow(10 \uparrow 100) \cap \mathrm{X}(15 \uparrow 100) \cap \mathrm{X} \uparrow(1 \uparrow 100)$
(c) $X \#[\mathrm{X} \uparrow(10 \cup 100) \cap \mathrm{X} \uparrow(15 \cup 100) \cap \mathrm{X} \uparrow(12 \cup 100)]$
(d) None of these

Directions (15 to 19): Find the missing number in each setup of following questions:
15.

(a) 49
(b) 50
(c) 48
(d) 55
16.


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(a) 235
(b) 141
(c) 144
(d) 188
17.

(a) 26


(b) 25
(c) 27
(d) 30
18.

(a) 9


(b) 11
(c) 10
(d) 12
19.


(2)
(a) 1
(b) 0
(c) 2
(d) 3

Directions (20 to 22): Read the following information and answer the questions based on them:
A combination of three fabrics is to be chosen out of seven fabrics - F, G, H, J, K, L and M to decorate the room according to the following conditions:
(i) If F or G is chosen the other must also be chosen
(ii) H and J cannot be chosen together
(iii) Either H or F or both must be chosen
20. Which of the following conform to the conditions?
(a) F, H J
(b) F, K, L
(c) G, H, M
(d) $\mathrm{H}, \mathrm{K}, \mathrm{M}$
21. If J is chosen, which of the following could also be chosen?
(a) F, G
(b) F, M
(c) G, H
(d) K, H
22. If K is chosen, which of the following could be chosen?
(a) F, H
(b) F, L
(c) G, H
(d) H, L

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23. In a certain code GIGANTIC is written as GIGTANCI. How is MIRACLES written in that code?
(a) MIRLCAES
(b) MIRLACSE
(c) RIMCALSE
(d) RIMLCAES
24. In certain code, BOXER is written as AQWGQ. How VISIT is written in that code?
(a) UKRKU
(b) UKRKS
(c) WKRKU
(d) WKRKS
25. If DEER is to 9554 and TOSS is to 1162 , then PARK is to:
(a) 2917
(b) 7192
(c) 1917
(d) 1291
26. If $\mathrm{XY}=600, \mathrm{ABC}=6$ then, $\mathrm{GO}+\mathrm{DO}$ will be equal to:
(a) 150
(b) 180
(c) 165
(d) 155

Directions(27 to 28) According to a code: 'pon con non bon' means ' some persons are cheats'; 'fon pon gon hon' means 'cheats can be dangerous'; 'lon kon fon con'means'Dangerous persons might kill', 'bon gon hon kon' means 'some probably can kill' .
27. What is the code for 'persons'?
(a) con
(b) mon
(c) bon
(d) lon
28. The codes for 'some dangerous cheats' would be :
(a) kon bon hon
(b) hon yon fon
(c) fon bon pon
(d) bon hon pon

Directions (29 to 32): In the following questions, two columns I and II have been given. If column I few words are given and in column II their codes have been given using a particular rule. The order of the smaller letter have been placed in jumbled up from. You have to decode the language and choose the alternative which is equal to letter asked in the question.
Column I Column II

1. DESIGN
(a) uklbjz
2. INFORM
(b) cbxkqy
3. MOTHER
(c) ygzwxc
4. RIGHTS
(d) bjucgw
5. TAILOR
(e) wcpybv
6. GARDEN
(f) vzcjlk
7. What is the code for letter N ?
(a) u
(b) k
(c) c
(d) g
8. What is the code for letter F?
(a) I
(b) b
(c) q
(d) g
9. What is the code for letter O ?
(a) y
(b) k
(c) v
(d) c
10. What is the code for letter S ?
(a) z
(b) w
(c) u
(d) x

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Directions ( $\mathbf{3 3}$ to 36): Read the following information carefully \& answer the questions. Among A, B, C, D and $\mathrm{E}, \mathrm{E}$ is taller than D but not as fat as D . C is taller than A but shorter than B . A is fatter than D but not as fat as B . E is thinner than C who is thinner than D . E is shorter than A .
33. Who is the most thin person ?
(a) B
(b) C
(c) D
(d) E
34. Who is the giant among the lot?
(a) A
(b) B
(c) C
(d) D
35. If all the persons stood in a line according to their height, who would be in the middle?
(a) A
(b) B
(c) C
(d) D
36. Which person is taller than two but thinner than the remaining two?
(a) A
(b) B
(c) C
(d) D

Directions(37 to 41):In the following question the symbols $\$, @, \subset, \supset$ and $\neq$ are used with the following meaning.
A \$ B means A is greater than B
$A @ B$ means $A$ is either greater than or equal to $B$
$A \subset B$ means is $A$ is equal to $B$
$A \supset B$ means $A$ is smaller than $B$
$A \neq B$ means $A$ is either smaller than or equal to $B$
Now in each of the following questions assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true? Give answer (A) if only conclusion I is true, (B) if only conclusion II is true (C) if neither I nor II is true (D) if both I and II are true.
37. Statements : P@ $\mathrm{Q}, \mathrm{M} \neq \mathrm{N}, \mathrm{N} \subset \mathrm{Q}$

Conclusions: I. P \$ M
II. $N \neq P$
38. Statements : D $\subset \mathrm{X}, \mathrm{F}$ @ Y, D \$ F

Conclusions: I. X @ Y
II. $Y \neq D$
39. Statements: M $\subset \mathrm{P}, \mathrm{S} \$ \mathrm{~T}, \mathrm{M} @ \mathrm{~T}$

Conclusions: I.T $\neq \mathrm{P}$
II. $\mathrm{S} \supset \mathrm{T}$
40. Statements: $\mathrm{U} \supset \mathrm{V}, \mathrm{X} \$ \mathrm{~W}, \mathrm{U} \supset \mathrm{W}$

Conclusions: I.W \$ V
II. $U \subset X$
41. Statements: $\mathrm{G} \$ \mathrm{H}, \mathrm{J} \neq \mathrm{K}, \mathrm{H} \subset \mathrm{K}$

Conclusions: I.G \$ K
II. J $\subset K$

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42. Rakesh is standing at a point. He walks 20 m towards the East and further 10 m towards the South, then the walks 35 meter towards the West and further 5 meter towards the North, then he walks 15 m towards the East. What is the straight distance in meters between his starting point and the point where he reached last?
(a) 0
(b) 5
(c) 10
(d) can't be determined
43. If east is replaced by South-East then West will be replaced by which of the following direction?
(a) North-East
(b) North
(c) East
(d) None of these

Directions (44 to 48): Read the following information carefully and answer the question given below:
(i) Six flats on a floor in two rows facing north and south are allotted to $\mathrm{P}, \mathrm{Q}, \mathrm{R}, \mathrm{S}, \mathrm{T}$ and U .
(ii) Q gets a north facing flat and is not next to S
(iii) S and U get diagonally opposite flats
(iv) R next to U , gets a south facing flat and T gets a north facing flat
44. Whose flat is between Q and S ?
(a) T
(b) U
(c) R
(d) P
45. The flats of which of the pairs other than SU , is diagonally opposite to each other?
(a) PT
(b) QP
(c) QR
(d) TS
46. If the flats of T and P are interchanged, whose flat will be next to that of U ?
(a) Q
(b) T
(c) P
(d) R
47. Which of the combinations get south facing flats?
(a) URP
(b) UPT
(c) QTS
(d) Data inadequate
48. To arrive at the answers to the above question, which of the following statements can be dispensed with?
(a) None
(b) Only (i)
(c) only (ii)
(d) (iii) only

Directions (49 to 51): In each of the following questions, arrange the words in a meaningful logical order and then select appropriate sequence from the alternatives provided below each question.
49.

1. Andhra Pradesh
2. Universe
3. Tirupati
4. World
5. India
(a) $1,5,3,2,4$
(b) 2, 1, 3, 5, 4
(c) $3,1,5,4,2$
(d) $5,4,2,1,3$
6. 7. Puberty
1. Adulthood
2. Senescence
(a) $5,2,3,4,1$
(b) $4,3,2,1,5$
(c) $4,3,1,2,5$
(d) $2,4,3,1,5$
3. 
4. Table
5. Tree
6. Wood
7. Seed
8. Plant
(a) $4,5,3,2,1$
(b) $4,5,2,3,1$
(c) $1,3,2,4,5$
(d) $1,2,3,4,5$

Directions (52 to 54):

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Each problem consists of a question and three statements I, II and III given below it. Read all the statements carefully and seek all possible combinations which could be sufficient for answering a question. A single statement or statements with least combinations which could be sufficient for answering the question would be your answer.
52. In which year was Tarun born?
I. Tarun is six years older than Robin.
II. Robin's brother was born in 1982.
III. Tarun's brother is two years younger than Robin's brother who was eight years younger than Robin.
(a) I and II only
(b) I and III only
(c) All I, II and III
(d) II and III only
53. Who among P, Q, R, S and T is in the middle while standing in a line?
I. Q is to the right of T
II. S is between P and T
III. Q is between T and R
(a) I and II only
(b) II and III only
(c) I and III only
(d) All I, II \& III
54. What does 'come' represent in a code language?
I. 'pit na tac' means 'come and go'
II. 'Ja ta da' means 'you are good'
III. 'na da rac' means 'you can come'
(a) II and III only
(b) I and III only
(c) I and II only
(d) All I, II and III only

## Directions (55 to 59):

A solid cube of each side 8 cm has been painted red, blue and black on pairs of opposite faces. It is then cut into cubical blocks of each side 2 cm .
55. How many cubes have no face painted?
(a) 0
(b) 4
(c) 8
(d) 12
56. How many cubes have three face painted?
(a) 0
(b) 4
(c) 6
(d) 8
57. How many cubes have three faces painted with different colours?
(a) 0
(b) 4
(c) 8
(d) 12
58. How many cubes have only one face painted red and all other faces unpainted?
(a) 4
(b) 8
(c) 12
(d) 16
59. How many cubes are there in all?
(a) 64
(b) 56
(c) 40
(d) 32

## Directions (60 to 62):

The figure ( X ) given on the left hand side in each problem, is folded to form a cube. Choose from amongst the alternatives (A), (B), (C) and (D), the cubes that are similar to the cube formed.
60.

(X)
(a)

(b)

(c)

(d)

61.

(X)
(A)

(B)

(C)

(D)


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(a) D only
(b) B \& D only
(c) A and C only
(d) C only
62.

(A)

(B)

(C)

(D)

(a) A and B only
(b) D only
(c) C and D only
(d) B and D only

Directions (63 to 67): In each of the following questions, choose the correct mirror image from alternatives $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}$, of the figure ( X ).

## Figure

Mirror Image
63.

64.


65.

66.

67.


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Directions (68 to 72): In each of the following questions, a part of the figure is missing. Find out from the given options ( $\mathrm{A}, \mathrm{B}, \mathrm{C}$ and D ) the right figure to fit in the missing place.
68.

69.

(a) (b) (c) (d)
70.

(X)

71.

72.


Directions ( 73 to 75): In each of the questions, there are two sets of figures. The figures on left and side are problem figures marked by numbers $1,2,3,4$ and 5 and on the right hand side are answer figures marked by five alphabets A, B, C and D. A series is established if one of the five answer figures is placed in place of the sigh ? in problem figures. The figures from answer figures which should replace the sign? in problem figure is the answer.
73. Problem Figures


## Answer Figures



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74. Problem Figures


## Answer Figures


75. Problem Figures


## Answer Figures


(a) (b) (c) (d)

Directions (76): In the following questions, a series begins with unnumbered figure on the extreme left. One and only one of the four numbered figures does not fit into the series. The two unnumbered figures, one each on the extreme left and extreme right fit into the series, you have to take as many aspects into account as possible of the figures in the series and find out the one and only one of the four numbered figures which does not fit into the series. The number of that figure is your answer.
76.


Directions ( $\mathbf{7 7}$ to 81): Out of the four given figures, three are similar in a certain way one figure is not like the other three. That means three figures from a group based on some common characteristics. Find

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out the figure which does not belong to the group i.e. which does not share the common features / characteristics with other three figures.

(a)

(b)

(c)

(d)
78.

79.

80.

81.

82. I have a few sweets to be distributed. If I keep 2,3 or 4 in a pack, I am left with one sweet. If I keep 5 in a pack, I am left with none. What is the minimum number of sweets I can have to pack and distribute?
(a) 25
(b) 37
(c) 54
(d) 65
83. A. B, C, D and E play a game of cards. A says to B. " If you give me three cards, you will have as many as E has and if I give you three cards, you will have as many as D has". A and B together have 10 cards more than what D and E together have. If B has two cards more than what C has and the total number of cards be 133, how many cards does B have ?
(a) 22
(b) 23
(c) 25
(d) 35
84. Pointing to a man in the photograph a woman says, 'He is the son of my brother's grandfather's son". How is the man related to the woman?
(a) Brother
(b) Uncle
(c) Father
(d) Brother in law

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85. 'S - T' means 'S is the mother of T '. ' $\mathrm{S} \div \mathrm{T}$ ' means ' S is the father of T ', ' $\mathrm{S} \times \mathrm{T}$ ' means ' S is the brother of $T$ '. Which of the following represents ' M is the son of Q '?
(a) $\mathrm{M} \times \mathrm{Q} \div \mathrm{R}$
(b) $\mathrm{M} \div \mathrm{Q} \times \mathrm{R}$
(c) $\mathrm{Q} \div \mathrm{M} \times \mathrm{R}$
(d) $\mathrm{Q} \times \mathrm{M} \times \mathrm{R}$
86. If ' $20-10$ ' means 200, ' $8 \div 4$ ' means 12 , ' $6 \times 2$ ' means 4 and ' $12+3$ ' means 4 ', then $100-10 \times$ $1000 \div 1000+100 \times 10=$ ?
(a) 1090
(b) 0
(c) 1900
(d) 20
87. Two equations have been solved on some basis. Find the solution of the unsolved equation on the same basis.
$6 \times 8 \times 5=568 ; 2 \times 4 \times 3=324 ; 9 \times 7 \times 2=$ ?
(a) 972
(b) 297
(c) 279
(d) 927

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Directions (88 to 91): In each of the following letter series, Some of the letters are missing, which are given in that order as one of the alternatives below it. Choose the correct alternative.
88. $\qquad$
(a) aacb
(b) acbc
(c) babb
(d) bcbb
89. $\qquad$ ca $\qquad$
$\qquad$ bcc $\qquad$ bca
(a) bbaa
(b) bbab
(c) aabb
(d) baba
90. $\qquad$
ab __ b bc c ab __b
(a) ccaac
(b) cbabc
(c) cacac
(d) bccab
91.
c cb cab $\qquad$ baca $\qquad$ cba__ab
(a) bacbc
(b) cabcb
(c) bcaba
(d) abccb
92. How many 9's are there in the following number series which are immediately preceded by 3 and followed by 6 ?
39693939396363956956939639
(a) Nil
(b) 3
(c) 2
(d) 4
93. In the following number series, how many 8 's are there which are immediately preceded by a number which does not divide it but followed by a number which divides it?
28283858853282384715838286
(a) 1
(b) 2
(c) 3
(d) 4
94. If it is possible to form a word with the first, fourth, seventh and eleventh letters of the word 'SUPERFLUOUS', Write the first letter of that word. Otherwise, X is the answer.
(a) S
(b) L
(c) X
(d) E
95. In a class of students, Ravi occupies fifth position from the top and $25^{\text {th }}$ from the bottom in a test. How many students are there in the class ?
(a) 30
(b) 28
(c) 29
(d) 25

Directions (96 to 100): Each question below contains three groups of things. You are to choose from the following five numbered diagrams, the diagram that depicts the correct relationship among the three groups of things in each question.

(a)

(b)

(c)

(d)
96. Vegetable, Fruit, Brinjal
97. Door, Window, House

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98. Honest, Intelligent, Poor
99. Car, Train, automobile
100. Zinc, Copper, Iron

## Answer Key

## Mock Test - $\mathbf{1}$ (GMAT)

| $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | $\mathbf{8}$ | $\mathbf{9}$ | $\mathbf{1 0}$ | $\mathbf{1 1}$ | $\mathbf{1 2}$ | $\mathbf{1 3}$ | $\mathbf{1 4}$ | $\mathbf{1 5}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{c}$ | $\mathbf{a}$ | $\mathbf{c}$ | $\mathbf{a}$ | $\mathbf{a}$ | $\mathbf{a}$ | $\mathbf{d}$ | $\mathbf{a}$ | $\mathbf{d}$ | $\mathbf{a}$ | $\mathbf{c}$ | $\mathbf{c}$ | a | $\mathbf{c}$ | $\mathbf{b}$ |
| $\mathbf{1 6}$ | $\mathbf{1 7}$ | $\mathbf{1 8}$ | $\mathbf{1 9}$ | $\mathbf{2 0}$ | $\mathbf{2 1}$ | $\mathbf{2 2}$ | $\mathbf{2 3}$ | $\mathbf{2 4}$ | $\mathbf{2 5}$ | $\mathbf{2 6}$ | $\mathbf{2 7}$ | $\mathbf{2 8}$ | $\mathbf{2 9}$ | $\mathbf{3 0}$ |
| $\mathbf{d}$ | $\mathbf{a}$ | $\mathbf{a}$ | $\mathbf{a}$ | $\mathbf{d}$ | $\mathbf{a}$ | $\mathbf{d}$ | $\mathbf{b}$ | $\mathbf{b}$ | $\mathbf{a}$ | $\mathbf{c}$ | a | $\mathbf{c}$ | $\mathbf{b}$ | $\mathbf{c}$ |
| $\mathbf{3 1}$ | $\mathbf{3 2}$ | $\mathbf{3 3}$ | $\mathbf{3 4}$ | $\mathbf{3 5}$ | $\mathbf{3 6}$ | $\mathbf{3 7}$ | $\mathbf{3 8}$ | $\mathbf{3 9}$ | $\mathbf{4 0}$ | $\mathbf{4 1}$ | $\mathbf{4 2}$ | $\mathbf{4 3}$ | $\mathbf{4 4}$ | $\mathbf{4 5}$ |
| $\mathbf{a}$ | $\mathbf{c}$ | $\mathbf{d}$ | $\mathbf{b}$ | $\mathbf{a}$ | $\mathbf{c}$ | $\mathbf{b}$ | $\mathbf{c}$ | $\mathbf{a}$ | $\mathbf{c}$ | $\mathbf{a}$ | $\mathbf{b}$ | $\mathbf{d}$ | $\mathbf{a}$ | $\mathbf{b}$ |
| $\mathbf{4 6}$ | $\mathbf{4 7}$ | $\mathbf{4 8}$ | $\mathbf{4 9}$ | $\mathbf{5 0}$ | $\mathbf{5 1}$ | $\mathbf{5 2}$ | $\mathbf{5 3}$ | $\mathbf{5 4}$ | $\mathbf{5 5}$ | $\mathbf{5 6}$ | $\mathbf{5 7}$ | $\mathbf{5 8}$ | $\mathbf{5 9}$ | $\mathbf{6 0}$ |
| $\mathbf{d}$ | $\mathbf{a}$ | $\mathbf{a}$ | $\mathbf{c}$ | $\mathbf{c}$ | $\mathbf{b}$ | $\mathbf{c}$ | $\mathbf{b}$ | $\mathbf{b}$ | $\mathbf{c}$ | $\mathbf{d}$ | $\mathbf{c}$ | $\mathbf{b}$ | $\mathbf{a}$ | $\mathbf{d}$ |
| $\mathbf{6 1}$ | $\mathbf{6 2}$ | $\mathbf{6 3}$ | $\mathbf{6 4}$ | $\mathbf{6 5}$ | $\mathbf{6 6}$ | $\mathbf{6 7}$ | $\mathbf{6 8}$ | $\mathbf{6 9}$ | $\mathbf{7 0}$ | $\mathbf{7 1}$ | $\mathbf{7 2}$ | $\mathbf{7 3}$ | $\mathbf{7 4}$ | $\mathbf{7 5}$ |
| $\mathbf{a}$ | $\mathbf{b}$ | $\mathbf{a}$ | $\mathbf{a}$ | $\mathbf{a}$ | $\mathbf{d}$ | $\mathbf{a}$ | $\mathbf{a}$ | $\mathbf{a}$ | $\mathbf{c}$ | $\mathbf{a}$ | $\mathbf{b}$ | $\mathbf{b}$ | $\mathbf{a}$ | $\mathbf{b}$ |
| $\mathbf{7 6}$ | $\mathbf{7 7}$ | $\mathbf{7 8}$ | $\mathbf{7 9}$ | $\mathbf{8 0}$ | $\mathbf{8 1}$ | $\mathbf{8 2}$ | $\mathbf{8 3}$ | $\mathbf{8 4}$ | $\mathbf{8 5}$ | $\mathbf{8 6}$ | $\mathbf{8 7}$ | $\mathbf{8 8}$ | $\mathbf{8 9}$ | $\mathbf{9 0}$ |
| $\mathbf{c}$ | $\mathbf{c}$ | $\mathbf{c}$ | $\mathbf{b}$ | $\mathbf{a}$ | $\mathbf{d}$ | $\mathbf{a}$ | $\mathbf{c}$ | $\mathbf{a}$ | $\mathbf{c}$ | $\mathbf{b}$ | $\mathbf{b}$ | $\mathbf{a}$ | $\mathbf{a}$ | $\mathbf{c}$ |
| $\mathbf{9 1}$ | $\mathbf{9 2}$ | $\mathbf{9 3}$ | $\mathbf{9 4}$ | $\mathbf{9 5}$ | $\mathbf{9 6}$ | $\mathbf{9 7}$ | $\mathbf{9 8}$ | $\mathbf{9 9}$ | $\mathbf{1 0 0}$ |  |  |  |  |  |
| $\mathbf{a}$ | $\mathbf{b}$ | $\mathbf{c}$ | $\mathbf{b}$ | $\mathbf{c}$ | $\mathbf{c}$ | $\mathbf{d}$ | $\mathbf{a}$ | $\mathbf{c}$ | $\mathbf{b}$ |  |  |  |  |  |

