NATIONAL TALENT SEARCH EXAMINATION 2019

1011

GOVERNMENT OF PUDUCHERRY
DIRECTORATE OF SCHOOL EDUCATION

QUESTION BOOKLET

NOVEMBER 2019

PART – I
MENTAL ABILITY TEST

Centre Code No. | | | | **Register No.** | | | | |

INSTRUCTIONS

1. Answer all the questions. All questions carry one mark each
2. Since all questions are compulsory, do not try to read through the whole question paper before beginning to answer.
3. Begin with the first question and keep on trying one question after another till you finish all the question.
4. If you do not know the answer to any question, do not spend much time on it but pass on to the next one. Time permitting, you can come back to the questions which you have left in the first instance and try them again.
5. Since the time allotted to this question paper is very limited, you should make the best use of it by not spending too much time on any one question.
6. Separate sheets have been provided for rough work in the Question Booklet itself.
7. The answers should be marked on a separate answer sheet provided in the Examination Hall.
8. The answer sheet has two parts corresponding to Part – I and Part –II of the Test.
9. Answer to each question is to be indicated by shading the number of the correct choice in the answer sheet with black ballpoint pen from amongst the ones given for the corresponding question in the test booklet.

PART I
MENTAL ABILITY TEST – NOVEMBER 2019

1011

Duration: 2 hours **Max Marks:100**

(Question nos: 01-02)
Direction: In each of the following questions, a number /alphabets series is given with one term missing. Choose the correct alternatives that will continue the same pattern and replace the question mark.

1.7, 13, 25, 45, 75, ?

1) 117 2) 153 3) 209 4)123

2. QLR, JPD, RNU, GNC, SPX, DLB, __

1) AJA 2) BTU 3) KJE 4) TRA

(Question nos: 03-04)
Direction: The first pair of numbers /words bear a certain relationship. The same relationship is required to be found in the other pair in which one number /word is missing .find that number

3. 583 : 293 : : 488 : ?

1) 291 2) 378 3) 487 4) 581

4. Peacock : India :: Bear : ?

1) Australia 2) America 3) Russia 4) England

(Question no: 05-06)
Direction: In each of the following questions some letters are missing. The missing letters are in a sequence as one of the alternatives among the four given under each question. Find out the correct alternatives.

5. cccbb_aa_cc_bbbaa_c

1) aaba 2) baca 3) baba 4) acba

6. ba_ba_bac_acb_cbac

1) aacb 2) bbca 3) ccba 4) cbac

(Question nos: 07-11)
Direction: In each of the following question the actual alphabets letters are replaced by certain other alphabets /numbers according to some rule to form its code. identify the rule and find out the correct code**.**

7. ' **Hyderabad** ' is coded as '**Ixedszcze**' then '**Chennai**' is coded as.....

1) dgfmozj 2) fbacdek 3) lmnokpj 4) tvmnsop

8. If in a certain code, **TEACHER** is written as **VGCEJGT**, how would **DULLARD** be written in the same code?

1) FWMNCTF 2) FWNNBTE 3) FWNNCSF 4) FWNNCTF

9. In a certain code **FLOWER** is coded as **36** and **SUNFLOWE**R is coded as **81**, then how to code **FOLLOWS?**

1) 42 2) 49 3) 63 4) 36

10. If **P** denotes **+**, **Q** denotes *****, **R** denotes **/** and **S** denotes **-**, then **18 Q 12 P 4 R 5 S 6** = ?

1) 36 2) 53 3) 59 4) 65

11. In a certain code language, '**+**' means '*****', '*****' means '**-**', '**-**' means '**/**' and '**/**' means '**+**' then **16 * 4 / 4 + 14 – 2 = ?**

1) 56 2) 28 3) 40 4) 112

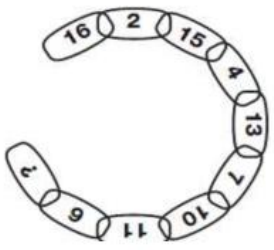
(Question nos: 12-15)
Direction: In each of the following questions a matrix of certain characters is given. These characters follow a certain trend row-wise or column-wise. Find out the missing characters/value.

12. Which number replaces the question mark?

2	7	17
3	11	19
5	13	?

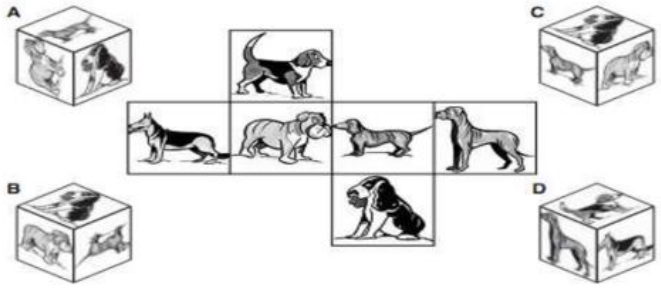
1) 24 2) 23 3) -23 4)15

13. Which number replaces the question mark?



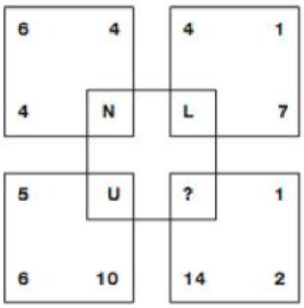
1) 12 2) 10 3) 9 4) 16

14. Which picture does this shape make?



1) B 2) A 3) D 4) C

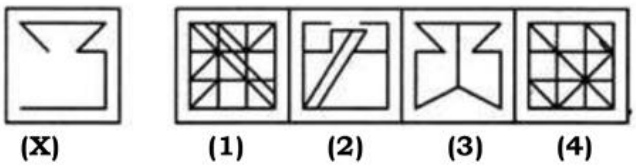
15. Which letter replaces the question mark?



1) P 2) Q 3) R 4) S

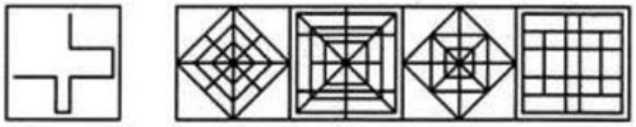
(Question nos: 16-19)
Direction: In each of the following questions, you are given a figure (X) followed by four alternative figures (1), (2), (3) and (4) such that figure (X) is embedded in one of them. Trace out the alternative figure which contains fig. (X) as its part.

16.



1) 1 2) 2 3) 3 4) 4

17.



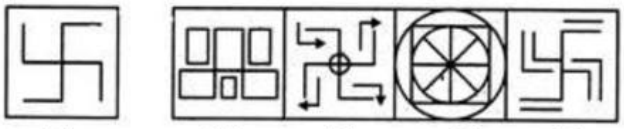
1) 1 2) 2 3) 3 4) 4

18.



1) 1 2) 2 3) 3 4) 4

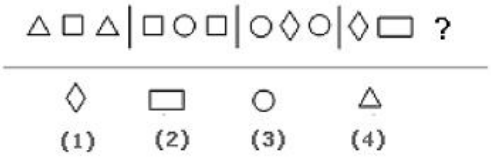
19.



1) 1 2) 2 3) 3 4) 4

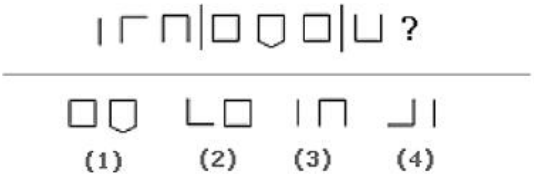
(Question nos: 20-22)
Direction: Find which one of the four/ Third figures on the right should come next.

20.



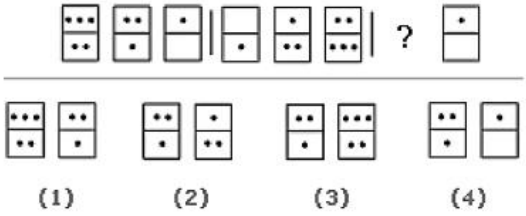
1) 1 2) 2 3) 3 4) 4

21.



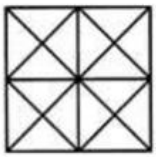
1) 1 2) 2 3) 3 4) 4

22.



1) 1 2) 2 3) 3 4) 4

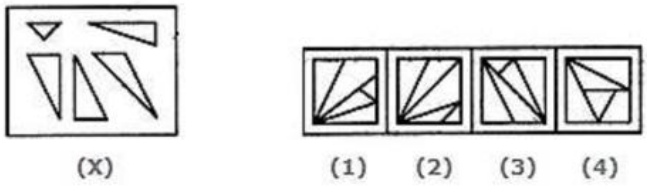
23. Count the number of triangles and squares in the given figure.



1) 44 triangles, 10 squares
2) 14 triangles, 16 squares
3) 27 triangles, 6 squares
4) 36 triangles, 9 squares

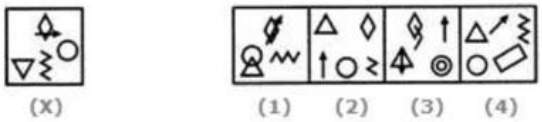
(Question nos: 24-25)
Direction: Find out which of the figures (1), (2), (3) and (4) can be formed from the pieces given in figure (X).

24.



1) 1 2) 2 3) 3 4) 4

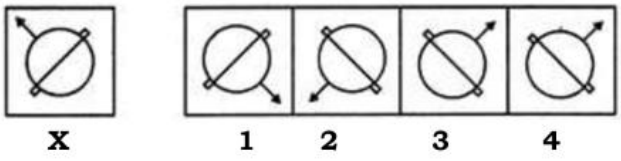
25.



1) 1 2) 2 3) 3 4) 4

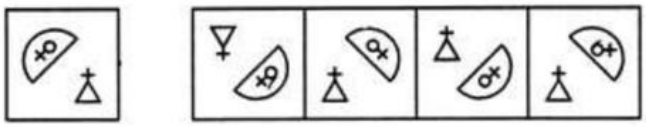
(Question nos: 26-27)
Direction: In each of the following questions, choose the correct mirror images of the given image of the Fig.(X) from amongst the four alternatives (1), (2), (3) and (4) given along with it.

26.



1) 1 2) 2 3) 3 4) 4

27.



1) 1 2) 2 3) 3 4) 4

(Question nos: 28-29)

Direction: In each of the following questions, you are given a combination of alphabets and/or numbers followed by four alternatives (1), (2), (3) and (4). Choose the alternative which is closely resembles the water-image of the given combination.

28. ACOUSTIC

(1) ∀COUSTIC (2) ∀COUSTIC

(3) ∀COUSTIC (4) ∀COUSTIC

1) 1 2) 2 3) 3 4) 4

29. E8t4e9C

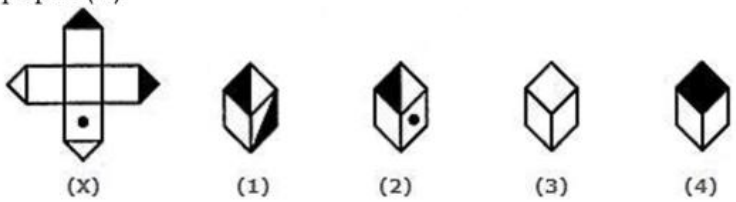
(1) ∃8t4e9C (2) E8t4e9C

(3) ∃8t4e9C (4) E8t4e9C

1) 1 2) 2 3) 3 4) 4

(Question nos: 30-31)

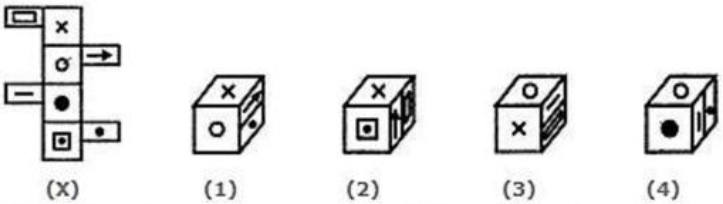
30. Choose the box that is similar to the box formed from the given sheet of paper (X).



1) 1 and 2 only 2) 2 and 4 only

3) 2 and 3 only 4) 1 and 4 only

31.



1)1and 2only 2)1and 3 only

3) 3 and 4 only 4) 1,2,3 and 4 only

32. ACEGI, JLNPR, SUWYA, KMOQS
1) LBGHI 2) LIFH 3) YWXAC 4) BDFHJ

33. Reading is Related to Knowledge in the Same Way Work is Related to --------
1) Money 2) Employment 3) Experience 4) Engagement

34. Select the Missing Alphabet Number
NAJ31 , BEF28, RAM31,-------- YAM31
1) RPA31 2) BRA30 3) RPA30 4) PAR31

35. If **A** stands for '**+**', B stands for '**-**', **C** stands for 'X', then, what is the Value of **(10C4) (1) (4C4) (B6)**?
1) 30 2) 60 3) 50 4) 56

(Question nos: 36-37)
Direction: Each of these questions given below contains three elements. These elements may or may not have some inter linkage. Each group of elements may fit into one of these diagrams at (1), (2), (3), (4), you have to indicate the group of elements which correctly fits into the diagrams.

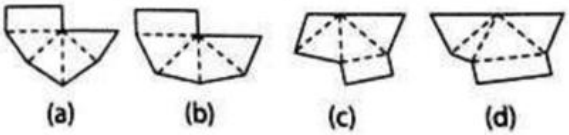
36. Which of the following diagrams indicates the best relation between Women, Mothers and Engineers?

1)  2)  3)  4) 

37. Which of the following diagrams indicates the best relation between Author, Lawyer and Singer?

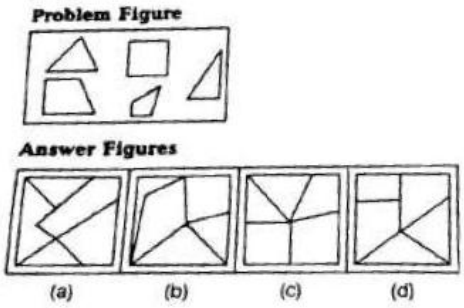
1)  2)  3)  4) 

38. Which of the following figures shown below, when folded along the dotted lines, will form a pyramid-shaped box with a rectangular base?



1) a 2) b 3) c 4) d

39. Among the four answer figures, which one can be formed from the cut-out pieces given below in the question figure?

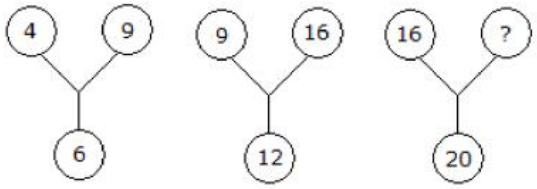


1) a 2) b 3) c 4) d

(Question nos: 40-42)

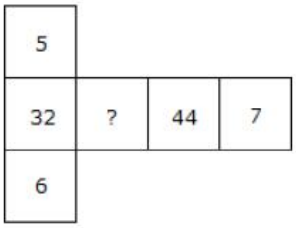
Directions: In each of the following questions, select the alternative in which the specified components of the problem figure are found?

40. Which one will replace the question mark?



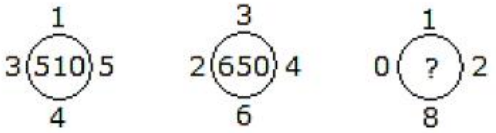
1) 60 2)50 3)25 4)21

41. Which one will replace the question mark?



1) 33 2)38 3)32 4)37

42. Which one will replace the question mark?



1) 660 2)670 3)610 4)690

(Question nos: 43-44)
Direction: In each of the following questions, some groups of letters are given, all of which, except one, share a common similarity while one is different. Choose the odd one out.

43. Choose the odd one out.

1) YDWB 2) TKRI 3) QNOM 4) HLFJ

44. Choose the odd one out.

1) OUSF 2) PIGS 3) TEPJ 4) XLPA

(Question no: 45-50)
Directions: Answer the following questions

45. A father tells his son, "I was of your present age when you were born". If the father is 36 now, how old was the boy five years back?

1)13 2)15 3)17 4)20

46. 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?

1)22 2)23 3)25 4)35

47. What is the smallest number of ducks that could swim in this formation -two ducks in front of a duck, two ducks behind a duck and a duck between two ducks?

1) 3 2) 5 3) 7 4) 9

48. A shepherd had 17 sheep. All but nine died. How many was he left with?

1)7 2) 8 3) 9 4)17

49. Aruna cut a cake into two halves and cuts one half into smaller pieces of equal size. Each of the small pieces is twenty grams in weight. If she has seven pieces of the cake in all with her, how heavy was the original cake ?

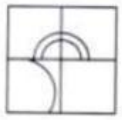
1)120 gms 2)140 gms 3) 240 gms 4) 280 gms

50. A tailor had a number of shirt pieces to cut from a roll of fabric. He cut each roll of equal length into 10 pieces. He cut at the rate of 45 cuts a minute. How many rolls would be cut in 24 minutes?

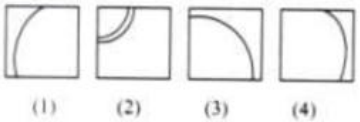
1)32 Rolls 2) 54 Rolls 3) 108 Rolls 4) 120 Rolls

(Question nos: 51-55)
Directions: In each of the following questions, the problem figures is a pattern with a portion missing. Identify that portion from among the four answer figures.

51.



Answer Figures

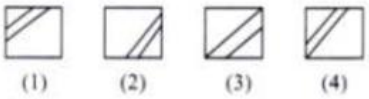


1) 1 2) 2 3) 3 4) 4

52.

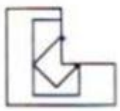


Answer Figures

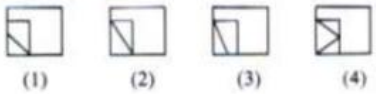


1) 1 2) 2 3) 3 4) 4

53.

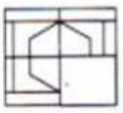


Answer Figures

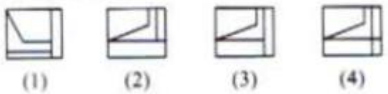


1) 1 2) 2 3) 3 4) 4

54.

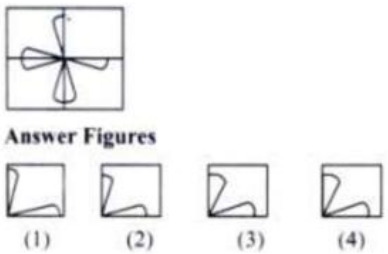


Answer Figures



1) 1 2) 2 3) 3 4) 4

55.



1) 1 2) 2 3) 3 4) 4

(Question nos: 56-57)

Directions: In each of the following the words on the left of:: symbol is related in some way. Similarly find the word that will make the same relation in place of ?

56. Music: Rhythm:: Design : ?

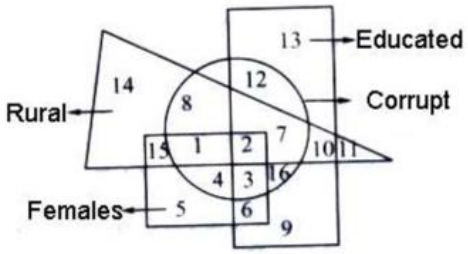
1) Symmetry 2) Technical 3) Architect 4) Building

57. Protein: Milk:: Nicotine : ?

1) Nectar 2) Tobacco 3) Coffee 4) Wine

(Question nos: 58-62)

Directions: The following diagram consisting of four overlapping figures represents four segments of leaders; the triangle represents rural, square females, the rectangle educated and the circle corrupt. study the diagram carefully and answer the questions.



58. Rural female leaders who are corrupt but not educated represented by

1) 1 and 4 2) 3 and 4 3) 4 4) 1

59. Non-female rural leaders who are neither educate nor corrupt are represented by

1) 10, 11, 14 2) 10, 11, 12 3) 11, 14 4) 10, 11

60. Non-female corrupt educated leaders are represented by

1) 7 2) 7, 8 3) 12, 16 4) 7, 8, 16

61. Neither corrupt nor educated non-female leader are represented by

1) 13, 9 2) 14, 11 3) 12, 13 4) 2, 3

62. Neither educated nor corrupt rural non-female leaders are represented by

1) 14 2) 14, 11 3) 11 4) 14, 10

(Question nos: 63-67)
Direction:

63. If MADAM is coded as SOLOS, how is CIVIC coded as
1) KAYAK 2) POLITE 3) REFINED 4) URBANE

64. If BODY is coded as DQFA, what is the code for MIGHT?
1) OKHTV 2) NJHIU 3) OKIJV 4) NJITU

65. In a certain code VIM is coded as ADR, what will be the code for LAUNCH
1) QVZIHC 2) GFPSXM 3) QFZSHM 4) GVPIXC

66. If GUN is coded as KYR, what is the code for DOCTOR?
1) HSGWSY 2) HSGXSY 3) HSGXSV 4) GRFWRU

67. If GOLD is written as LSOF, then PACK is written as
1) UFEM 2) TDGM 3) TEGM 4) VEFM

68. Ramesh is 16 years of age. In four years' time he will be twice as old as Naresh was a year ago. How old is Naresh?
1) 10 2) 8 3) 9 4) 11

69. I go 20 m to the south of my house then turn to east, I go 10 m then I turn to the north to go 30 m. How much distance away am I from my house?
1) $5\sqrt{2}$ m 2) $10\sqrt{2}$ m 3) $15\sqrt{2}$ m 4) $20\sqrt{2}$ m

70. Five girls are sitting in a row. Pratima is on the right of Mona. Nidhi is on left of Mona., but is right of Natasha. Pratima is on the left of Anu. The girl on the extreme left is
1) Anu 2) Natasha 3) Pratima 4) Nidhi

71. In a queue Sohan is 9^{th} from the back. Ramesh place is 8^{th} from the front. Radha is standing in between the two. What could be the minimum number of boys standing in the queue?
1) 8 2) 10 3) 12 4) 14

72. Roma is Jatin's sister. Mona is Jatin's mother. Dev is Mona's father. Lalita is Dev's mother. How is Roma related to Lalita?
1) Daughter 2) Granddaughter 3) Grandmother 4)Great granddaughter

73. I walked 10 metres towards the east of my house. Then turned north and walked 15 metres straight, then I turned West and walked 10 metres. How far am I from my house now?
1) 10 metres 2) 15 metres 3) 25 metres 4) 35 metres

74. I am facing East. Turning to the right I go 30 m, then turning to the left I go 30 m, and then turning to the right I go 60 m, and then again I go 60 m to the right. In which directions am I from my original position.
1) East 2) North West 3) North 4) South West

75. What is the number of straight lines and the number of triangles in the given figure?.



1) 10 straight lines and 34 triangles 2) 9 straight lines and 34 triangles
3) 9 straight lines and 36 triangles 4) 10 straight lines and 36 triangles

76. Find the wrong number in the series:
445, 221, 109, 46, 25, 11, 4
1) 221 2) 109 3) 46 4)25

(Question nos: 77-80)

Direction to Solve: P, Q, R, S, T, U, V and W are sitting round the circle and are facing the centre:

1. P is second to the right of T who is the neighbour of R and V.
2. S is not the neighbour of P.
3. V is the neighbour of U.
4. Q is not between S and W. W is not between U and S.

77. Which two of the following are not neighbours?
1) RV 2) UV 3) RP 4) QW

78. Which one is immediate right to the V?
1) P 2) U 3) R 4) T

79. Which of the following is correct?
1) P is to the immediate right of Q 2) R is between U and V
3) Q is to the immediate left of W 4) U is between W and S

80. What is the position of S?
1) Between U and V 2) Second to the right of P
3) To the immediate right of W 4) Data inadequate.

81. A is B's sister. C is B's mother. D is C's father. E is D's mother. Then, how is A related to D?
1) Brother 2) Son 3) Uncle 4) Son-in-law

82. Pointing to a person, a man said to a woman, "His mother is the only daughter of your father." How was the woman related to the person?
1) Aunt 2) Mother 3) Wife 4) Daughter

83. A woman introduces a man as the son of the brother of her mother. How is the man, related to the woman?
1) Nephew 2) Son 3) Cousin 4) Uncle to Grandson

84. The angle of elevation of a ladder leaning against a wall is 60° and the foot of the ladder is 4.6 m away from the wall. The length of the ladder is:
1) 2.3m 2) 4.6m 3) 7.8m 4) 9.2 m

85. The simple interest on a certain sum of money for 2(1/2) years at 12% per annum is Rs. 40 less than the simple interest on the same sum for 3(1/2) years at 10% per annum. Find the sum.
1) Rs. 600 2) Rs. 666 3) Rs. 780 4) Rs. 800

(Question nos: 86-88)

Directions:

86. If banana is apple, apple is grapes, grapes is mango, mango is nuts, nuts is guava, which of the following is a yellow fruit?
1) Mango 2) Grapes 3) Apple 4) Nuts

87. If clock is called television, television is called radio, radio is called oven, oven is called grinder and grinder is called iron, in what will a lady bake?
1) Radio 2) Oven 3) Grinder 4) Iron

88. If rat is called dog, dog is called mongoose, mongoose is called lion, lion is called snake and snake is called elephant, which is reared as pet?
1) Rat 2) Dog 3) Mongoose 4) Lion

(Question nos: 89-91)

Direction: In each of the following questions find out the alternative which will replace the question mark.

89. kEAc: cAEk:: xGMf : ?
1) GmcF 2) FmgX 3) EgmX 4) EmgF

90. MXN: 13 x 14:: FXR : ?
1)14X15 2) 5X17 3) 6X18 4)7X19

91. REASON: SFBTPO::THINK : ?
1) SGHMJ 2) UIJOL 3) UHNKI 4) UJKPM

(Question nos: 92-96)

Direction: In each of the following problems, a square transparent sheet (X) with a pattern is given.

92. Figure out from amongst the four alternatives as to how the patter would appear when the transparent sheet is folded at the dotted line.



(X) (1) (2) (3) (4)

1)1 2)2 3)3 4)4

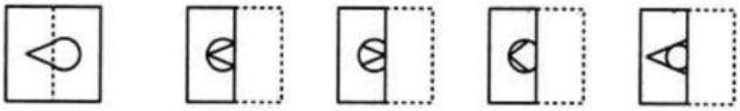
93. Find out from amongst the four alternatives as to how the pattern would appear when the transparent sheet is folded at the dotted line.



(X) (1) (2) (3) (4)

1) 1 2) 2 3) 3 4) 4

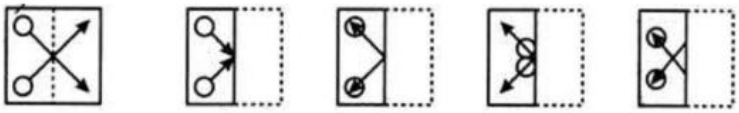
94. Find out from amongst the four alternatives as to how the pattern would appear when the transparent sheet is folded at the dotted line.



(X) (1) (2) (3) (4)

1)1 2) 2 3) 3 4) 4

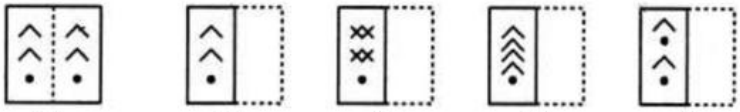
95. Find out from amongst the four alternatives as to how the pattern would appear when the transparent sheet is folded at the dotted line.



(X) (1) (2) (3) (4)

1) 1 2) 2 3) 3 4) 4

96. Find out from amongst the four alternatives as to how the pattern would appear when the transparent sheet is folded at the dotted line.



(X) (1) (2) (3) (4)

1)1 2)2 3)3 4)4

97. Rakesh scored more than Raju
Ravi scored less than Rakesh
Raju scored more than Ravi
Ranga scored more than Raju but less than Rakesh
Then who is the top scorer among them?
1) Rakesh 2) Raju 3) Ravi 4) Ranga

98. The difference between the place value and the face value of 7 in the numeral 967452 is
1) 6393 2) 5831 3) 6993 4) 6339

99. How many numbers up to 300 and 700 are divisible by 2, 3 and 7 both together?
1)7 2)9 3)11 4)5

100. A pupil's marks were wrongly entered as 83 instead of 63. Due to that the average marks for the class got increased by half (1/2). The number of pupils in the class is:
1)10 2)20 3)40 4)7