DO NOT OPEN THE SEAL UNTIL INSTRUCTED TO DO SO.

Q. Booklet Code **B**

NT (E)

NT - FEBRUARY 2021
MENTAL ABILITY TEST

Medium : English

Paper-I

Candidate's Roll Number

Sl. No.: M - **14854**

Time allowed : 120 Minutes

Total Questions : 100

Maximum Marks : 100

Instructions to Candidates

Read the following instructions carefully before you answer the questions. Answers are to be SHADED on a SEPARATE OMR Answer Sheet given, with a **Blue or Black Ballpoint Pen** only. Read the **Instructions** printed on the OMR Sheet carefully before answering the questions.

1. **Paper-I** (Mental Ability Test) consists of **100** Questions (Q. Nos. 1 to 100).

2. All questions carry **one** mark each.

3. Since **all** questions are **compulsory**, do not try to read through the whole question paper before beginning to answer it.

4. Begin with the first question and keep trying one question after another till you finish all the questions.

5. If you do not know the answer to any question, do not spend much time on it and pass on to the next one. If time permits, you can come back to the questions which you have left in the first instance and try them again.

6. Since the time allotted to the question paper is very limited, you should make the best use of it by not spending too much time on any question.

7. A blank page is provided for rough work at the end of question paper.

8. REMEMBER, YOU HAVE TO SHADE ANSWERS ON A SEPARATE OMR ANSWER SHEET PROVIDED.

9. Answer to each question is to be indicated by SHADING the circle having the number of the correct alternative in the OMR Answer Sheet from among the ones given for the corresponding question in the booklet.

10. Now turn to the next page and start answering the questions.

11. The candidate **need not return** this Question Paper Booklet and can take it after the completion of the examination. No candidate should leave the examination hall before the end of the examination.


KS - 1

[1]

[Turn Over]

Direction :

Questions (1 to 10) : You are provided with substitutes for various mathematical symbols or numerals, followed by a question involving calculation of an expression or choosing the correct equation. You are required to put in the real signs or numerals in the given equation and then solve the questions as required (Follow BODMAS).

1. If L stands for +, M stands for –, N stands for ×, P stands for ÷, then the value of 14N10L42P2M8 is ......
   - (1) 153
   - (2) 216
   - (3) 248
   - (4) 251

2. If + means ÷, ÷ means –, – means ×, × means +, then the value of 12+6÷3–2×8.
   - (1) –2
   - (2) 2
   - (3) 4
   - (4) 8

3. If × means ÷, – means ×, ÷ means +, and + means –, then the value of (3–15÷19)×8+6 is ....
   - (1) –1
   - (2) 2
   - (3) 4
   - (4) 8

4. If P means ÷, T means +, M means –, D means ×, then the value of 12M12D28P7T15 is ....
   - (1) –30
   - (2) –15
   - (3) 15
   - (4) –21

5. If + means ×, × means –, ÷ means + and – means ÷, then the value of 175–25÷5+20×3+10 is ....
   - (1) 77
   - (2) 160
   - (3) 240
   - (4) 2370

6. If + means ÷, – means +, × means –, ÷ means ×, then the value of 24÷12–18+9 is ....
   - (1) –25
   - (2) 72
   - (3) 15
   - (4) 290

7. If P denotes ×, T denotes –, M denotes +, B denotes ÷, then the value of 28B7P8T6M4 is ....
   - (1) 30
   - (2) 31
   - (3) 32
   - (4) 34

8. If ÷ means +, – means ÷, × means – and + means ×, then the value of $\dfrac{36\times4-8\times4}{4+8\times2+16\div1}$ is ....
   - (1) 0
   - (2) 8
   - (3) 12
   - (4) 16

9. If + means –, × means ÷, ÷ means + and – means ×, then the value of 252×9–5+32÷92 is ....
   - (1) 95
   - (2) 168
   - (3) 192
   - (4) 200

10. If Q means +, J means ×, T means –, K means ÷, then the value of 30K2Q3J6T5 is ....
    - (1) 18
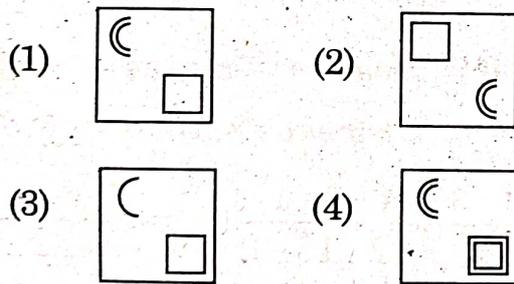   - (2) 28
    - (3) 31
    - (4) 103

Direction :

Questions (11 to 20) : Each of the following questions consists of two sets of figures. Figures A, B, C and D constitute the Problem Set while figures 1, 2, 3 and 4 constitute the Answer Set. There is a definite relationship between figures A and B. Establish a similar relationship between figures C and D by selecting a suitable figure from the Answer Set that would replace the question mark (?) in figure (D).
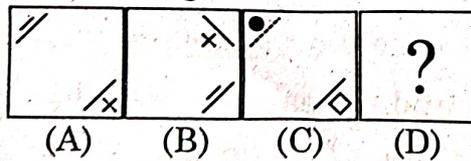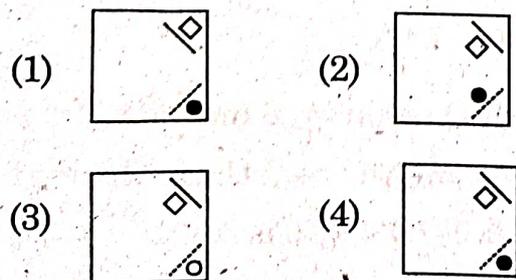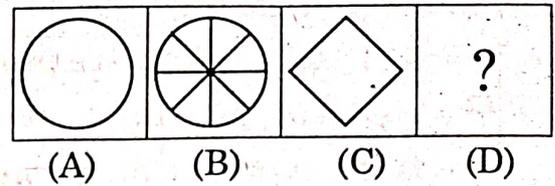
11. **Problem Figures :**
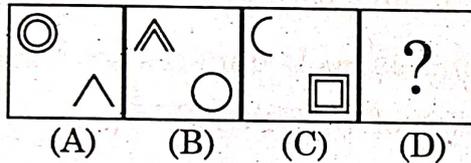
(A)   (B)   (C)   (D)

Answer Figures :

(1)   (2)

(3)   (4)

12. **Problem Figures :**

(A)   (B)   (C)   (D)

Answer Figures :

(1)   (2)

(3)   (4)

13. **Problem Figures :**
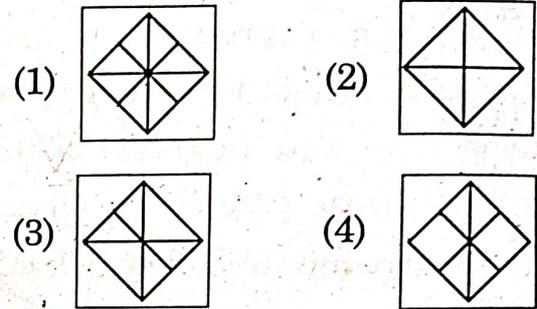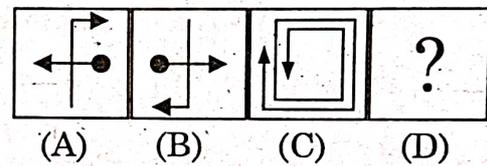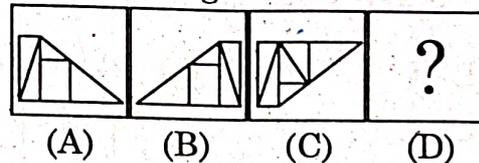
(A)   (B)   (C)   (D)

Answer Figures :

(1)   (2)

(3)   (4)

14. **Problem Figures :**

(A)   (B)   (C)   (D)

Answer Figures :

(1)   (2)

(3)   (4)

15. **Problem Figures :**

(A)   (B)   (C)   (D)

Answer Figures :

(1)   (2)

(3)   (4)

16. Problem Figures :

(A) (B) (C) (D)

Answer Figures :

(1)   (2)

(3)   (4)

17. Problem Figures :

(A) (B) (C) (D)

Answer Figures :

(1)   (2)

(3)   (4)
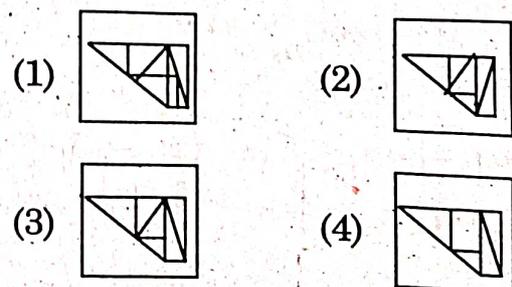
18. Problem Figures :

(A) (B) (C) (D)

Answer Figures :

(1)   (2)

(3)   (4)
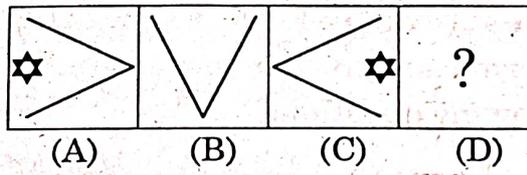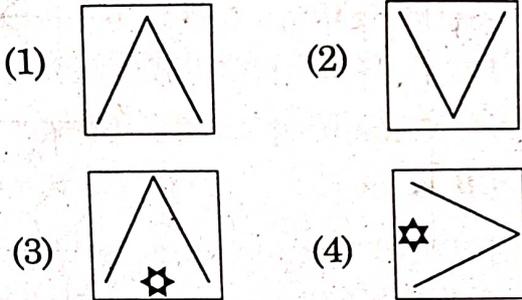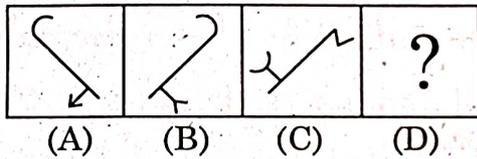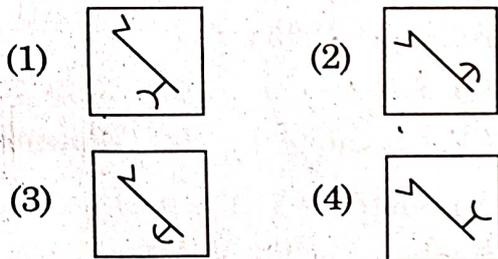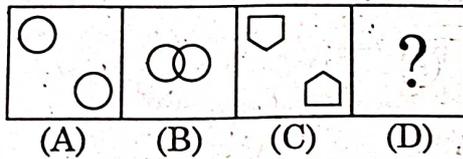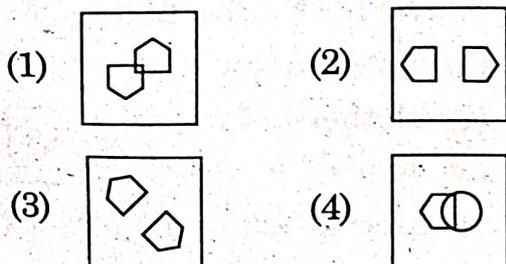
19. Problem Figures :

(A) (B) (C) (D)

Answer Figures :

(1)   (2)

(3)   (4)
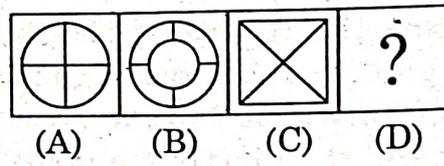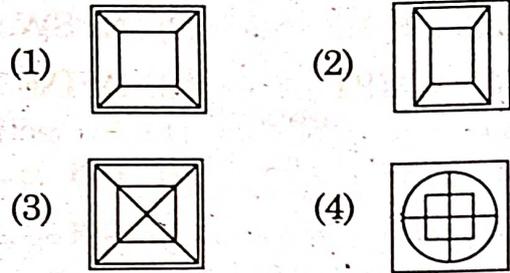
20. Problem Figures :

(A) (B) (C) (D)

Answer Figures :

(1)   (2)

(3)   (4)
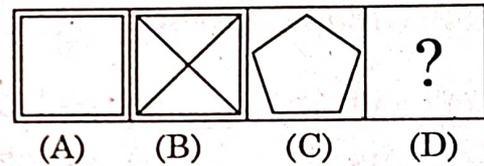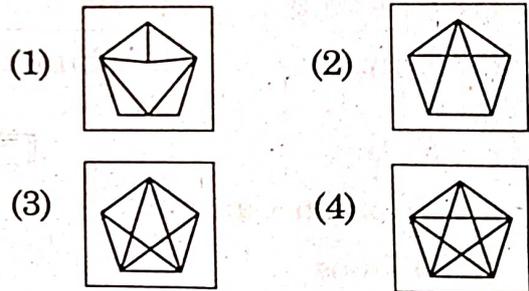
Direction :

Questions (21 to 30) : In each of the following questions 4 words have been given, out of which 3 are alike in some manner and the fourth one is different. Choose out the odd one.

21. (1) DFOU   (2) NPSW
    (3) KMPT   (4) DFIM

22. (1) 286   (2) 166
    (3) 495   (4) 583

23. (1) Wing Commander
    (2) Air Marshal
    (3) Captain
    (4) Group Captain

24. (1) 243–132   (2) 183–54
    (3) 108–97   (4) 99–63

25. (1) Chennai   (2) Daman
    (3) Raipur   (4) Shimla

26. (1) Sirius
    (2) Proxima Centauri
    (3) Deimos
    (4) Alpha Centauri

27. (1) 2890   (2) 3375
    (3) 1728   (4) 1331

28. (1) Parsley   (2) Basil
    (3) Dill   (4) Mayonnaise

29. (1) Guitar   (2) Flute
    (3) Violin   (4) Cello

30. (1) Wing   (2) Fin
    (3) Beak   (4) Rudder

Direction :

Questions (31 to 35) : Study the information given below and answer the following questions.

31. Pointing to a photograph Shubha said, "he is the only grandson of my mother's father". How is the man in the photograph related to Shubha?
    (1) Cousin   (2) Brother
    (3) Uncle   (4) Father

32. If "A$B" means "A is father of B", "A#B" means "A is daughter of B", "A@B" means "A is sister of B", then how is K related to M in H@K$L#M?
    (1) Husband   (2) Uncle
    (3) Father   (4) Nephew

33. Chandana is the wife of Bharat. Mohan is the son of Chandana. Ashish is the brother of Bharat and father of Dhruv. How is Mohan related to Dhruv?
    (1) Sister   (2) Cousin
    (3) Brother   (4) Mother

34. X is sister of Y, Y is brother of Z, Z is husband of P and O is father of Y. How is P related to O?
    (1) Sister
    (2) Daughter
    (3) Aunt
    (4) Daughter-in-law

35. P and Q are brothers, P is the father of S, R is the only son of Q and is married to U. How is U related to S?
    (1) Sister-in-law
    (2) Mother-in-law
    (3) Sister
    (4) Mother

Direction :

Questions (36 to 40) : Read the following and answer the questions given below.

1. There are six persons A, B, C, D, E and F.

2. C is the sister of F.

3. B is the brother of E's husband.

4. D is the father of A and grandfather of F.

5. There are two fathers, three brothers and a mother in the group.

36. Who is the mother?

(1) A

(2) B

(3) D

(4) E

37. Who is E's husband?

(1) B

(2) C

(3) A

(4) F

38. How many male members are there in the group?

(1) 1

(2) 2

(3) 3

(4) 4

39. How is F related to E?

(1) Uncle

(2) Husband

(3) Son

(4) Daughter
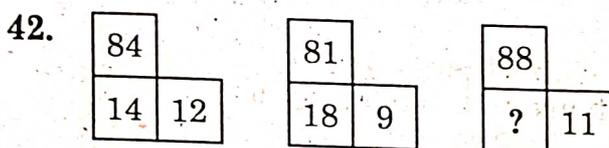
40. Which of the following is a group of brothers?

(1) ABF

(2) ABD

(3) BFC
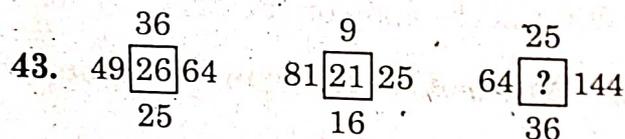
(4) BDF

Direction :

Questions (41 to 50) : In these questions; numbers are arranged on the basis of some rules. One place is vacant, which is indicated as **?**. Find out the correct alternative to replace the question mark "**?**"
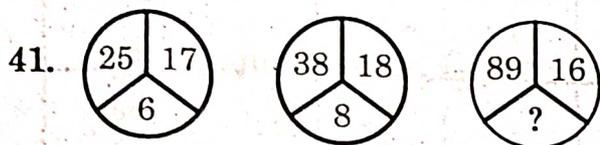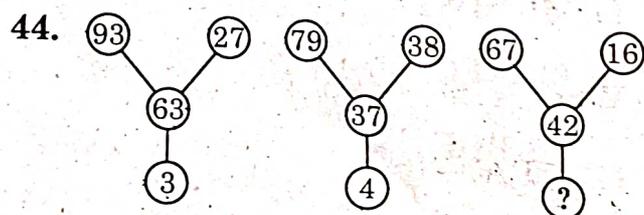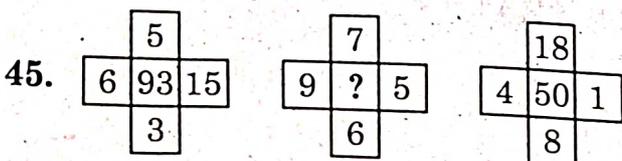
41.

(1) 13   (2) 15
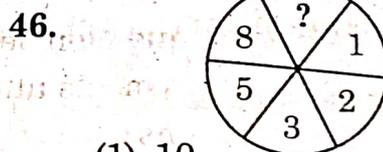(3) 17   (4) 19

42.

(1) 16   (2) 21
(3) 61   (4) 81

43.

(1) 19   (2) 23
(3) 25   (4) 31

44.

(1) 5   (2) 6
(3) 8   (4) 9

45.

(1) 5   (2) 19
(3) 27   (4) 89

46.
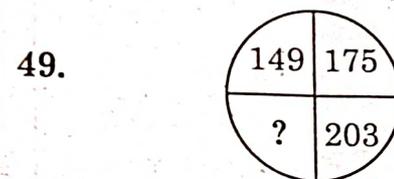

(1) 10   (2) 12
(3) 13   (4) 15
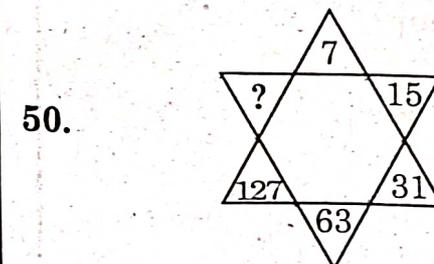
47.
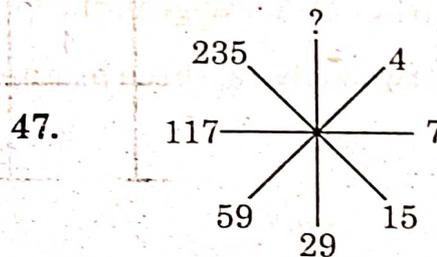
(1) 327   (2) 386
(3) 438   (4) 469

48.
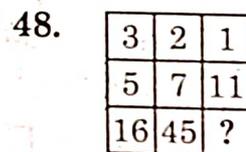
(1) 100   (2) 110
(3) 120   (4) 130

49.

(1) 148   (2) 208
(3) 213   (4) 233

50.

(1) 190   (2) 221
(3) 236   (4) 255

Direction :

Questions (51 to 55) : In each question below is given a group of digits followed by four combinations of letters or symbols numbered (1), (2), (3) and (4). You have to find out which of the combinations correctly represents the group of digits based on the coding system and the conditions given below and mark the number of that combination as your answer.

Digits	5	1	3	4	9	6	8	2	7
Symbols	P	A	K	%	R	@	D	#	M

Conditions :

(1) If the first digit is odd and the last digit is even, the codes for the first and last digits are to be interchanged.

(2) If both the first and last digits are even, both are to be coded as ✱.

(3) If both the first and last digits are odd, both are to be coded as $.

51. What is the code of 215349?

(1) RAPK%#

(2) ✱APK%$

(3) SAPK%$

(4) #APK%R

52. What is the code of 671254?

(1) @MA#P%

(2) $MA#PS

(3) ✱MA#P✱

(4) %MA#P#

53. What is the code of 813469?

(1) RA%@D

(2) DAK%@R

(3) DAP%@R

(4) ✱AK%@✱

54. What is the code of 794821?

(1) MR%D#A

(2) AR%D#M

(3) M%RD#R

(4) $R%D#$

55. What is the code of 591426?

(1) @RA%#P
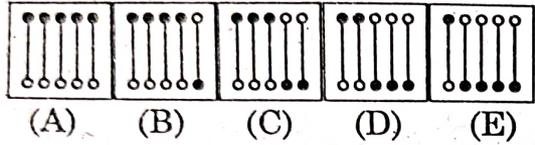
(2) PRA%#@

(3) @AR%#P

(4) $RA%#✱

Direction :

Questions (56 to 60) : The letters in a word are replaced by certain other letters according to a specific rule to form its code. Answer the following questions accordingly.

56. In a certain code "NEW YORK" is written as 111, how "NEW JERSEY" will be written in that code?

    (1) 104

    (2) 124

    (3) 134

    (4) 114

57. In a certain code "MADRAS" is coded as NBESBT, how "BOMBAY" will be coded in that code?

    (1) CPNCBX

    (2) CPNCBZ

    (3) CPOCBZ

    (4) CQOCBZ

58. If a "WORD" is coded as 2315184, then how "SIMPLE" will be coded in that code?

    (1) 1991316123

    (2) 1991316124

    (3) 1991316125

    (4) 1991316126

59. In a certain code language "La Ka Ta" means "go and swim" and "Ne La Se" means "you swim here" and "Pe Ke Ne Ta" means "he and you go". Which of the following is the code for "here" in that code?

    (1) Se

    (2) Ne

    (3) Ke

    (4) Ta

60. If E is coded as V, D is coded as Q, N is coded as Z, G is coded as T, R is coded as I and A is coded as M. Which of the following will be the correct form of word "DANGER"?

    (1) QMZIIV

    (2) QMZTIV

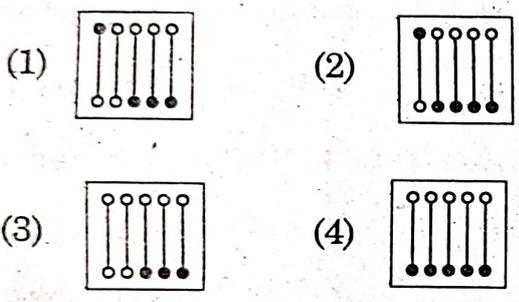   (3) QMZITV

    (4) QMZTVI

Direction :

Questions (61 to 70) : Each of the following questions consists of five figures marked A, B, C, D and E called the Problem Figures followed by four other figures marked 1, 2, 3 and 4 called the Answer Figures. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.
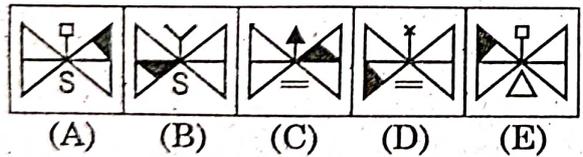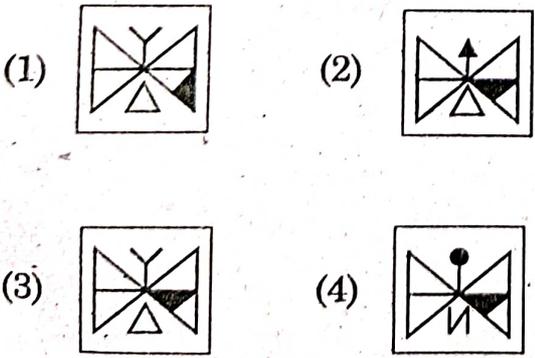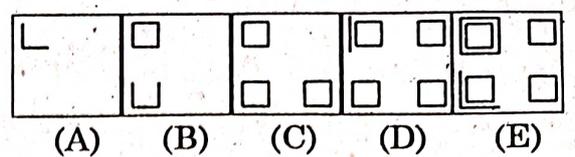
61. Problem Figures :

(A)   (B)   (C)   (D)   (E)

Answer Figures :

(1)   (2)

(3)   (4)

62. Problem Figures :

(A)   (B)   (C)   (D)   (E)

Answer Figures :

(1)   (2)

(3)   (4)

63. Problem Figures :
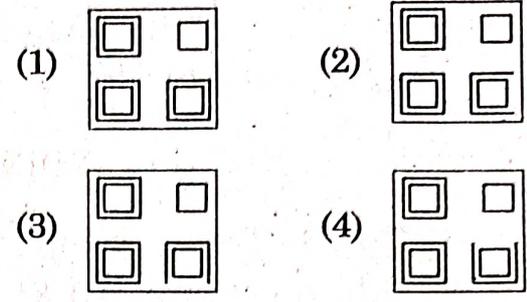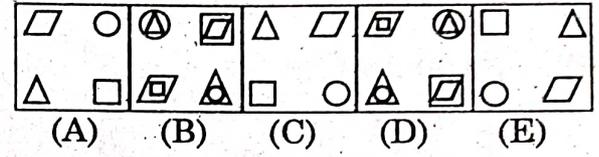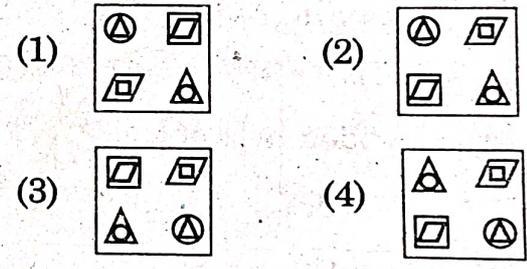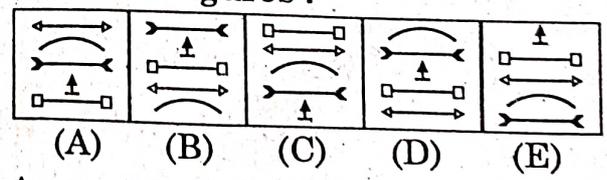
(A)   (B)   (C)   (D)   (E)

Answer Figures :

(1)   (2)

(3)   (4)

64. Problem Figures :

(A)   (B)   (C)   (D)   (E)

Answer Figures :

(1)   (2)

(3)   (4)

65. Problem Figures :

(A)   (B)   (C)   (D)   (E)

Answer Figures :

(1)   (2)

(3)   (4)

66. Problem Figures :

(A)   (B)   (C)   (D)   (E)

Answer Figures :

(1)   (2)

(3)   (4)

67. Problem Figures :

(A)   (B)   (C)   (D)   (E)

Answer Figures :

(1)   (2)

(3)   (4)

68. Problem Figures :

(A)   (B)   (C)   (D)   (E)

Answer Figures :

(1)   (2)

(3)   (4)

69. Problem Figures :

= S	C +	+ C	O ★	★ O
C +	= S	O ★	+ C	S =
★ O	O ★	= S	S =	+ C

(A)   (B)   (C)   (D)   (E)

Answer Figures :

(1)

O	★
C	+
=	S

(2)

+	C
=	S
★	O

(3)

O	★
=	S
C	+

(4)

S	=
★	O
C	+
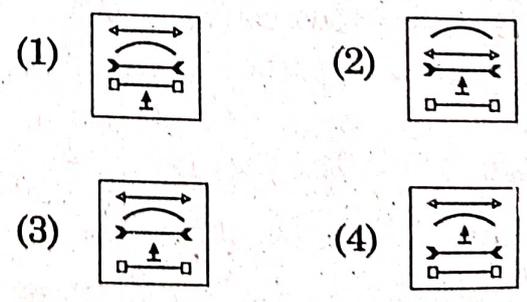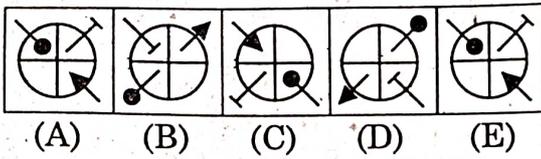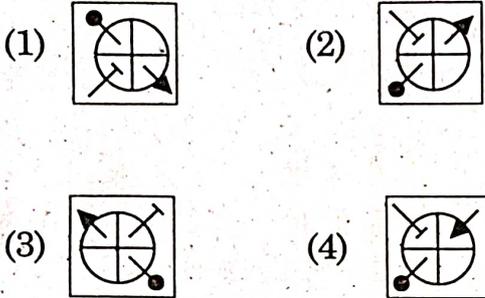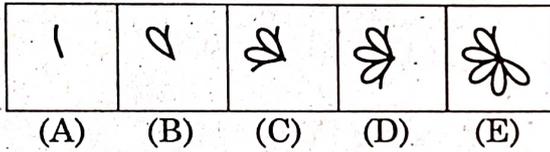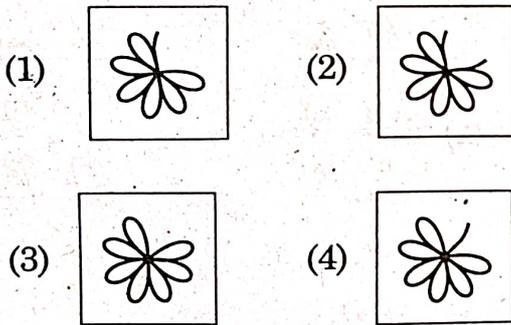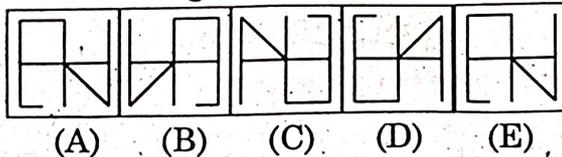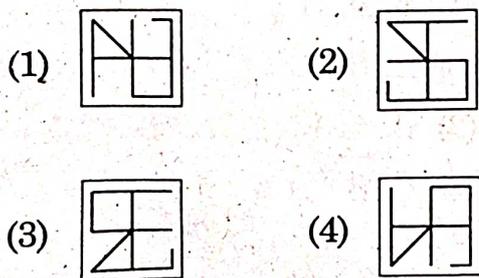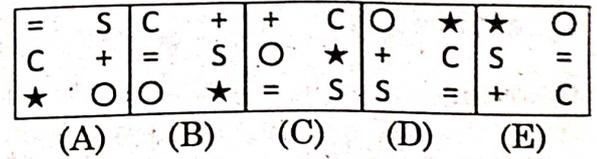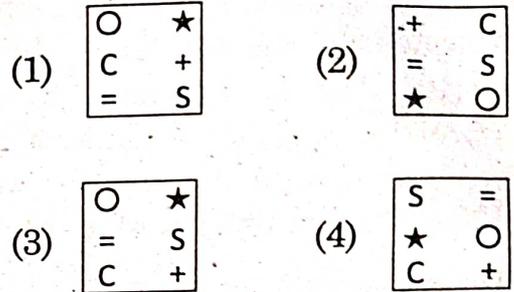
70. Problem Figures :

(A)   (B)   (C)   (D)   (E)

Answer Figures :

(1)   (2)

(3)   (4)
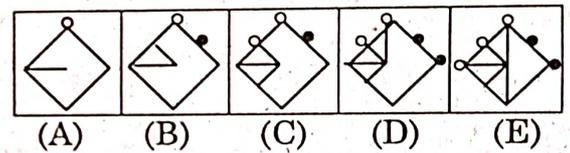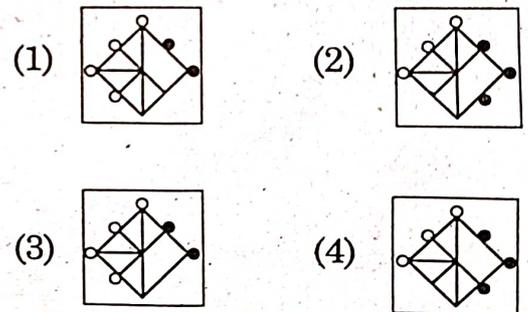
Direction :

Questions (71 to 80) : 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 alternatives.

71. A_BBC_AAB_CCA_BBCC

   (1) B, A, C, B

   (2) A, C, B, A

   (3) A, B, B, A

   (4) C, A, B, A

72. CCCBB_AA_CC_BBBAA_C

   (1) A, C, B, C

   (2) B, A, C, A

   (3) B, A, B, A

   (4) A, C, B, A

73. ABCA_BCAAB_CA_BBC_A

   (1) C, C, A, A

   (2) B, B, A, A

   (3) A, B, A, C

   (4) A, B, B, A

74. A_BCCB_CA_CCA_BAAB_C

   (1) A, B, A, B, C

   (2) A, B, C, A, A

   (3) A, C, C, A, B

   (4) B, A, C, A, A

75. _C_BD_CBCDA_A_DB_A

   (1) A, D, A, B, C, D

   (2) B, D, B, C, B, A

   (3) C, D, B, B, C, A

   (4) D, A, A, B, B, C

76. A_CDAAB_CC_DAA_BBB_ CCDDD

   (1) B, D, B, D, A

   (2) B, D, D, C, A

   (3) D, B, B, C, A

   (4) B, B, D, A, C

77. _ACCA_CCCA_ACCC_AAA

   (1) A, C, C, A

   (2) C, A, A, A

   (3) C, C, A, A

   (4) C, A, A, C

78. A_CACBC_BACA__B

   (1) B, A, B, A

   (2) B, A, B, C

   (3) A, B, A, C

   (4) C, A, C, B

79. B_AC_CC_CB_AB_AC

   (1) C, B, A, B, A

   (2) B, B, A, A, C

   (3) A, B, B, B, C

   (4) A, A, B, B, A

80. AAB_AB_CABCCA_BCAB_C

   (1) B, B, B, C

   (2) B, B, A, B

   (3) C, A, B, C

   (4) C, B, A, B

Direction :

Questions (81 to 90) : In each of the following questions find out the alternative which will replace the Question Mark.

81. Darvin : Evolution : : Archimedes : **?**

    (1) Friction
    (2) Lubrication
    (3) Buoyancy
    (4) Liquids

82. Snake : Fang : : Bee : **?**

    (1) Honey
    (2) Humming
    (3) Wax
    (4) Sting

83. Tea : Cup : : Tobacco : **?**

    (1) Leaves
    (2) Hookah
    (3) Toxin
    (4) Cheroot

84. Aeroplane : Cockpit : : Train : **?**

    (1) Wagon
    (2) Coach
    (3) Compartment
    (4) Engine

85. Ottawa : Canada : : Canberra : **?**

    (1) Argentina
    (2) Switzerland
    (3) Sri Lanka
    (4) Australia

86. Roentgen : X-Rays : : Becquerel : **?**

    (1) Uranium
    (2) Radioactivity
    (3) Fission
    (4) Super conductivity

87. "Gravity" is related to "Pull" in the same way as "Magnetism" is related to ....

    (1) Repulsion
    (2) Separation
    (3) Attraction
    (4) Push

88. "Joule" is related to "Energy" in the same way as "Pascal" is related to ...

    (1) Resistance
    (2) Pressure
    (3) Acceleration
    (4) Refractive Index

89. Insulin : Hormone : : Trypsin : **?**

    (1) Juice
    (2) Liver
    (3) Enzyme
    (4) Digestion

90. Triangle : Hexagon : : Rectangle : **?**

    (1) Sphere
    (2) Octagon
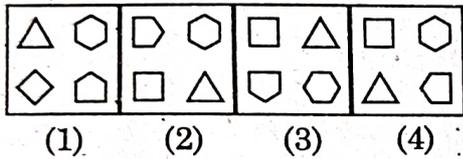   (3) Heptagon
    (4) Quadrilateral

Direction :

Questions (91 to 100) : Out of the four figures (1), (2), (3), (4) given in each question, three are similar in certain way. Choose the figure which is different from the other figures.

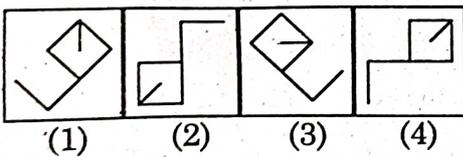**91.** Choose the figure which is different from the rest.

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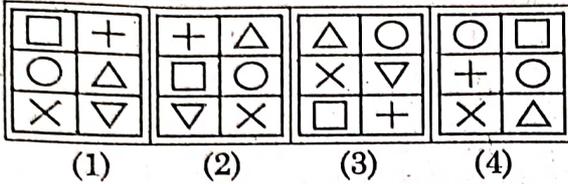
(1) 1   (2) 2

(3) 3   (4) 4

92. Choose the figure which is different from the rest.

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

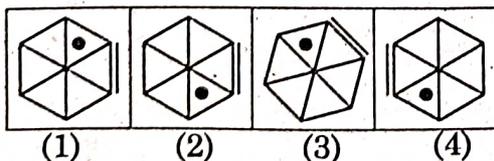(1) 1   (2) 2

(3) 3   (4) 4

93. Choose the figure which is different from the rest.

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

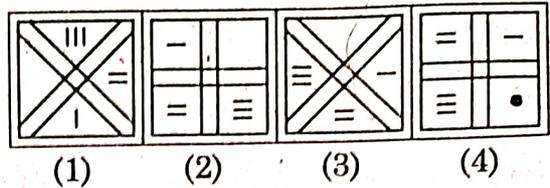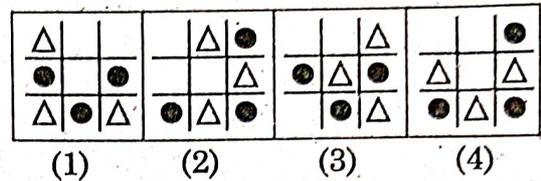(1) 1   (2) 2

(3) 3   (4) 4

94. Choose the figure which is different from the rest.

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

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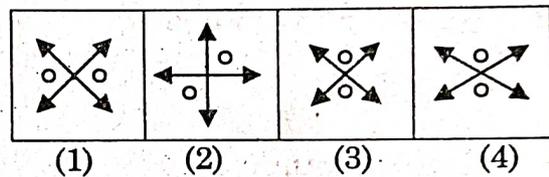
(3) 3   (4) 4

95. Choose the figure which is different from the rest.

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

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

96. Choose the figure which is different from the rest.

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

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

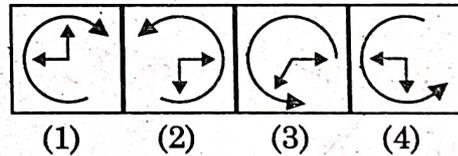**97.** Choose the figure which is different from the rest.

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

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

98. Choose the figure which is different from the rest.

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

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

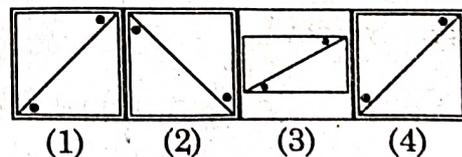**99.** Choose the figure which is different from the rest.

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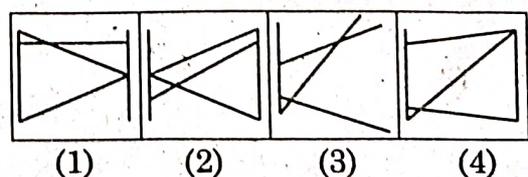
(1) 1   (2) 2   (3) 3   (4) 4

100. Choose the figure which is different from the rest.

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

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