NATIONAL TALENT SEARCH EXAMINATION-2019-20, CHHATTISGARH MENTAL APTITUDE TEST (MAT) PAPER & HINTS & SOLUTION

	MENIAL APII	IUDE LEST (N	<u> (AI) PAPER</u>	& HINTS & SOLUTI
Direct	ion (From Q.1 to 10) Choose the correct alte A, Z, D, W, P, K, M,		sing term/ terms in	the given series.
Sol.	(A) M (B)	(B) N	(C) L	(D) T
	1,26, 4,23, 16,11	M,N sum is 27		
2. Sol.	YEB, WFD, UHG, SKI, (A) QGC (C)		(C) QOL	(D) None of these
	25 5 2, 23 6 4, 21 8 7	, 19 11 19, 17 15 1	2	
3.	, siy, oeu, kaq, gw (A) wnc	vn, csi (B) wnb	(C) wmc	(D) None of these
Sol.	(C) 23 13 29, 19 9 25,	15 5 21 17	, ,	7 25 14 3 14 9
4.	a_baccaba_aab_cca_a (A) ababab		(C) aaabab	(D) abbaba
Sol. 5.	(C) B,D,H,N,			
Sol.	(A) V (A) 2, 4,8, 14, 22 , v	(B) U	(C) W	(D) M
6.	(A) 18	(B) –1	(C) 13	(D) None of these
Sol.	(B) -2 -2 -2			
	3, 7, 6, 5, 9, 3, 12, 1	I, 15, -1		
7. Sol.	2, 3, 16, 5, 6, 49, 8, 9, (A) 53 (D) 2, 3, 16, 5, 6, 49, 8, 9,	(B) 64	(C) 96	(D) 100
	+3 +3			

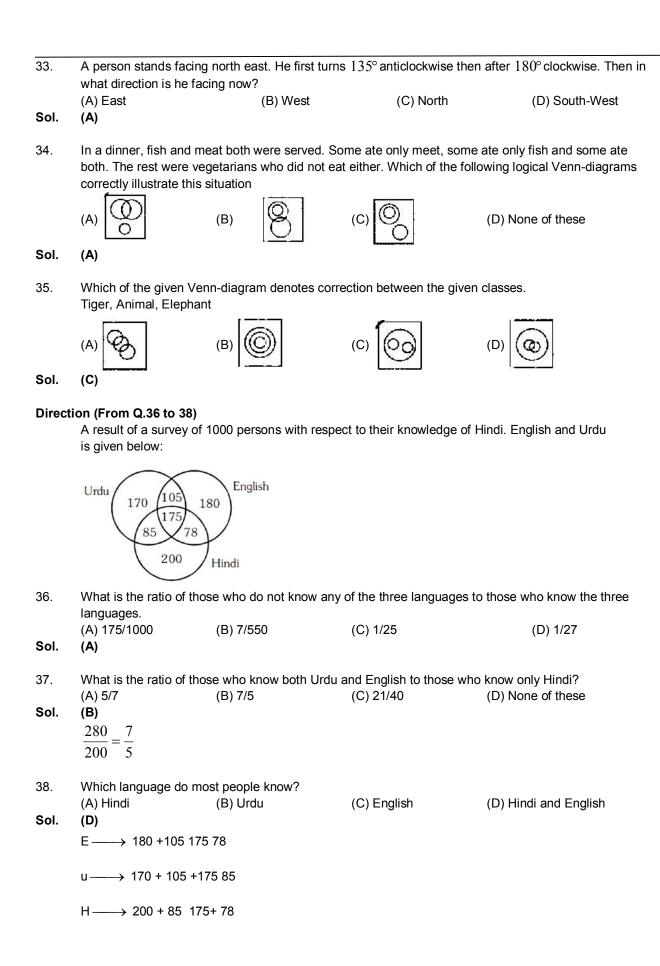
8. 9,25,49,121, ____ (A) 225 (B) 169 (C) 196 (D) 144

9, 25, 49, 121, **169**

9.	4A,25B,100C,289D, _ (A) 392E 4A, 25B, 100C, 289D	(B) 676E	(C) 355E	(D) None of these	
Sol.	(B) 2 ² A 5 ² B 10 ² C 17 ² D	<u>26²E</u>			
10.	BD8, DF24, FH48,	_			
Sol.	(A) HJ64 (D)	(B) HJ84	(C) HI80	(D) HJ80	
	B D 8, D F24, F H 48	, <u>H J 80</u>			
	24 46 68	8 10			
Directi	between them. The sa	•	tween the word/ term giv	ey have certain relationship en to the right of : : sign and	
11.	$3:3\frac{3}{8}::5:$?				
	(A) $5\frac{5}{8}$	(B) $5\frac{1}{8}$	(C) $5\frac{3}{8}$	(D) HJ80	
Sol. 12.	(A) 3: $\frac{27}{8}$:: 5: $5X\frac{9}{8} \to \frac{45}{8} \to 5\frac{5}{8}$ Dda : aDD :: Rrb: ?				
Sol.	(A) RRb (C) b R R	(B) BDA	(C) bRR	(D) BBr	
13. left of::	Choose the correct alternative in which two words have same relationship as between the words in the				
Sol.	Poet: Verse::? (A) Porse: Novelist (C) Noved: Prose (B)		(B) Author : Book (D) None of these		
Directi	ion (From Q.14 to 15)				
14. Sol.	In the group of words (A) Biscuit (C)	given below all except on (B) Bread	e. Share a common simil (C) Milk	arity. Select the odd one. (D) Khakhara	
15. Sol.	(A) Rupees (D)	(B) Dollar	(C) Lira	(D) Ghana	
16.	If in a code language S written as:	SAND is written as VDQG	and BIRD is written as I	ELUG. Then LOVE will be	
Sol.	(A) ORTG (D)	(B) NPUH	(C) PRYG	(D) ORYH	

21.	While introducing a lady, a man said "her mother is the only daughter of my mother-in-law". What is the relation of the man with lady?					
Sol.	(A) Son (C)	(B) Brother	(C) Husband	(D) Father		
22.	related to Manisha?		•	's daughter". How is Harsh		
Sol.	(A) Cousin (A)	(B) Son	(C) Brother-in law	(D) Nephew		
Direction	P,Q,R,S,T and U are members of six member family. R is son of P and Q. S is grand daughter of T. U is grand daughter of Q. P is the only son of his father T.					
23.	Which of the following a					
Sol.	(A) P,S (C)	(B) T,U	(C) P,Q	(D) R,U		
24.	How many female famil (A) 2	y members are there in t (B) 3	he family (C) 4	(D) 5		
Sol.	(B)	(b) 3	(0) 4	(b) 3		
25.	Who is the daughter of (A) Q	P? (B) R	(C) S	(D) U		
	$P^+ \longleftrightarrow Q^-$	(5)	(5) 5			
	R⁺ S⁻					
	U ⁻					
Sol.	(C)					
Directio	ion : (From Q. No. 26 to 28)					
	(i) F, G, H, I, J, K a (ii) These numbers	are six numbers. are distinct.				
	(iii) K is greater tha	n F.				
	(iv) F is greater that(v) I is less than J	n G. but greater than F.				
	(vi) J is greater than	n K but less than H.	hotwoon two concounting	vo numboro io 10		
		nber is 60 and difference oconsecutive numbers.	Detween two consecutiv	e numbers is 10.		
26.	The largest number is:	(B) G	(C) E	(D) K		
	(A) H	(B) G	(C) F	(D) K		

Sol.	(A) F G H I J K				
	H> J> K> F> G	F <i<j< td=""><td></td><td></td><td></td></i<j<>			
	H>J>I>K>F>	·G			
	60 50 40 30 20	10			
27.	Difference betwee (A) 10	n the number (B) 20	J and F is:	(C) 30	(D) 40
Sol.	(C)	()		,	,
28.	Which number is let (A) J	east? (B) G		(C) K	(D) F
Sol.	(B)				
29.	If P is taller then Q R is shorter than F S is taller than T b Who among them (A) P	ut shorter that is tallest?	n Q	(C) S	(D) T
Sol.	(A) P>Q, PRQST	(B) Q or PQSF	RТ	(0)3	(0) 1
30.	Five girls took part in a race. Rajshri finished before Mohila but behind Gaura. Ashma finished before Sangeet but behind Mohilla. Who won the race?				
	(A) Rajshree	(B) Gu		(C) Mohilla	(D) Data is inadequate
Sol.	(B) Gaura Raj Mohi	Ashna Sang	eeta		
31.	Five persons are sitting in a row. One of the two persons at the extreme ends is intelligent and other one is fair. A fat person is sitting to the right of a weak person. A tall person is to the left of the fair person and the weak person is sitting between the intelligent and fat person. Which of them is sitting a the center?				
Sol.	(A) Intelligent (B)	(B) Fat		(C) Fair	(D) Weak
	Intelligent fa	t tall	fair		
	weak				
32.	If A is to the north (A) North-East	of B and C is (B) Eas		then in what direction A (C) South-Wes	-
Sol.	(A) 1000 – (170 + 10				
	1000 - (1/0+10	$\frac{3+180+83}{175}$	T /0 T 2U0 T I /	<u> </u>	



39. What is unit digit in
$$\{(264)^{102} + (284)^{103} \}$$
 (A) 1 (B) 6 (C) 0 (D) None of these Sol. (C) $4^{102} + 4^{103} + 6 = 4 = 10$

40.
$$\frac{(3\frac{2}{3})^2 - (2\frac{1}{2})^2}{(4\frac{3}{4})^2 - (3\frac{1}{3})^2} + \frac{(3\frac{2}{3} - 2\frac{1}{2})}{(4\frac{3}{4} - 3\frac{1}{3})} = \frac{(3\frac{2}{3})^2 - (2\frac{1}{2})^2}{(4\frac{3}{4} - 3\frac{1}{3})^2} + \frac{(3\frac{2}{3} - 2\frac{1}{2})}{(4\frac{3}{4} - 3\frac{1}{3})} = \frac{121}{89} - \frac{25}{4} + \frac{11}{3} - \frac{5}{2} = \frac{11}{4} + \frac{5}{13} = \frac{14}{97}$$

41. If '+' means' X, 'X means '-', '-' means' +' and '+' means' +' then $8 + 4 \times 9 - 3 + 1 = ?$ (A) 30 (B) 41 (C) 9 (D) 32

Sol. (A) $8 + 4 \times 9 - 3 + 1 = 30$

42. If ''' means' +', 'A' means' X, '\sum ' means' -' and '\sum ' means' +' then $24 \times 9 + 3 + 1 = 30$

43. I reached the station half an hour before the scheduled time of the train. The train arrived at the station at 6×20 O'clock, 1×30 hour delayed from its schedule time. When I reached the station? (A) 4×40 O'clock (B) 5×20 O'clock (C) 4×20 O'clock (D) None of these Sol. (D)

44. In a house a new person enters at every one hour. And at every fourth hour a person leaves the house. If this process starts at 10×40 M, then how many people will be there in the house at 10×30 PM? (A) 5×60 (D)

50. (D)

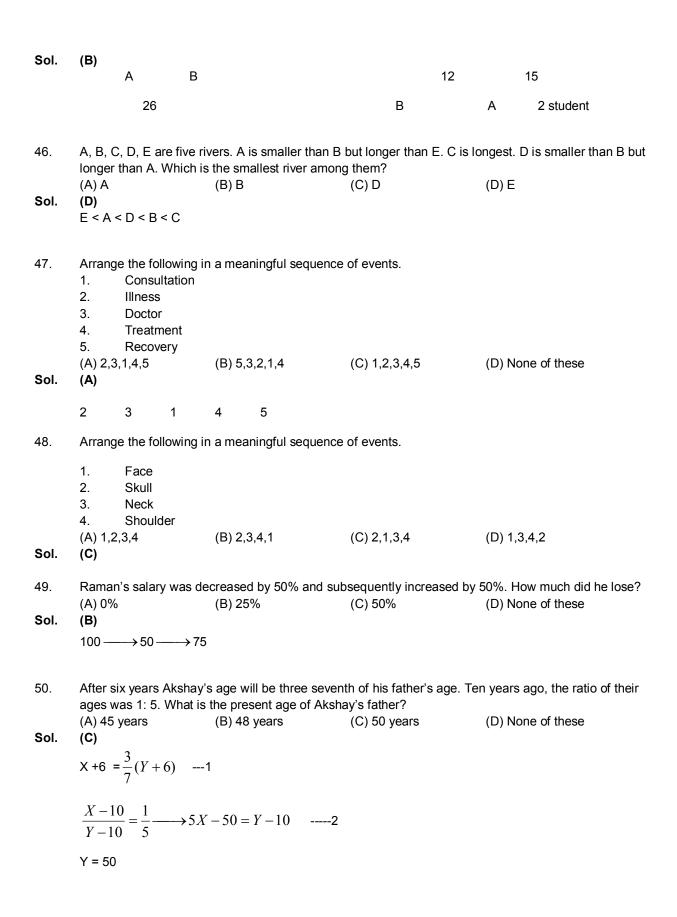
(C) 1

(D) 0

between B and A?

(A) 3

(B) 2



Direction (From Q.51 to 53): There are six members in a family who are placed in increasing order of their age. Difference of ages between two youngest members is 5 years. Difference in ages of fourth and fifth is 30 years. Difference of ages of last two members is 3 years. Ages of third and oldest members are 30 years and 68 years respectively. Difference of ages of first and fourth member is 32 years.

51. Difference in ages (in years) of second and fourth members is:

(A) 27

(B) 32

(C) 5

(D) 30

Ans. (A)

52. Ages (in years) of youngest and fifth member are respectively:

(A) 8,65

(B) 3,65

(C) 3,35

(D) 8,35

Ans. (B)

53. What is the difference between ages (in years) of oldest and youngest members?

(A) 68

(B) 35

(C) 65

(D) 30

Ans. (C)

Direction (From Q.54 to 58)

Choose the missing number (?) from the given alternatives.

54.



203 07 70 ?

(A) 280

(B) 303

(C) 362

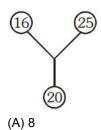
(D) 382

Sol. (A)

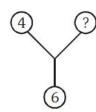
102 + 09 + 90 = 201

203 + 07 + 70 = 280

55.



(B) 9



(C) 12

(D) 21

Sol. (B)

 $16 \times 25 = 400 = 20^{2}$

 $4 \times ? = 36 = 6^2$

(9)

5	a

5	9	7
4	5	3
1	6	8
40	100	?

(A) 60 (C)

(C) 50

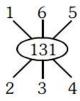
(D) 432

(D) 32

$$7^2 + 3^2 - 8 = 50$$

57.

Sol.

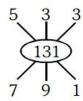




(B) 274

(B) 22

(B) 90

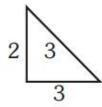


(C) 262

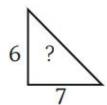
(C) 24

(C) 1 6 5 533

$$\frac{234}{131}$$
 $\frac{791}{262}$



4 10 5



58.

(A) 21 **Sol.** (A)

$$2 \times 3 = \frac{6}{2} = 3$$

$$4X 5 = \frac{20}{2} = 10$$

$$6 \times 7 = \frac{42}{2} = 21$$

Direction (From Q.59 to 60)

In each of the following question an Assertion (A) followed by a Reason (R) is given.

Choose the correct alternative from the following:

- If both (A) and (R) are true and (R) is the correct explanation of (A) 1.
- 2. Both (A) and (R) are true but (R) is not the correct explanation of (A)
- (A) is true but (R) is false 3.
- 4. (A) is false but (R) is true.
- 59. Assertion(A): India is a sovereign country.

Reason(R): Its Parliament is based in Delhi

(A) 1

(B) 2

(C) 3

(D) 4

Ans. (B)

Assertion (A): Very few countries can send their satellite on moon. 60.

Reason(R): Very few countries have money to send satellite

(A) 1

(B) 2

(C) 3

(D) 4

Ans. (C)

Direction (From Q.61 to 62)

In each of the following question one statement and two arguments (I) and (II) are given. Choose the correct alternative from the following:

- (A) Only argument (I) is strong
- (B) Only argument (II) is strong
- (C) Neither argument (I) nor argument (II) is strong
- (D) Both the argument (I) and (II) are strong.
- 61. Statement: Should non-vegetarian food be totally banned in our country?

Arguments I. Yes, It is expensive and therefore it is beyond the means of most people in our country.

II. No, Nothing should be banned in a democratic country like ours.

Ans. (C)

62. Statement: Should all the foreign banks be asked to close down their operation in India?

Arguments: (I) Yes This is the only way to make the Indian banks survive and prosper.

(II) No, This will have an adverse effect on Indian economy.

(D) Ans.

Direction (From Q.63 to 64)

In each of the following question one statement and two conclusions (I) and (II) are given. Choose the correct alternative from the following:

- (A) Only conclusion (I) follow
- (B) Only conclusion (II) follow
- (C) Both the conclusion (I) and (II) follows
- (D) Neither conclusion (I) nor Conclusion (II) follows.
- 63. Statement: Morning walk is good for health.

Conclusion: (I) All healthy people go for morning walk.

(II) Evening walk is harmful

Ans. (D) 64. Statement: Separate schools are established for boys and girls.

Conclusion: (I) Girls are much talkative

(II) There are difference in studies of boys and girls

Ans. (D)

Direction (From Q.65 to 66)

In each of the following questions two statements (I) and (II) are given. There may be cause and effect relationship between the two statements. Read both the statements and mark your answer as

- (A) If statement (I) is the cause and statement (II) is its effect.
- (B) If statement (II) is the cause and statement (I) is its effect.
- (C) If both statements (I) and (II) are independent causes.
- (D) If both the statements (I) and (II) are effects of independent causes.
- 65. Statement: (I) It is the target of the civic committees of the city to reduce the air pollution 20% in the next two months.
 - (II) The number of asthma cases in the city is constantly increasing.

Ans. (B)

66. Statement: (I) In the months of summer many people left the city to go to their native place.

(II) Many tourists have conjoined the city in the months of summer.

Ans. (C)

Direction (From Q.67 to 71)

In each of the following questions one question and two statements (I) and (II) are given. You have to decide whether the data provided in the statement are sufficient to answer the questions.

Read both the statements and choose the correct alternative from the following:

- (A) (I) alone is sufficient.
- (B) (II) alone is sufficient.
- (C) Both (I) and (II) together are sufficient but not alone
- (D) (I) and (II) together are also insufficient.
- 67. Whether the student Sumit of class 12th is hero of his school?

Statement (I) Sumit's father donate much to the school

Statement (II) Sumit performs best in all programs of school including study.

Ans. (B)

68. The total of presents ages of A,B, C and D is 96 years. What is B's present age?

Statement (I) The average age of A,B and D is 20 years.

Statement (II) The average age of C and D is 25 years.

Ans. (C)

69. How many teachers are there in the two states C and M?

Statement: (I) C has 2000 less teachers than M

Statement: (II) M has double teachers of C.

Ans. (C)

70. What is the value of x when x.y=18?

Statement: (I) x>y and y is an odd number.

Statement: (II) x and y are different from 1

Ans. (C)

71. R's birthday is on which day of the week?

Statement: (I) R celebrates his birthday after Monday but before Saturday.

Statement: (II) R's sister went for his birthday after Wednesday.

Ans. (D)

Direction (From Q.72 to 73)

In each of the following question a statement followed by two courses of action (I) and (II) are given. You have to assume everything in the statement is true. Then decide which of the suggested course of action logically follows.

Choose the alternative:

- (A) If only (I) follows
- (B) If only (II) follows
- (C) If both (I) and (II) follows
- (D) If neither (I) nor (II) follows.
- 72. Statement: Rain is continuously getting down

Course of action: (I) Cutting tree should be stopped

(II) Attention should be given on water conservation.

Ans. (C)

- 73. Statement: The officer in charge of a company suspected that some money was missing from the vault. Course of action: (I) He should get it recounted with the help of staff and check it with the balance sheet.
 - (II) He should inform the police.

Ans. (A)

Direction (From Q.74 to 75)

In each of the following questions one statement and two assumptions (I) and (II) are given. Decide which of the assumptions is implicit in the statement.

Give answer:

- (A) If only assumption (I) is implicit
- (B) If only assumption (II) is implicit
- (C) If either (I) or (II) is implicit
- (D) If neither (I) nor (II) is implicit.
- 74. Statement: "If you break discipline of the school. You will be expelled from the school"- a teacher told to a student.

Assumptions: (I) All students do not like discipline.

(II) Examination result of the school will be better.

Ans. (D)

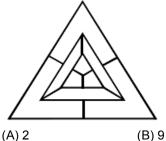
75. Statement: It is faster to travel by air from Delhi to Banglore.

Assumption: (I) Banglore and Delhi is connected by air.

(II) There are no other means of transport available from Delhi to Bangolore.

Ans. (A)

76. A minimum of how many colours will be required to colour the given figure, so that no two adjoining portions in the given figure may have the same colur.



(C)3

(D) 4

(C) Ans.

77. Find the number of squares in the given figure: (A) 9 (B) 16 (C) 8 (D) None of these (B) Ans. 78. How many triangles are there in the following figure? (A) 21(B) 22 (C) 19 (D) None of these (B) Ans. 79. Find the minimum number of straight lines required to make the given figure-(A) 10 (B) 12 (C) 8 (D) None of these Ans. (A) How many circles are there inside the triangle in the following figure? 80.

(C) 10

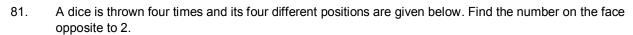
(D) None of these

(A) 9

(B)

Ans.

(B) 6





(A) 3



(B) 4



(C)5



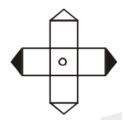
(D) 6

Ans. (C)

- 82. A dice is numbered 1 to 6 in such a way that 1 is adjacent to 2, 4 and 6. Then which of the following statement is necessarily true?
 - (A) 3 is opposite to 5
- (B) 2 is opposite to 6
- (C) 1 is adjacent to 3
- (D) 3 is adjacent to 5

Ans. (D)

83. The sheet of paper shown in the following figure is folded to form a box. Choose the alternative that is similar to the box that will be formed-





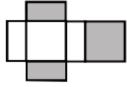


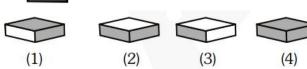




Ans. (D)

84. The sheet of paper shown in the following figure is folded to form a box. Choose the alternative that is similar to the box that will be formed?

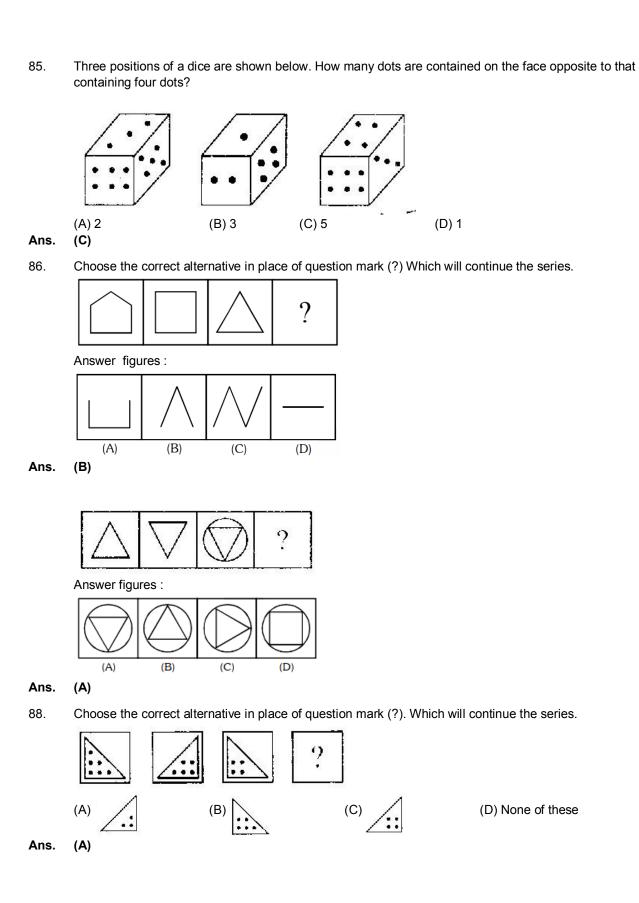




- (A) (I) and (III) only
- (C) (II) and (IV) only

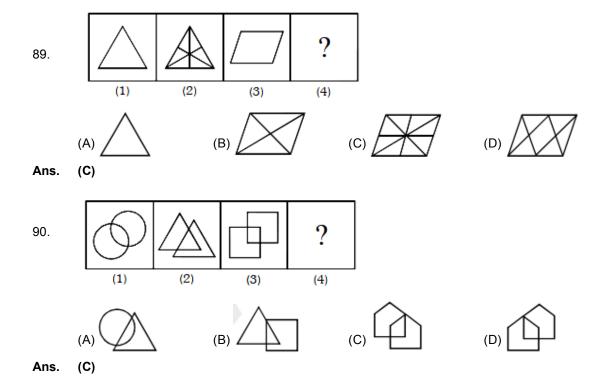
(B) (II) and (III) only (D) (I) and (IV) only

Ans. (A)



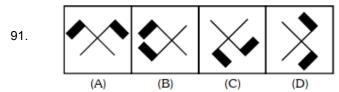
Direction (From Q.89 to 90)

In the following questions, figures (I) and (II) are related in a particular manner. Establish the same relationship between figures (3) and (4) by choosing a figure from among the alternatives. Which would replace question mark in figure (4)

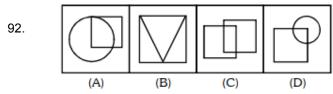


Direction (From Q.91 to 92)

In the following questions out of the four figures marked as (A), (B), (C) and (D). There are similar in a certain manner but one is different from other. Choose the figure which is different from others



Ans. (B)



Ans. (C)

- 93. Choose the alternative which is most closely resembles the mirror image of the given combination:
 - E 6 C G 9 3 (A)

(B) 39GC6BA

39GC6BA(2)

ABC6G93((d)

Ans. (A)

94. Choose the alternative which is most closely resembles the mirror image of the given combination:

DHYAN78

87NAYHD (A)

DHYAN78 (B)

(C) DHYAN78

DHYAN78 (D)

Ans. (B

95. Choose the alternative which is most closely resembles the water image of the given combination:

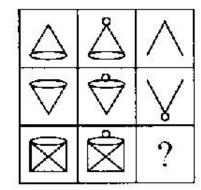
PQ8AF5BZ9

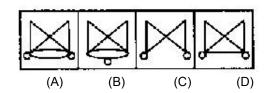
- **B** Ø 8 **V E** 2 **B S** 3 (A)
- (B) PQ8AF5BZ9
- (C) PQ8AL5BZ9
- (D) None of these
- Ans. (B)
- 96. Choose the alternative which is most closely resembles the water image of the given combination:

63AMAN48

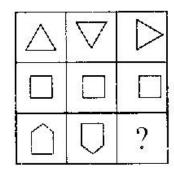
- (A) 8 4 N A M A 3 6
- (B) 8 4 N A M A E 3
- (c) 6 3 A M A N 4 8
- (D) 6 3 A M A N 4 8

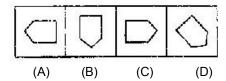
- Ans. (C)
- 97. Select a suitable figure from the given alternatives that would complete figure matrix:





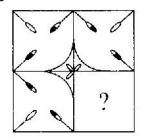
Ans. (D)





Ans. (C)

99. Select a figure in place of (?) from amongst the given alternatives which would complete the pattern of the question figure





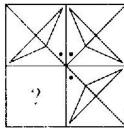






Ans. (C

100. Select a figure in place of (?) from amongst the given alternatives which would complete the pattern of the question figure











Ans. (B)