

5. AY, CW, EU, GS, _____.

- (1) JO (2) LN (3) IQ (4) DV

Ans. (3)

Sol. AY, CW, EU, GS, **IQ**

Directions : Questions (6 to 10) : Three terms are alike in certain way the one different, Find that odd/Wrong/different

6. 2, 12, 36, 80, 152, 252

- (1) 252 (2) 152 (3) 12 (4) 40

Ans. (2)

Sol. 2, 12, 36, 80, **152**, 252
 $1^2 + 1^3$ $2^2 + 2^3$ $3^2 + 3^3$ $4^2 + 4^3$ $5^2 + 5^3$ $6^2 + 6^3$

7. 2, 3, 8, 27, 110, 565

- (1) 110 (2) 8 (3) 27 (4) 565

Ans. (1)

Sol. 2, 3, 8, 27, **110**, 565
 $\times 1+1$ $\times 2+2$ $\times 3+3$ $\times 4+4 = 112$

8. 12, 14, 18, 26, 38, 60, 74

- (1) 26 (2) 74 (3) 18 (4) 60

Ans. (4)

Sol. 12, 14, 18, 26, 38, 60, 74

$12 = 12 + (1 \times 2) = 14$

$14 = 14 + (1 \times 4) = 18$

$18 = 18 + (1 \times 8) = 26$

$26 = 26 + (2 \times 6) = 38$

$38 = 38 + (3 \times 8) = 62$

9. (1) AEDCB (2) KONML (3) QSTUR (4) HLKJI

Ans. (3)

Sol. +4 -1 -1 -1
A E D C B
+4 -1 -1 -1
K O N M L
+2 +1 +1 -3
Q S T U R
+4 -1 -1 -1
H L K J I

10. (1) ANRYAAH (2) DGRHAAIHCN (3) ANHTAJASR (4) BNJUAP

Ans. (2)

Sol. (i) ANRYAAH - HARYANA (STATE)
 (ii) DGRHAAIHCN - CHANDIGARH (U.T)
 (iii) ANHTAJASR - RAJASTHAN (STATE)
 (iv) BNJUAP - PUNJAB (STATE)
 (i), (iii) & (iv) are states only (ii) is UT.
 So option (2) is correct

Directions : Questions (11 to 15) : Analyse the series and fill the gap

11. a _ ba _ bb _ _ bb _ a _
 (1) aabbaa (2) abbbab (3) baaaab (4) baaaba

Ans. (4)

Sol. a-b a-b b--b b-a -
 b a a a b a

12. _ aab _ caa _ bbc _ a _ b _ ca
 (1) abaaba (2) abaaab (3) cbacaa (4) abcbaa

Ans. (2)

Sol. -aa b-c aa-b bc-a - b-ca
 a b a a a b

13. _ bc _ bb _ aab _ _
 (1) ababc (2) acacc (3) aaccb (4) babcc

Ans. (4)

Sol. -b c--b b-aa b-
 b a b c c

14. 23 _ 4 _ 1 _ 53 _ _ 3 _ 41
 (1) 514322 (2) 513242 (3) 254312 (4) 514225

Ans. (4)

Sol. 2 3-4-1-5 3--3-4
 5 1 4 2 2 5

15. 10 _ 2 _ 02 _ 022
 (1) 2122 (2) 2121 (3) 2101 (4) 1022

Ans. (2)

Sol. 10-2-0 2--0 2 2
 1 0 2 2

Directions : Questions (21) : Find the missing character

21.

23	24	45
32	33	54
34	17	?

- (1) 58 (2) 63 (3) 93 (4) 84

Ans. (4)

Sol.

23	24	48
32	33	54
34	17	?

$$(2 \times 3) \times (2 \times 4)$$

$$6 \times 8 = 48$$

$$(3 \times 2) \times (3 \times 3) = 6 \times 9 = 54$$

$$(3 \times 4) \times (1 \times 7) = 12 \times 7 = 84$$

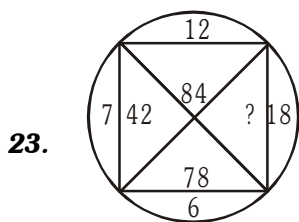
22.

37	61	71
47	53	41
59	?	43

- (1) 29 (2) 67 (3) 84 (4) 62

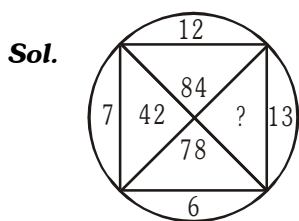
Ans. (2)

Sol. Series of prime numbers.



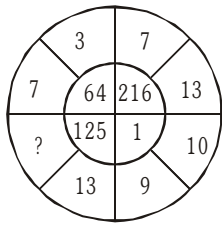
- (1) 26 (2) 156 (3) 39 (4) 70

Ans. (2)



$$12 \times 13 = 156$$

24.

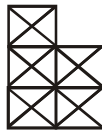


- (1) 10 (2) 8 (3) 112 (4) 124

Ans. (2)

Sol. $(13 - 8) = 5^3 = 125$

Directions : Questions (25 to 28) : Answer the questions based on diagram



25. How many squares are there?

- (1) 10 (2) 12 (3) 15 (4) 14

Ans. (2)

Sol. On counting, the number of square = 12

26. How many rectangles are there excluding squares?

- (1) 10 (2) 13 (3) 15 (4) 12

Ans. (4)

Sol. On counting, the number of rectangles excluding squares = 12.

27. How many triangles are in given figure?

- (1) 56 (2) 57 (3) 54 (4) 43

Ans. (3)

Sol. On counting, the number of triangles = 54.

28. How many straight lines are given in figure

- (1) 10 (2) 12 (3) 14 (4) 16

Ans. (3)

Sol. On counting, the number of straight lines = 14

Directions : Questions (29 to 33) : According to code language words in the column are given and their codes are given in column II, Decode the language and choose the correct code for the words in questions (29-35) among given alternatives.

Column I

LASER

HEAVY

WATER

PLANE

SHOCK

MIRTH

STONE

Column II

inmcq

nstmz

hxqkm

menfe

xlyzd

wzkaq

xnlke

29. Code for E

- (1) n (2) m (3) q (4) s

Ans. (Bonus)

Sol. Error in question, cannot predict the code for A and E.

30. Code for A

- (1) x (2) z (3) d (4) m

Ans. (Bonus)

31. Code for S

- (1) x (2) l (3) c (4) a

Ans. (2)

Sol. Look for the words having letter 'S' in common and also their codes.

LASER - lnmcq

SHOCK - nlyzd

STONE - xnlke

∴ S → l

32. Code for L

- (1) m (2) e (3) c (4) z

Ans. (3)

Sol. Following the same procedure as in Q. 31, we get L → C.

33. Code for R

- (1) z (2) k (3) l (4) q

Ans. (4)

Sol. Following the same procedure as in Q. 31, we get R → Q.

34. In a certain code language, 134 means 'Good and Tasty', 478 means 'See Good Picture', and 729 means 'Picture are faint'. Which of the following numerical symbols stands for 'See'?

- (1) 4 (2) 2 (3) 7 (4) 8

Ans. (4)

Sol. 134 good and tasty (i)

478 see good picture (ii)

729 picture are faint. (iii)

Look for code of see, which can be predicted as 4 is common in (i) and (ii). There for 4 stands for "Good" and 7 is common in (ii) and (iii) therefore '7' stands for picture (as it is also common in (ii) and (iii) Therefore 8 stands for 'Sea'

Direction (35-37) Study the following information carefully and answer the questions that follows:

A, B, C, D, E, F & G are seven kids playing in the garden. They are wearing clothes of colours- black, blue, white, green, pink, yellow and brown. Out of seven, three are girls. No girl is wearing either black yellow or brown. D's sister F is wearing pink while he is wearing brown. A is wearing blue, while his sister B is not wearing green. E is wearing yellow, while his best friend G is a boy.

35. What colour is B wearing?

- (1) Green (2) Pink (3) Brown (4) None of these

Ans. (4)

Sol. (35-37)

	Boy/Girl	Black	Blue	White	Green	Pink	Yellow	Brown
A	Boy		Yes					
B	Girl	No		Yes	No	No	No	No
C	Girl	No			Yes			
D	Boy							Yes
E	Boy						Yes	
F	Girl					Yes		
G	Boy	Yes						

36. What colour is G wearing?

- (1) Black (2) Blue (3) White (4) Green

Ans. (1)

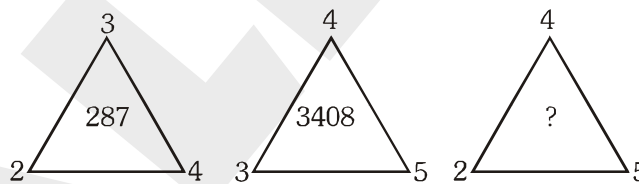
37. What colour is C wearing?

- (1) Black (2) Green (3) White (4) None of these

Ans. (2)

Direction: Find the missing character in questions (38-39) such that it follows some rule:

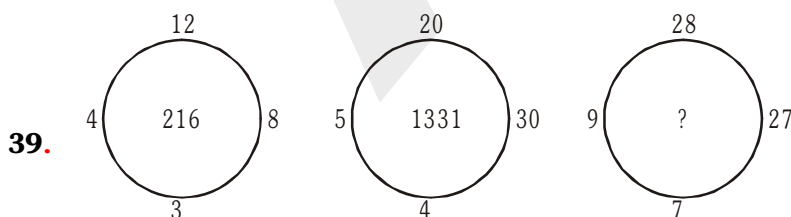
38. Find the missing character in questions that it follows some rule:



- (1) 3385 (2) 3395 (3) 3412 (4) 297

Ans. (1)

Sol. $2^2 + 3^3 + 4^4 = 287$, $3^3 + 4^4 + 5^5 = 3408$, $2^2 + 4^4 + 5^5 = 3385$



39.

- (1) 125 (2) 512 (3) 1728 (4) 343

Ans. (4)

Sol. $((8 \div 4) + (12 \div 3))^3 = (6)^3 = 216$
 $((30 \div 5) + (70 \div 4))^3 = (11)^3 = 1331$
 $((27 \div 9) + (28 \div 7))^3 = 7^3 = 343$

40. At what time between 4 and 5 O'clock will the hands of the clock coincide.

- (1) $32\frac{10}{11}$ minute past 4 (2) $21\frac{9}{11}$ minute past 4
(3) $21\frac{10}{11}$ minute past 4 (4) 22.5 minute past 4

Ans. (2)

Sol. To coincide the minute hand has to gain 20 minutes. As 55 minutes are gained in 60. Similarly 20 minutes are gained in $\frac{60}{55} \times 20 = \frac{240}{11}$.
 $\therefore 21\frac{9}{11}$ minutes past 4.

41. India got independence on FRIDAY, What will be the day on which Indians will celebrate the independence day in 2047.

- (1) Thursday (2) Friday (3) Sunday (4) Tuesday

Ans. (1)

Sol. 15 August 1947– 15 August 2047. There will be hundred years. Therefore counting odd days. The day will be Thursday.

42. If 2nd day of a month is Tuesday, which will be the fifth day from 20th day of that month?

- (1) Tuesday (2) Wednesday (3) Thursday (4) Friday

Ans. (3)

Sol.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
M	T	W	TH	F	S	S	M	T	W	TH	F	S	S	M	T	W	TH	F	S	S	M	T	W	TH

43. If $G + I = 130$ then $H + L$ will be equal to

- (1) 20 (2) 144 (3) 206 (4) 208

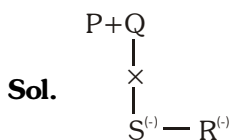
Ans. (4)

Sol. $G + I = 130$ $H + L = 208$
 $7^2 + 9^2 = 130$ $8^2 + 12^2 = 208$

44. P and Q are married couple, R and S are sisters. Q's son is S's father. How is P related to R?

- (1) Uncle (2) Mother (3) Grandmother (4) Father

Ans. (3)



45. Pointing to a boy, Rita said "His father is my son's only son". How is the boy related to Rita?

- (1) Son (2) Daughter (3) Grand daughter (4) Great Grand Son

Ans. (4)

Sol.



46. In a row, A is 8th from the left and B is 17th from the right. If they interchange their positions A becomes 14th from the left. How many persons are there in the row?

- (1) 25 (2) 27 (3) 31 (4) 30

Ans. (4)

Sol. Clearly the position of A is 14 from left and 17 from right. Therefore no. of persons are
 $= 14 + 17 - 1 = 30$

47. Suresh left home for the bus stop 10 minutes earlier than the usual time and reached the bus stop at 9.25 a.m., he takes another 20 minutes to reach office. If Suresh usually office 5 minutes before office time then at what time today he reached office?

- (1) 9.00 am (2) 8.00 am (3) 10.00 am (4) 9.30 am

Ans. (Bonus)

Direction - Questions (48-51) are based upon the sum of addition, each letter has unique value and for unique value there is unique letter. If $E = 4$,

$$\begin{array}{r} \text{LET} \\ + \text{THE} \\ \hline \text{LOSS} \end{array}$$

48. Value of S

- (1) 4 (2) 2 (3) 5 (4) 6

Ans. (2)

Sol. E = 4

O = 0

T = 8

L = 1

S = 2

H = 7

49. Value of H

- (1) 3 (2) 6 (3) 9 (4) 7

Ans. (4)

Sol. Refer to solution of Q. 48

50. Value of L

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

Ans. (3)

Sol. Refer to solution of Q. 48

51. Value of T

- (1) 8 (2) 9 (3) 7 (4) 2

Ans. (1)

Sol. Refer to solution of Q. 48

52. If NTSE = 58, NMMS = 59, then PSTSE = ?
 (1) 79 (2) 62 (3) 56 (4) 48

Ans. (1)

Sol. NTSE = 14 + 20 + 19 + 5 = 58
 NMMS = 14 + 13 + 13 + 19 = 59
 \therefore PSTSE = 16 + 19 + 20 + 19 + 5 = 79

53. If OM = 195, HARI = 1296 then RAM = ?
 (1) 186 (2) 294 (3) 1392 (4) 234

Ans. (4)

Sol. OM = 15 × 13 = 195
 HARI = 8 × 1 × 18 × 9 = 1296
 \therefore RAM = 18 × 1 × 13 = 234

Direction : In questions (54-55) mathematical signs have no meaning. Find clue and target answer.

$$3 \times 4 \times 4 = 82$$

$$9 \times 3 \times 4 = 93$$

54. $7 \times 7 \times 7 = 89$

$$5 \times 8 \times 7 = ?$$

- (1) 95 (2) 69 (3) 86 (4) 87

Ans. (2)

Sol. $3 \times 4 \times 4 \Rightarrow (I + III) \times II$

$$(I) (II) (III) = (3 + 4) \times 4 = 7 \times 4 = 28$$

$$9 \times 3 \times 4 \Rightarrow (9 + 4) \times 3$$

$$= 13 \times 3 = 39$$

$$\therefore 5 \times 8 \times 7 \Rightarrow (5 + 7) \times 8$$

$$= 12 \times 8 = 96$$

$$\text{Reversed} = 82$$

$$\text{Reversed} = 93$$

$$\text{Reversed} = 69$$

55. $46 - 3 = 12$

$$64 - 9 = 12$$

$$? - 6 = 3$$

- (1) 62 (2) 43 (3) 28 (4) 24

Ans. (3)

Sol. $46 - 3 = 12$

$$46 = 12 + 3$$

$$\text{RHS} \Rightarrow 12 + 3 = 15 \times 3 + 1$$

$$= 45 + 1 = 46 = \text{LHS}$$

$$64 - 9 = 12$$

$$64 = 12 + 9$$

$$\text{RHS} \Rightarrow 12 + 9 = 21 \times 3 + 1$$

$$= 63 + 1 = 64 = \text{LHS}$$

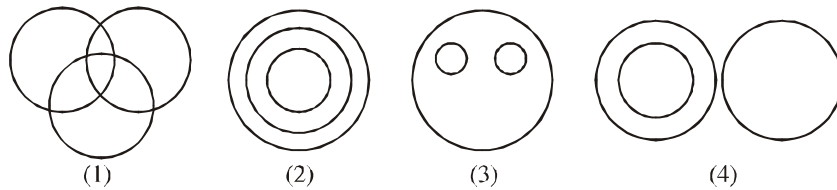
$$\therefore ? - 6 = 3$$

$$? = 3 + 6$$

$$\text{RHS} \Rightarrow 3 + 6 = 9 \times 3 + 1$$

$$= 27 + 1 = 28 \text{ LHS.}$$

Directions (56-58) : In the following questions three classes are given, out of the following four figures that follow, you are to indicate which figure will represent the relationship amongst the three classes .diagram



56. Beverages, Tea, Coffee

Ans. (3)

Sol. Since, Tea and coffee are both beverages

57. Triangle, Rectangle, Polygon

Ans. (3)

Sol. Since, Triangle and rectangle are both polygons.

58. Patiala, Punjab, Gujarat

Ans. (4)

Sol. Since, Patiala is in Punjab and Gujrat is a separate state.

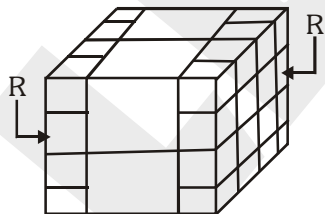
Direction - Six faces of a cube are painted in a manner that no two adjacent faces have the same colour. The three colours used are red, blue and green. The cube is cut into 36 cubes in a manner that 32 cubes are of smaller same size and 4 cubes are of bigger size. Each bigger cube has no red face.

59. How many cubes in all have red face?

- (1) 8 (2) 16 (3) 20 (4) 32

Ans. (4)

Sol. As observed in the figure, there are total 32 cubes in all have red face.



60. How many cubes have only one face coloured?

- (1) 0 (2) 16 (3) 8 (4) 20

Ans. (3)

Sol. On one side layer, there are 4 smaller cubes with only one face painted. Since, there are 2 such layers.

$$\therefore 4 \times 2 = 8$$

61. How many cubes have three faces painted?

- (1) 8 (2) 20 (3) 16 (4) 28

Ans. (1)

Sol. Only cubes on vertices have 3 face painted.

62. How many cubes have only two faces painted?

- (1) 28 (2) 20 (3) 16 (4) 8

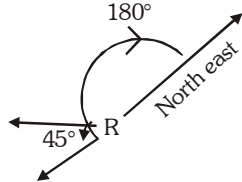
Ans. (2)

Sol. As observed, there are total 20 cubes with only 2 faces painted.

63. Rohit is facing west. He turns 45° in the anticlockwise direction and then 180° in the clockwise direction. Which direction is he facing now?

- (1) North (2) North-East (3) East (4) South-East

Ans. (2)

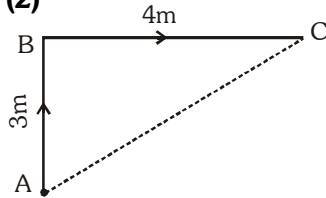


Sol.

64. Rajan moves 3 metres in north direction then he moves 4 metres in east direction. How far is he from the starting point?

- (1) 7 meters (2) 5 meters (3) 4 meters (4) 1 meters

Ans. (2)



Sol.

$$AB^2 + BC^2 = 4^2 + 3^2 = 16 + 9 = 25 = AC^2$$

$$\therefore AC = 5 \text{ m}$$

65. 36 vehicles are parked in a single row. After the first car there is one scooter, after the second car there are two scooters. After the third car there are three scooters. How many scooters are in the second half of the row?

- (1) 17 (2) 15 (3) 12 (4) 10

Ans. (2)

Sol. Let the cars be represented by longer lines and scooters by smaller lines.



$$\therefore \text{no. of scooters} = 15.$$

66. Which word cannot be formed from RECOMENDABLE

- (1) COMENDOR (2) MENDRECO (3) ABLEDGOR (4) MOCABLE

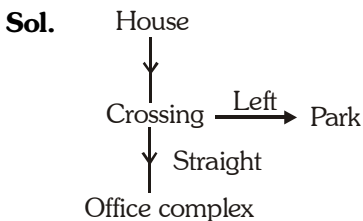
Ans. (3)

Sol. ABLEDGOR can not be formed as it does not contain G.

67. Mansavi wants to go to the market. She starts from her house which is in north and comes to the crossing. The road to her left ends in a park and straight ahead is the office complex. In which direction is the market?

- (1) East (2) North (3) West (4) South

Ans. (3)



$$\therefore \text{Market is in west.}$$

Direction (68-71) Study the following information and answer the given questions: In the following cases/questions in certain code language if

'+' means '÷', '-' means '×', '×' means '+', '÷' means '-'

68. $8 + 2 \times 5 - 3 = ?$

- (1) 27 (2) 15 (3) 19 (4) 47

Ans. (3)

Sol. $8 \div 2 + 5 \times 3$

$= 4 + 5 \times 3 = 4 + 15 = 19$

69. $9 - 2 \times 27 + 3 - 1 = ?$

- (1) -51 (2) 180 (3) 26 (4) None of these

Ans. (3)

Sol. $9 \times 2 + 27 \div 3 - 1$

$= 9 \times 2 + 9 - 1 = 18 + 9 - 1 = 27 - 1 = 26$

70. $16 + 2 - 3 \div 1 = ?$

- (1) -3 (2) 30 (3) 105 (4) None of these

Ans. (2)

Sol. $16 \div 2 \times 3 + 7 - 1$

$= 8 \times 3 + 7 - 1 = 24 + 7 - 1 = 31 - 1 = 30$

71. $49 + 7 - 5 \times 8 = ?$

- (1) 16 (2) 22 (3) 43 (4) None of these

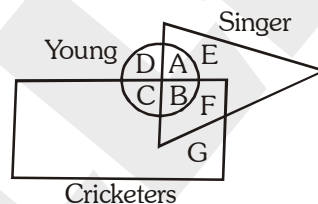
Ans. (3)

Sol. $49 \div 7 \times 5 + 8$

$= 7 \times 5 + 8 = 35 + 8 = 43$

Direction (Question 72-75): study the following information and answer the given question:

In the following figure 'Rectangle represents Cricketers', 'Circle represents Young' and Triangle represents Singers':-



72. Which region represents young Cricketers who are not singers?

- (1) B (2) G (3) C (4) F

Ans. (3)

73. Which region represents Old Cricketers who are not singers?

- (1) B (2) G (3) F (4) C

Ans. (2)

74. Which region represents Young people who are neither Cricketers nor Singers?

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


Ans. (2)





75. Which region represents Cricketers who are Singers but not young?

- (1) E (2) A (3) C (4) F


Ans. (4)





Direction : Figure(X) is embedded in which of the following four alternatives.

76. 
 (X)

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

Ans. (4)


77. 

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

Ans. (2)

Direction (78-79)-A piece of paper is folded and cut is made as shown below. From the given responses indicate how it will appear when opened?


78. Question Figure




Answer Figure

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

Ans. (4)

Sol. 

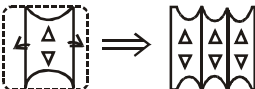
79. Question Figure



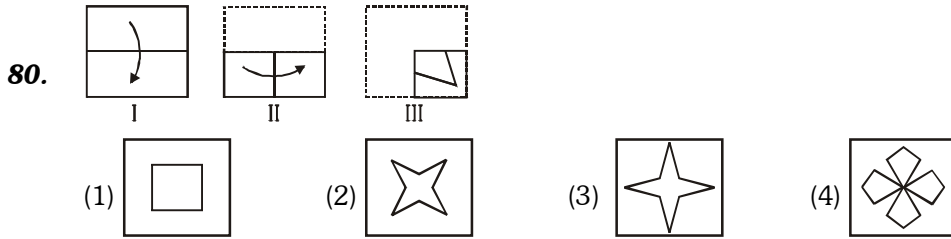
Answer Figure

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

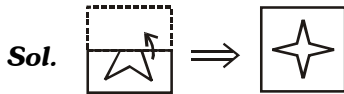
Ans. (3)

Sol. 

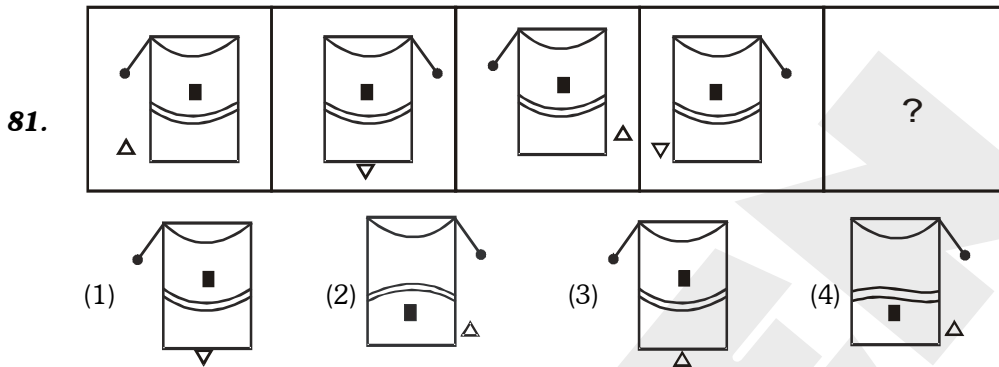
Direction- Three figures marked I, II, III have one fold at I, 2nd fold at II and is cut in figure III. From among the four alternatives which will show the unfolded position of figure III.



Ans. (2)



Direction (81-82)- In questions, select the correct figure among alternatives to continue series.



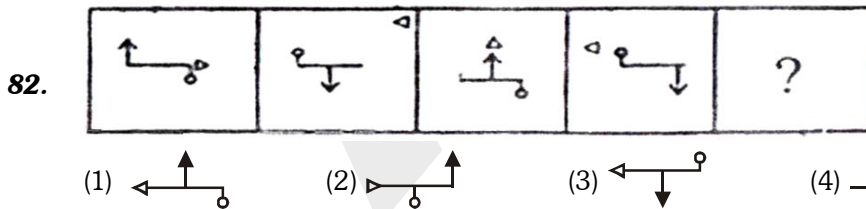
Ans. (3)



For position of \triangle

Since it follows, \triangle

So next figure will be

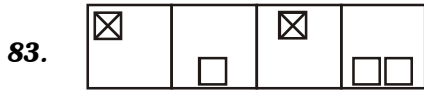


Ans. (2)

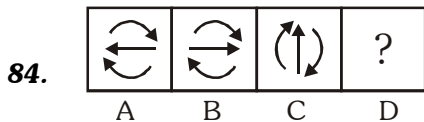
Sol. Alternately arrows are upwards and downward. Also position of arrow will follow sequence.



Direction- In the following question, there are four question figure followed by the answer figures labelled as (1), (2), (3) and (4). The four question figure make comon series. Find the correct figures from answer figures which eill complete the series.

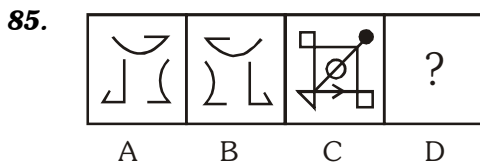


Ans. (2)



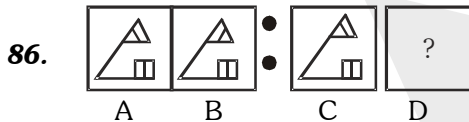
Ans. (4)

Sol. Figure A is rotated 90° anti-clockwise to form figure C. So rotate figure B to 90° anti-clockwise to obtain figure D.

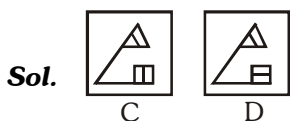


Ans. (1)

Sol. B is mirror image of A, So (1) is mirror image of C.

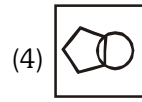
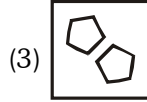
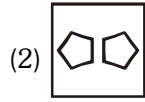
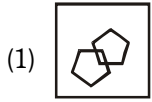
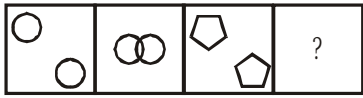


Ans. (3)



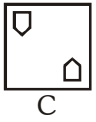
[Since $\triangle \parallel \triangle$
So, $\triangle \parallel \triangle$]

87.



Ans. (1)

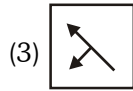
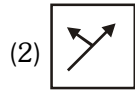
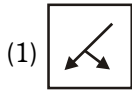
Sol.



88.



(X)



Ans. (3)

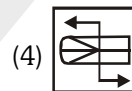
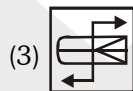
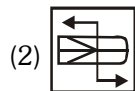
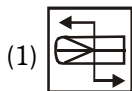
Sol.



89.



(X)



Ans. (4)

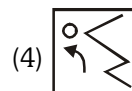
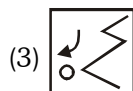
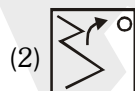
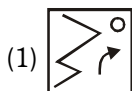
Sol.



90.



(X)

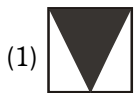
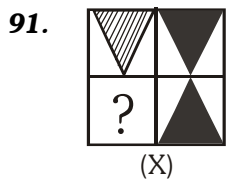


Ans. (3)

Sol.

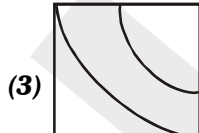
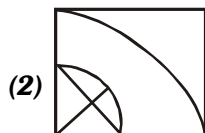
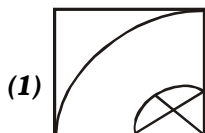
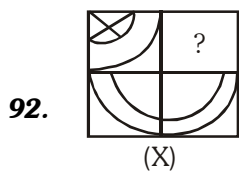
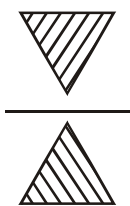


Direction-Complete the given figure (X) among alternatives.



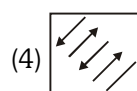
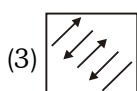
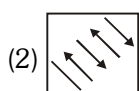
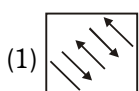
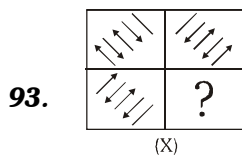
Ans. (3)

Sol. Water image



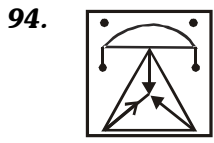
Ans. (Bonus)

Sol. Mirror image

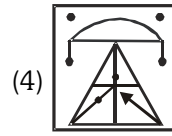
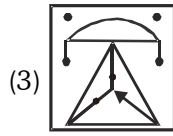
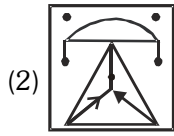
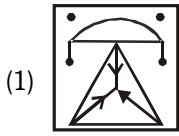


Ans. (1)

Sol. Mirror image of figure at left.

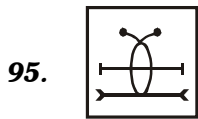


X

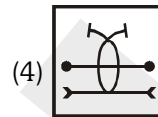
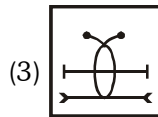
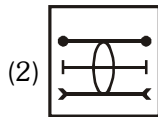
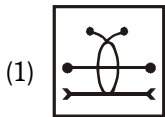


Ans. (1)

Sol. Clearly seen option (1) is correct.



X



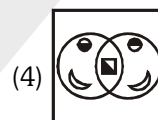
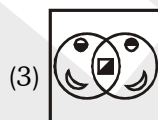
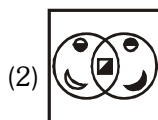
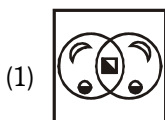
Ans. (3)

Sol. Clearly seen option (3) is correct.

Direction : Find the water image of (X).

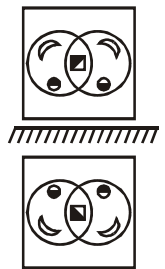


(X)



Ans. (4)

Sol.



(1) DOGGVÆ

(2) DOGGVÆ

(3) DOTLVB

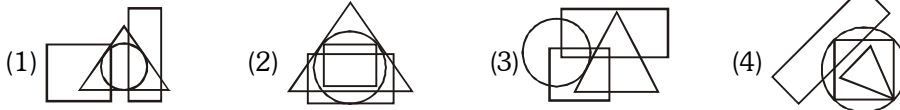
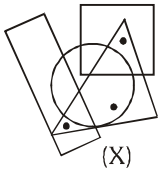
(4) DOTLVB

Ans. (2)

Sol.

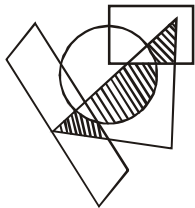
Direction - In questions, select among the alternative which satisfy the same condition of placement of dots as in the given figure (X).

98.

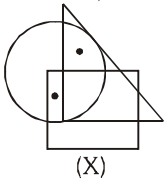


Ans. (1)

Sol. Common area is between triangle and square, triangle and circle, triangle and rectangle.

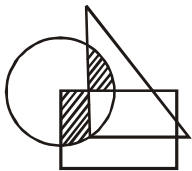


99.

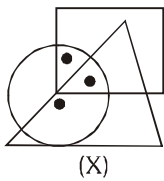


Ans. (2)

Sol. Common area is between circle and triangle, square and triangle.



100.



Ans. (4)

Sol. Common area is between triangle, square and circle, circle and square, circle and triangle.

