CHAPTER

Visual Reasoning, Non-verbal Series & Classification

A dice is thrown four times and its four different positions are given below. Find the number on the face opposite the (SSC CHSL 2012) face showing 2.



- (c) 6
- (d) 3 Identify the missing figure to complete the matrix.

(SSC CHSL 2012)

Question figure :



Answer Figures :



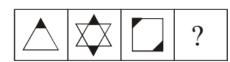




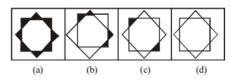


Find the missing figure of the series from the given responses. (SSC Multitasking 2013)

Question Figures:

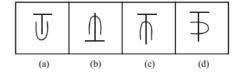


Answer Figures :



Select the figure which is different from the rest.

(SSC Multitasking 2013)



Four different positions of dice are as shown below. What number is opposite to face 3? (SSC Sub. Ins. 2013)



(a) 4 (b)

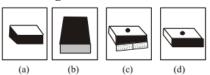
(c) 2 (d) 6

Which one of the following box can be created by folding the given key design? (SSC CGL 1st Sit. 2013)

Question Figure:



Answer Figures:



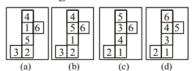
Three views of the same cube are given. All the faces of the cube are numbered from 1 to 6. Select one figure which will result when the cube is unfolded.

(SSC CGL 1st Sit. 2013)

Question Figure:



Answer Figures:

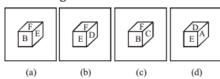


Which of the following cubes can be created by folding the (SSC CGL 2nd Sit. 2013) given figure?

Question Figure.



Answer Figures.



9. Two positions of a dice are given. Which number would be at the top when bottom is 2?

(SSC CGL 2nd Sit. 2013)





(c) 5

(d) 6

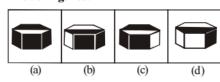
Which one of the four boxes given below is created by folding the given key design in the question figure?

(SSC CGL 1st Sit. 2013)

Question figures:



Answer figures:



11. Four views of a dice have been shown below, which of the following symbols is on the face opposite to the face having the symbol \div ? (SSC CGL 1st Sit. 2013)









(b) 0 (d) Δ (c)

12. Two positions of a dice are shown below. If 1 is at the bottom, which number will be on top?

(SSC CGL 1st Sit. 2013)





(a) 4

(b) 3

(d) 5

13. What comes next in the series?

(SSC CGL 1st Sit. 2013)

Question Figures:









12

Answer Figures:









(a) (b)

(c) (d) 14. From the given blocks when 10 is at the bottom, which number

(SSC CGL 1st Sit. 2013)

will be at the top?

(a) 8

(b) 12 (c) 6

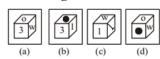
(d) 4

15. Which of the four cubes pictured below are correct view when the six squares are folded (in clockwise direction) into (SSC CGL 1st Sit. 2013) a cube?

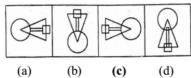
Question Figure:



Answer Figures:



Which figure is different from the rest of the three? (SSC CHSL 2013)



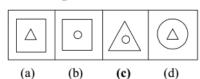
17. Select the related figure from the given alternatives.

(SSC CHSL 2013)

Question Figures:



Answer Figures:

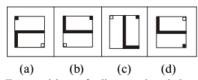


Select the correct alternative from the given ones which will complete the figural series. (SSC CHSL 2013)

Question Figures:



Answer Figures :



Four positions of a dice are given below, Identify the number (SSC Sub. Ins. 2014) at the bottom then top is 6.

Question Figures:



(a) 1

(b)

(c) 4

(d) 5

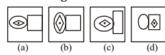
20. Find the missing figure.

Question Figures:

(SSC Sub. Ins. 2014)

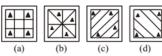


Answer Figures:



21. Select the figure which is different from the rest.

(SSC Sub. Ins. 2014)

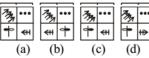


 In question below, a series is given with one term missing. Choose the correct alternative from the given ones that will complete the series. (SSC Sub. Ins. 2014)

Question Figures:



Answer Figures:

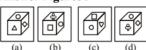


 Choose the cube that will be formed by folding the sheet of paper shown in the problem figure. (SSC CGL 2014)

Question Figure:



Answer Figures:



24. (SSC Sub. Ins. 2015)



How many faces can you count in this 3 dimensional model?

How many face (a) 18

(b) 14

(c) 12

(d) 16

25.

The solid so formed by joining unit cubes is rotated to obtain different positions, which of these cannot be the shape after it has turned? (SSC CHSL 2015)



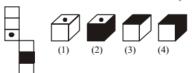






26. The figure given on the left hand side is folded to form a box. Choose from the alternatives (1), (2), (3) and (4) the boxes that is similar to the box formed.

(SSC CGL 1st Sit. 2015)



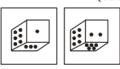
(a) (2) and (3) only

(b) (1), (3) and (4) only

(c) (2) and (4) only (d) (1) and (4) only

 Two position of dice are shown below. When three is at the top what number will be at the bottom.

(SSC CGL 1st Sit. 2015)



(a) 5

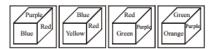
(b) 1

(c) 4

(d) 2

28. In the given cubes, which colour is opposite to purple?

(SSC CGL 1st Sit. 2016)



(a) Violet

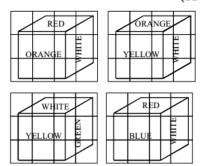
(b) Red

(c) Yellow

(d) Blue

29. Four positions of a cube are shown below. Which color is opposite to white color in the given cubes?

(SSC CGL 1st Sit. 2016)



(a) Orange

(b) Blue

(c) Red

(d) Yellow

The following figure is folded to form a block. Which symbol will appear on the opposite of ▲? (SSC Steno. 2016)

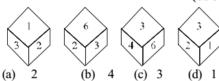


(a) • (c) •

(b) ★ (d) ■

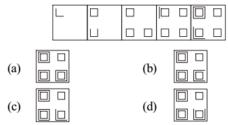
 Four positions of a dice are given below. Identify the number at the bottom when top is 5.

(SSC Sub. Ins. 2016)

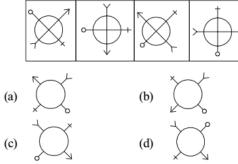


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32.	Three positions of a cube are shown below. What will come opposite to face containing (I)?	40.	Three different positions of a dice are shown below. Which number appears on the face opposite number 3? (SSC CGL 2018)
			$\begin{bmatrix} \frac{5}{4} \\ 1 \end{bmatrix} = \begin{bmatrix} \frac{6}{5} \\ \frac{2}{1} \end{bmatrix} = \begin{bmatrix} \frac{3}{6} \\ 1 \end{bmatrix}$
33.	(a) VI (b) IV (c) II (d) V Three positions of a cube are shown below. What will come opposite to face containing '\$'?	41.	(a) 5 (b) 6 (c) 2 (d) 4 Select the figure that will come next in the following figure series. (SSC CGL 2018)
	\$ * \(\frac{+}{\&} \)		2
34.	(a) % (b) & (c) ^ (d) + Three positions of a cube are shown below. What will come opposite to face containing '4'?		(a) (b)
	(a) 1 (b) 2 (c) 4 (d) 5		(c) (d)
35.	(a) 1 (b) 2 (c) 4 (d) 5 Three creation of a cube are shown below. what will opposite to face containing '5'?	42.	Three different positions of the same dice are shown here. Which number is on the face opposite the face showing
	(a) 6 (b) 1 (c) 3 (d) 2		'5'? (SSC CGL 2018)
36.	(a) 6 (b) 1 (c) 3 (d) 2 Three positions of a cube are shown below. What will come opposite to face containing 'Q'?	43.	(a) 1 (b) 3 (c) 2 (d) 6 Three different positions of the same dice are shown. Select
	$\begin{bmatrix} S \\ P \end{bmatrix} \begin{bmatrix} R \\ Q \end{bmatrix} \begin{bmatrix} X \\ R \end{bmatrix} \begin{bmatrix} Q \\ Z \end{bmatrix}$		the pattern that will be on the face opposite to the one having (SSC CHSL 2018)
37.	(a) P (b) R (c) S (d) Z Three position of a cube are shown below. What will come		1 2 3
	opposite to face containing 'R'		(a) L (b) \(\frac{1}{2} \) (c) \(\phi \) (d) \(\O \)
	$ \begin{array}{c c} R & R & G \\ G & B & W & Y & C & Y \end{array} $	44.	Problem Fig. series. (SSC CHSL 2018)
38.	(a) Y (b) G (c) W (d) C Two position of a cube are shown below. What will come opposite to face containing 'X'?		
	$\langle N \rangle$ $\langle O \rangle$		(a) (b)
	Y X Z N		(c) (d)
	(a) Z (c) Either Z or O (d) P	45.	Select the figure that will come next in the following series. (SSC Sub. Ins. 2018)
39.	Select the figure that will come next in the following figure series. (SSC CGL 2018)		
	(a) (b) (a)		(a) (b)
	(c) U (d) □ □		(c) (d)

46. Select the figure that will come next in the following series. (SSC Sub. Ins. 2018)



47. Select the figure that will come next in the following series. (SSC Sub. Ins. 2018)



48. Two positions of the same dice are given. Which number will be at the bottom if '4' is at the top?

(SSC Sub. Ins. 2018)



(a) 1

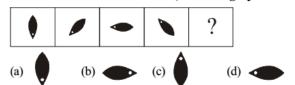
(b) 3

(c) 6

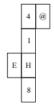
(d) 2

 Choose the correct option that will replace the question mark and continue the given figure series.

(SSC Stenographer 2018)



50. Choose the box that is similar to the box formed from the given sheet of paper. (SSC Stenographer 2018)





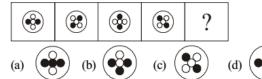






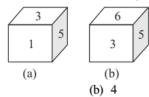
51. Choose the correct option that will replace the question mark and continue the given figure series.

(SSC Stenographer 2018)



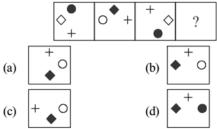
 Two position of the same dice are shown. Select the number that will be on the face opposite to the one showing 6.

(SSC CGL 2019-20)

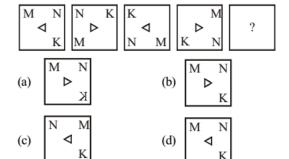


(a) 1 (b) 4 (c) 3 (d) 5

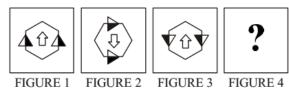
53. Select the figure that can replace the question mark (?) in the following series? (SSC CGL 2019-20)

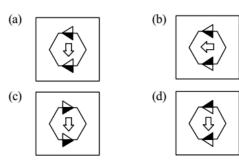


54. Select the option figure that will come next in the following series. (SSC MTS 2019-20)

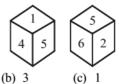


55. Select the option figure that can replace the question mark (?) in the following series. (SSC CHSL 2019-20)





56. Two positions of the same dice are shown. Select the number that will be on the face opposite to the one having the number 5. (SSC CHSL 2019-20)



(a) 6 (b) 3 (c) 1 (d) 4

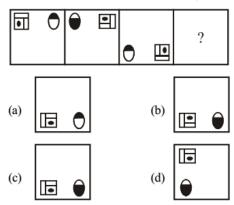
57. Two different positions of the same dice are shown, the faces of which are marked with the letters E, F, G, H, I and J. Select the letter that will be on the face opposite to the face having the letter 'J'. (SSC CGL 2020-21)



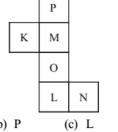
(a) G (b) F (c) E (d) I

58. Select the figure from among the given options that can replace the question mark (?) in the following series.

(SSC CGL 2020-21)



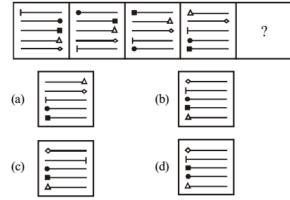
59. A cube is made by folding the given sheet. In the cube so formed, what would be the letter on the opposite side of 'K'? (SSC CHSL 2020-21)



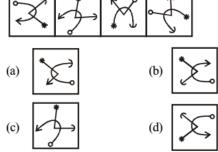
(a) N (b) P (c) L (d) O

60. Select the figure from among the given options that can replace the question mark (?) in the following series.

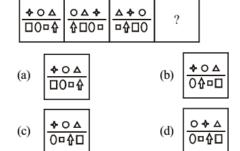
(SSC CHSL 2020-21)



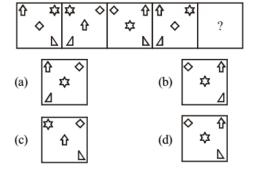
61. Which option figure would come next in the following figure series? (SSC MTS 2020-21)



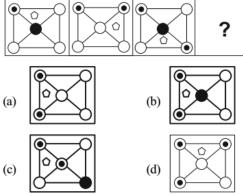
62. Select the figure that will replace the question mark (?) in the following figures series. (SSC Stenographer 2020-21)



 Select the figure that will replace the question mark (?) in the following figure series. (SSC Stenographer 2020-21)

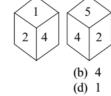


 Select the figure that will replace the question mark (?) in the following figure series. (SSC Sub-Inspector 2020-21)



65. Two different positions of the same dice are shown, the six faces of which are numbered from 1 to 6. Select the number that will be on the face opposite to the face showing '5'.

(SSC Sub-Inspector 2020-21)



(a) 6

(c) 3

66. A cube is made by folding the given sheet. In the cube so formed, which of the following pairs of symbols will NOT be on the opposite faces? (SSC Sub-Inspector 2020-21)



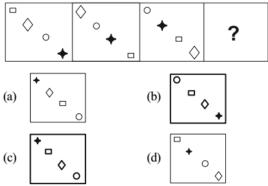
(a) \$ and #

(b) @ and %

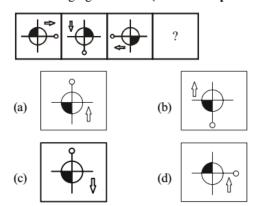
(c) & and \$

(d) # and >

 Select the figure that will replace the question mark (?) in the following figure series. (SSC Sub-Inspector 2020-21)

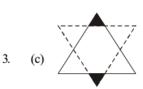


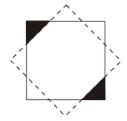
 Select the figure that will replace the question mark (?) in the following figure series. (SSC Sub-Inspector 2020-21)



Hints & Solutions

- 1. (b) 1, 3, 4 and 6 are adjacent 2. Therefore number 5 on the face opposite to 2.
- 2. (a) Option (a) is correct.





- 4. (d) Option (d) is odd one out.
- 5. (a) The numbers 1, 2, 5 and 6 are on the adjacent faces of the number 3. So, the number 4 lies opposite 3.
- 6. (d) The shaded parts are narow. So, answer figure (b) is invalid.

The white part is larger. So, answer figure (c) is invalid. If dot is on the top surface, then the visible surface can not be white. So, answer figure (a) is invalid.

- (a) If we fold the option (b) the number 2 will lie opposite 5.
 If we fold the option (c) the number 1 will lie opposite 3.
 If we fold the option (d) the number 2 will lie opposite 5.
 Therefore, answer figure (d) is correct.
- (b) When folded in the form of a cube, then 'F' appears opposite 'B', 'E' appears opposite 'C' and 'A' appears opposite 'D'.
 In option (a) 'F' is adjacent to 'B'

In option (c) 'E' is adjacent to 'C'.

In option (d) 'E' is adjacent to 'A'.

9. (d) The numbers 1, 2, 5 and 6 are on the adjacent faces of number 3. Therefore, the number 4 lies opposite 3.

The numbers 3, 4 and 6 can not be on the faces opposite to 1. Therefore, 5 lies opposite 1.

Now, 2 lies opposite 6.





11. (a) $\div \rightarrow \mathscr{S} \otimes \mathscr{S} \neq \mathscr{L}$

All other symbols are adjacent to $\div.$ Therefore, \$ symbol is opposite to it.

- 12. (b) By looking, the dice position, we can say that 2, 4, 5 and 6 are adjacent faces of 3. therefore, if 1 number is at the bottom then 3 will be on the top.
- 13. (c) The series represents continuous alphabets starting from K. Hence, N is the right answer.

- 14. (b) From the two views of blocks it is clear that when 10 is at the bottom, number 12 will be at the top.
- 15. (a) 3 lies opposite •.

1 lies opposite W.

1 lies opposite ().

In option (b) 3 is on the adjacent face of dot.

In option (c) 1 is on the adjacent face of W.

In option (d) \bigcirc is on the top and hence the positions of dot (\bullet) and W are not correct.

- (d) In all other figures, figure made in triangle does not cover the region of circle.
- 17. (b) The inner figure becomes the outer figure and vice versa.
- 18. (d) L shaped figure and small squares rotate clock-wise
- 19. (a) $6 \rightarrow 1 \quad \cancel{2} \quad 3 \quad \cancel{4} \quad \cancel{5}$ $1 \rightarrow \cancel{2} \quad \cancel{3} \quad \cancel{4} \quad 5 \quad 6$ $4 \rightarrow \cancel{1} \quad \cancel{2} \quad 3 \quad \cancel{5} \quad \cancel{6}$

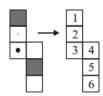
From above, it is clear that 3 is opposite to 4.

Therefore, 1 is opposite 6.

 (a) The middle element adjects to the right side line after rotating 90° anticlock wise. The bottom element goes up on the top and becomes enlarge.

The top element becomes the inner figure of bottom element.

- 21. (a)
- 22. (c) Arrows (→) are increasing by one.
 - Dots (•) are decreasing by one.
 - P element changes its position from right to left. Square alternately also changes its shaded portion also.
 - ↑ element changes its position from left to right in square after rotating 45° clockwise.
- (d) Option (d) is correct.
- 24. (b) 14 faces can count in this 3-D model.
- (a) Option (a) is correct.
- 26. (b) The given figure can be numbered like this:



In this figure:

1 lies opposite 3; 2 lies opposite 5;

4 lies opposite 6.

When the sheet of question figure is folded to form a cube, then the face bearing a dot lies opposite to one of the shaded faces.

Therefore, figure (2) which has both the shaded faces adjacent to the face bearing the dot, cannot be formed. Hence, the cubes shown in figures (1), (3) and (4) can be formed.

- 27. (a) When 3 is at the top 5 will be at the bottom.
- (c) Purple → Red, Blue, Yellow, Green, Orange Green, Orange, Red, Blue are adjacent to purple
- 29. (*) Green colour is opposite to white colour in the given cubes.
- 30. (c) 31. (c
- 32. (a) Therefore, the number II, IV, III and V are on the adjacent faces of number I.

 Therefore, the number IV liles opposite I.
- 33. (b) By looking, the dice position, we can say that %, *, ^ and + are adjacent faces of \$. therefore,
 - .. & will come opposite of \$.
- 34. (a) As the numbers 2, 3, 5 and 6 are adjacent to 4. Hence, the number on the face opposite to 4 is 1.
- 35. (b) The numbers 2, 3, 4 and 6 are on the adjacent faces of the number 1.So, the number 5 lies opposite 1.
- (c) The letters P, X, R and Z are on the adjacent faces of the letter Q. So, the letter S lies opposite Q.
- 37. (d) The letters G, B, W and Y are on the adjacent faces of the letter R.
 - So, the letter C lies opposite R.
- 38. (a) From the two view blocks it is clear that when x is at the bottom, z will be at the top.
- (a) Here symbol lower left corner rotating by 90° in anticlockwise and symbol at the centre rotating by 180° in every next figure.
- 40. (a) Based on the given positions pair of numbers on the opposite faces are:
 (1-2), (3-5) and (4-6)
- 41. (a) Line inside the pentagon shifting one place in clockwise direction and square dot repeating its path after erery third figure.
- 42. (c) Pair of number on the opposite faces are:
 (2-5), (4-3) and (1-6)
 Hence, opposite of '5' is '2'.
- 43. (c) Symbol that are on opposite face is $\frac{1}{2}$.
- (c) Lines are rotating in anticlockwise direction by 90° in each next rotation.
- 45. (a)
- 46. (d) Five lines are added in each box.
- (b) Arrow is rotate by 135° clockwise in each step and circle is rotate by 45° anticlockwise in each step.
 So, option (b) is correct.
- (a) The numbers 1, 6, 4 and 5 are on the adjacent faces of number 3.

Therefore, the number 2 lies opposite to 3
∴ The number 1 is opposite of 4.

- (c) Each figure is rotating at 45° in clockwise direction. So, next figure is option (c).
- 50. (c) As, H and 4 are on opposite faces. So, option (a) is wrong.

'E' and @ are on opposite face, so option (b) is also wrong. '8' and '1' are on opposite face, so option (d) is also wrong.

Hence, correct option is box shown in option (c)

- (d) Each black spot is rotate 45° in anti clockwise direction.
 So, option (d) is correct answer.
- 52. (a) 53. (c)
- 54. (d) The letter in the figure is rotating one one step anti clock-wise in every next figure and the middle sign is mirror image of previous figure is symbol. So, option (d) is correct.
- 55. (d)
- 56. (b) The numbers of the adjacent faces to the face with number 5 are (6, 2, 1, 4). Hence 3 will be on the face opposite to the one having the number 5.
- 57. (d) Letter 'E' is common in both dice.

(Clock wise rotation)

- (c) Circle is rotating anti-clockwise and also upside down in every step while square is rotating clockwise and it is also rotating clockwise in it.
- 59. (a) P's opposite = OM's opposite = LHence, K's opposite = N
- (b) Pattern of the figure series is that the top one shifted to bottom and the second one changed position vertically and shifted to top.
- (b) Alternately rotate the figure 90° anticlockwise and interchange the symbols.
- 62. (c) Answer figure (c) is correct answer
- (c) Star, square and arrow rotate anticlockwise direction.
 Triangle mode mirror image. Hence the correct answer figure is option (c).
- (a) Pentagon shifts place clockwise direction and black spot place at corner in a pattern in clockwise direction.
- 65. (d) As, $2, 4 \rightarrow 1$ $\hat{2}, \hat{4} \rightarrow \hat{5}$

Hence, 1 will be on the face opposite to the face showing 5.

- 66. (a) Symbol on opposite faces are: (@, %), (\$, &) and (#, >)
- 67. (c) In the every next fig. each symbol is shifted to its next top position along the same diagonal and symbol at top position comes to bottom position in every next fig.
- (a) Shaded part and small circle shift in clockwise direction.
 And, arrow shifts in anticlockwise direction in a pattern.