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Non-Verbal Intelligence

Non-verbal intelligence involves the ability to understand and analyse visual information and solve problems using visual reasoning. e.g. Identifying relationships, differences and similarities between shapes, recognising visual sequence etc.

Let us discuss the various topics.

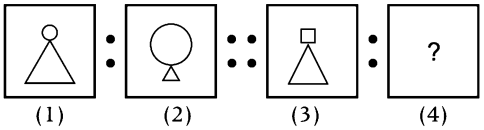
1. Analogy

In this type, two sets of figures namely problem figures and answer figures are given.The set of problem figures consists of two parts. The first part comprises of two figures, which have some relationship between them on the basis of a certain rule.

The second part comprises of one figure and a sign of '?'. You are asked to select one figure from the set of answer figures to replace '?' but maintaining similar relationship as depicted between the first two figures.

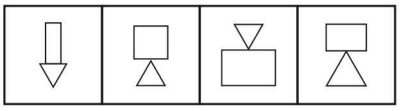
Example 1 Complete the second pair by selecting the appropriate alternative.

Problem Figures



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

Answer Figures



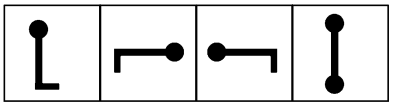
(a) (b) (c) (d)

Sol. *(b)* From problem figure (1) to (2), bottom large design becomes small and upper small design becomes large. Similar rule will be followed from the problem figure (3) to answer figure.

2. Clasification

In this type, we deal with questions which have a set of four figures, out of which all except one are alike or have some common nature/characteristics. You will have to select the exclusively different figure from the given set.

Example 2 From amongst the following four figures, select the one, which is different from others.



(a) (b) (c) (d)

Sol. *(d)* Except figure (d), all other figures have one rounded side. In figure (d) both sides are rounded.

3. Series

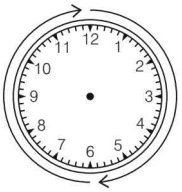
In this type of questions, a series of figures is given as problem figures. The candidates are asked to select one of the figures from the set of answer figures which will continue the given sequence.

To solve questions on figure series, a candidate must have a clear vision of the concepts like rotation, angles, steps of movement, different positions etc., which are discussed ahead

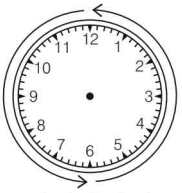
(i) Rotational Direction

The rotational direction basically states the clockwise and anti-clockwise directions.

- When a figure rotates in the direction of hands of a clock, then this movement is called clockwise movement.
- When a figure rotates in the opposite direction of hands of a clock, then this movement is called anti-clockwise movement.



Clockwise movement



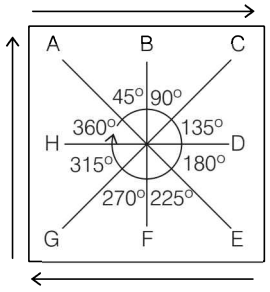
Anti-clockwise movement

(ii) Angular Movement

In some type of questions the whole figure is not rotated to obtain another figure but some elements inside the figure move to obtain the subsequent figures.

Clockwise movement

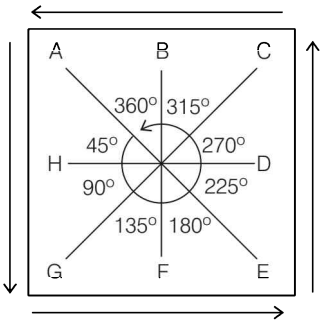
Suppose the element at position A moves to position B, then we can say it moves 45° clockwise, if it moves to position C, then we can say it moves 90° clockwise and so on.



$A \rightarrow B = 45°$
$A \rightarrow C = 90°$
$A \rightarrow D = 135°$
$A \rightarrow E = 180°$
$A \rightarrow F = 225°$
$A \rightarrow G = 270°$
$A \rightarrow H = 315°$
$A \rightarrow A = 360°$

Anti-clockwise movement

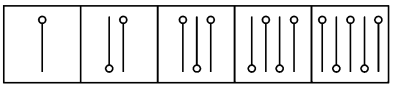
Suppose the element at position A moves to position H, then we can say it moves 45° anti-clockwise. If it moves to position G, then we can say it moves 90° anti-clokwise and so on.



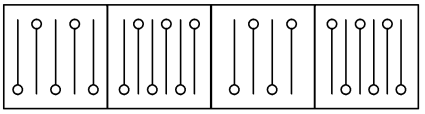
$A \rightarrow H = 45°$ $A \rightarrow G = 90°$
$A \rightarrow F = 135°$ $A \rightarrow E = 180°$
$A \rightarrow D = 225°$ $A \rightarrow C = 270°$
$A \rightarrow B = 315°$ $A \rightarrow A = 360°$

Directions (Examples 3 and 4) *In each of the following questions, select correct answer figure which will continue the series as established by the problem figures.*

Example 3 Problem Figures



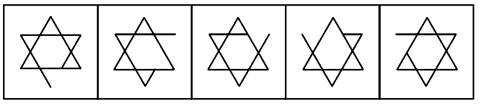
Answer Figures



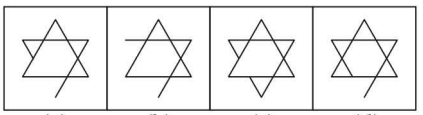
(a) (b) (c) (d)

Sol. (*b*) In each step, a pin is added on the left hand side of existing pin/pins. The head of the pin is in a direction opposite to adjacent pin.

Example 4 Problem Figures



Answer Figures



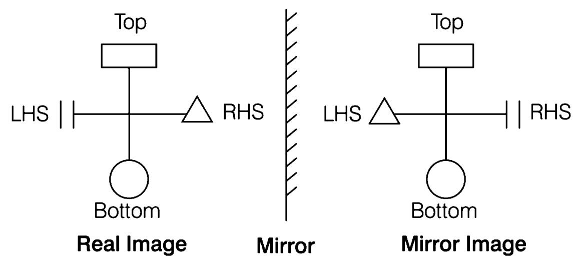
(a) (b) (c) (d)

Sol. *(a)* One and two parts of the line disappear alternately and the disappearance of line is anti-clockwise. Also, one and two lines are added alternately.

4. Mirror Image

The figure obtained by putting a mirror in front of the real image is known as mirror image or we can say that the reflection of an object into the mirror is called its mirror image.

Let us consider an example



Mirror Images of Capital Letters

Real Image	A	B	C	D	E	F	G	H	I	J	K	L	M
Mirror Image	A	ᗺ	Ɔ	ᗡ	Ǝ	ꟻ	Ә	H	I	Ⴑ	ꓘ	⅃	M
Real Image	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Mirror Image	И	O	ꟼ	Ϙ	Я	Ƨ	T	U	V	W	X	Y	Ƹ

The letters which have the same mirror images are —A, H, I, M, O, T, U, V, W, X and Y.

Mirror Images of Small Letters

Real Image	a	b	c	d	e	f	g	h	i	j	k	l	m
Mirror Image	ɒ	d	ɔ	b	ɘ	ʇ	ǫ	ʜ	i	į	ʞ	l	m
Real Image	n	o	p	q	r	s	t	u	v	w	x	y	z
Mirror Image	n	o	q	p	ɿ	ƨ	ɟ	u	v	w	x	ʏ	ƹ

The letters which have the same mirror images are — i, l, o, v, w and x.

Mirror Image of Numbers

Real Image	1	2	3	4	5	6	7	8	9	0
Mirror Image	Ɩ	ς	Ɛ	ᔭ	ꙅ	ə	٢	8	୧	0

Numbers 0 and 8 have the same mirror images.

Directions (Examples 5 and 6) *In each of the following questions, select the alternative which exactly matches with the mirror image of the word/number in the question.*

Example 5 TRIUMPHS

(a) SHPMUIRT (b) SPMIURT (c) STRIUMPH (d) ƧHꟼMUIЯT

Sol. (*d*) If we put a mirror in front of the word, we will get the image like

TRIUMPHS ⦙ ƧHꟼMUIЯT

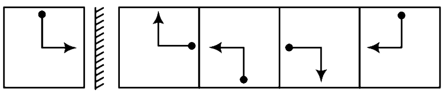
Example 6 2 3 4 5

(a) Ɛㄣᄅϛ (b) ϛㄣƐᄅ (c) ꙅᔭƐς (d) ϛƐㄣᄅ

Sol. (*c*) If we put a mirror in front of the number, we will get the image like

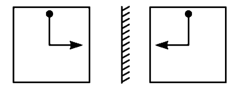
2 3 4 5 ⦙ ꙅ ᔭ Ɛ ς

Example 7 Choose the correct mirror image from alternatives (a), (b), (c), and (d) of the figure (A).



(A) (a) (b) (c) (d)

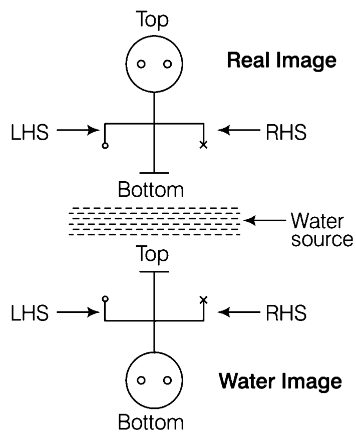
Sol. (*d*) Mirror image of figure (A) will be like



Object Mirror image

5. Water Image

The reflection of an object into the water is called its water image. It is obtained by inverting an object vertically, i.e upside down. Let us consider an example



Water Image of Capital Letters

Real Image	A	B	C	D	E	F	G	H	I	J	K	L	M
Water Image	∀	B	C	D	E	Ⅎ	⅁	H	I	ᒉ	K	Γ	W
Real Image	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Water Image	И	O	ᑲ	Ό	ʁ	Ƨ	⊥	∩	Λ	M	X	⅄	Σ

The letters which have the same water images are — C, D, E, H, I, O and X.

Water Image of Small Letters

Real Image	a	b	c	d	e	f	g	h	i	j	k	l	m
Water Image	ɐ	d	ɔ	q	ɞ	ʈ	ə	µ	!	ꞁ	ʞ	l	ɯ
Real Image	n	o	p	q	r	s	t	u	v	w	x	y	z
Water Image	u	o	b	d	ʟ	ƨ	ʇ	n	ʌ	ʍ	x	λ	ƨ

The letters which have the same water images are c, l, o and x.

Water Image of Numbers

Real Image	0	1	2	3	4	5	6	7	8	9
Water Image	0	⇃	Ƨ	3	߈	ƨ	ᑫ	⅃	8	ә

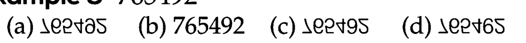
Numbers 0, 3 and 8 have the same water images.

Directions (Examples 8 and 9) *In each of the following questions, choose the alternative which shows the correct water image of the given word or number.*

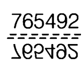
Example 8 FROG

Sol. (*a*) The water image of given sequence will be

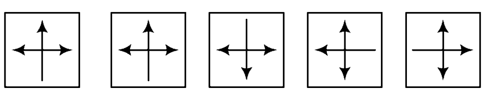
Example 9 765492



Sol. (a) The water image of given sequence will be

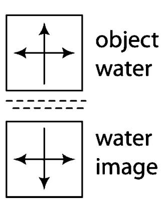


Example 10 In the following question, choose the correct water image of the figure (A) from the given four alternatives (a), (b), (c) and (d).



(A) (a) (b) (c) (d)

Sol. (*b*) The water image of the figure (A) will be



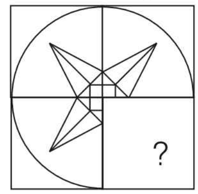
6. Figure Completion

Figure completion is a process to find out the missing part of an incomplete figure to complete it.

In this topic, we deal with the questions in which a part of the figure is missing, (generally 1/4 th part of the figure) and a candidate is asked to find the missing part from the given option figures.

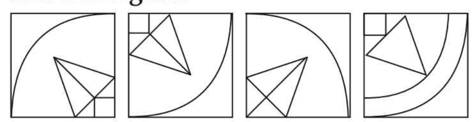
Example 11 Select a figure from the four alternatives, which when placed in the missing portion of the original figure, as shown by figure (X), would complete the pattern.

Problem Figure



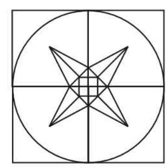
(X)

Answer Figures



(a) (b) (c) (d)

Sol. (*b*) Clearly, option (b) completes the original figure which looks like the figure given below

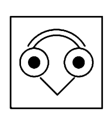


7. Formation of Figures

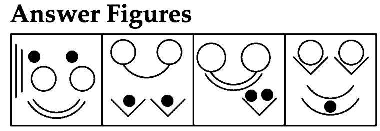
In this type, two sets of figures are provided namely problem figure and answer figures. A candidate is asked to select the answer figure which includes the components from which the problem figure is formed.

Example 12 From the answer figures, select the cut pieces from which the problem figure is formed/made.

Problem Figure

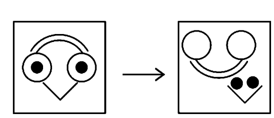


Answer Figures



(a) (b) (c) (d)

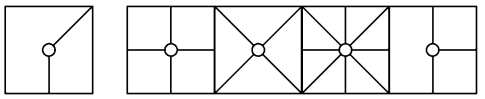
Sol. (*c*) Here, the problem figure can be formed by joining the pieces given in option (c) as shown beside



8. Embedded Figures

A figure suppose figure (A) is said to be embedded in figure (B), if figure (B) contains the figure (A) as one of its part. Questions based on embedded figures comprise of a question figure and four answer figures. It is asked to find the correct answer figure in which the given question figure is embedded.

Example 13 In the following question, figure (A) is embedded in any one of the four alternative figures (a), (b), (c) and (d). Find the alternative which contains figure (A) as its part.

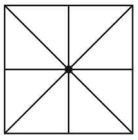


Sol. *(c)* On close observation, we find that the figure (A) is embedded in figure (c) as shown

9. Counting of Figures

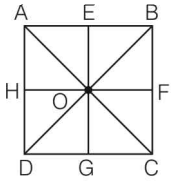
Counting of figures is simply the identification of different geometrical figures from a complex one. In these problems, a candidate has to count the geometrical figures in a given complex figure. For this, the shapes of all geometrical figures like triangles, squares, circles etc., must be clear in mind.

Example 14 How many straight lines are there in the figure given below?



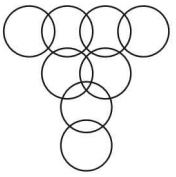
(a) 14 (b) 8
(c) 4 (d) 9

Sol. *(b)*



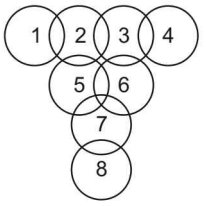
Horizontal lines = AB + HF + DC = 3
Vertical lines = AD + EG + BC = 3
Slant lines = AC + BD = 2
∴ Total lines = 3 + 3 + 2 = 8

Example 15 How many circles are there in the figure given below?



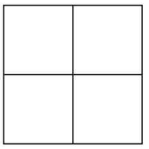
(a) 4 (b) 8 (c) 9 (d) 10

Sol. *(b)*



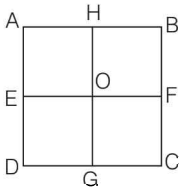
Clearly, total number of circles = 8

Example 16 How many squares are there in the figure given below?



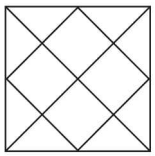
(a) 4 (b) 5 (c) 6 (d) 7

Sol. *(b)* Naming the figure,



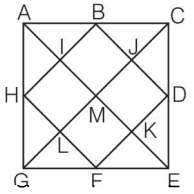
Clearly, there are 5 squares in the given figure *viz.* □AHOE, □HOFB, □FOGC, □OGDE and □ABCD.

Example 17 How many triangles are there in the figure given below?



(a) 20 (b) 27 (c) 18 (d) 29

Sol. (*a*) Naming the figure,



Smallest triangles are ΔABI, ΔBCJ, ΔCDJ, ΔDEK, ΔEFK, ΔFGL, ΔGHL, ΔHAI = 8

Small triangles formed with two triangles

ΔBCD, ΔDEF, ΔFGH, ΔHAB = 4

Large triangles formed with two triangles and one square are

ΔACM, ΔCEM, ΔEGM, ΔGAM = 4

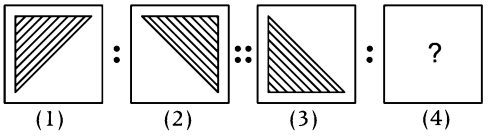
Largest triangles ΔACE, ΔAGE, ΔGAC, ΔGEC = 4

∴ Total triangles = 8 + 4 + 4 + 4 = 20

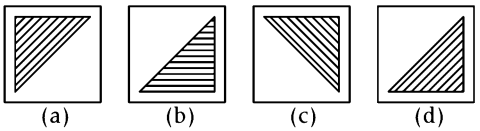
Practice Exercise

Directions (Q. Nos. 1-5) *In the following questions, choose the figure which will replace the question mark* (?).

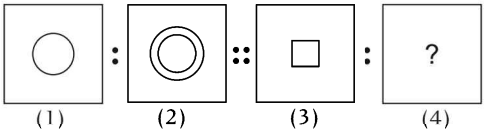
1. Problem Figures



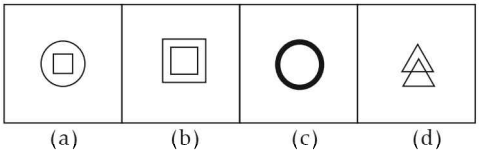
Answer Figures



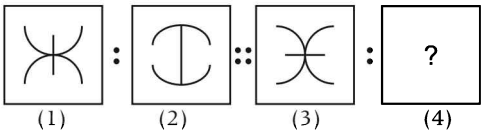
2. Problem Figures



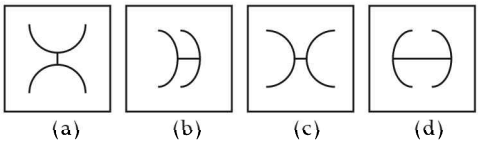
Answer Figures



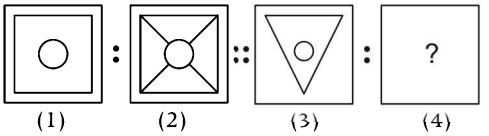
3. Problem Figures



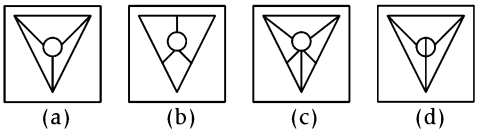
Answer Figures



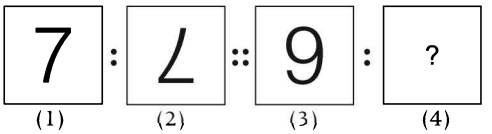
4. Problem Figures



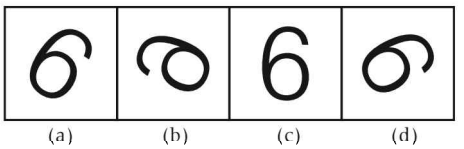
Answer Figures



5 Problem Figures

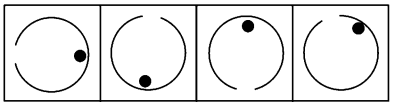


Answer Figures



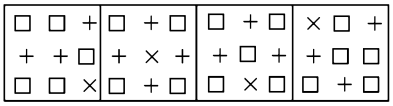
Directions (Q. Nos. 6-10) *In the following questions, select the figure, which is different from others.*

6.



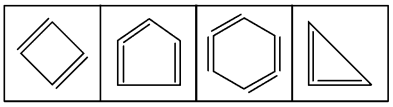
(a) (b) (c) (d)

7.



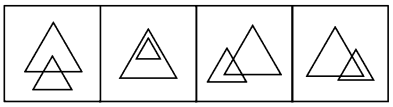
(a) (b) (c) (d)

8.



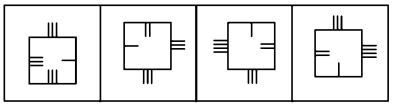
(a) (b) (c) (d)

9.



(a) (b) (c) (d)

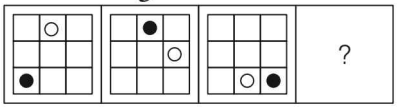
10.



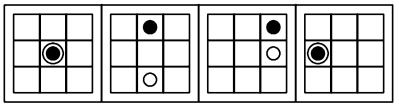
(a) (b) (c) (d)

Directions (Q. Nos. 11-15) *In each of the questions given below which one from the four answer figures should come at the right of the problem figures to complete the series logically.*

11. **Problem Figures**

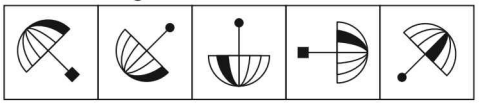


Answer Figures

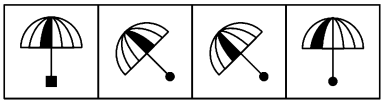


(a) (b) (c) (d)

12. **Problem Figures**

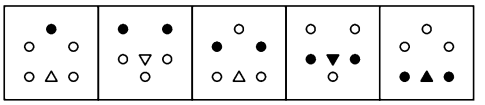


Answer Figures

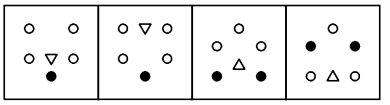


(a) (b) (c) (d)

13. **Problem Figures**

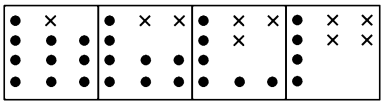


Answer Figures

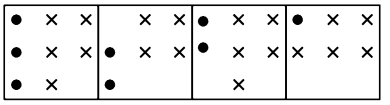


(a) (b) (c) (d)

14. **Problem Figures**

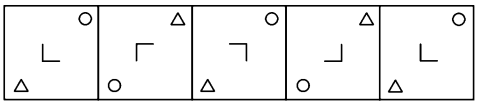


Answer Figures

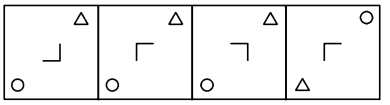


(a) (b) (c) (d)

15. **Problem Figures**



Answer Figures



(a) (b) (c) (d)

Directions (Q. Nos. 16-20) *In each of the following questions, you are given a combination of alphabets and/or numbers followed by four alternatives* (a), (b), (c) *and* (d). *Choose the alternative which most closely resembles the mirror image of the given combination.*

16. FANTASY

(a) YSATNAF (b) FNTASAY

(c) YSATNAF (d) YFANTSAY

17. RADIANT

(a) TNAIDAR (b) TИAIDAЯ
(c) TRADIAN (d) TIANRAD

18. disturb

(a) d!sʇnɹp (b) dɿutsib (c) disturd (d) dɿutsib

19. RUN69test

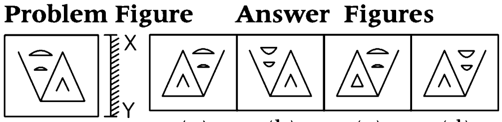
(a) tsət6ƏИUЯ (b) tsət9ƏИUЯ
(c) ЯUИƏ9tsƧt (d) ЯUИƏ9tsət

20. ANS43Q12

(a) ANSԷƐꝹIƧ (b) ƧIϘƐԷƧИA
(c) ƧNAƐԷϘƧI (d) IƧϘԷƐAИS

21. Which of the answer figures is exactly the mirror image of the problem figure when the mirror is held at XY?

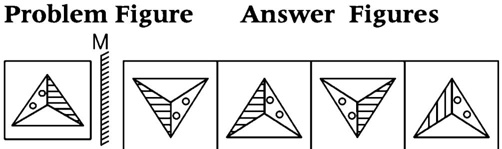
Problem Figure **Answer Figures**



(a) (b) (c) (d)

22. Which of the answer figures is exactly the mirror image of the given figure, when the mirror is held on the line MN?

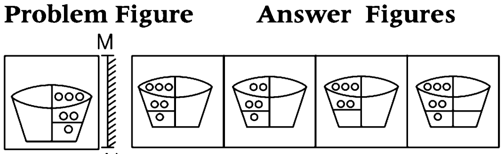
Problem Figure **Answer Figures**



(a) (b) (c) (d)

23. Which of the answer figures is exactly the mirror image of the given figure, when the mirror is held on the line MN ?

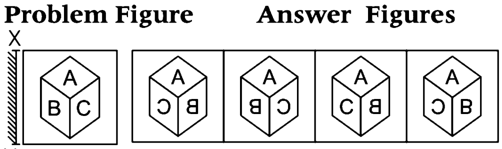
Problem Figure **Answer Figures**



(a) (b) (c) (d)

24. If a mirror is placed on the line XY, then which of the answer figures is the right image of the given figure?

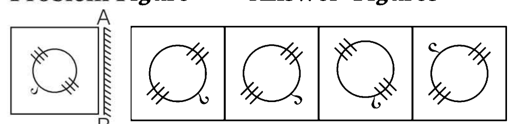
Problem Figure **Answer Figures**



(a) (b) (c) (d)

25. If a mirror is placed on the line AB, then which of the answer figures is the right image of the given figure?

Problem Figure **Answer Figures**



(a) (b) (c) (d)

Directions (Q. Nos. 26-30) *In each of the following questions, choose the alternative which is the correct water image of the given word/group of letters or numbers or both.*

26. WOMAN

(a) WOMAN (b) MOWAИ
(c) MOWAN (d) MOWAN

27. rise

(a) ɹıse (b) esir (c) ɿıse (c) esıɹ

28. 3713

(a) 3ɿ13 (b) 3ɿ13 (c) 3173 (d) 3113

29. D6Z7F4

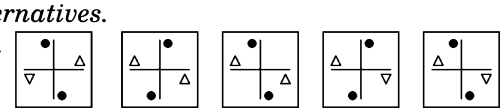
(a) DeZ7F4 (b) DeC77F4 (c) DeZ7F4 (d) D6ZF47

30. ab45CD67

(a) ab45CD67 (b) ab45CDe7 (c) ab45CD67 (d) ab45CD67

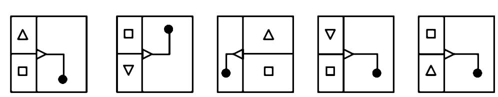
Directions (Q. Nos. 31-35) *In each of the following questions, choose the correct water image of the figure* (A) *out of the given four alternatives.*

31.



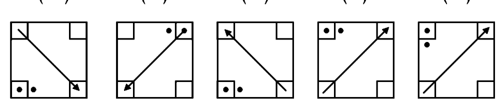
(A) (a) (b) (c) (d)

32.



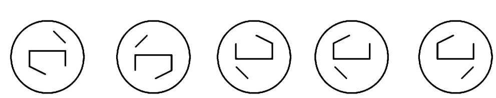
(A) (a) (b) (c) (d)

33.



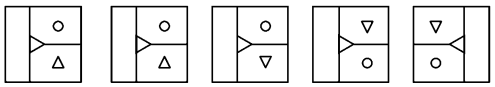
(A) (a) (b) (c) (d)

34.



(A) (a) (b) (c) (d)

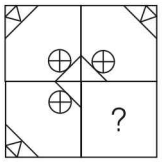
35.



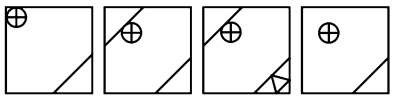
(A) (a) (b) (c) (d)

Directions (Q. Nos. 36-40) *In each of the following problems, select a figure from the given four alternatives, which when placed in the blank space of problem figure would complete the pattern.*

36. Problem Figure

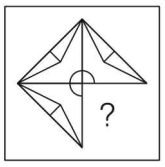


Answer Figures

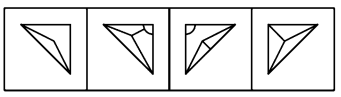


(a) (b) (c) (d)

37. Problem Figure

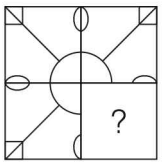


Answer Figures

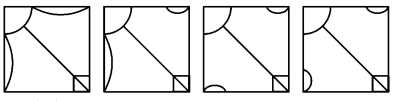


(a) (b) (c) (d)

38. Problem Figure

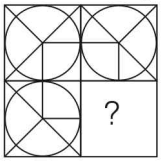


Answer Figures

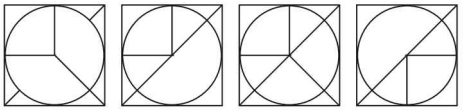


(a) (b) (c) (d)

39. Problem Figure

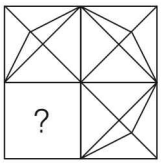


Answer Figures

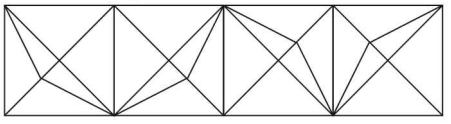


(a) (b) (c) (d)

40. Problem Figure



Answer Figures

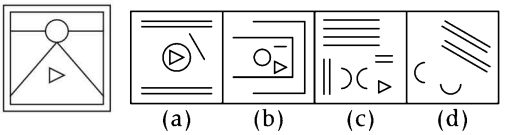


(a) (b) (c) (d)

Directions (Q. Nos. 41-43) *From the answer figures, select the cut pieces from which the problem figure is formed / made.*

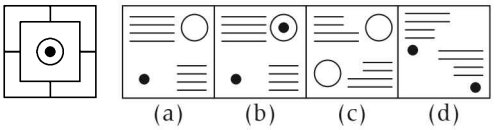
Problem Figure **Answer Figures**

41.



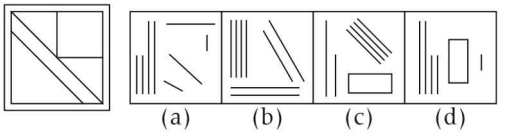
(a) (b) (c) (d)

42.



(a) (b) (c) (d)

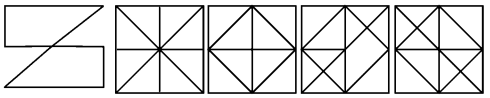
43.

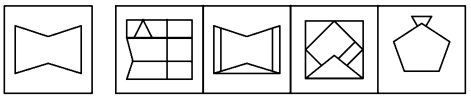


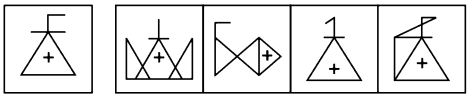
(a) (b) (c) (d)

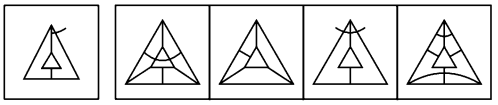
Directions (Q. Nos. 44-48) *In the following problems, choose the alternative figure in which the problem figure is embedded.*

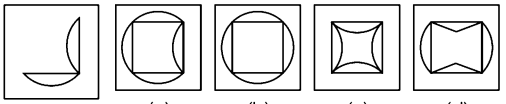
Problem Figure **Answer Figure**

44. 
(a) (b) (c) (d)

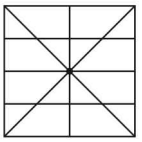
45. 
(a) (b) (c) (d)

46. 
(a) (b) (c) (d)

47. 
(a) (b) (c) (d)

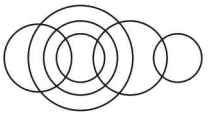
48. 
(a) (b) (c) (d)

49. How many straight lines are there in the following figure?



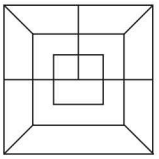
(a) 5 (b) 10
(c) 9 (d) 8

50. How many circles are there in the figure given below?



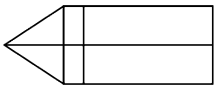
(a) 6 (b) 7
(c) 10 (d) 8

51. How many squares are there in the following figure?



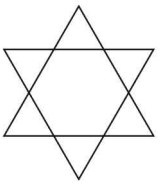
(a) 5 (b) 9
(c) 7 (d) 8

52. How many rectangles are there in the figure given below?



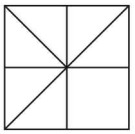
(a) 7 (b) 8 (c) 9 (d) 12

53. Count the number of triangles in the following figure.



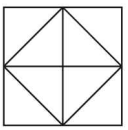
(a) 6 (b) 7
(c) 8 (d) 9

54. How many triangles are there in the figure given below?



(a) 8 (b) 10
(c) 12 (d) 11

55. How many triangles are there in the figure given below?



(a) 4 (b) 12
(c) 16 (d) 10

Answers

1	(d)	2	(b)	3	(d)	4	(a)	5	(c)	6	(d)	7	(b)	8	(d)	9	(b)	10	(a)
11	(d)	12	(c)	13	(a)	14	(c)	15	(b)	16	(a)	17	(b)	18	(b)	19	(b)	20	(b)
21	(a)	22	(b)	23	(a)	24	(a)	25	(a)	26	(b)	27	(a)	28	(b)	29	(c)	30	(b)
31	(c)	32	(a)	33	(c)	34	(d)	35	(c)	36	(c)	37	(c)	38	(d)	39	(c)	40	(a)
41	(c)	42	(a)	43	(b)	44	(a)	45	(b)	46	(d)	47	(c)	48	(a)	49	(b)	50	(a)
51	(b)	52	(c)	53	(c)	54	(b)	55	(b)										

Hints & Solutions

1. Second figure of each pair is laterally inverted image of first figure.
2. In first pair, first figure becomes double to obtain the second figure. Similar rule follows in second pair.
3. From problem figure (1) to (2) arc lines goes to opposite direction and middle small line becomes large. Similar rule follows from the problem figure (3) to answer figure (d).
4. Circle is connected to all corners of square to obtain figure (2). Similarly, circle is connected to all corners of triangle internally to obtain answer figure (a).
5. The figure rotates through 180° anti-clockwise.
6. Except figure (d) in all others, the inner black circle is placed in front of open part.
7. Figure (b) has 4 plus signs and others have 3.
8. Except (d), in all other figures, the number of line segments on the boundary of the figure is two less than the number of sides of the figure.
9. Except option (b), all other figures have two overlapping triangles.
10. Except option (a), all other figures have two elements inside and two elements outside.
11. In each successive problem figure, black dot moves three steps clockwise and white circle moves two steps clockwise.
12. The main figure rotates 90°, 45°, 90°, 45° and 90° anti-clockwise in each step.

    The shaded square become circle and circle repeat twice and then again square comes after circle.

    The shaded portion in the main figure shifts on both sides of line attached to square and circle.
13. Design in figure first, third and fifth is similar and the shaded portion moves from top to bottom. Similarly, design in second, fourth and option (a) is similar and shaded portion is moving from top to bottom.
14. The two dots are lost and one cross appears in each subsequent figure. So, in continuation with the given series of figures, the next figure would be (c).
15. Central element is rotating 90° clockwise and corner elements are interchanging their positions.
16. Option (a) is the correct mirror image.
17. Option (b) is the correct mirror image.
18. Option (b) is the correct mirror image.
19. Option (b) is the correct mirror image.
20. Option (b) is the correct mirror image.
21. Answer figure (a) is the correct mirror image.
22. The correct mirror image is given in option (b).
23. The correct mirror image is given in option (a).
24. Option (a) is the correct mirror image of problem figure
25. The correct mirror image is given in option figure (a).
26. Option (b) represents the correct water image.
27. Option (a) represents the correct water image.
28. Option (b) represents the correct water image.
29. Option (c) represents the correct water image.
30. Option (b) represents the correct water image.
31. Option (c) represents the correct water image.
32. Option (a) represents the correct water image.
33. Option (c) represents the correct water image.
34. Option (d) represents the correct water image.
35. Option (c) represents the correct water image.
36. The missing figure which will complete the figure pattern is given by option (c).

37. The missing figure which will complete the figure pattern is given by option (c).

38. The missing figure which will complete the figure pattern is given by option (d).

39. The missing figure which will complete the figure pattern is given by option (c).

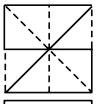
40. The missing figure which will complete the figure pattern is given by option (a).

41. Here, the problem figure can be formed by joining the pieces given in option (c).

42. Here, the problem figure can be formed by joining the pieces given in option (a).

43. Here, the problem figure can be formed by joining the pieces given in option (b).

44. On close observation, we find that the problem figure is embedded in figure (a) as shown adjacent



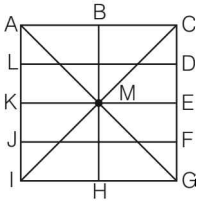
45. On close observation, we find that the problem figure is embedded in figure (b) as shown adjacent

46. On close observation, we find that the problem figure is embedded in figure (d) as shown adjacent

47. On close observation, we find that the problem figure is embedded in figure (c) as shown adjacent

48. On close observation, we find that the problem figure is embedded in figure (a) as shown adjacent

49.



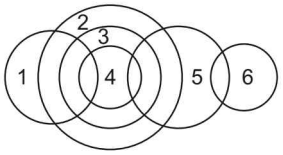
Horizontal lines = AC, LD, KE, JF, IG = 5

Vertical lines = AI, BH, CG = 3

Slant lines = AG, IC = 2

∴ Total number of straight lines = 5 + 3 + 2 = 10

50.

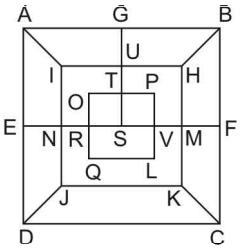


Clearly shown that, total number of circles = 6

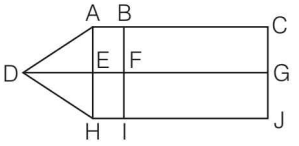
51. The squares are

□ABCD, □AGSE, □GBFS, □IUSN, □UHMS, □OTSR, □TPVS, □IHKJ and □OPLQ.

∴ Total number of squares = 9



52.



Smallest and single rectangles

= ▭ABFE, ▭EFIH, ▭BCGF, ▭FGJI = 4

Rectangles formed with two rectangles

= ▭ ABIH, ▭AEGC, ▭EGJH, ▭BCJI = 4

Largest rectangle = ▭ACJH = 1

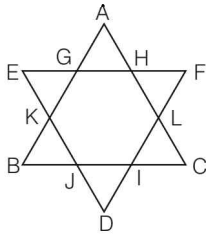
∴ Total number of rectangles = 4 + 4 + 1 = 9

53. Smallest triangles = ΔGAH, ΔHFL, ΔLCI, ΔIDJ, Δ JBK, ΔKEG = 6

Largest triangles = ΔABC, ΔEFD = 2

∴ Total triangles

=6+ 2=8



54. Smallest triangles = ΔBOC, ΔCOD, ΔFOG, ΔGOH, ΔHOA, ΔAOB = 6

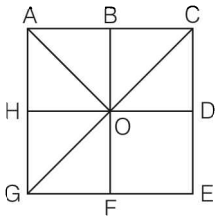
Triangles formed with two small triangles

= ΔAOG and ΔAOC = 2

Largest triangles

= ΔACG and ΔEGC = 2

∴ Total triangles = 6 + 2 + 2 = 10

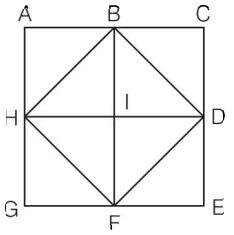


55. Smallest triangles = Δ ABH, Δ BHI, Δ BID, Δ BDC, Δ DIF, Δ DEF, Δ FGH, Δ HIF = 8

Triangles formed with two triangles

= Δ FHB, Δ FBD, ΔBDH, ΔDFH = 4

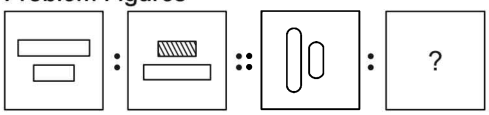
∴ Total number of triangles = 8 + 4 = 12



Try Yourself

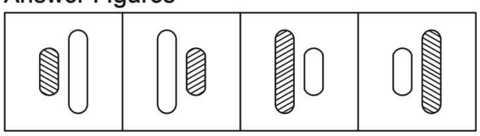
Directions (Q. Nos. 1 and 2) *In the following questions, choose the figure which will replace the question mark (?).*

1) Problem Figures



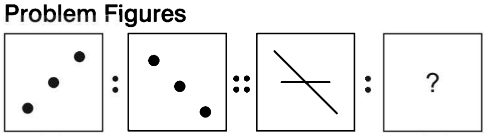
(1) (2) (3) (4)

Answer Figures



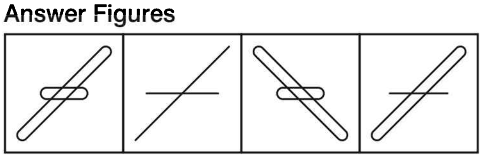
(a) (b) (c) (d)

2) Problem Figures



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

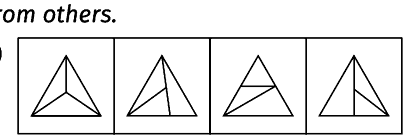
Answer Figures



(a) (b) (c) (d)

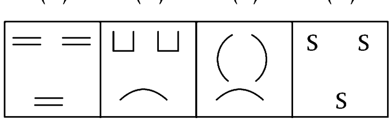
Directions (Q. Nos. 3 and 4) *In the following questions, select the figure which is different from others.*

3)



(a) (b) (c) (d)

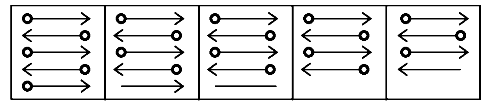
4)



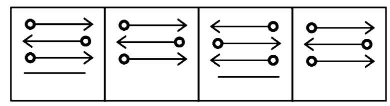
(a) (b) (c) (d)

Directions (Q. Nos. 5 and 6) *In each of the questions given below which one from the four answer figures should come at the right of the problem figures to complete the series logically.*

5) Problem Figures

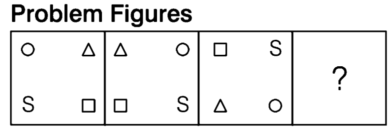


Answer Figures

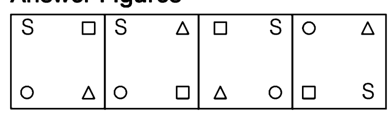


(a) (b) (c) (d)

6) Problem Figures



Answer Figures



(a) (b) (c) (d)

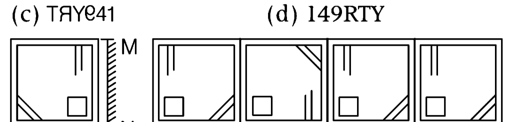
Directions (Q. Nos. 7 and 8) *In each of the following questions, choose the alternative which most closely resembles the mirror image of the given combination/figure.*

7) TRY941

(a) 149YЯT (b) ⊥RYe41

(c) TЯYe41 (d) 149RTY

8)



(a) (b) (c) (d)

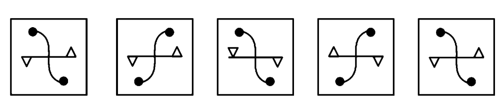
Directions (Q. Nos. 9 and 10) *In each of the following questions, choose the alternative which is the correct water image of the given combination/figure.*

9) TOMP236

(a) ⊥OMbƧ3Ə (b) TOMԳ2Ɛ6

(c) 632PMOT (d) MO⊥P632

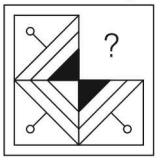
10)



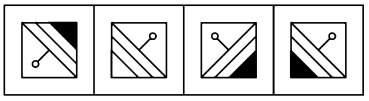
(A) (a) (b) (c) (d)

Directions (Q. Nos. 11 and 12) *In each of the following problems, select a figure from the given four alternatives, which when placed in the blank space of problem figure would complete the pattern.*

11) Problem Figure

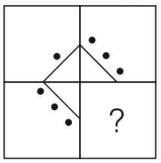


Answer Figures

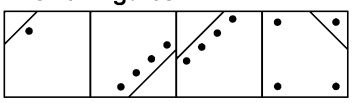


(a) (b) (c) (d)

12) Problem Figure



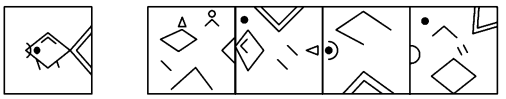
Answer Figures



(a) (b) (c) (d)

13) From the answer figures, select the cut pieces from which the question figure is formed/made.

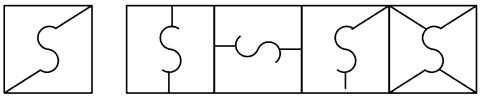
Prob. Fig. Ans. Fig.



(a) (b) (c) (d)

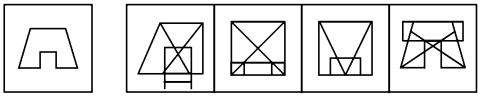
Directions (Q. Nos. 14 and 15) *In each of the following problems, choose the alternative in which the problem figure is embedded.*

14)



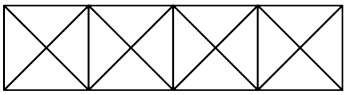
(A) (a) (b) (c) (d)

15)



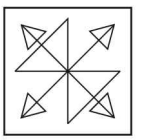
(A) (a) (b) (c) (d)

16) How many squares are there in the following figure?



(a) 3 (b) 2
(c) 4 (d) 7

17) Find out the number of triangles in this figure.



(a) 18 (b) 12
(c) 14 (d) 16

Answers

1	*(a)*	2	*(b)*	3	*(a)*	4	*(b)*	5	*(a)*
6	*(a)*	7	*(a)*	8	*(c)*	9	*(a)*	10	*(c)*
11	*(b)*	12	*(a)*	13	*(d)*	14	*(d)*	15	*(d)*
16	*(d)*	17	*(a)*						