

# Chapter 17

# Mirror and Water Images

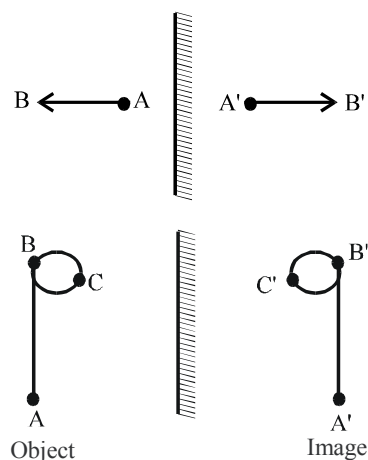
## Mirror Images

In this category questions are based on the criteria that a few figures are given and you have to find out which one is the exact image of the given figure in a mirror placed in front of it. This image formation is based on the principle of 'lateral inversion' which implies that size of the image is equal to the size of the object but both sides are interchanged. The left portion of the object is seen on the right side and right portion of the object is seen on the left side. For example, mirror image of ABC = CBA.

**Note :** There are '11' letters in English Alphabet which have identical mirror images: A, H, I, M, O, T, U, V, W, X, Y.

### Characteristics of Reflection by plane mirror

1. Perpendicular distance of object from mirror = Perpendicular distance of image from mirror.
2. The image is laterally inverted.



3. The line joining the object point with its image is normal to the reflecting surface.
4. The size of the image is the same as that of the object.

**E.g -1:** Mirror-images of certain words are given below :

- (1) FUN : FUN  
(2) GOLKONDA : AONKONOL

**E.g -2:** Mirror-image of certain combinations of alphabets and numbers are given below :

- (1) BMC49JN2317 : 7132JN94CMB  
(2) 15bg82XQh : h2p82XQh

## I. Mirror Images of Capital Letters

A	A	N	N
B	B	O	O
C	C	P	P
D	D	Q	Q
E	E	R	R
F	F	S	S
G	G	T	T
H	H	U	U
I	I	V	V
J	J	W	W
K	K	X	X
L	L	Y	Y
M	M	Z	Z

## II Mirror Images of Small Letters

a	a	n	n
b	b	o	o
c	c	p	p
d	d	q	q
e	e	r	r
f	f	s	s
g	g	t	t
h	h	u	u
i	i	v	v
j	j	w	w
k	k	x	x
l	l	y	y
m	m	z	z

## III. Mirror Images of Numbers

0	0	6	6
1	1	7	7
2	2	8	8
3	3	9	9
4	4	10	10
5	5		

Examples of lateral inversion of few figures and words are given below :

#### IV. Mirror Images of Various Objects :

Objects	Mirror images	Objects	Mirror images

#### V. Mirror Images of Certain Words and Numbers:

Words	Mirror images	Numbers	Mirror images
PREDICTION	NOITCIDERP	32596	92532
HOSPITAL	LATHSPOH	8932	2398
DARPAH	HAHPAD	868	868
STRIDENT	TNEDIRTS	786	687
OPULENT	TNELUPO	10190	09101
SARCASM	MZACARS	5693	3965
LIBERAL	LARILB	8964	4698
OFFENCE	ECNEFO	7362	2637
ADVANCE	ECNADVA	5893	3985
IMAGES	SEGAIM	7839	9387

#### VI. Mirror Images of Clock:

There are certain questions in which the position of the hour-hand and the minute-hand of a clock as seen in a mirror are given. On the basis of the time indicated by the mirror-image of the clock we have to detect the actual time in the clock. In the solution of such questions we use the fact that if an object A is the mirror-image of another object B then B is the mirror-image of A.

##### Time of image in plane mirror

- (a) Real time =  $X^H$ , Image time =  $12^H - X^H$  (H = hours)  
 (b) Real time =  $X^H Y^M$ , Image time =  $11^H 60^M - X^H Y^M$   
 (M = minutes)  
 (c) Real time =  $X^H Y^M Z^S$ , Image time =  $11^H 59^M 60^S - X^H Y^M Z^S$   
 (S = seconds)  
 (d) if  $X^H Y^M Z^S > 11^H 59^M 60^S$ , image time =  $23^H 59^M 60^S - X^H Y^M Z^S$

##### Quick Tip

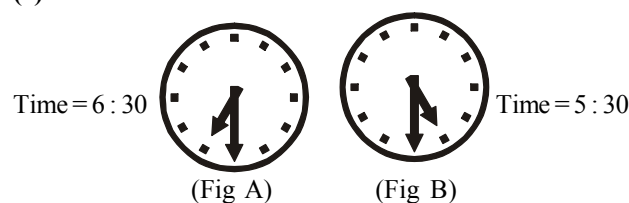
Whenever you have to solve a mirror image question, imagine a mirror placed in front of the object and then try to find its inverted image. The portion of the object that is near the mirror will now be the portion of the image near to the mirror in the inverted form.

#### ILLUSTRATION 1:

By looking in a mirror, it appears that it is 6 : 30 in the clock. What is the real time ?

- (1) 6 : 30 (2) 5 : 30  
 (3) 6 : 00 (4) 4 : 30

Sol. (2)



Clearly, fig (A) shows the time (6 : 30) in the clock as it appears in a mirror. Then its mirror-image i.e. Fig (B) shows the actual time in the clock i.e. 5 : 30. You can solve it quickly if you remember that the sum of actual time and image time is always 12 hours.

#### DIRECTIONS (ILLUSTRATION 2-6) :

Find the correct option for the mirror image for the following examples.

#### ILLUSTRATION 2:



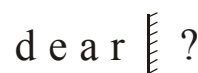
- (1) W A T E R (2) R E T E W  
 (3) W A R E T (4) R E T A W

Sol. (4) We have to find the correct mirror image for the word 'WATER' for which we need to find the mirror image for each letter separately and then arrange it, like the mirror image for the letters W is W, A is A, T is T, E is E and R is R. Since, the word ends with R, i.e., where the mirror is placed, therefore the mirror image will start from the mirror images of R, i.e.; R. Thus the mirror image for water is R E T A W

W A T E R R E T A W

Thus option (4) is the correct answer.

#### ILLUSTRATION 3:



- (1) b e s r (2) r s e b  
 (3) d e s r (4) r e s b

Sol. (2) Mirror image for 'd' is 'b', 'e' is 'e', 'a' is 's' and 'r' is 'r'

d e a r r s e b

Thus, option (2) is the correct answer.

**ILLUSTRATION 4:**

8 6 9 5 2 || ?

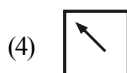
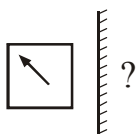
(1) 8 ɔ 9 ɹ ɿ (2) 8 9 ɔ 5 ɿ

(3) 8 ɔ ɹ ɿ ɹ (4) ɿ ɹ ɹ ɔ 8

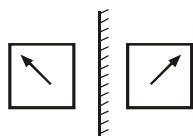
**Sol.** (4) Mirror image for '8' is '8', '6' is 'ɔ', '9' is 'ɹ', '5' is 'ɿ' and '2' is 'ɿ'.

8 6 9 5 2 || ɿ ɹ ɹ ɔ 8

Thus, option (4) is the answer.

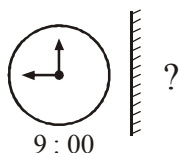
**ILLUSTRATION 5:**

**Sol.** (1) The mirror image of a square remains a square while the arrow inside it will be changed.



is the mirror image for the given

image. Thus option (1) is the correct answer.

**ILLUSTRATION 6:**

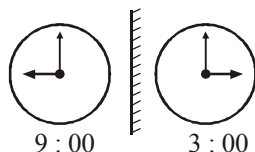
(1) 12:00

(2) 5:00

(3) 3:00

(4) 6:00

**Sol.** (3) The mirror image of circle remains a circle, and the arrow facing north also remains the same but the arrow facing will face East in its mirror image.



Thus, answer is 3:00, i.e., option C.

**Water Image**

The reflection of an object as seen in water is called its water image. It is the inverted image obtained by turning the object upside down.

**Water-images of capital letters**

Letters	A	B	C	D	E	F	G	H	I	J	K	L	M
Water-image	V	B	C	D	E	E	C	H	I	1	K	Γ	W
Letters	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Water-image	И	O	Ԁ	Ք	Զ	Լ	П	Λ	М	X	Λ	Σ	

**Water-images of small letters**

Letters	a	b	c	d	e	f	g	h	i	j	k	l	m
Water-image	ɹ	p	c	q	e	ɹ	ɹ	ɹ	1	1	ƚ	ƚ	ɹ
Letters	n	o	p	q	r	s	t	u	v	w	x	y	z
Water-image	u	o	Ԁ	Ք	Զ	Լ	П	Λ	М	X	Λ	Σ	

**Water-images of numbers**

Letters	0	1	2	3	4	5	6	7	8	9
Water-image	0	1	3	4	2	ɹ	ɹ	8	ɹ	

**Note :**

- The letters whose water-images are identical to the letter itself are : C, D, E, H, I, K, O, X
- Certain words which have water-images identical to the word itself are :  
KICK, KID, CHIDE, HIKE, CODE, CHICK

**Quick Tip**

Whenever we have to analyze the water image of an object, imagine a mirror or a surface that forms an image just under the given object. The portion of the object that is near the water surface will be inverted but will be near the water surface in the image as well.

**DIRECTIONS (ILLUSTRATION 7-11):**

Find the correct option for the water images for the following examples.

**ILLUSTRATION 7:**

STORE  
 ← water surface  
 ?

(1) S 1 O R E

(2) S 1 O ʎ E

(3) S 1 O ʎ E

(4) ʎ 1 O ʎ E

**Sol.** (4) In case of water image, the water reflection will usually be formed under the object / word.

In this case, the water image of the word will be an outcome of the water images of each of the letters like, the water images of S is ʎ, T is 1, O is O, R is Ԁ and E is E. Thus the water image of the word 'STORE' is 'ʎ 1 O Ԁ E.'

STORE  
 ← water surface  
 ʎ 1 O Ԁ E

### ILLUSTRATION 8:

scary

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?

- $$\begin{array}{ll} (1) & \varepsilon c s i \lambda \\ (3) & s c a i \lambda \end{array} \qquad \begin{array}{ll} (2) & \varepsilon c a i \lambda \\ (4) & \varepsilon c a i \lambda \end{array}$$

**Sol.** (1) The water image of 's' is 'z', 'c' is 'c', 'a' is 'g', 'r' is 'j' and 'y' is 'λ'

Thus the water images of scary is ‘ə c ʁ ɪ λ’.

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**ILLUSTRATION 9:**

1 6 8 9 2

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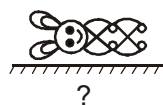
?





- (1) 1 0 8 0 5      (2) 1 0 8 0 5  
(3) 1 0 8 0 5      (4) 1 0 8 6 5

**Sol.** (2) The water image of '1' is ↓, '6' is 'ϑ', '8' is 8, '9' is 'ϑ' and '2' is '5'.

Thus, the water image of 1 6 8 9 2 is  $\downarrow \text{ e } 8 \text{ a } 5$

### ILLUSTRATION 10:

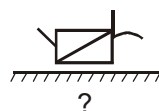


- (1) 
- (2) 
- (3) 
- (4) 

**Sol.** (1) Since, the teddy bear is facing west, in its water image also it will face west. Therefore, options (2) & (3) are ruled out.

Now among options (1) & (4) check the ears and nose of the bear in the actual diagram, it does not have a nose, but the image in option (4) has a nose. Therefore, option (1) is the correct representation.

### ILLUSTRATION 11:



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

**Sol.** (3) Observe the object carefully, the rectangle will remain a rectangle, the diagonal in the object starts from near the water surface in the west side and so will start in the image on the west side. And the arc that is facing North west, will face south-west in the image. Thus option (3) is the correct answer.

## Quick Tips

- (i) While solving a question, try eliminating some options and solving the questions will become easier. To eliminate options, keep in mind the pattern used in the object (given diagram whose image is to be formed) as well as the position of mirror or water such that the portion of the object near to the mirror / water will produce the same portion near the mirror / water in an inverted form.
- (ii) Images are images, be it water or mirror, in both the cases an inverted image of the alphabets / numerals / clocks / any other object are formed by inverting the object. Inverting of the object solely depends upon the position of mirror or water surface w.r.t. the object.

## Exercise

## 1

# Mirror Images

**DIRECTIONS (Q.1 to Q.15) :** Find the correct option for the mirror images for the following questions.

1. DREAM ?

- (1) M A E R D      (2) M A E R D  
(3) M A E R M      (4) M A E R D

2. NEWS ?

- (1) NEWS (2) SWEIN  
(3) SWEIN (4) NEWS

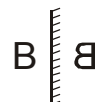
3. jealous ?

- (1) jə'lʌs (2) jə'lʌs  
(3) sʌlʌj (4) sʌlʌj

4. 3 1 2 5 6 8 | ?

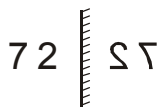
- (1) 3 1 7 2 6 8      (2) 8 6 2 5 1 8  
(3) 8 2 2 5 1 8      (4) 8 2 2 5 1 8

5. Rotate the mirror image  $90^\circ$  clockwise.



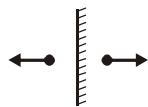
- (1)  $B$  (2)  $B$   
(3)  $B$  (4)  $B$

6. Rotate the mirror image  $90^\circ$  anticlockwise.



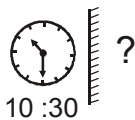
- (1) 27 (2) 52  
(3) 57 (4) 75

7. Rotate the mirror image  $90^\circ$  clockwise.



- (1) ↑ (2) ←  
(3) → (4) ↓

8. Rotate the mirror image of the given clock  $90^\circ$  clockwise and the time will be.



- (1) 4:45 (2) 5:45  
(3) 3:45 (4) 4:30

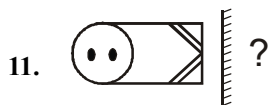
9. Rotate the mirror image  $90^\circ$  clockwise.



- (1) TIME (2) MITE  
(3) TIME (4) TIME

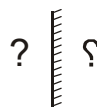


- (1) 2:45 (2) 3:15  
(3) 9:15 (4) 9:45



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

12. Rotate the mirror image  $90^\circ$  anticlockwise.



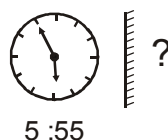
- (1) (2)  
(3) (4)

13. Rotate the mirror image  $90^\circ$  anticlockwise.

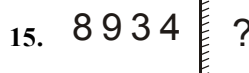


- (1) TNA (2) TNA  
(3) ANT (4) ANT

14. Rotate the mirror image  $90^\circ$  anticlockwise.



- (1) 6:15 (2) 6:05  
(3) 5:05 (4) 5:15



- (1) 8934 (2) 8934  
(3) 8934 (4) 4398

**DIRECTIONS (Qs. 16-18) :** In each of the following questions, you are given a combination of alphabets and/or numbers followed by alternatives (1), (2), (3) and (4). Choose the alternative which most closely resembles the mirror image of the given combination.

16. NATIONAL

- (1) LANOILAN (2) LANOITAN  
(3) LANOITAN (4) LANOITAN

17. ANS43Q12

- (1) ANS43Q12 (2) ANS43Q12  
(3) ANS43Q12 (4) ANS43Q12

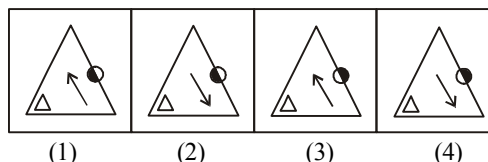
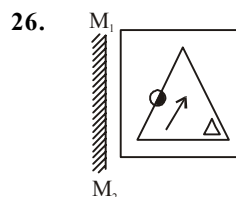
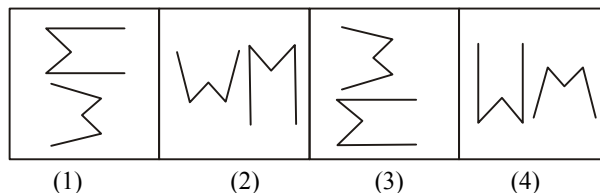
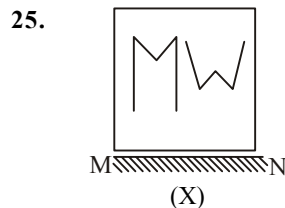
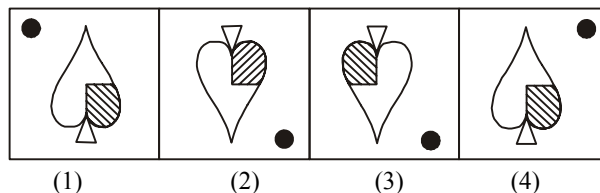
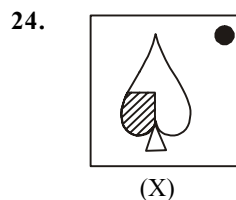
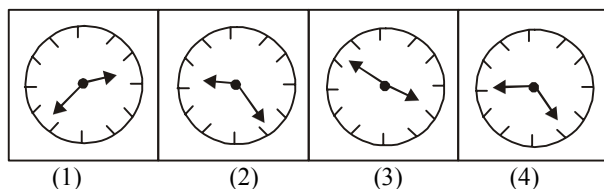
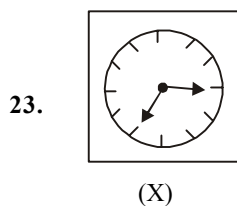
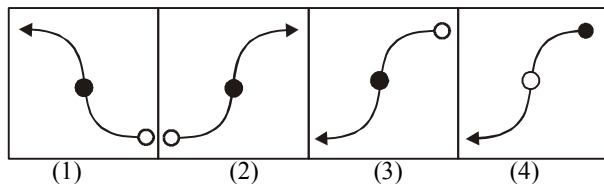
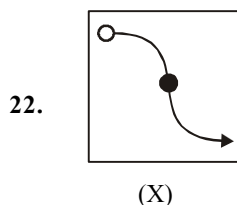
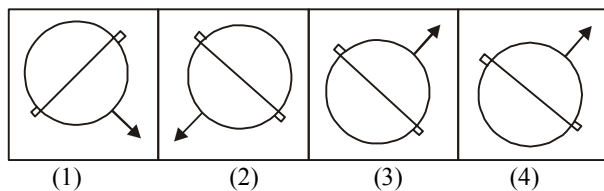
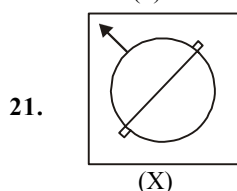
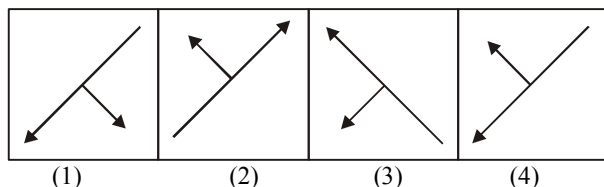
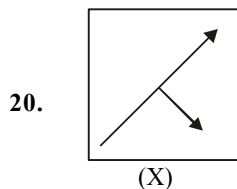
18. 1965INDOPAK

- (1) 1965INDOPAK (2) 1965INDOPAK  
(3) 1965INDOPAK (4) 1965INDOPAK

19. Which of the following collection of letters will look the same in the mirror ?

- (1) OSMIHOM (2) VHRTRVH  
(3) HIMOSTA (4) AOVIVOA

**DIRECTIONS (Qs. 20-28) :** In each of the following questions, choose the correct mirror-image of the Fig. (X) from amongst the four alternatives (1), (2), (3) and (4) given along with it.



27. Looking into a mirror, the clock shows 9 : 30 as the time. The actual time is

- (1) 2 : 30 (2) 3 : 30  
(3) 4 : 30 (4) 6 : 30

28. A clock seen through a mirror shows quarter to three. What is the correct time shown by the clock ?

- (1) 8 : 15 (2) 9 : 12  
(3) 8 : 17 (4) 9 : 15

**DIRECTIONS (Qs. 29-32) :** In each of the following questions, you are given a combination of alphabets and/or numbers followed by four alternatives (1), (2), (3) and (4). Choose the alternative which most closely resembles the mirror-image of the given combination.

29. WHITE  
(1) ELIHW (2) ETIHW  
(3) ETIHW (4) ETIHW

## 30. TERMINATE

- (1) ETAINMET (2) ETAINTE  
(3) ETAINITE (4) ETAINTE

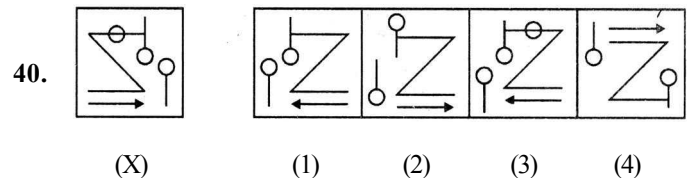
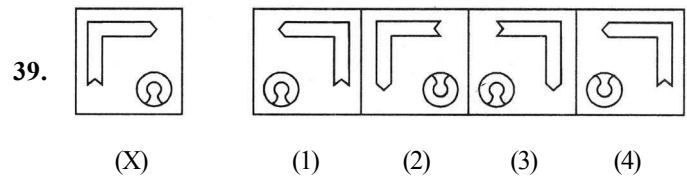
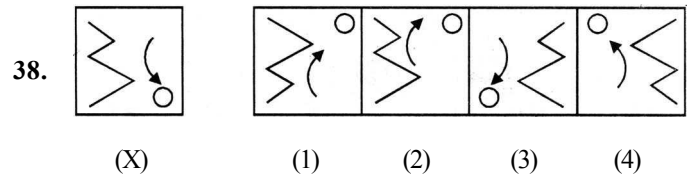
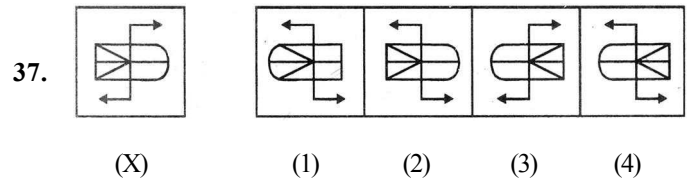
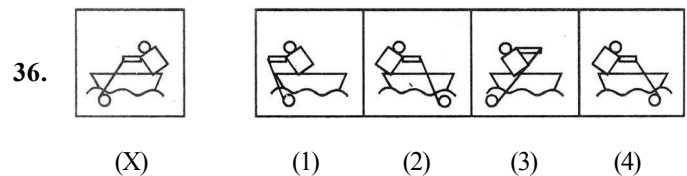
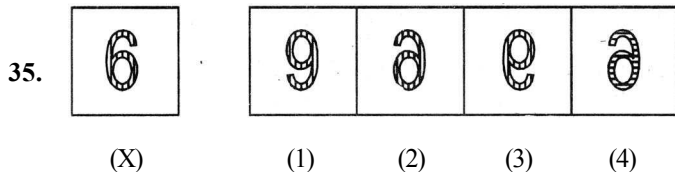
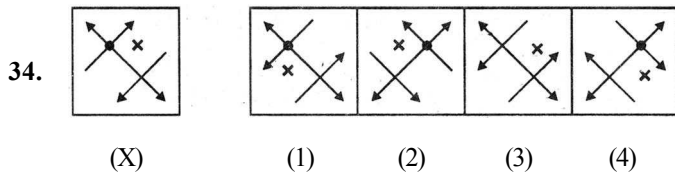
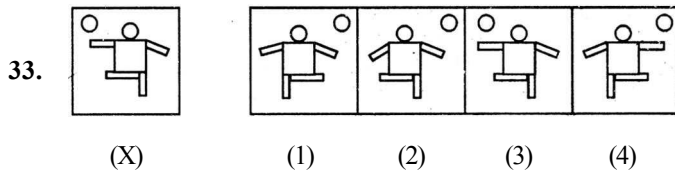
## 31. REASONING

- (1) GNINOSAE (2) REASONING  
(3) GNINOSAE (4) REASONING

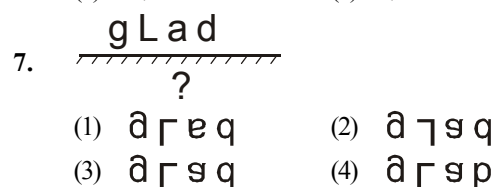
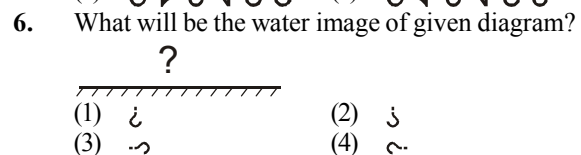
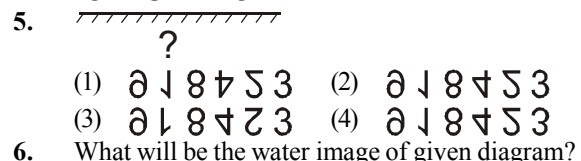
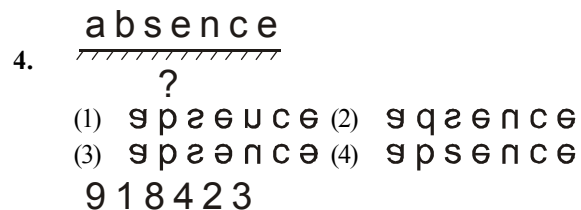
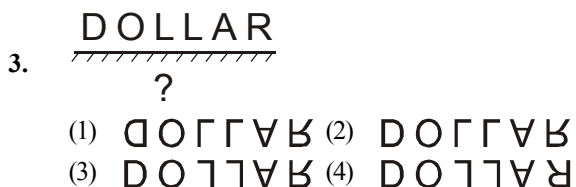
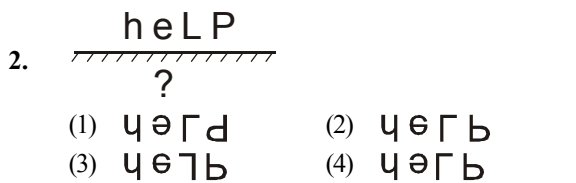
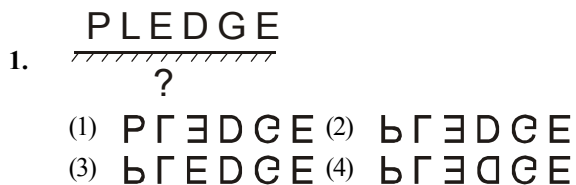
## 32. BR4AQ16HI

- (1) IH61QA4RYB (2) IH61QA4RYB  
(3) IH61QA4RYB (4) BR4AQ16HI

**DIRECTIONS (Qs. 33-40) :** In each of the following questions, choose the correct mirror-image of the Fig. (X) from amongst the four alternatives (1), (2), (3) and (4) given along with it.

**Exercise****2****Water Images****DIRECTIONS (for Q.1 to Q.15)**

Find the correct option for the water images for the following questions.





8. SNOW  
?  
(1) 2NOM (2) SNOM  
(3) SNOM (4) SNOW






9. drain  
?  
(1) qleiu (2) qlsju  
(3) qlaiu (4) qlsju






10. ZEBRA  
?  
(1) ΣΕΒΒΛ (2) ΣΕΒΒΛ  
(3) ΣΕΒΒΛ (4) ΣΕΒΒΛ

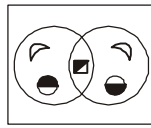
11. 671  
?  
(1) 911 (2) 911  
(3) 911 (4) 911

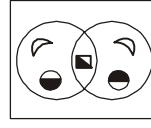
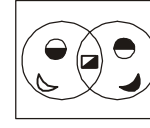
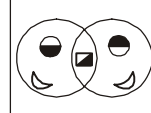
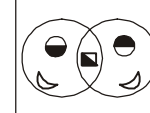
12. 9283  
?  
(1) 0288 (2) 0588  
(3) 0583 (4) 6583

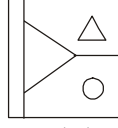
**DIRECTIONS (Qs. 13-20) :** In each of the following questions, choose the correct **water image** of the figure (X) from amongst the four alternatives (1), (2), (3), (4) given along with it.

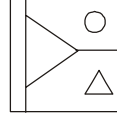
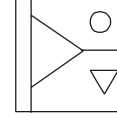
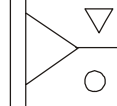
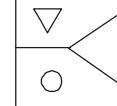
13.   
(X)  
(1)   
(2)   
(3)   
(4) 


14.   
(X)  
(1)   
(2)   
(3)   
(4) 





15.   
(X)


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

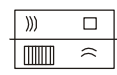
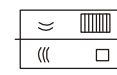


16.   
(X)

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

17.   
(X)

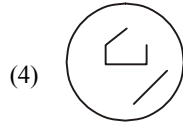
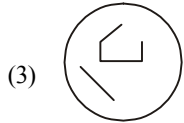
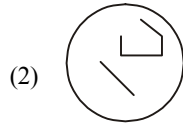
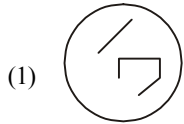
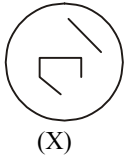
- (1)   
(2)   
(3)   
(4) 

18.   
(X)

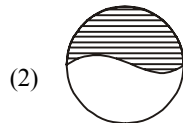
- (1)   
(2)   
(3)   
(4) 



19.



20.



**DIRECTIONS (Qs. 21-24) :** In each of the following questions, you are given a combination of alphabets and/or numbers followed by four alternatives (1), (2), (3) and (4). Choose the alternative which most closely resembles the water image of the given combination.

21. FROG

(1) E B O C

(2) GORF

(3) O Q R F

(4) E B O G

22. U 4 P 1 5 B 7

(1) U 4 P 1 2 B 7

(2) U 4 P 1 2 B 7

(3) U 4 P 1 2 B 7

(4) U 4 P 1 2 B 7

23. GR 9 8 A P 7 6 E S

(1) G R 6 8 V B 7 9 E 2

(2) G R 6 8 V B 7 9 E 2

(3) G R 6 8 V B 7 9 E 2

(4) G R 6 8 A B 7 9 E 2

24. A 1 M 3 b

(1) V I M 3 P

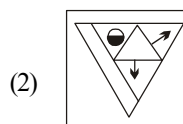
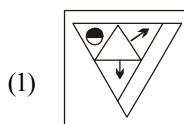
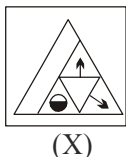
(2) V I M 3 P

(3) V I M 3 P

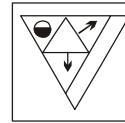
(4) V I M 3 P

**DIRECTIONS (Qs. 25-28) :** In each of the following questions, choose the correct water image of the figure (X) from amongst the four alternatives (1), (2), (3) and (4) given along with it.

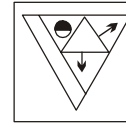
25.



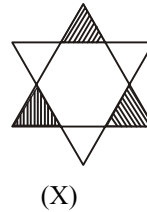
(3)



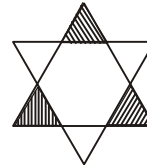
(4)



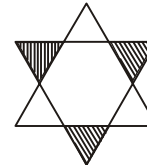
26.



(1)



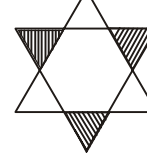
(2)



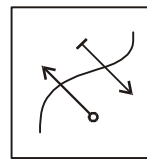
(3)



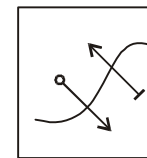
(4)



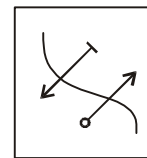
27.



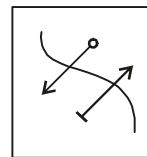
(1)



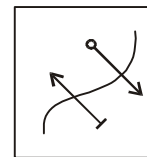
(2)



(3)



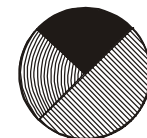
(4)



28.



(1)



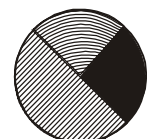
(2)



(3)

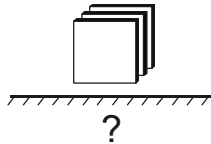


(4)

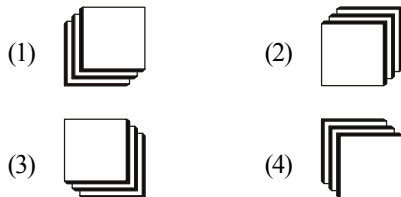


Questions for NTSE

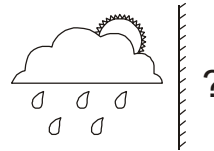
29. Observe the figures below :



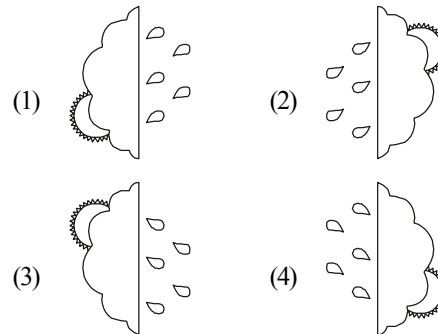
First rotate the figure by  $90^\circ$  in clock-wise direction and find out its water reflection from the given alternatives (NTSE)



30.



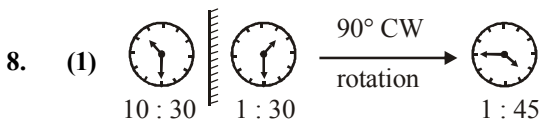
If the mirror image of the figure is rotated to  $90^\circ$  in clockwise direction, it will look like :



# Hints & SOLUTIONS

## Exercise - 1

- (3) Mirror image for the letters 'D' is 'D', 'R' is 'R', 'E' is 'E', 'A' is 'A' and 'M' is 'M'. Since the word ends with M, i.e., where the mirror is placed, therefore the mirror image will start from the mirror image of M, i.e., M. Thus the mirror image for water is MAERD.
- (1) Mirror image for the letters 'N' is 'N', 'E' is 'E', 'W' is 'W' and 'S' is 'S'.
- (4) Mirror image for the letters 'j' is 'j', 'e' is 'e', 'a' is 'a', 'L' is 'L', 'O' is 'O', 'u' is 'u' and 'S' is 'S'.
- (4) Mirror image of numbers — '3' is '3', '1' is '1', '2' is '2', '5' is '5', '6' is '6' and '8' is '8'.
- (2) If we rotate the mirror image, i.e., 'B'  $90^\circ$  clockwise, then it will be 'B'.
- (3) If we rotate the mirror image, i.e., 'S' to  $90^\circ$  anticlockwise, then it will be 'S'.
- (4) If we rotate the mirror image, i.e., '→' to  $90^\circ$  clockwise, then it will be '↓'.

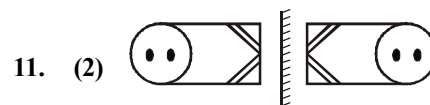


Hence, option (1) is the answer.



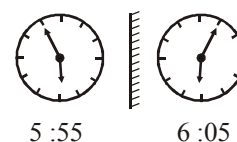
Hence, option (3) is the correct answer.

- (1) The mirror image of circle remains a circle and the arrow facing west will face towards east and arrow facing east will face towards west. Thus, time will be 2 : 45.

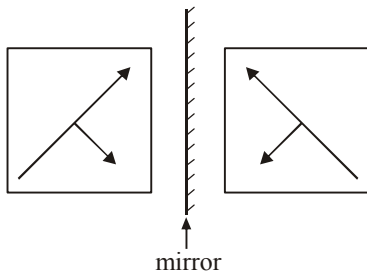


Hence option (2) is the answer.

- (1) If we rotate the mirror image, i.e., 'f' to  $90^\circ$  anti-clockwise, then it will be 'f'. Thus, option (1) is the answer.
- (2) If we rotate the mirror image i.e., 'TIA' to  $90^\circ$  anti-clockwise, then it will be 'TIA'. Thus, option B is the answer.
- (2) The mirror image of circle remains a circle. The arrow facing south will also remains the same. But the arrow facing north-west will face north-east.

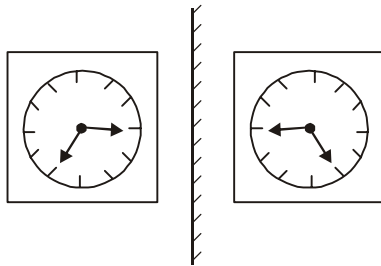


- (4) Mirror images for the numbers '8' is '8', '9' is '9', '3' is '3' and '4' is '4'.
- (2)
- (2)
- (4)
- (4)
- (3) Assume that the mirror is placed on the right hand side of the given object, unless mentioned or drawn near the object.

**Exercise - 2**

21. (3)

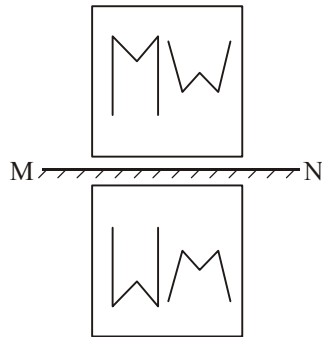
22. (3)



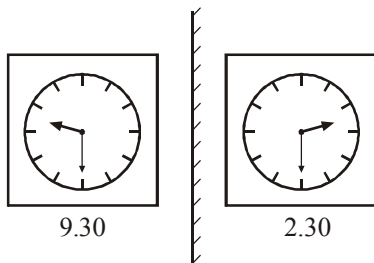
23. (4)

24. (1)

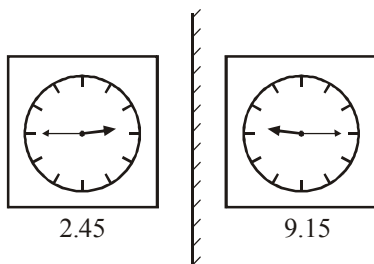
25. (2) This object has mirror placed under the object.



26. (1)



27. (1)



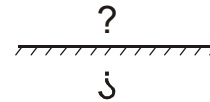
28. (4)

29. (3) 30. (3) 31. (2) 32. (1)

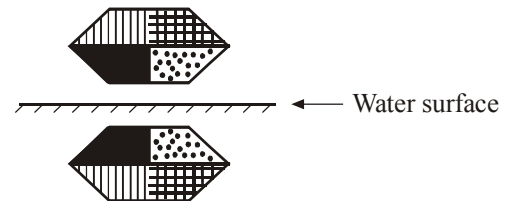
33. (4) 34. (2) 35. (2) 36. (4)

37. (4) 38. (3) 39. (1) 40. (3)

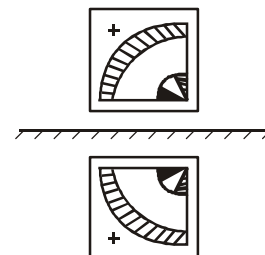
1. (3) The water image of 'P' is 'b', 'L' is 'Γ', 'E' is 'E', 'D' is 'D', 'G' is 'G' and 'E' is 'E'.
2. (2) The water image of 'h' is 'μ', 'e' is 'e', 'L' is 'Γ' and 'P' is 'b'.
3. (2) The water image of 'D' is 'D', 'O' is 'O', 'L' is 'Γ', 'A' is 'V' and 'R' is 'B'.
4. (1) The water image of 'a' is 'g', 'b' is 'p', 'S' is 'z', 'e' is 'e', 'n' is 'u', 'c' is 'c' and 'e' is 'e'.
5. (4) The water image of number — '9' is 'θ', '1' is 'J', '8' is 'g', '4' is 'q', '2' is 'S' and '3' is '3'.
6. (2) The water image of '?' is 'j'.

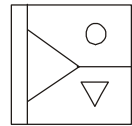
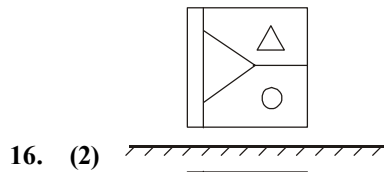
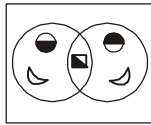
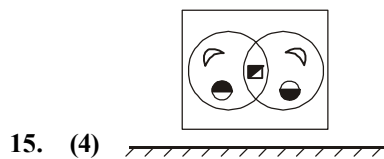


7. (3) The water image of 'g' is 'θ', 'L' is 'Γ', 'a' is 'g' and 'd' is 'q'.
8. (1) The water image of 'S' is 'z', 'N' is 'u', 'O' is 'O' and 'W' is 'M'.
9. (2) The water image of 'd' is 'q', 'r' is 'l', 'a' is 'g', 'i' is 'i' and 'n' is 'u'.
10. (3) The water image of 'Z' is 'S', 'E' is 'E', 'B' is 'B', 'R' is 'B' and 'A' is 'V'.
11. (2) The water image of '6' is 'θ', '7' is 'J' and '1' is 'J'.
12. (3) The water image of '9' is 'θ', '2' is 'S', '8' is 'g' and '3' is '3'.
13. (1) Since, in case of water images, usually the image drawn is just under the actual object. So the shaded and dotted portion will come up on their respective sides, because the portion of the object near water surface will remain near the water surface in case of the image as well.

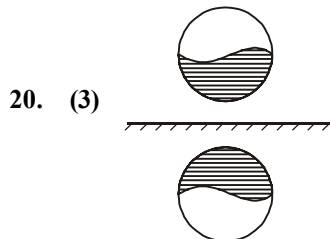


14. (4)



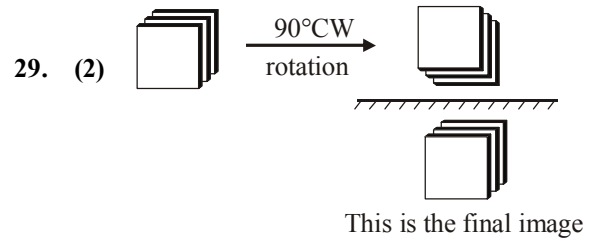


17. (3)      18. (1)      19. (4)

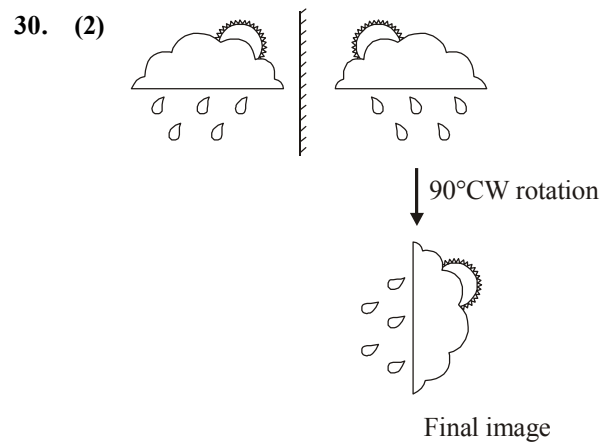


21. (1)      22. (3)      23. (3)      24. (3)      25. (4)  
26. (4)      27. (3)      28. (4)

**Solution & Hints for NTSE Questions**



Thus option (2) is the correct answer.



Hence option (2) is the answer.