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### Preface

**Dear Aspirant,**

Welcome to the world of Visual Reasoning!

Among several types of questions asked in CET, visual reasoning questions hold special intrigue. Some exams give really easy visuals, and students prefer to attempt all the visual questions. On the contrary exams like CET used to have tough visual reasoning questions that students are known to waste a big chunk of their exam time in unsuccessfully attempting them. This wide disparity has been our inspiration to create this book on visual reasoning.

In creating this book, we have been sensitive to the fact that the type of visual reasoning questions in recent competitive exams has been different from the exams a few years ago. Hence, this book should provide you with a refreshed approach and an up-to-date practice of visual reasoning.

In visual reasoning, you are given a set of figures. These figures depict the occurrence of an event or display some form of relationship. All visual reasoning questions are based on a theme, which is also called the 'logic' of the visual reasoning question. In each of the question, you are required to decipher the 'theme'.

With this introduction, we once again welcome you to Visual Reasoning.

If you wish to add more light to any problem, drop in a line at [www.careerlauncher.com](http://www.careerlauncher.com).

**Wishing you all the very best!**

Truly Yours

The Career Launcher Team

## Preface

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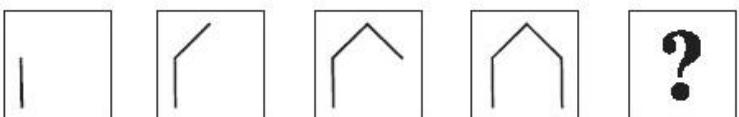
**6. Answers and Explanations**

## **Part 1 - Various Types of Visual Reasoning**

There are various types of Visual Reasoning based on the past year examinations. Each type is illustrated below.

### **SERIES**

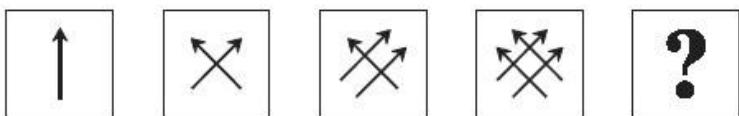
In such type of questions, as the name implies, a set of figures that depict a serial progression of a theme is given. According to the type of the series based questions we have to find out the correct answer figure.



The following types of series based patterns have appeared in the previous year examinations.

#### **• 'WHAT'S NEXT?' SERIES**

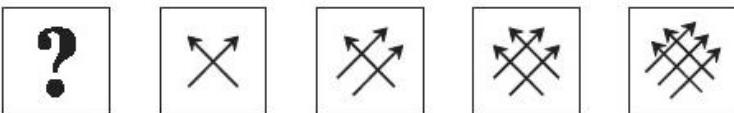
In this kind of questions, a series of four or five figures is given. You have to find out the next figure as a continuation of the given sequence. For example:



#### **• 'WHAT'S FIRST?' SERIES**

These kind of questions are opposite to that of the earlier one. You are given a set of four or five figures and asked to find out the first figure of the given sequence. The first

figure should have a sequential link with the later figures given in the sequence. Usually, students use the first figure as the benchmark for understanding the series. As a result, when the first figure itself is missing, it becomes a tedious task to figure out the logic. However, with some practice this problem can be taken care of. For example:



#### **• 'WHAT'S IN-BETWEEN ?' SERIES**

Like the name suggests, the middle figure of a given sequence is to be find out. The logic of the sequence needs to be maintained throughout and the middle figure in question should contribute in continuing the given sequence. For example:



### **ANALOGY**

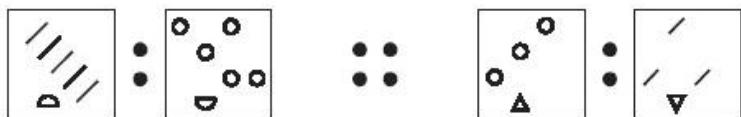
The word 'Analogy' implies 'a similarity', in such questions a certain relationship between a set of elements is given. We have to decipher the given theme and work out the answer which has similar relationship to the given elements.

Consider the following analogy.

**D : B :: 4 : ?**

In this case, we have to find out the logic between D and B. If we get to know the logic, then we can apply the similar logic to get the answer which has similar relationship as that of between the given elements.

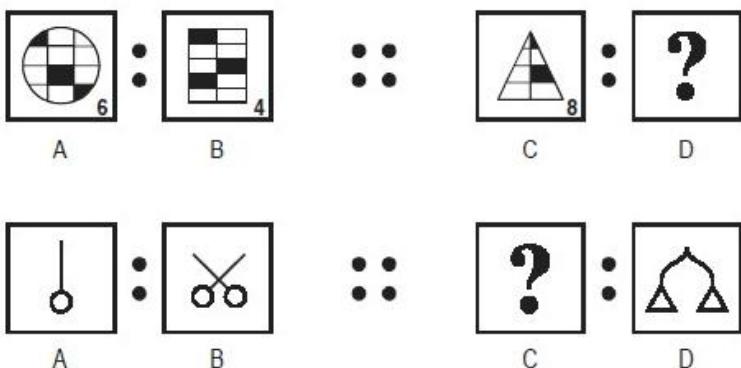
The example given here is of alphabetical analogy. But the analogies can be numerical, verbal or visual. Here is an example of visual analogy. For example:



The various types of analogies based visual reasoning questions which appear in previous year examinations are:

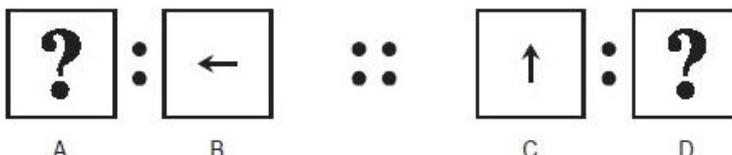
#### • 'FIND MY BROTHER' ANALOGY

These analogies possess similar characteristics. In the figure given below, the relationship between the pair A and B is given. We have to decipher the pattern and find out the figure which can replace question mark in D and has a similar relationship as that of between A and B. Some times it happens that you have to find C instead of D which is not a big issue. For example:



#### • 'FIND OUR BROTHER' ANALOGY

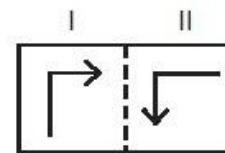
This kind of questions are more twisted than the earlier ones. In the given figure below, the figures labeled as B and C possess a certain relationship. We have to decipher the pattern and figure out which of the given options has a similar relationship to that of B - C. As in the earlier case, here too we could be asked to find A - D instead of B - C. For example:



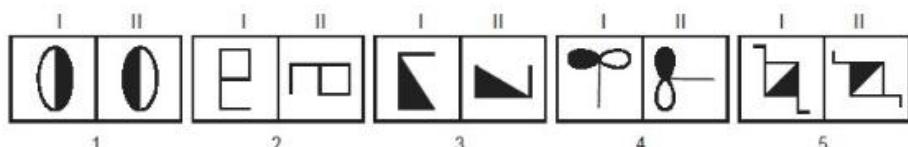
#### SIMILAR PAIR

In this type of questions, a pair of figures called 'Problem Figure' is given. The two figures labeled as I and II bear a certain relationship. The 'Problem Figure' is then followed by five other pairs called as 'Answer Figure'. You need to identify which pair among the given option pairs exhibits the similar relationship as between the figures given in 'Problem Figure'. For example:

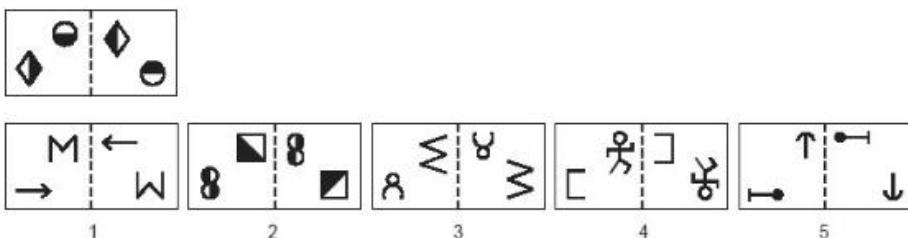
##### Problem figure:



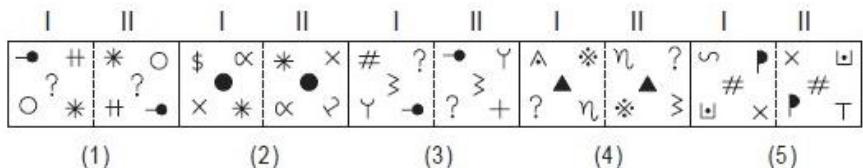
##### Answer Figure:

**DISSIMILAR PAIR**

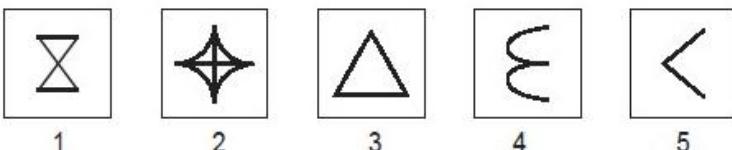
These type of questions are on the similar lines to that of 'Similar Pair'. The only difference here is that you have to identify the pair which doesn't follow the similar relationship. For example:



Another variant of these type of questions is given below. In such type of questions, five pairs are given. Each pair has two figures labeled as I and II. In each pair, figure II is related to figure I in a certain manner. You need to identify in which pair figure I and II doesn't follow the similar pattern. For example:

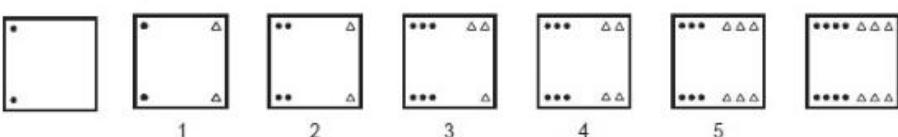
**ODD MAN OUT**

This category is totally different from the above given categories. A set of four or five figures is given. You have to identify which of given option figure doesn't logically fit with other figures. For example:



Another variant of this type is given below. In such type of questions, a series of generally six to seven figures is given. The first and the last figure of the series are fixed. In between these two terms, there are four or five figures. You have to identify the figure which doesn't fit logically with the other figures.

For example:

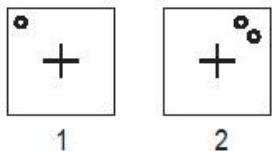


## Part 2 - Kinds of Reasoning Used in Visuals

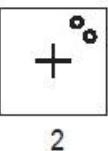
So far, we have studied the various types of visual reasoning patterns that appeared over the previous year examinations. In this part we would cover various kind of concepts or logic or a combination of more than one type of logic. So, lets start pondering over the various kind of reasoning. Some of the frequently used concepts can be categorized as:

**Quantitative Reasoning:** In such type of reasoning one should look for

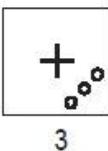
1. Any increase or decrease in the number of objects or sub-objects given in figure
2. Any increase or decrease in the number of lines or dots given in figure
3. Any particular event taking place in the figure a certain number of times
4. Using English alphabets to denote numbers



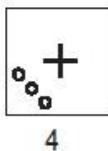
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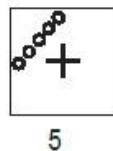
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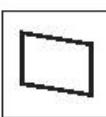


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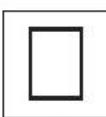
**Structural Reasoning:** In such type of reasoning one should look for

1. The figures having only lines or only curves or both

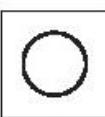
2. Any enclosed structures or open ones
3. Any relationship between the location of the various lines/curves in the figures
4. Any relationship between the size of the various lines/curves in the figures
5. Any relationship between the number of various lines/curves in the figures
6. Any relationship between the orientation of various lines/curves in the figures
7. In case of polygons, the number of sides



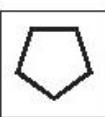
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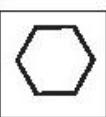
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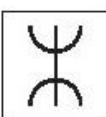
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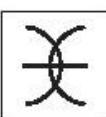
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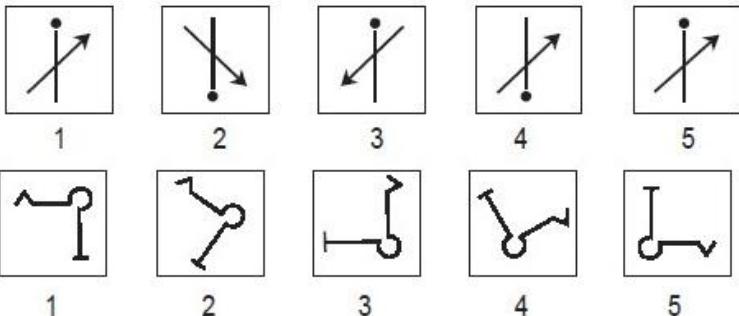
**Fragmentational Reasoning:** In such type of reasoning one should look for

1. Any object/sub-object divided into fragments
2. Any particular fragment increasing or decreasing
3. Any particular fragment shaded or unshaded

**Directional Reasoning:** In such type of reasoning one should look for

1. Where should the arrow be pointing?

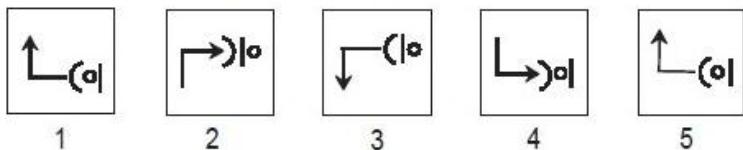
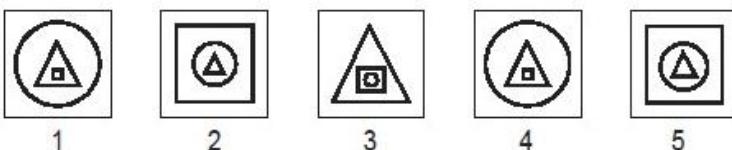
2. Where should the object/sub-object be moving?
3. In which direction should it revolve?
4. Is the movement of objects consistent in all figures?
5. Are the objects rotating?



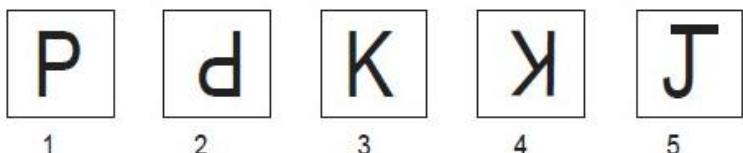
**Movement or Growth Reasoning:** This logic is very peculiar as any of the previous logic can be merged with it. In such type of reasoning one should always look for

1. Any of the element moving in clockwise or anti-clockwise direction
2. Any of the element keeps changing or interchanging its position
3. Any of the element keeps changing or interchanging its position with moving in either of the direction
4. Any of the element keep rotating in a peculiar manner

For example



**Symmetrical Reasoning:** In such type of reasoning one should look for the symmetry of the alphabets or numbers or geometrical shape. For example:



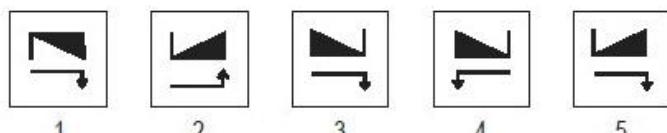
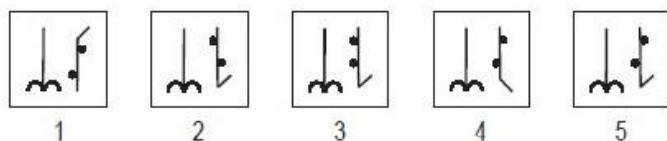
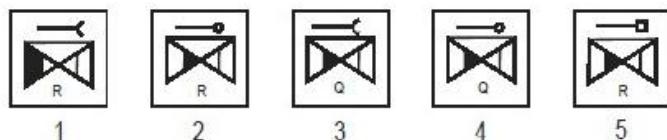
### **Part 3 - Practice Exercise**

After pondering over the basics of the Visual Reasoning for quite sometime. Now, its time to give a try to the questions based on them. This exercise contains questions on the earlier discussed types. At this stage, don't proceed by taking it as a test. Instead of, try to understand how the concepts evolve.



### Series-based Questions

**Directions for questions 1 to 35:** In each of the following questions there are two sets of figures. The set on top is Problem figures and the set given under it is Answer figures. The Problem figures form a series which implies that they change from left to right in a specific order. The question is, if the figures continue to change in the same order, what should be the next figure?



4.



V R G  
L Y  
X N

G Q  
R N  
V L X

Q N X  
Z L  
R V

X L V  
N  
Q Z A

S A  
L Z  
X N Q

7.

D L N  
Q R S  
A 2 ●

N 2 ■  
● S Q  
D A L

■ △ V  
L Q ●  
N D 2

V D A  
2 ● L  
■ N △

A N T  
A L 2  
V ■ D



X L V  
K R  
J Y G

V R G  
L Y  
X W

T Y G  
R  
X L V

G R V  
Y L  
D X

X L V  
R  
T Y G

1

2

3

4

5

T ■ G  
D S ▲  
A V N

T ● G  
D 2 ▲  
A V N

T ■ G  
D 2 ▲  
A V N

T ■ L  
D 2 ▲  
A V N

T □ X  
D 2 ▲  
A V N

1

2

3

4

5

5.

↔ D \*  
S L A

G S A  
\* D ↔



△ A G  
↔ \* \$

• ↔ \$  
G A A

E G △  
\$ ↔ •

\$ \* G  
A S ↔

\$ \* Q  
A S G

\$ \* ↔  
A S G

\$ \* ↔  
A S R

\$ \* ↔  
A S G

1

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6.



L | •  
Δ 3

△ | Z  
• | L

• | X  
L | Δ

Z | D  
Δ | X

X | ■  
• | Z

3 | Δ  
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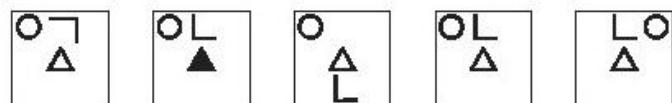
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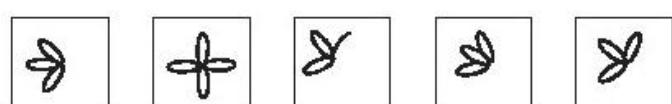
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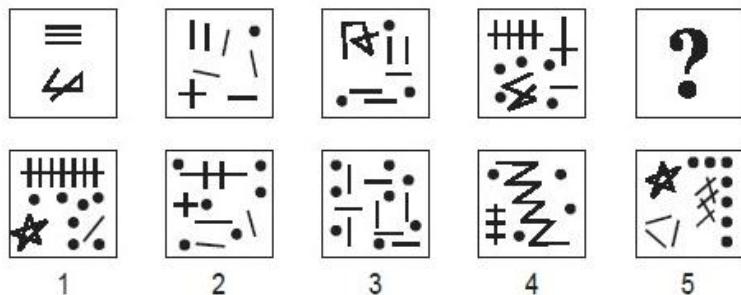


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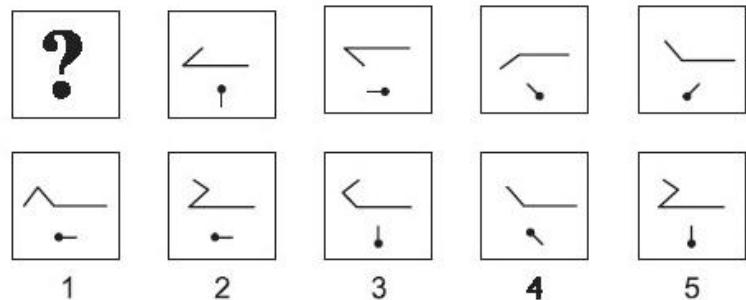


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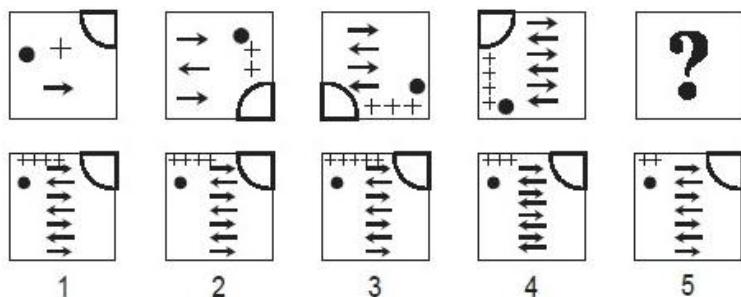
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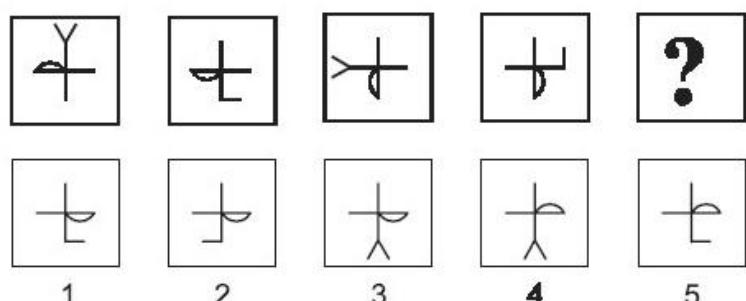
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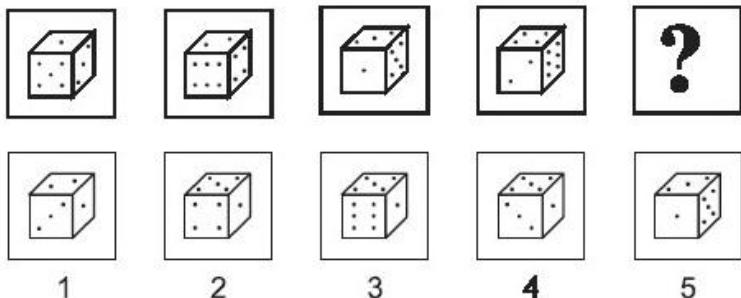
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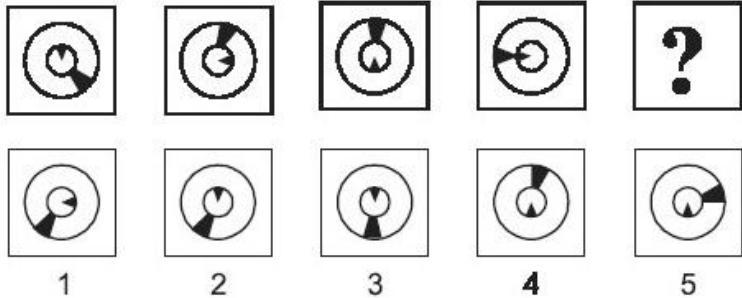
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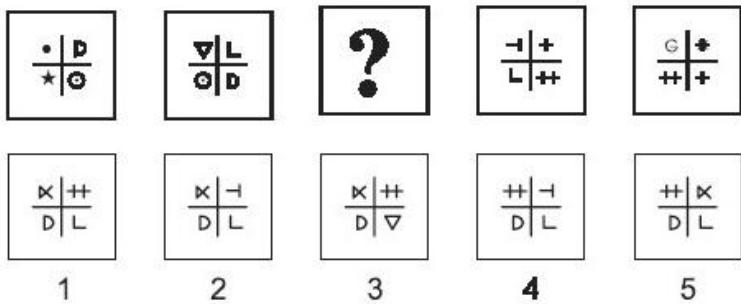
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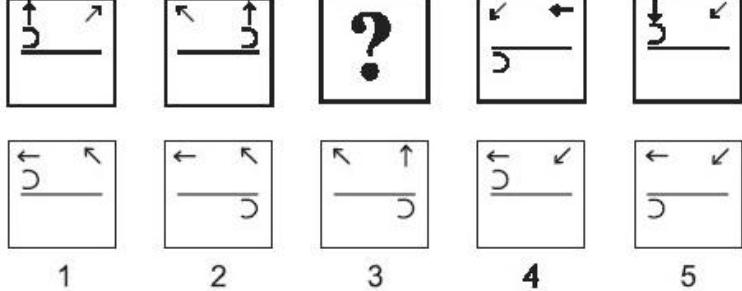
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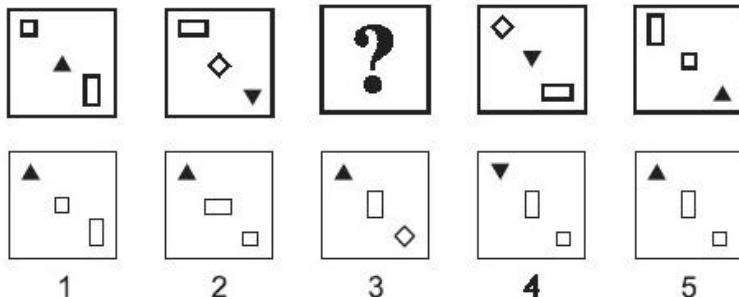
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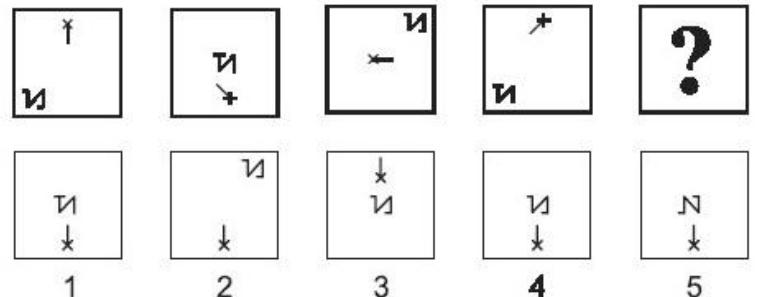
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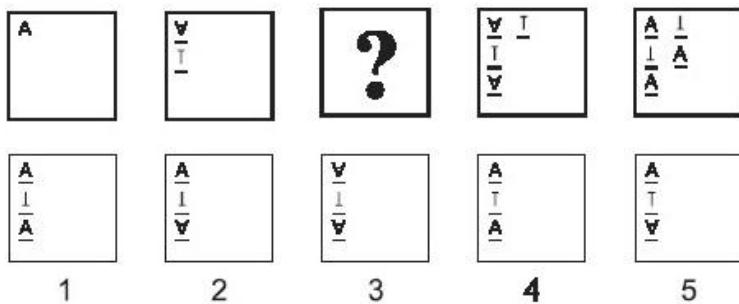
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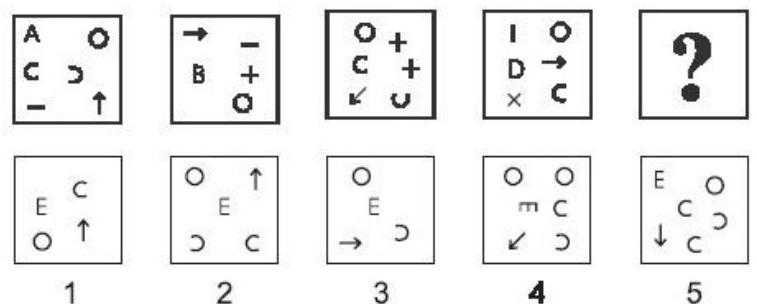
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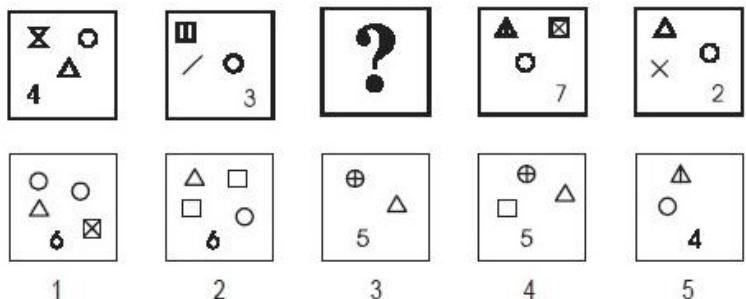
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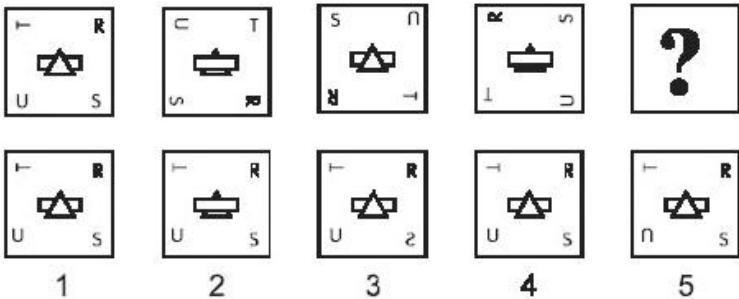
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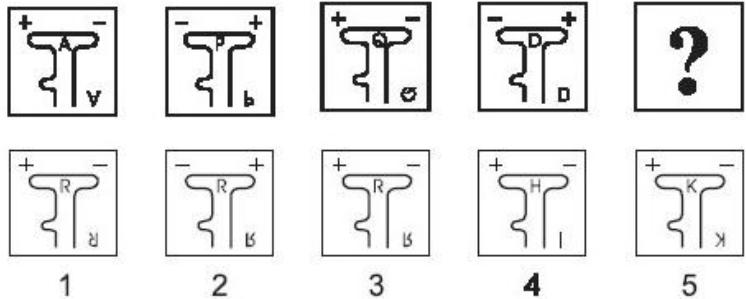
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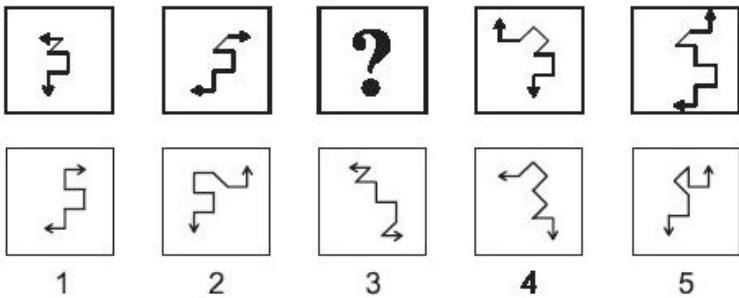
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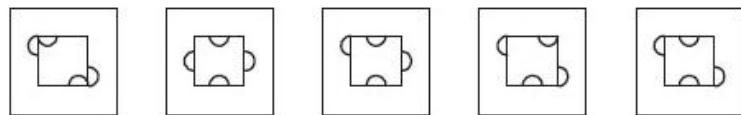
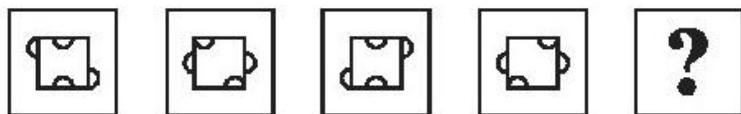
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27.



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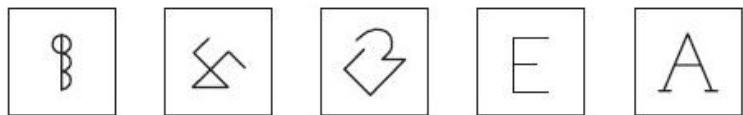
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30.



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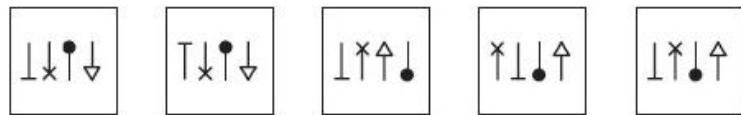
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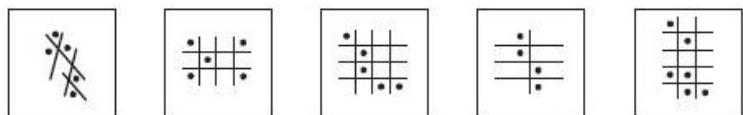
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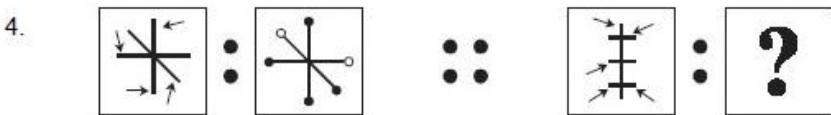


- 32.
- |   |   |   |   |   |
|---|---|---|---|---|
|   |   |   |   |   |
|   |   |   |   |   |
| 1 | 2 | 3 | 4 | 5 |
- 33.
- |   |   |   |   |   |
|---|---|---|---|---|
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| 1 | 2 | 3 | 4 | 5 |
- 34.
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- 35.
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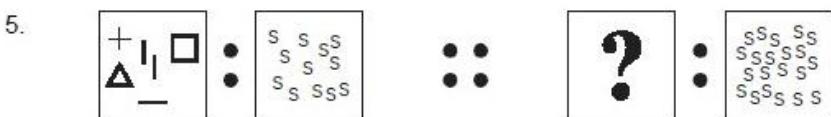
### Analogy-based Questions

**Directions for questions 1 to 25:** In each of the following questions there are two sets of figures. The set on the top is Problem figures and the set given under it is Answer figures. The Problem figures are presented in two units. The first unit contains two figures which are related to each other by a certain logic and the second unit contains one figure and a question mark. You have to find out which of the Answer figures should replace the question mark.

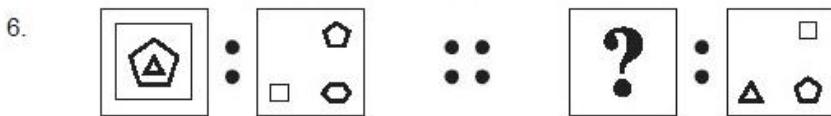
1. :: ; ?  
  
1 2 3 4 5
  
2. :: ; ?  
  
1 2 3 4 5
  
3. :: ; ?  
  
1 2 3 4 5



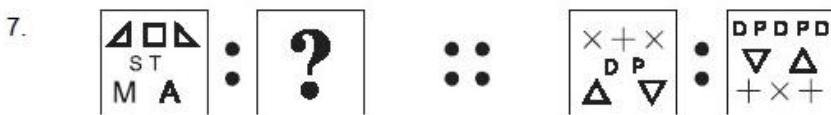
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| 1 | 2 | 3 | 4 | 5 |



- |   |   |   |   |   |
|---|---|---|---|---|
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| 1 | 2 | 3 | 4 | 5 |



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| 1 | 2 | 3 | 4 | 5 |





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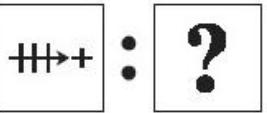
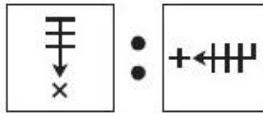


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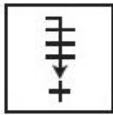


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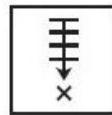
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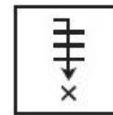
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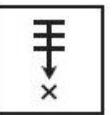
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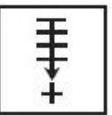
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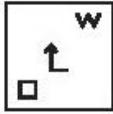
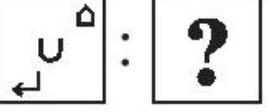
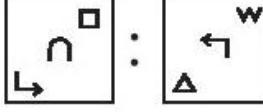


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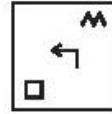


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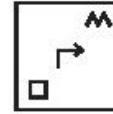
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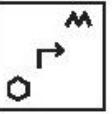
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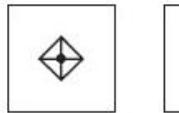
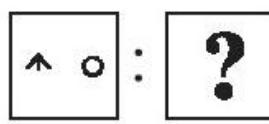


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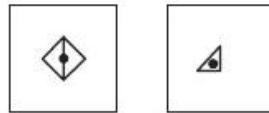
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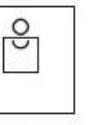
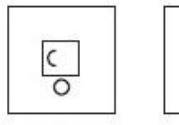
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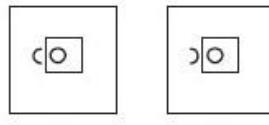
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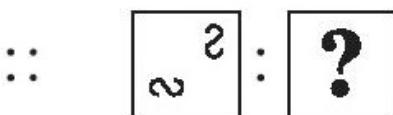
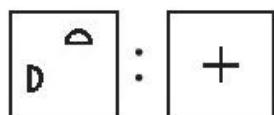
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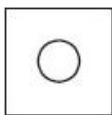
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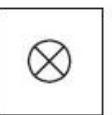
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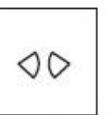
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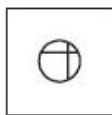
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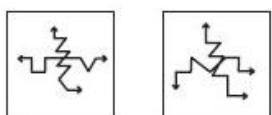
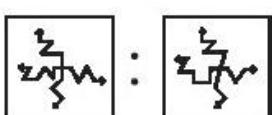


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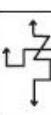


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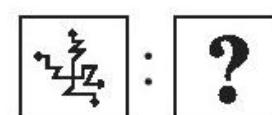
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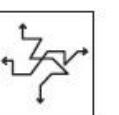
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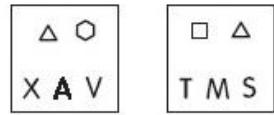


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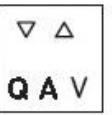
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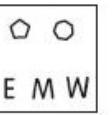
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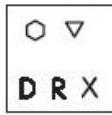
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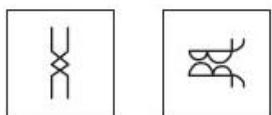
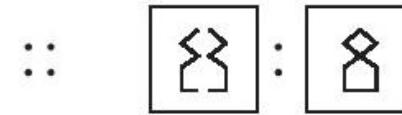
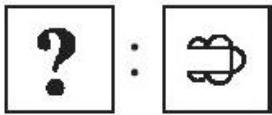


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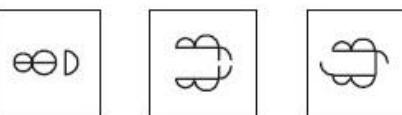


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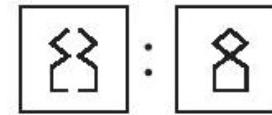
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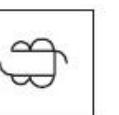
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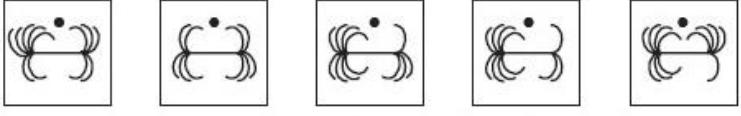
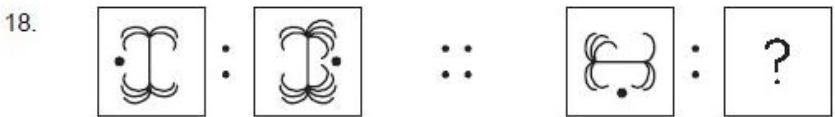
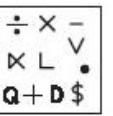
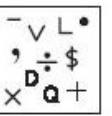
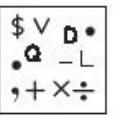
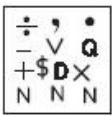
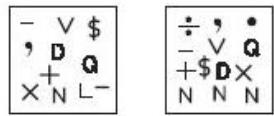
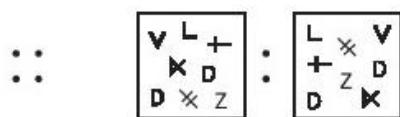
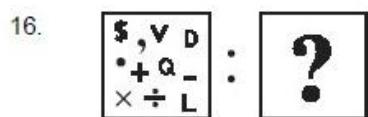
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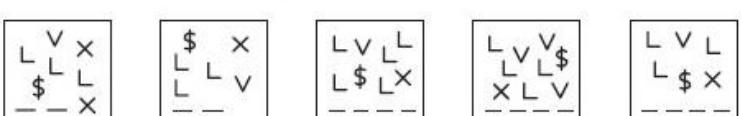
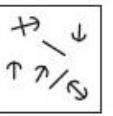
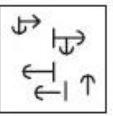
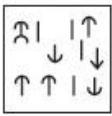
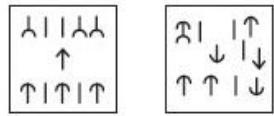
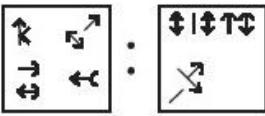
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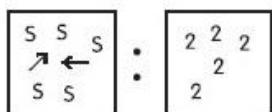


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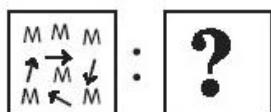


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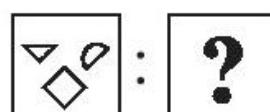
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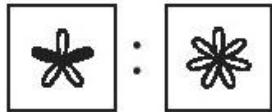
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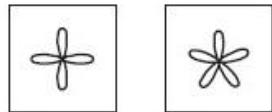
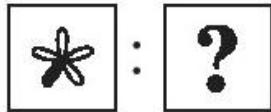
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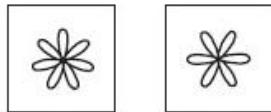
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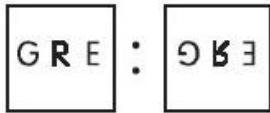
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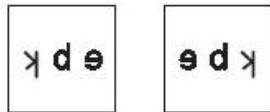
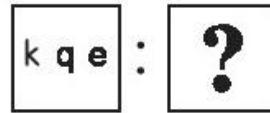
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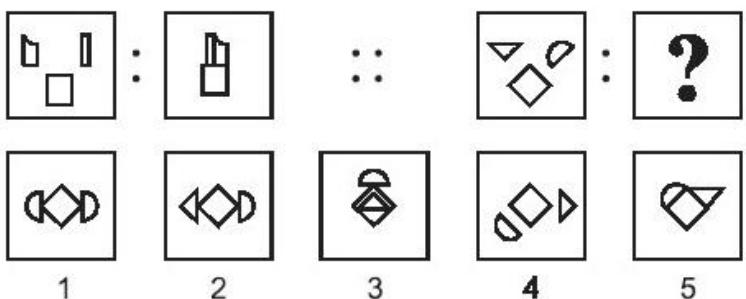
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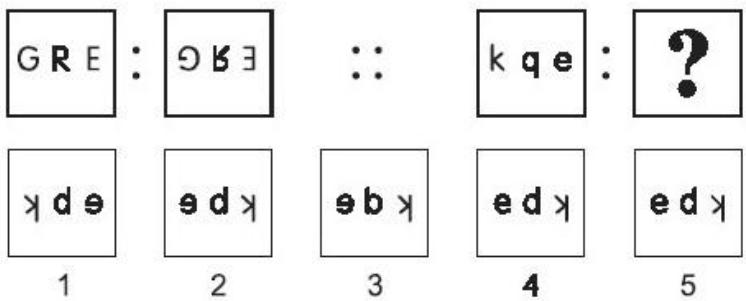
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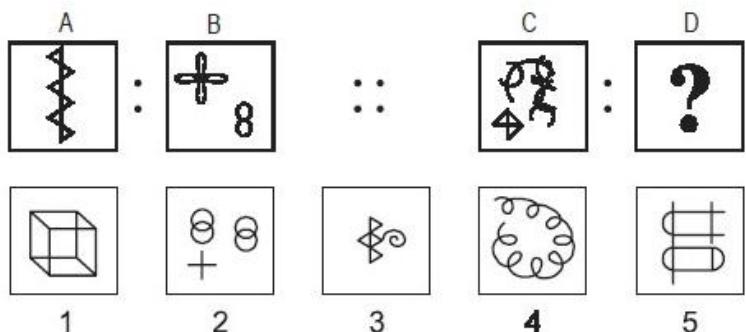
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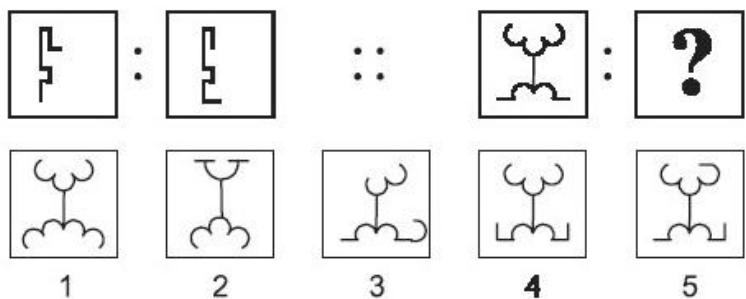
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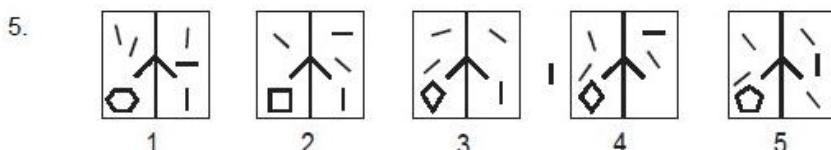
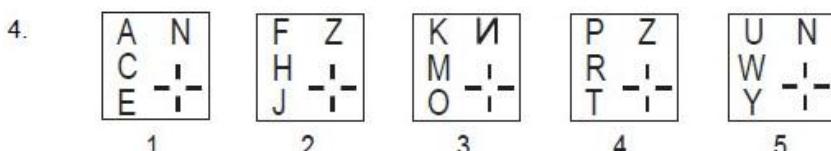
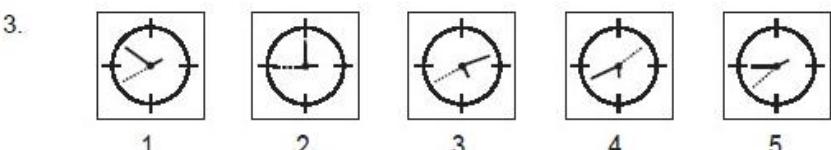
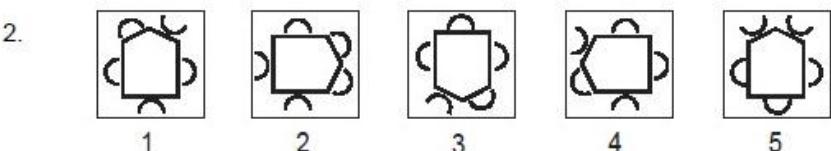
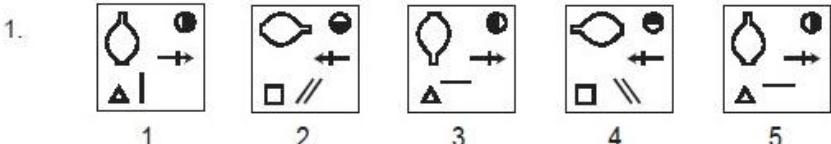


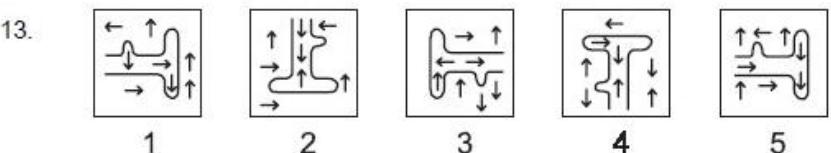
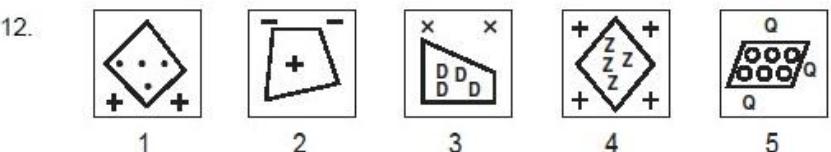
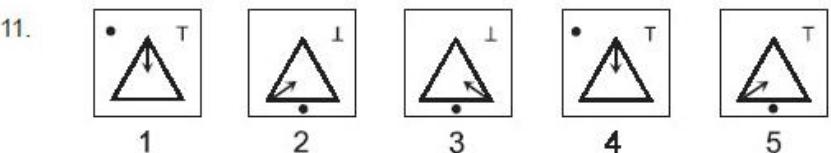
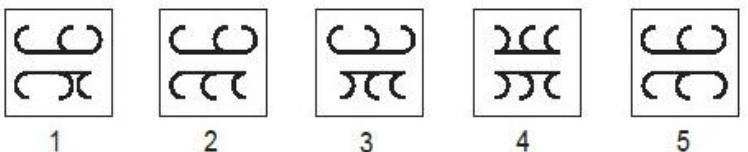
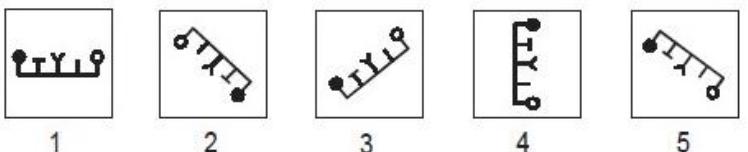
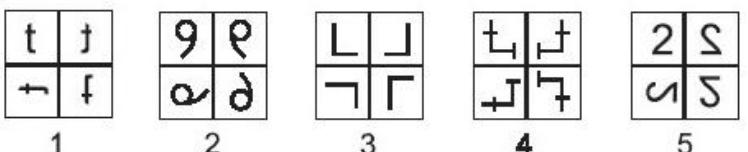
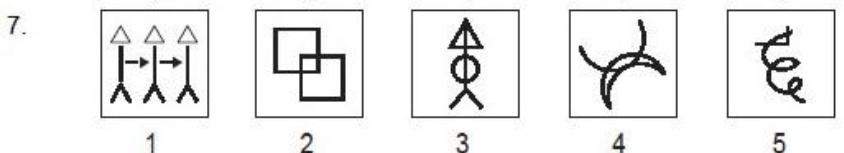
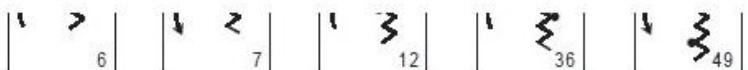
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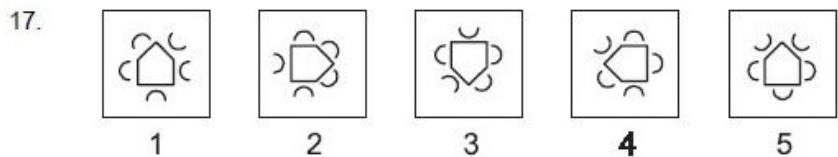
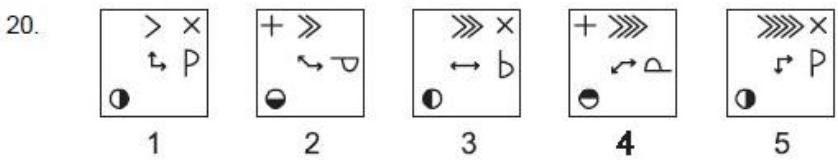
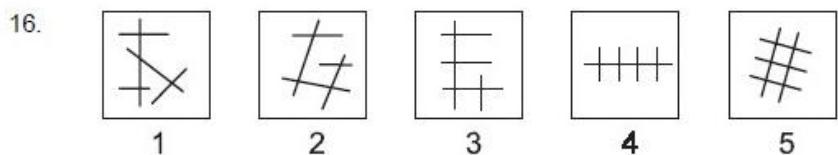
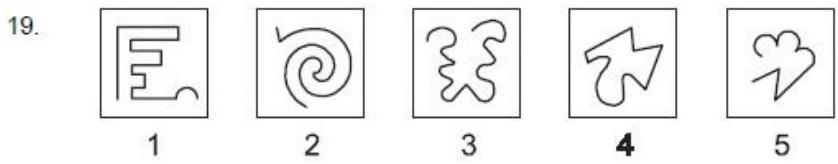
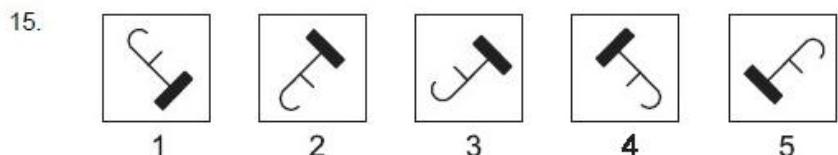
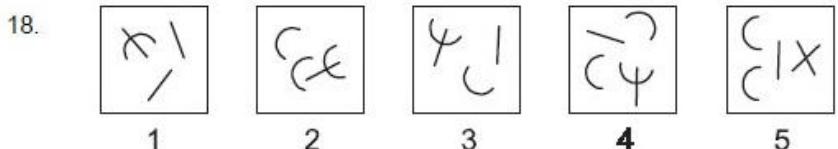
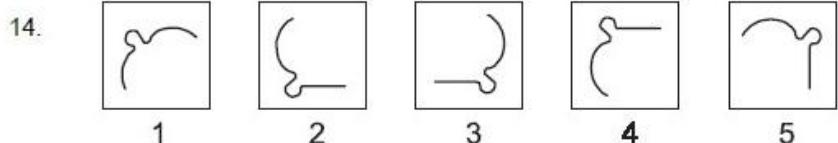


### 'Odd Man Out'-based Questions

**Directions for questions 1 to 3:** In each of the given questions, out of the given five figures (1, 2, 3, 4 and 5), four are similar in a certain way. One figure is not like the other four. That means four figures form a group. The question is: which of the figures does not belong to this group?







21.



1



2



3

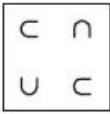


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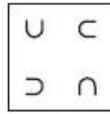


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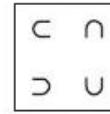
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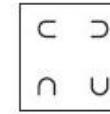
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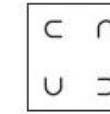
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3

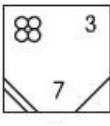


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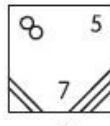


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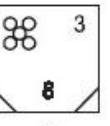
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1



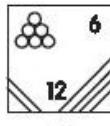
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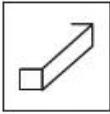


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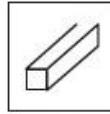


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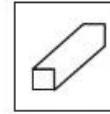
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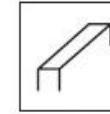
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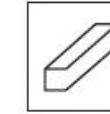
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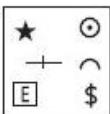


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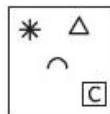


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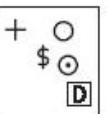
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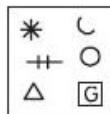
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3



4

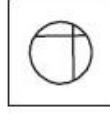


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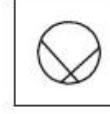
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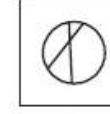
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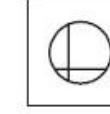
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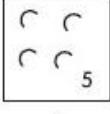


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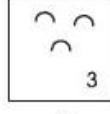


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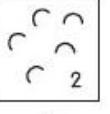
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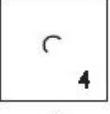
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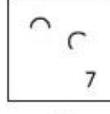
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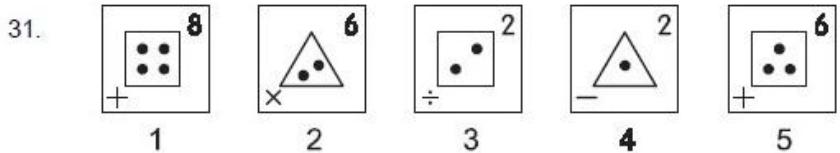
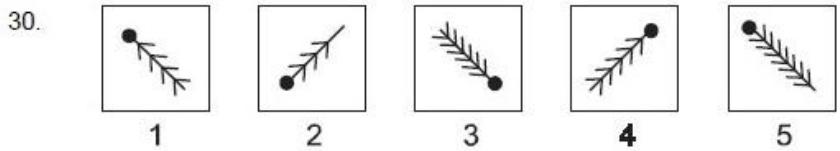
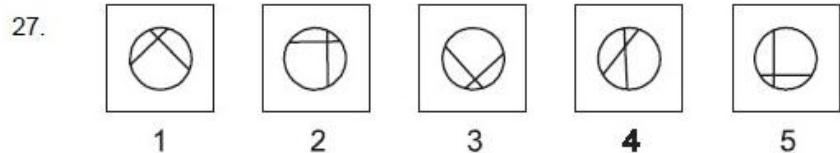
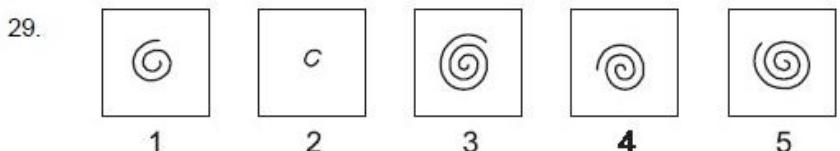
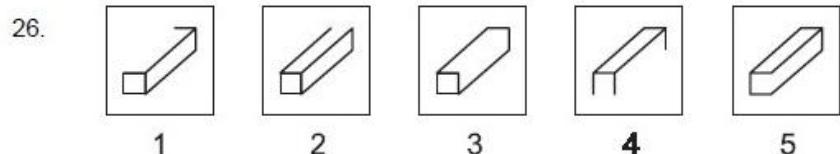
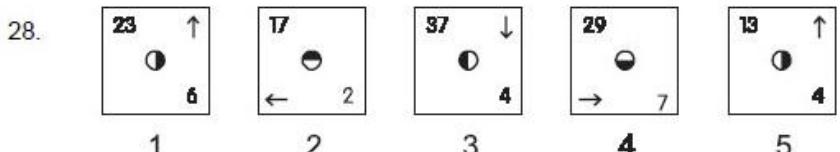
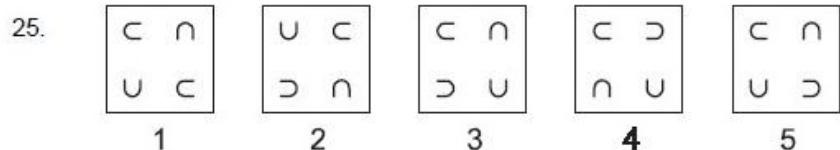
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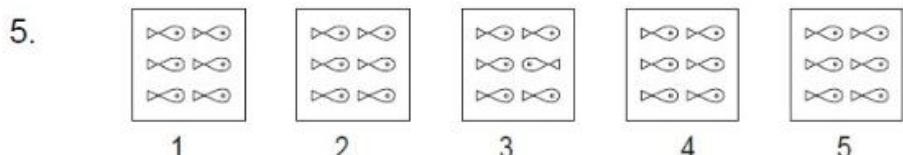
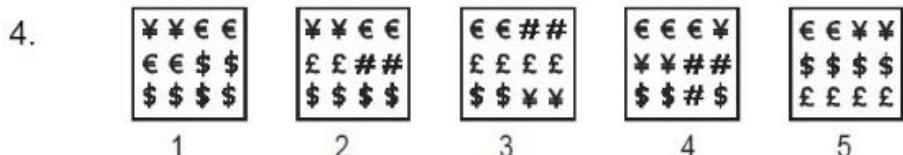
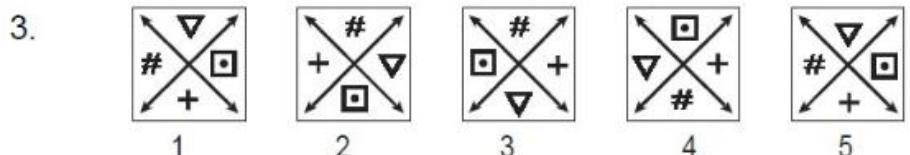
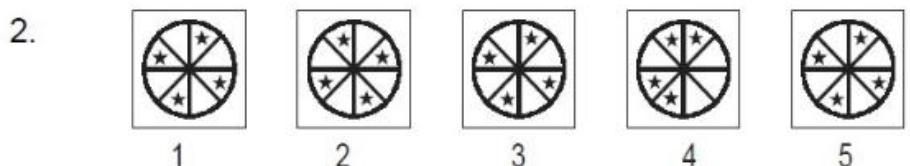
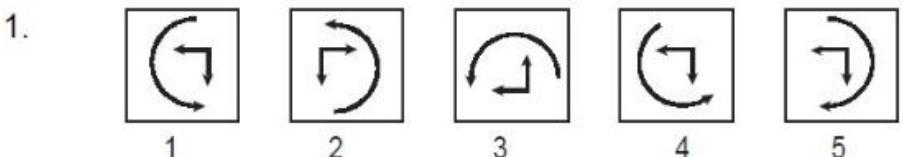
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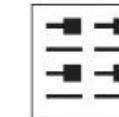
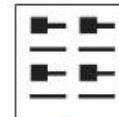
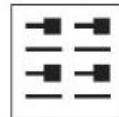
### Part 4 - Speed Tests on Visual Reasoning

#### Test - I

**Directions for questions 1 to 15:** In each of the given questions, out of the given five figures (1, 2, 3, 4 and 5), four are similar in a certain way. One figure is not like the other four. That means four figures form a group. The question is: which of the figures does not belong to this group?



6.



1

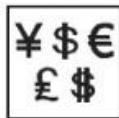
2

3

4

5

7.



1



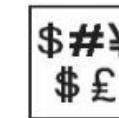
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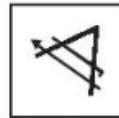


4



5

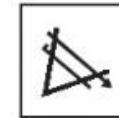
8.



1



2



3

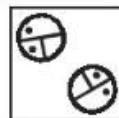


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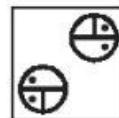


5

9.



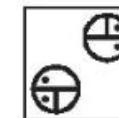
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2



3

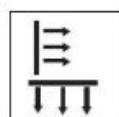


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5

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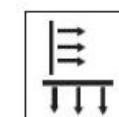
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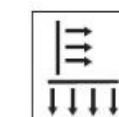
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3



4



5

11.



1



2



3

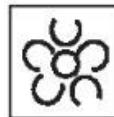


4



5

12.



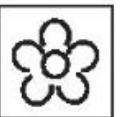
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2



3



4

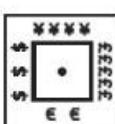


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13.



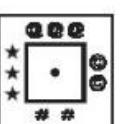
1



2



3



4



5

14.



1



2



3



4



5

15.



1



2



3



4



5

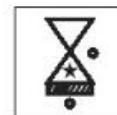
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1



2



3



4

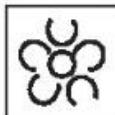


5

**Scoring table**

Total questions	Total attempted	Total correct	Total wrong	Score	Time taken
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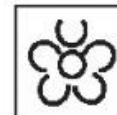
12.



1



2



3

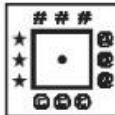


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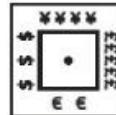


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13.



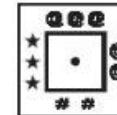
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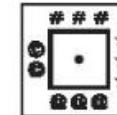
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3



4



5

14.



1



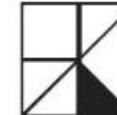
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3



4



5

15.



1



2



3



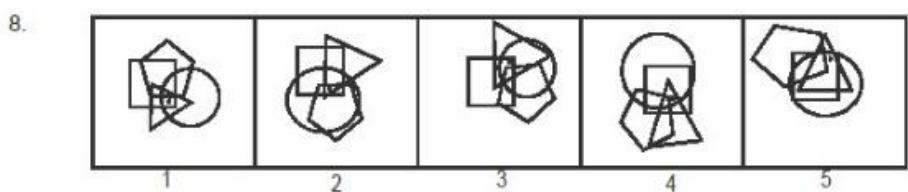
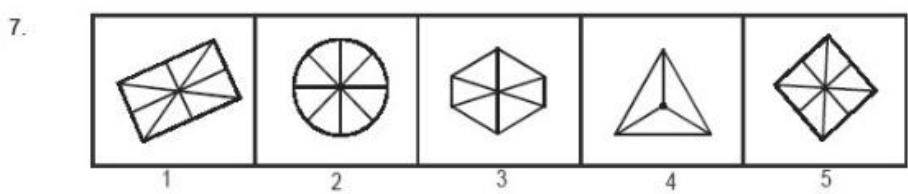
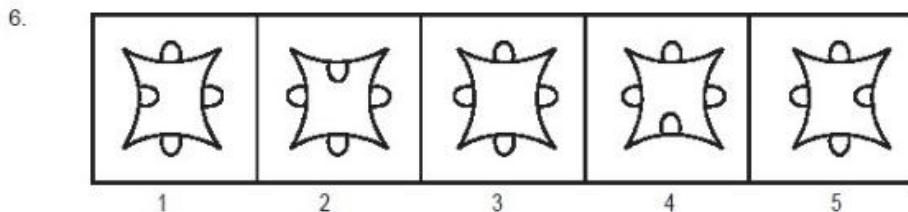
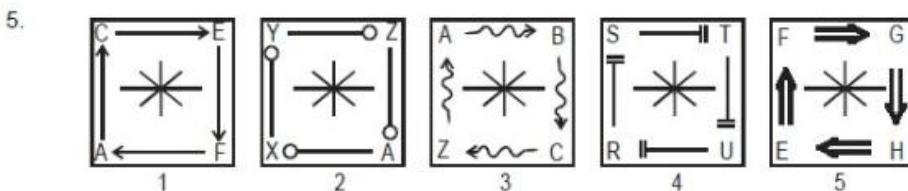
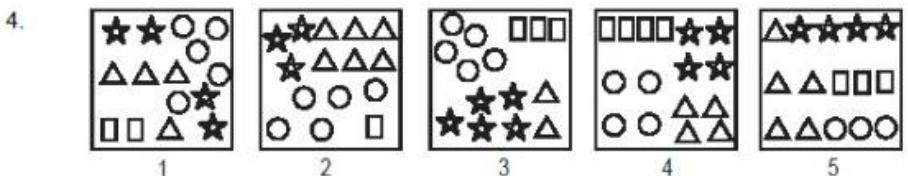
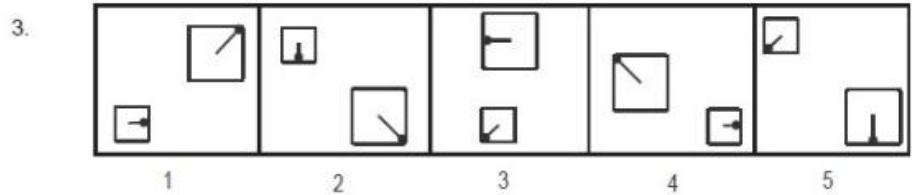
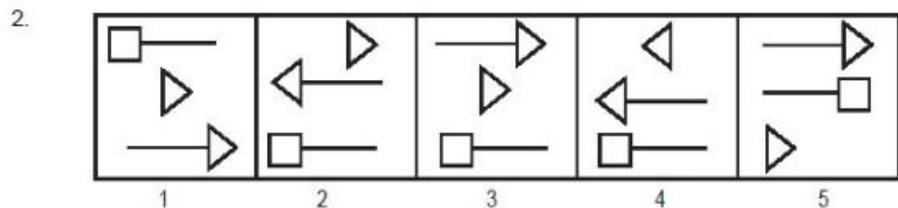
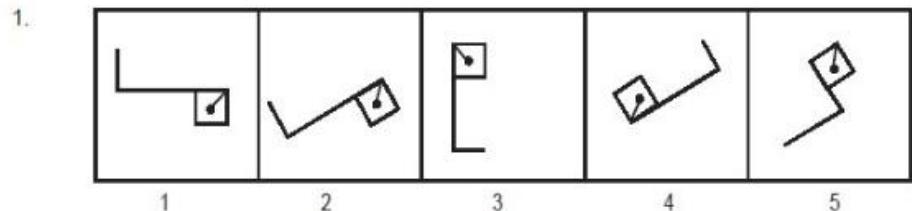
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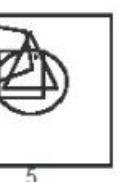
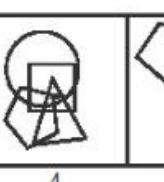
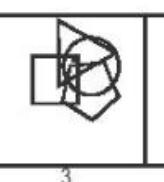
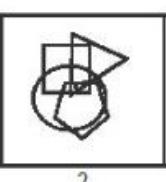
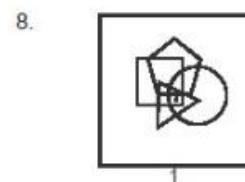
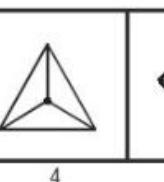
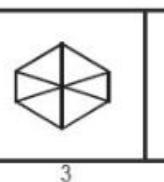
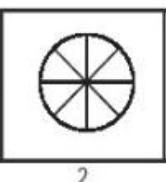
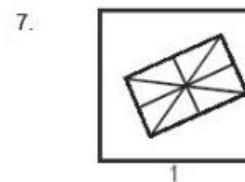
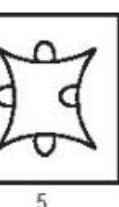
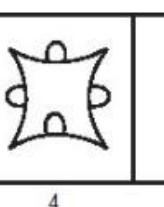
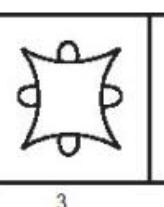
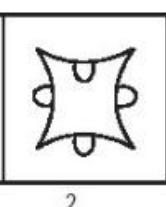
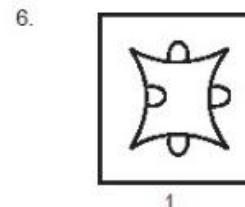
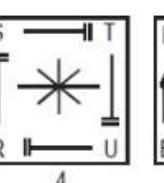
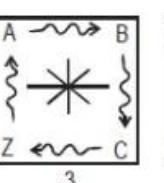
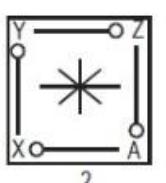
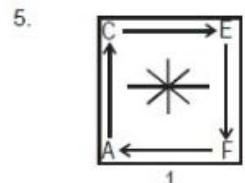
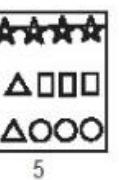
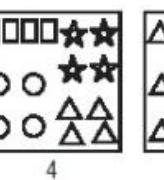
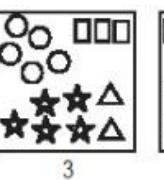
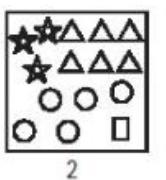
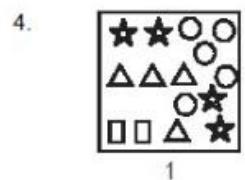


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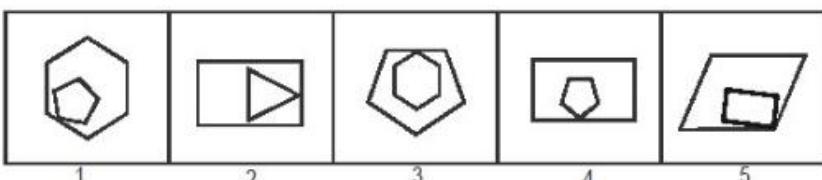
**Test - 2**

**Directions for questions 1 to 10:** In each of the given questions, out of the given five figures (1, 2, 3, 4 and 5), four are similar in a certain way. One figure is not like the other four. That means four figures form a group. The question is: which of the figures does not belong to this group?

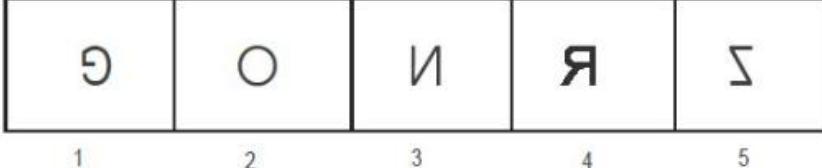




9.



10.



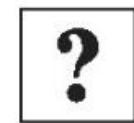
Scoring table

Total questions	Total attempted	Total correct	Total wrong	Score	Time taken
10					

**Test - 3**

**Directions for questions 1 to 15:** In each of the following questions there are two sets of figures. The set on top is Problem figures and the set given under it is Answer figures. The Problem figures form a series which implies that they change from left to right in a specific order. The question is, if the figures continue to change in the same order, what should be the next figure?

1.



?



1

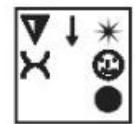
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3

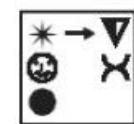
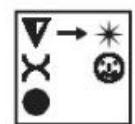
4

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2.



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1

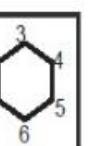
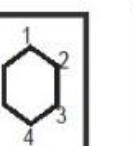
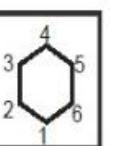
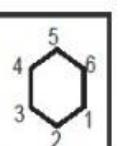
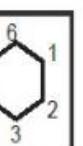
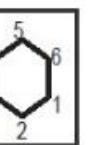
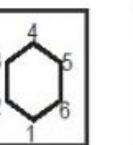
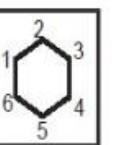
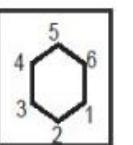
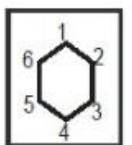
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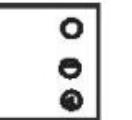
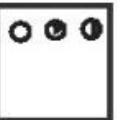
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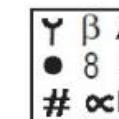
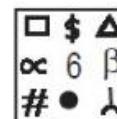
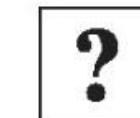
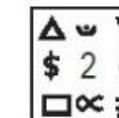
4

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- 5.
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- 8.
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- 9.
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- 12.
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13.



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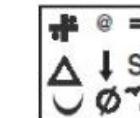
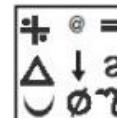
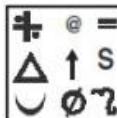
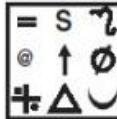
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14.



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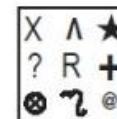
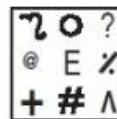
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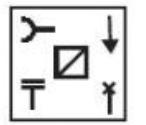
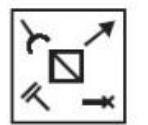
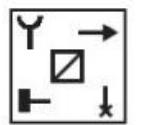
Scoring table

Total questions	Total attempted	Total correct	Total wrong	Score	Time taken
10					

**Test - 4**

**Directions for questions 1 to 10:** In each of the following questions there are two sets of figures. The set on top is Problem figures and the set given under it is Answer figures. The Problem figures form a series which implies that they change from left to right in a specific order. The question is, if the figures continue to change in the same order, what should be the next figure?

1.



1

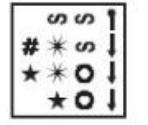
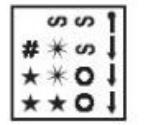
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2.



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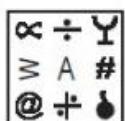
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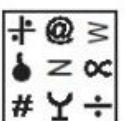
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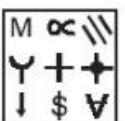


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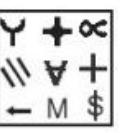
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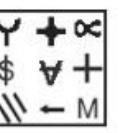
1



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4



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- 6.
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- 10.
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| 1 | 2 | 3 | 4 | 5 |

8.



Scoring table

Total questions	Total attempted	Total correct	Total wrong	Score	Time taken
10					



1

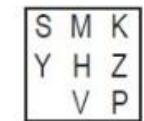
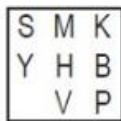
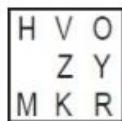
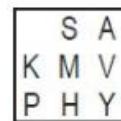
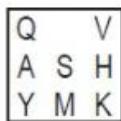
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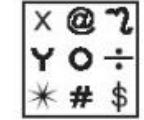
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**Test - 5**

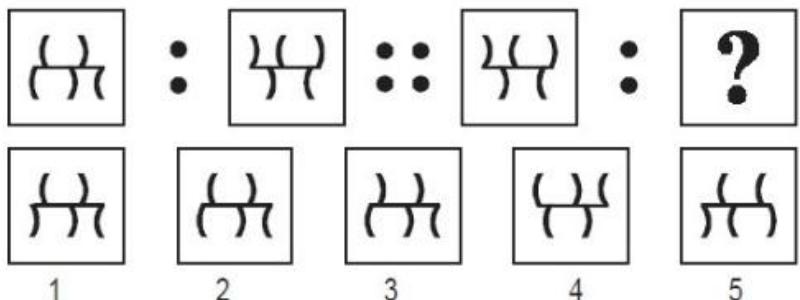
**Directions for questions 1 to 15:** In each of the following questions there are two sets of figures. The set on the top is Problem figures and the set given under it is Answer figures. The Problem figures are presented in two units. The first unit contains two figures which are related to each other by a certain logic and the second unit contains one figure and a question mark. You have to find out which of the Answer figures should replace the question mark.

- 1.
- |   |   |   |   |   |  |  |  |
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- 2.
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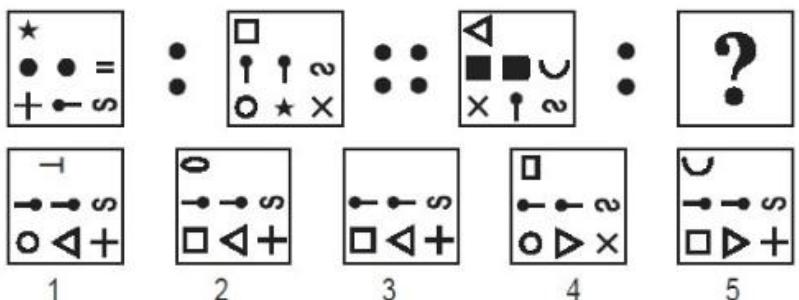
- 3.
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- 4.
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|---|---|---|---|---|--|--|--|
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| 1 | 2 | 3 | 4 | 5 |  |  |  |
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- 5.
- |   |   |   |   |   |  |  |  |
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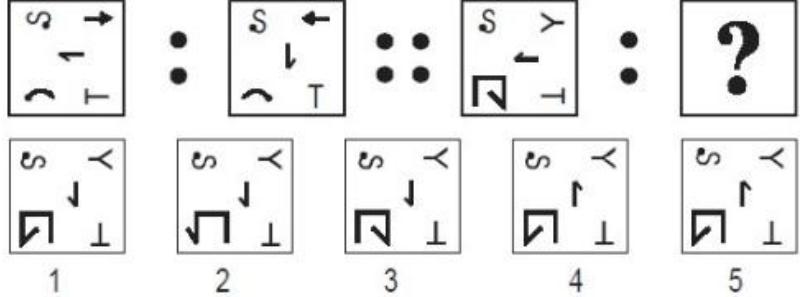
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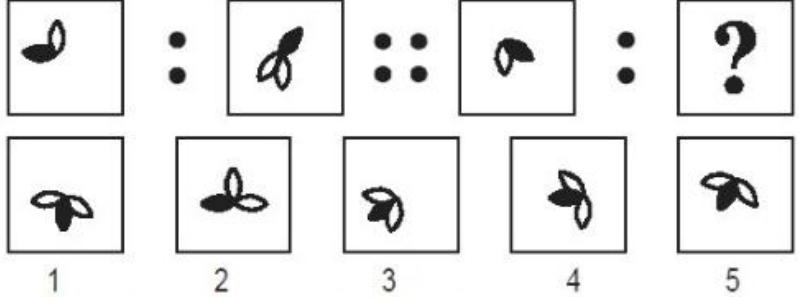
13.



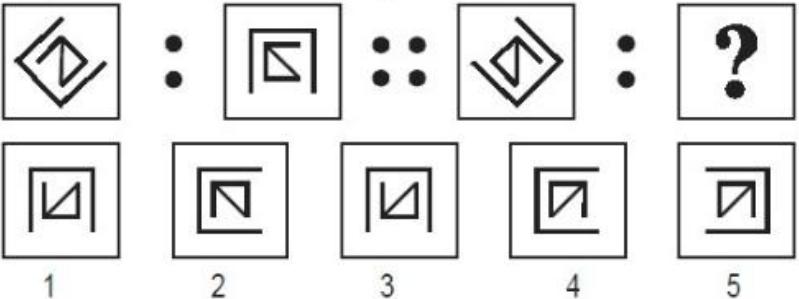
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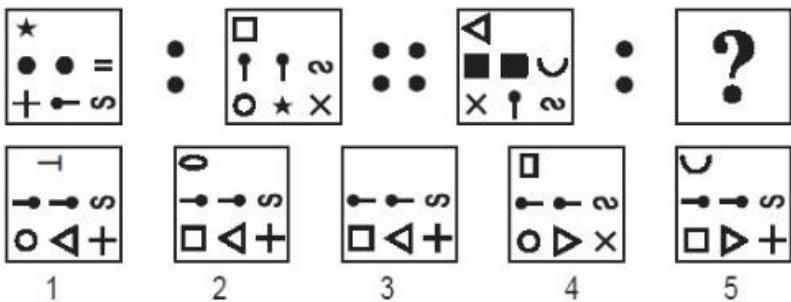
14.



15.



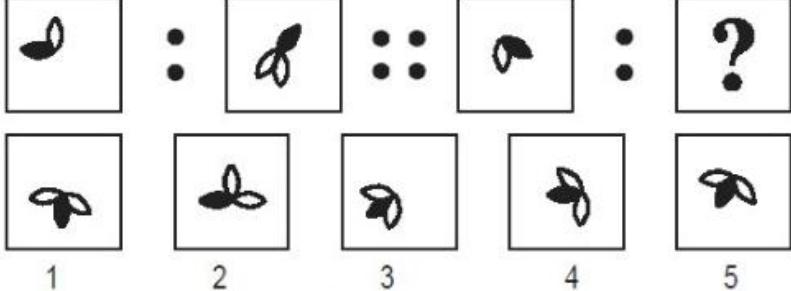
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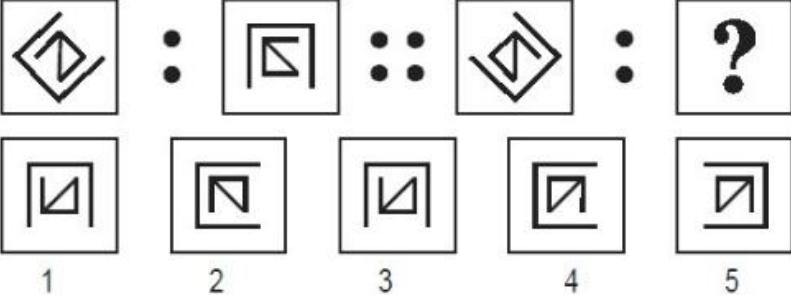
Scoring table

Total questions	Total attempted	Total correct	Total wrong	Score	Time taken
15					

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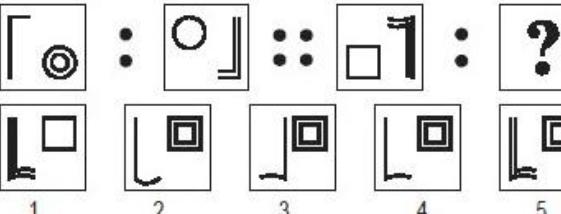


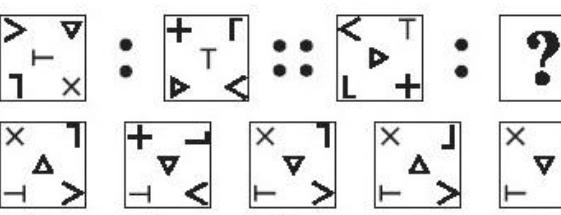
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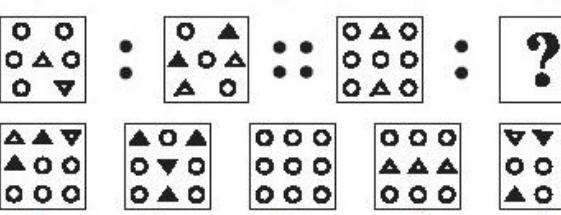


### Test - 6

**Directions for questions 1 to 10:** In each of the following questions there are two sets of figures. The set on the top is Problem figures and the set given under it is Answer figures. The Problem figures are presented in two units. The first unit contains two figures which are related to each other by a certain logic and the second unit contains one figure and a question mark. You have to find out which of the Answer figures should replace the question mark.

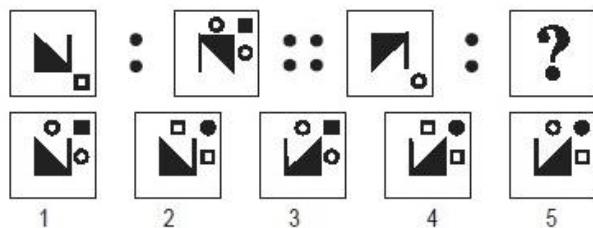
1. 

1.  2.  3.  4.  5. 
  
2. 

1.  2.  3.  4.  5. 
  
3. 

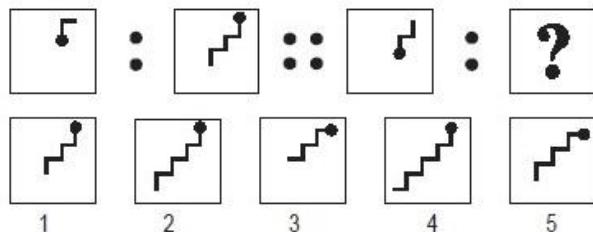
1.  2.  3.  4.  5. 

4.



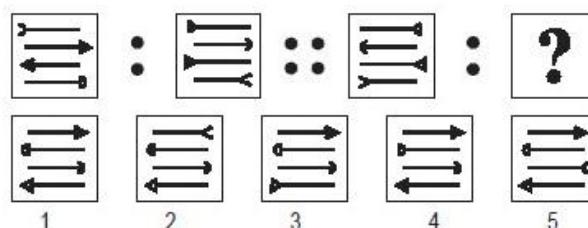
1 2 3 4 5

5.



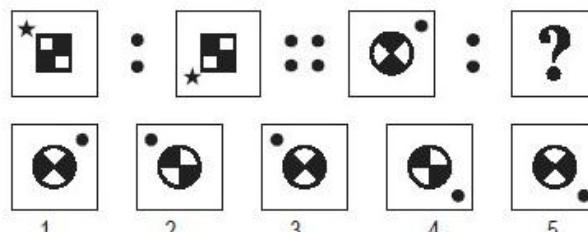
1 2 3 4 5

6.



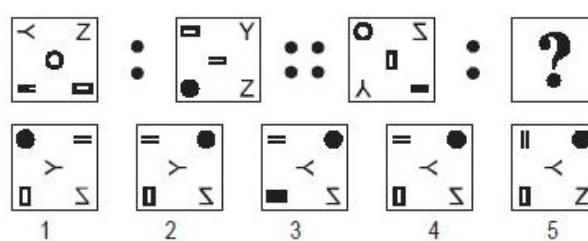
1 2 3 4 5

7.

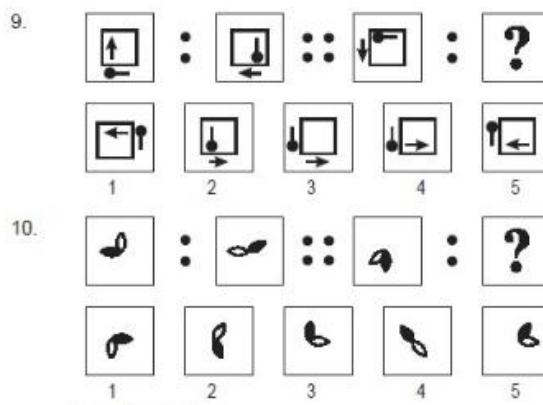
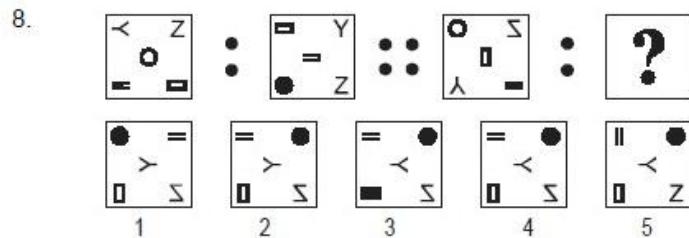
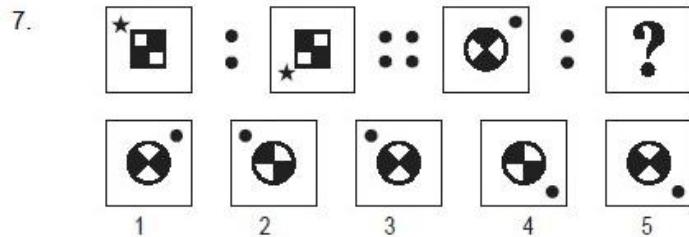
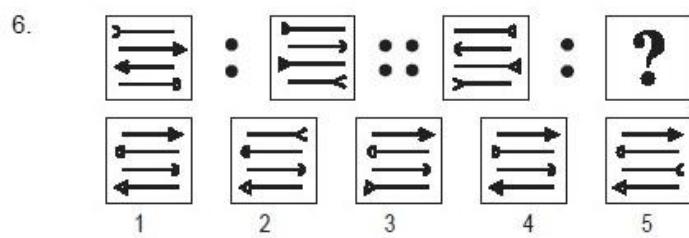


1 2 3 4 5

8.



1 2 3 4 5



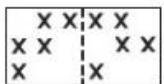
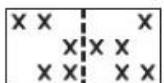
Scoring table

Total questions	Total attempted	Total correct	Total wrong	Score	Time taken
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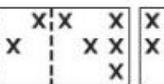
**Test - 7**

**Directions for questions 1 to 15:** In each of the following questions, a pair of figures is given in which the two figures are related to each other by a certain logic. From the given answer choices, choose the one in which the two figures exhibits a **SIMILAR** relationship as that exhibited in the question figure.

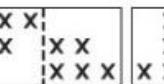
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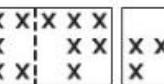
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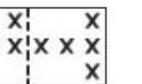
2



3



4



5

2.



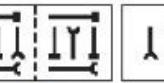
1



2



3

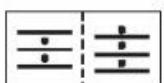
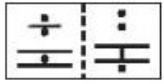


4



5

3.



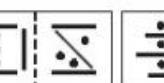
1



2



3



4



5

4.

$$\begin{array}{l} \# \$ * = ? \blacksquare \\ ? R + \$ I * \\ = L ! R L + \end{array}$$

O	A	D	7	4	O
4	5	6	▲	5	6
7	8	9	8	9	□

1

F	G	H	H	G	F
=	●	S	I	●	=
r	t	m	i	m	r

2

P	Q	R	▼	X	P
x	+	?	Q	+	?
▼	S	Z	S	R	Z

3

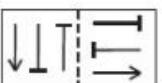
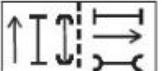
A	B	C	△	1	A
1	2	3	B	●	C
▲	◀	▶	2	◀	3

4

8	6	A	6	T	\$
E	F	G	G	F	E
\$	T	6	A	6	8

5

5.



1



2



3

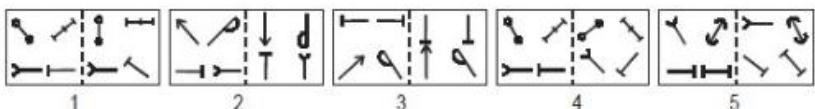
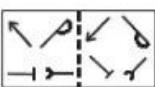


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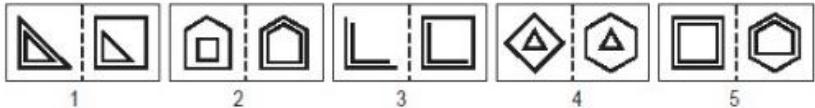


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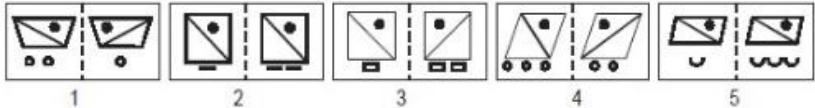
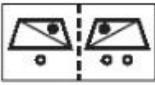
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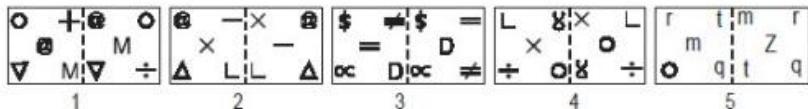
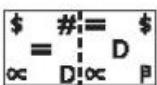
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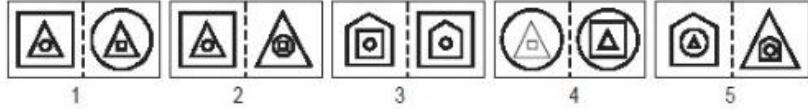
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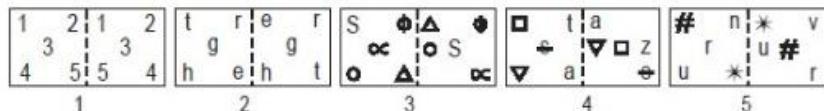
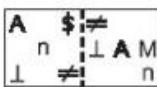
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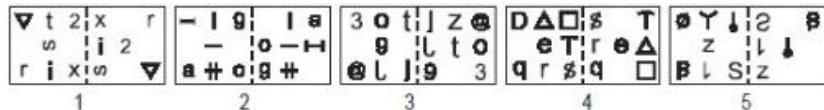
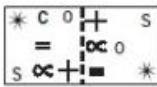
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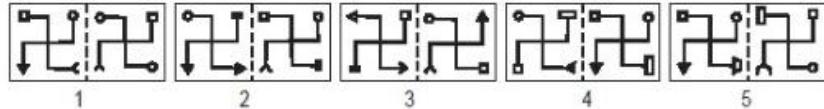
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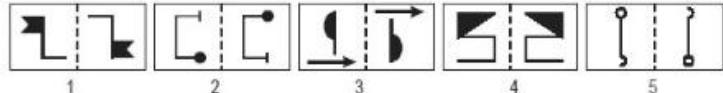
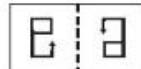
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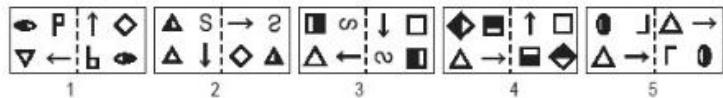
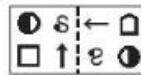
13.



14.



15.



## Scoring table

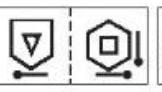
Total questions	Total attempted	Total correct	Total wrong	Score	Time taken
15					

**Test - 8**

**Directions for questions 1 to 10:** In each of the following questions, a pair of figures is given in which the two figures are related to each other by a certain logic. From the given answer choices, choose the one in which the two figures exhibits a **SIMILAR** relationship as that exhibited in the question figure.



1



2



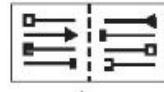
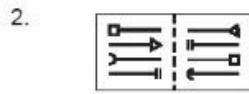
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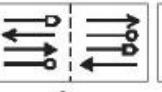
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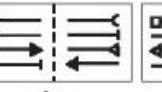
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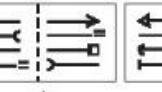
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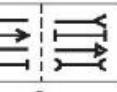
2



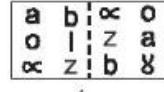
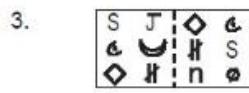
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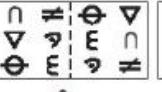
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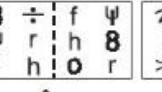
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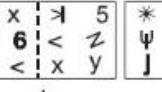
1



2



3

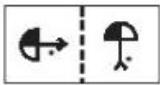


4



5

4.

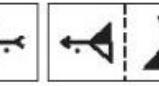


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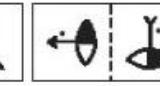
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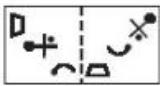
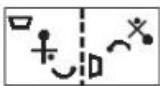


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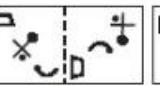


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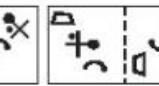
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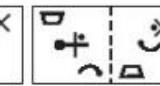
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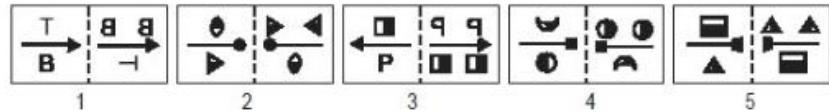


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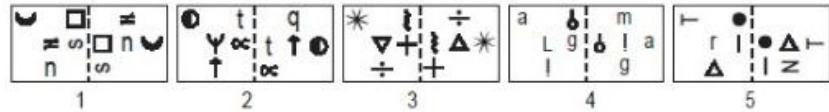
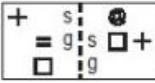


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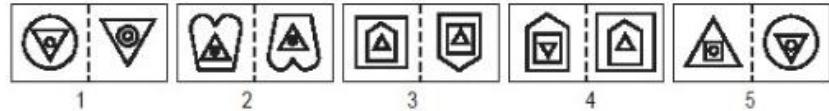
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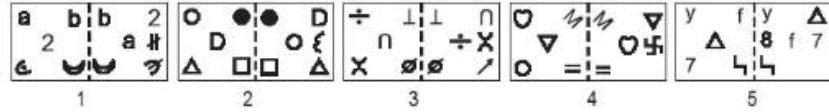
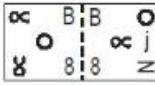
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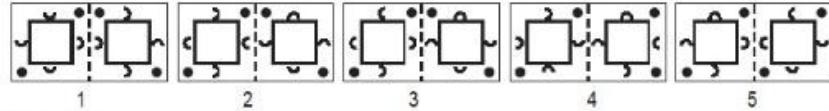
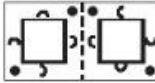
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9.



10.

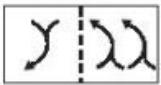
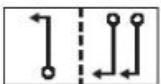
**Scoring table**

Total questions	Total attempted	Total correct	Total wrong	Score	Time taken
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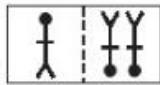
**Test - 9**

**Directions for questions 1 to 10:** In each of the following questions, a pair of figures is given in which the two figures are related to each other by a certain logic. From the given answer choices, choose the one in which the two figures exhibits a **DISSIMILAR** relationship as that exhibited in the question figure.

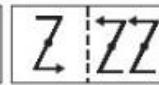
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1



2



3

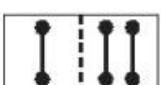


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2.



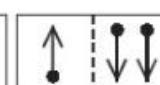
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2



3



4



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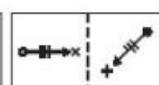
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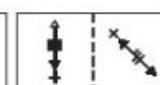
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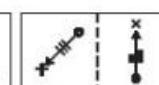
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3

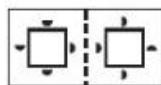
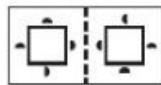


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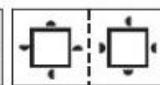


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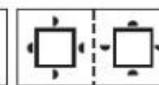
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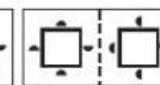
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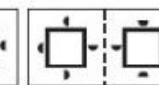
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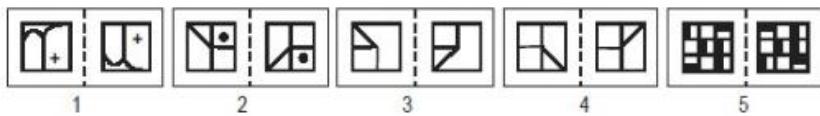


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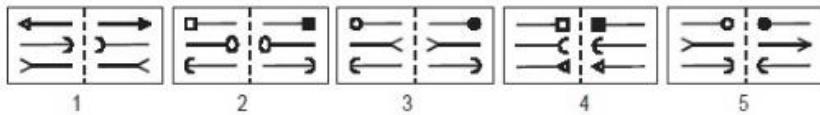
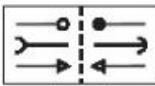


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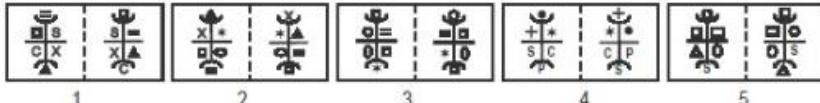
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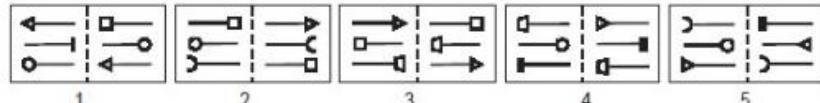
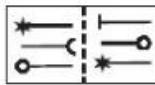
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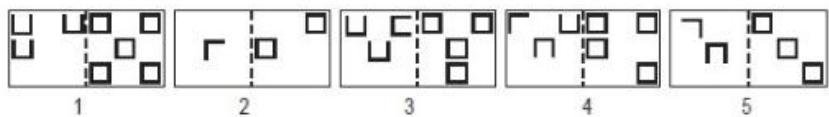
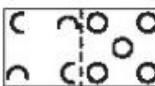
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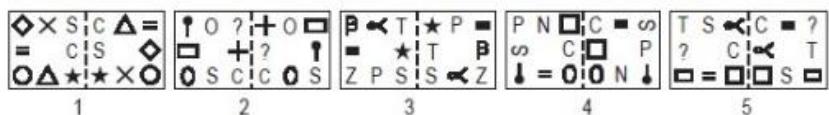
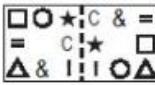
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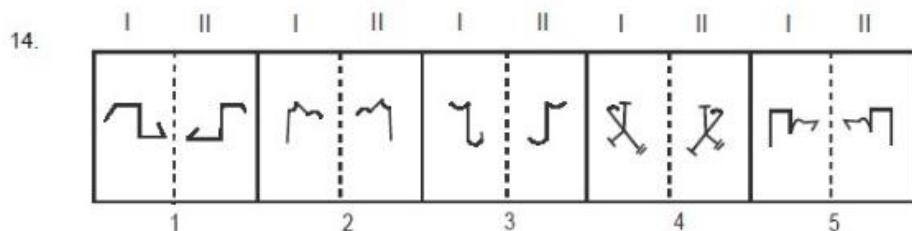
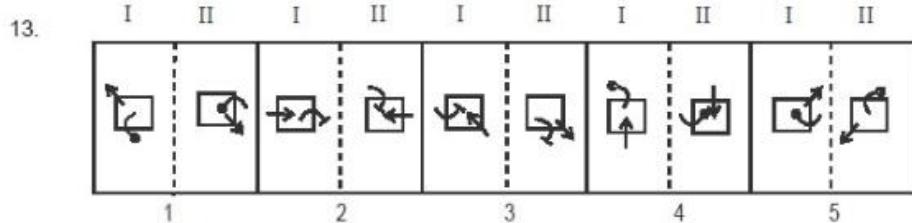
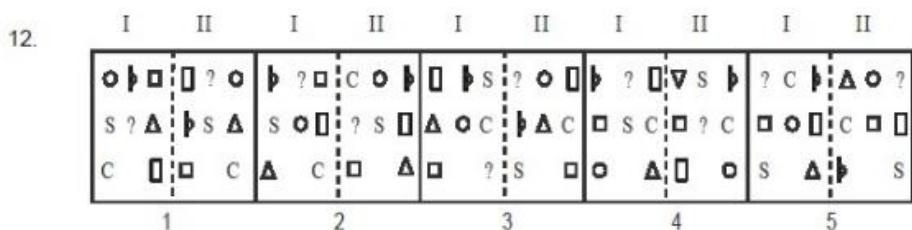
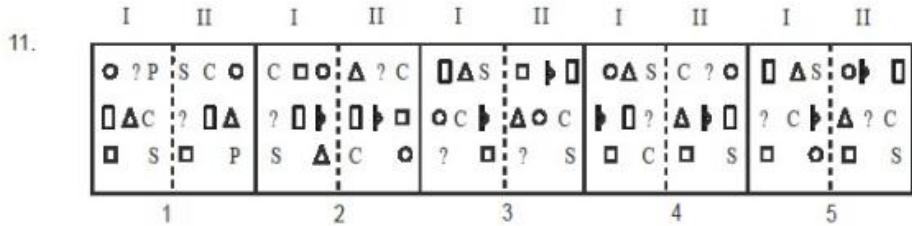
9.



10.



**Directions for questions 11 to 15:** In each of the following questions, four out of five figures, element I is related to element II in a particular way. Find out the figure in which the element I is not so related to element II.



15.

I	II								
↑ A	S =	△ ↑	C =	C =	× S	↑ C	△ S	△ S	C A
= S	△ ↑	= C	↑ △	S ×	= C	S △	C ↑	× C	S ×
× C	C ×	S ×	× S	↑ △	△ ↑	= △	△ =	↑ =	↑ ↑

Scoring table

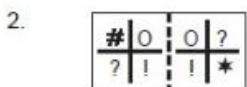
Total questions	Total attempted	Total correct	Total wrong	Score	Time taken
15					

**Test - 10**

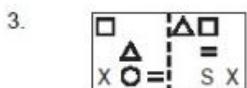
**Directions for questions 1 to 10:** In each of the following questions, a pair of figures is given in which the two figures are related to each other by a certain logic. From the given answer choices, choose the one in which the two figures exhibits a **DISSIMILAR** relationship as that exhibited in the question figure.



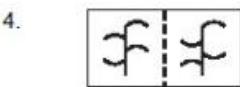
- |  |  |   |                               |                                  |
|--|--|---|-------------------------------|----------------------------------|
| 1  | 2  | 3   | 4                             | 5                                |
| $\rightarrow \blacklozenge \blacklozenge \uparrow$ | $\downarrow \square \blacktriangle \downarrow$ | $\downarrow \triangle \square \circlearrowleft$ | $S \Delta \bullet \leftarrow$ | $C \diamond \square \rightarrow$ |
| $\rightarrow \blacklozenge \square \gamma$         | $\leftarrow \blacktriangle \square S$          | $\uparrow \square \square \uparrow$             | $Y \bullet \diamond S$        | $\downarrow \square \square C$   |



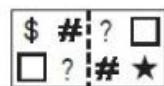
- |                                  |                                      |                      |  |                      |
|----------------------------------|--------------------------------------|----------------------|--|----------------------|
| 1                                | 2                                    | 3                    | 4                                      | 5                    |
| $A \circ \quad \circ \uparrow$   | $\circ \nabla \quad \nabla \diamond$ | $\$ * \quad * \circ$ | $\mid \$ \quad \$ \wedge$              | $\& \quad \wedge \#$ |
| $\uparrow \wedge \quad \wedge Z$ | $\diamond S \quad S \diamond$        | $= \# \quad = \#$    | $\wedge \downarrow \quad \downarrow ?$ | $\# ? \quad ? \&$    |



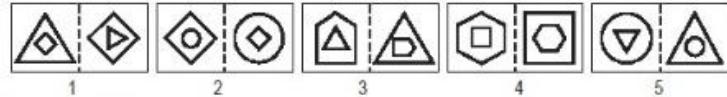
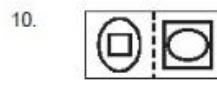
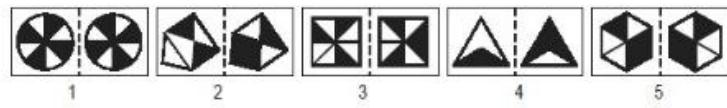
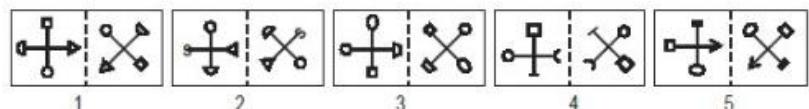
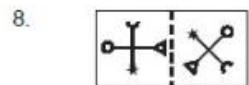
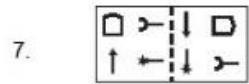
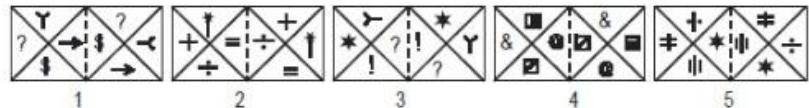
- |                                    |  |  |                                     |                              |
|------------------------------------|--|--|-------------------------------------|------------------------------|
| 1                                  | 2  | 3  | 4                                   | 5                            |
| $X \quad \Delta \quad =$           | $O \quad \square \quad O$                | $C = \square \quad \square \quad \uparrow$ | $\$ \quad - \quad \nabla$           | $? \quad \# \quad & \quad C$ |
| $O = \quad C \quad S \quad \Delta$ | $S \quad C \quad * \quad \Delta \quad S$ | $S \quad P \quad C$                        | $\square \quad \# \quad \# \quad -$ | $* \quad C \quad \# \quad ?$ |



- |                           |                           |                           |                           |                           |
|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| 1                         | 2                         | 3                         | 4                         | 5                         |
| $\text{f} \quad \text{f}$ |



- |                                    |  |                                       |                               |   |
|------------------------------------|--|---------------------------------------|-------------------------------|---|
| 1                                  | 2  | 3                                     | 4                             | 5   |
| $\uparrow \bullet \quad S \quad C$ | $X \quad \square \quad \square \quad \Delta$ | $+ \quad ? \perp \quad \square$       | $S \quad \# \quad + \quad \$$ | $Z \quad S \quad \uparrow \quad \uparrow$ |
| $C \quad S \quad \bullet \quad D$  | $\Delta \quad \square \quad \square \quad =$ | $\square \quad T \quad ? \quad \star$ | $\$ \quad + \quad \# \quad R$ | $\uparrow \quad \uparrow \quad S \quad A$ |



Scoring table

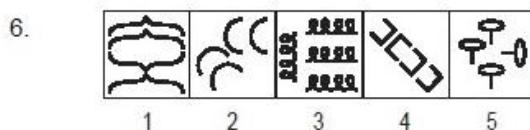
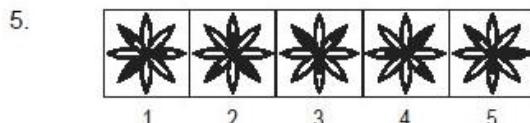
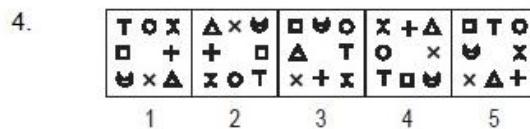
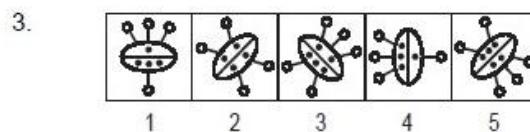
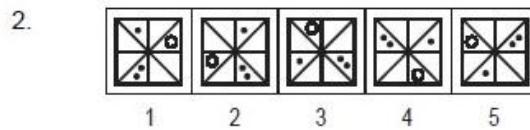
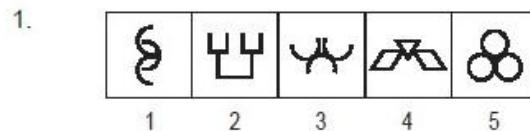
Total questions	Total attempted	Total correct	Total wrong	Score	Time taken
10					

### Part 5 - Section Test on Visual Reasoning

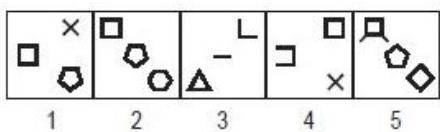
Number of questions: 50

Time 60 mins

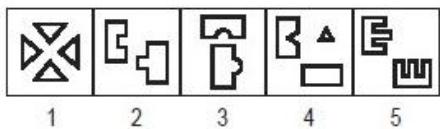
**Directions for questions 1 to 15:** In each of the given questions, out of the given five figures (1, 2, 3, 4 and 5), four are similar in a certain way. One figure is not like the other four. That means four figures form a group. The question is: which of the figures does not belong to this group?



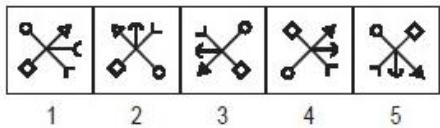
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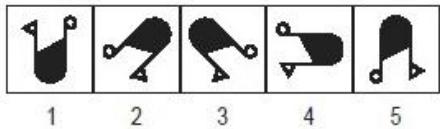
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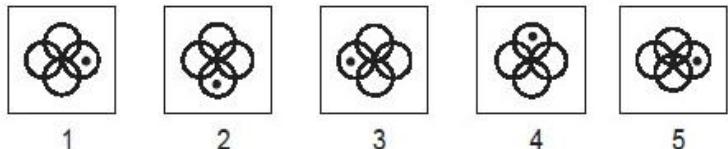
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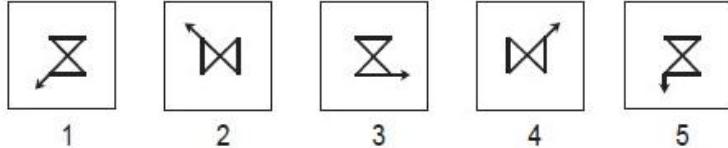
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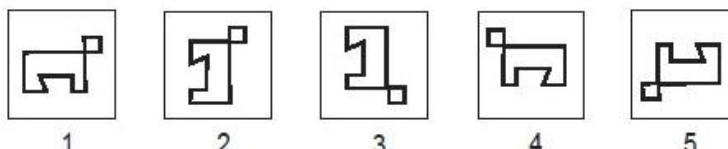
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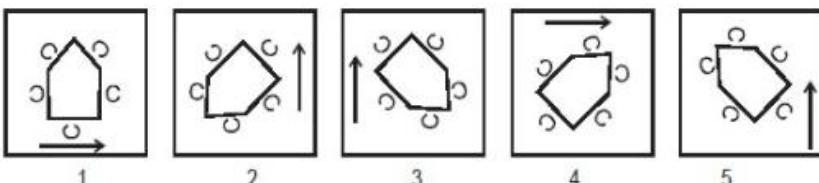
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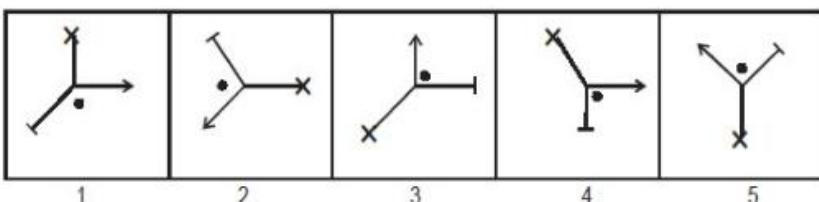
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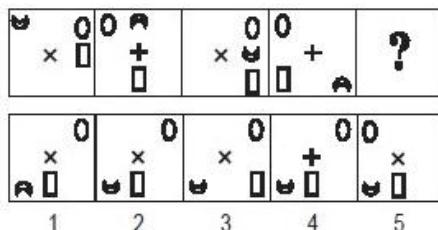


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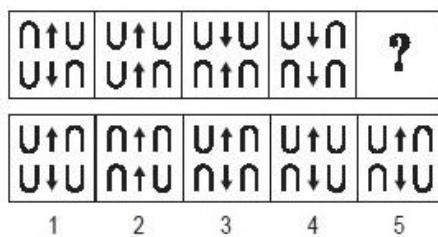


**Directions for questions 16 to 25:** In each of the following questions there are two sets of figures. The set on top is Problem figure and the set given under it is Answer figure. The Problem figures form a series which implies that they change from left to right in a specific order. The question is, if the figures continue to change in the same order, what should be the next figure?

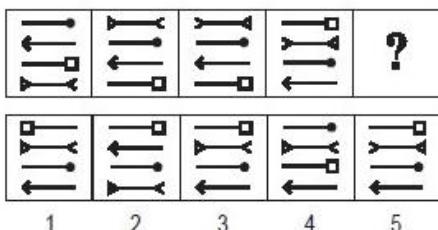
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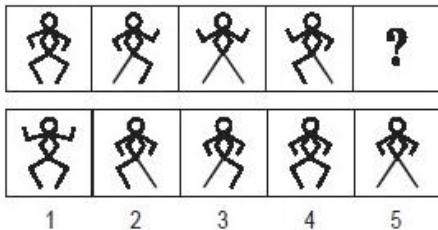
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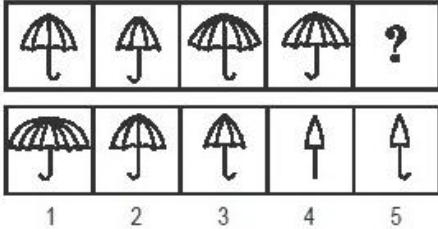
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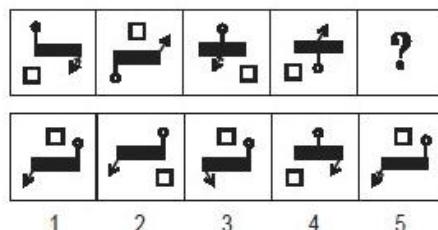
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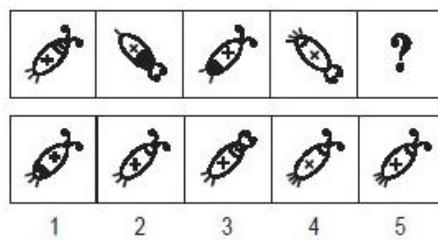
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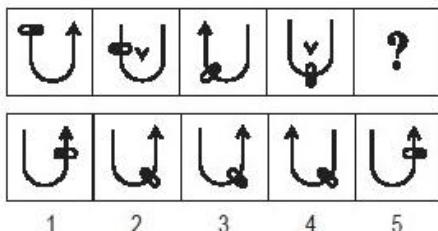
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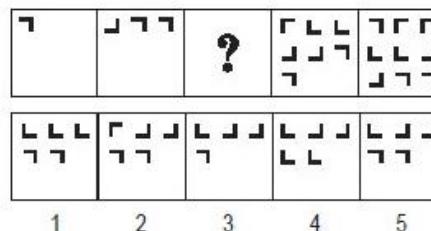
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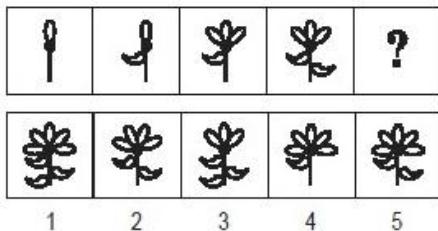
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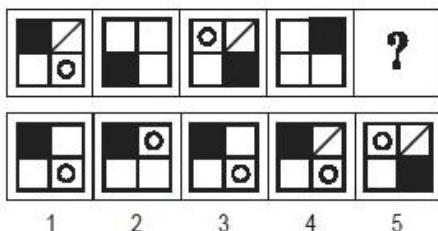
26.



24.

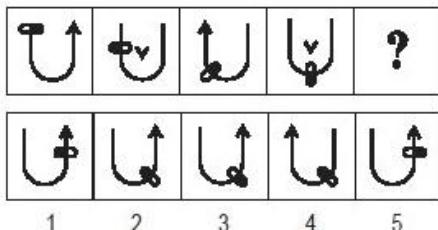


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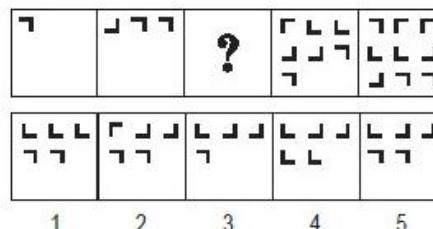


**Directions for questions 26 to 30:** In each of the following questions there are two sets of figures. The figures given above are "Problem Figures" and those given under them are "Answer Figures". A series is established if one of the answer figures is placed in place of question mark. You have to select that option from the answer figures which will continue the series given in the "Problem Figure" and mark it as the answer.

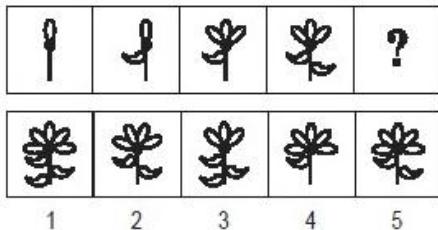
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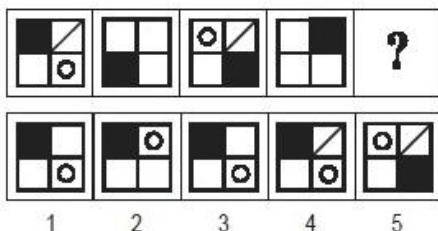
26.



24.

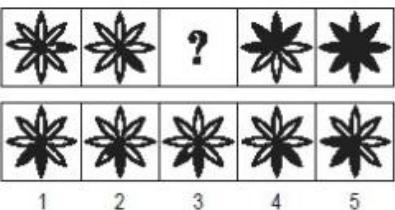


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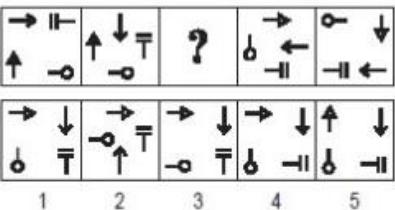


**Directions for questions 26 to 30:** In each of the following questions there are two sets of figures. The figures given above are "Problem Figures" and those given under them are "Answer Figures". A series is established if one of the answer figures is placed in place of question mark. You have to select that option from the answer figures which will continue the series given in the "Problem Figure" and mark it as the answer.

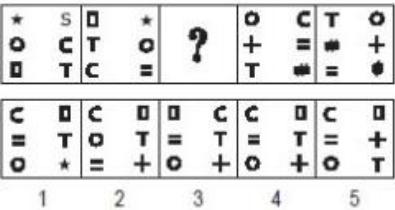
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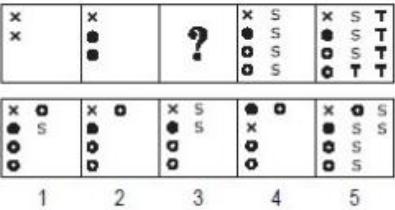
28.



29.



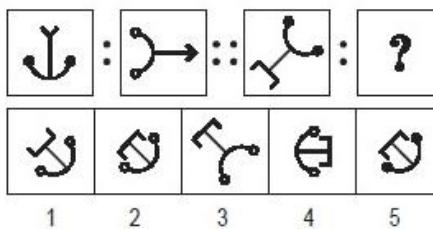
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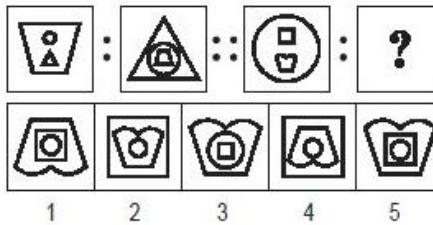
Directions for questions 31 to 40: In each of the following questions there are two sets of

figures. The set on the top is Problem figures and the set given under it is Answer figures. The Problem figures are presented in two units. The first unit contains two figures which are related to each other by a certain logic and the second unit contains one figure and a question mark. You have to find out which of the Answer figures should replace the question mark.

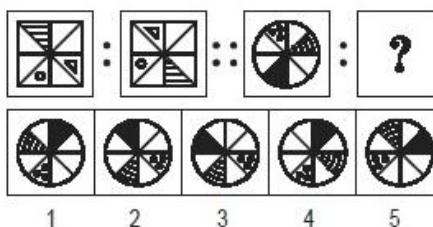
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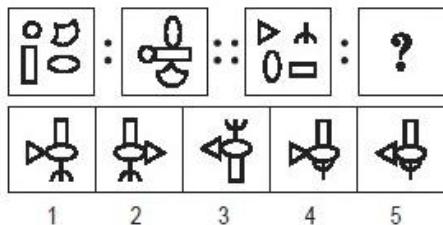
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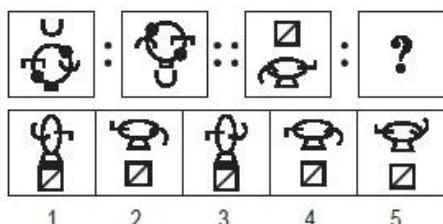
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34.

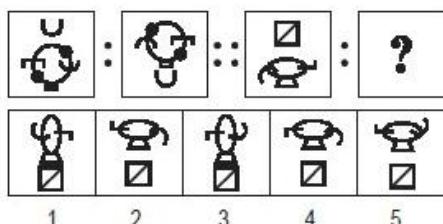


1 2 3 4 5



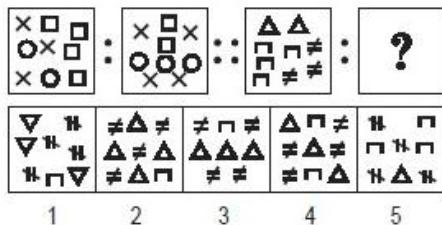
1 2 3 4 5

35.

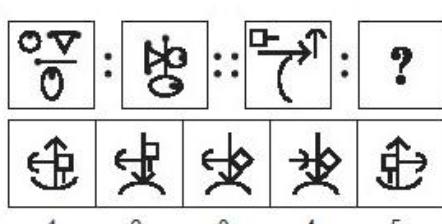


1 2 3 4 5

36.

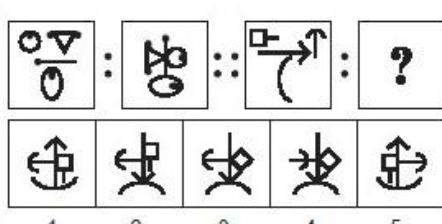


1 2 3 4 5



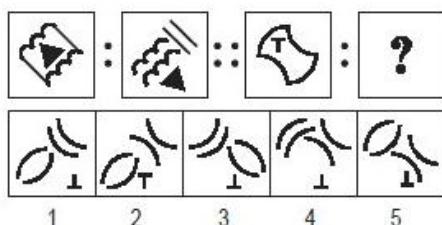
1 2 3 4 5

37.



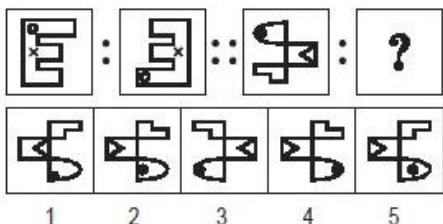
1 2 3 4 5

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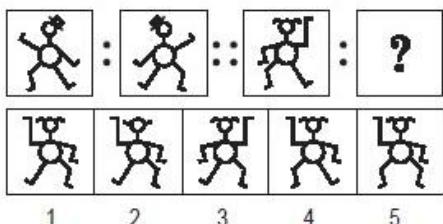


1 2 3 4 5

39.



40.

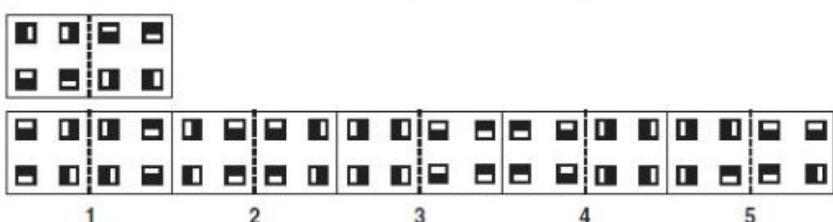


**Directions for questions 41 to 45:** In each of the following questions, a pair of figures is given in which the two figures are related to each other by a certain logic. From the given answer choices, choose the one in which the two figures exhibits a **SIMILAR** relationship as that exhibited in the question figure.

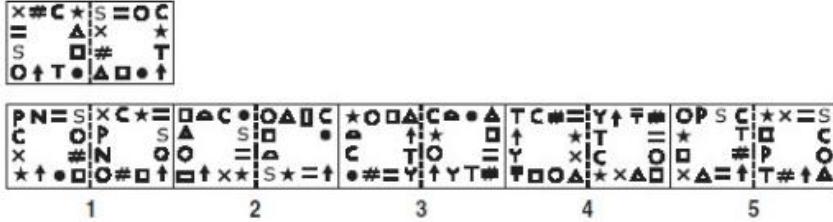
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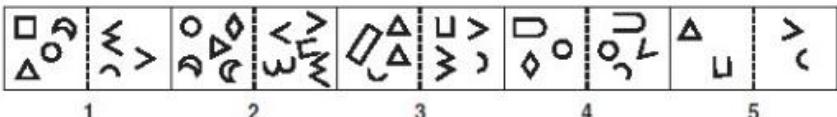
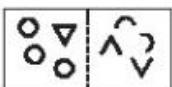
42.



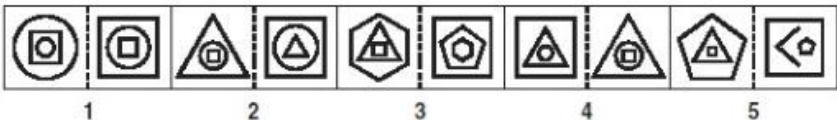
43.



44.

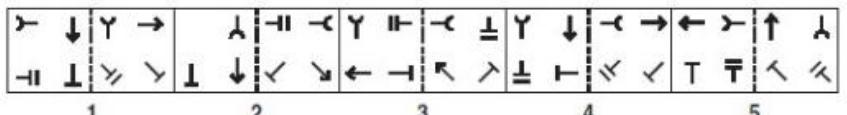
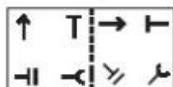


45.

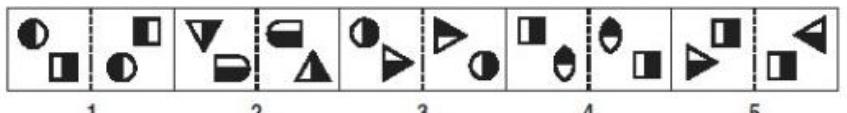


**Directions for questions 46 to 50:** In each of the following questions, a pair of figures is given in which the two figures are related to each other by a certain logic. From the given answer choices, choose the one in which the two figures exhibits a **DISSIMILAR** relationship as that exhibited in the question figure.

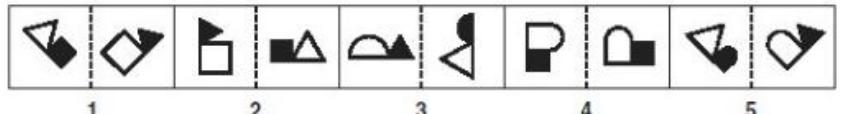
46.



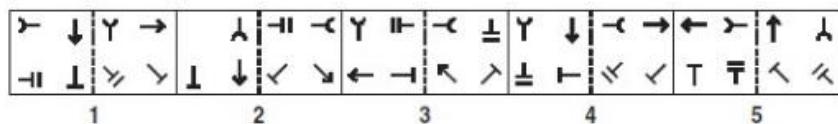
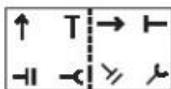
47.



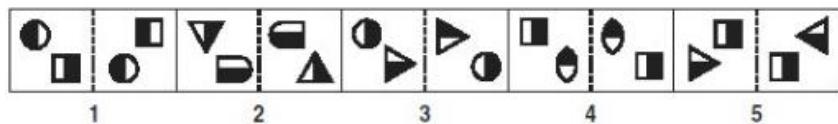
48.



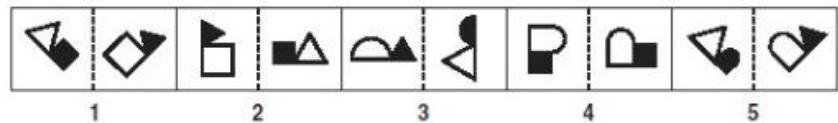
46.



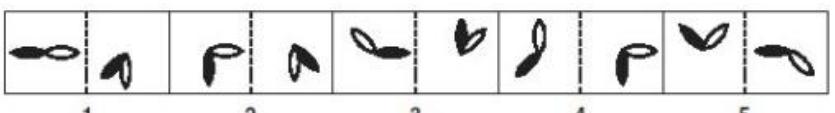
47.



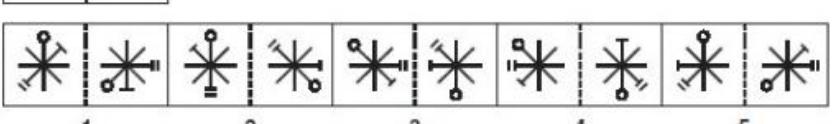
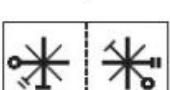
48.



49.



50.



## **Answers and Explanations**

### Part - 3 : Practice Exercise

## Series-based Questions

### Analogy-based Questions

### **‘Odd Man Out’-based Questions**

#### **Part – 4 : Speed Tests on Visual Reasoning**

Test - 1

Test - 2

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

Test - 3

**Test - 4**

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

**Test - 5**

1	4	2	4	3	5	4	5	5	3	6	3	7	5	8	4	9	1	10	1
11	2	12	1	13	2	14	2	15	2										

**Test - 6**

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

**Test - 7**

1	1	2	3	3	2	4	4	5	3	6	4	7	5	8	3	9	1	10	2
11	4	12	1	13	3	14	1	15	3										

**Test - 8**

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

**Test - 9**

1	3	2	5	3	1	4	4	5	5	6	3	7	3	8	3	9	1	10	2
11	2	12	4	13	3	14	4	15	5										

**Test - 10**

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

**Part - 5 : Section Tests on Visual Reasoning**

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

**Part - 3 : Practice Exercises in Visual Reasoning****Series-based Questions**

1. 2 The shading moves in a particular order (anticlockwise). Every alphabet is increased by 10. A similar arrowhead occurs in the upper part of the figure in every third step.

2. 5 In each of the given boxes, the left figure is repeated in every alternate box. The right figure is also repeated in every 3<sup>rd</sup> box with a change in the direction of the small line (/). Hence, option (5) is the correct answer.

3. 5 From the first figure to the second, third to the fourth and fifth to the sixth, the arrow gets rotated through 90° ACW and moves to the adjacent side CW. In each of these pairs of figures, the other object rotates through 90° CW and alternately forms mirror and water images.

4. 5 In each step, every object moves two steps in ACW direction. The object in ACW direction is lost and a new object appears. Based on the given fact, we can corner out the option (2) and option (3) because the rightmost element on upper side would be V.

Option (1) would be ruled out too because L is moving CW. Similarly, option (4) can be ruled out because G remains at same place. Hence, option (5) is the correct answer.

5. 3 In each of the consecutive figures, the upper row becomes the lower row for the next figure. But the sequence of the initial row is changed accordingly to the mirror image. The only satisfying this condition is option (3). Hence, option (3) is the correct answer.

6. 2

A	D
B	
C	F

The element at D moves to C, the element at C moves to A, the element at A moves to F, the element at F moves to B and the element at B moves to D which in turn gets changed. Now, option (1), (3), (4) and (5) can be ruled out. Hence, option (2) is the correct answer.

7. 3

1	2	3
4	5	6
7	8	9

The element at 1 moves to 7, the element at 2 moves to 9, the element at 3 moves to 1, the element at 4 moves to 6, the element at 5 moves to 3 but gets changed into a new element, the element at 6 moves to 5, the element at 7 moves to 8, the element at 8 moves to 2 and the element at 9 moves to 4. Hence, option (3) is the correct answer.

8. 3 The figure rotates through  $90^\circ$  CW in one step and  $45^\circ$  ACW in the next step. In each step, the black and the white portions interchange positions. Also, the arrowheads get inverted in each step and an extra arrowhead is added in every second step.

9. 4 In each of the given boxes, the L shaped element rotates through  $90^\circ$  ACW and moves one and a half step in CW direction. The pattern of rest two elements is repeated alternately and they move  $90^\circ$  CW direction in each step. Hence, option (4) is the correct answer.

10. 4 The entire figure rotates through  $45^\circ$ ,  $45^\circ$ ,  $90^\circ$ ,  $90^\circ$ ,  $135^\circ$  and  $135^\circ$  in each of the figure. Also, the number of petals is forming a series as 6, 7, 8, 9, ..., 11. Hence, option (4) is the correct answer.

11. 1 The four corner elements move clockwise, the S - O pair interchanges their position, every object of the middle column moves one step down in figure, and there is a growth on the L figure.

12. 1 In each figure, the number of lines is increasing by 1, 3, 5 and 7 with respect to the first figure. Also, the number of dots, in each figure, represents the number of new lines added. Hence, option (1) is the correct answer.

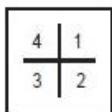
13. 3 The arc moves from one corner to other in CW direction. The dot moves randomly. Number of '+' increases by one. Number of arrows increases by two and one in the alternate figure. Hence, option (3) is the correct answer.

14. 4 The lollipop moves  $45^\circ$  and  $90^\circ$  alternatively in CW direction. Also, the smaller line rotates through  $90^\circ$  CW in each figure. Hence, option (4) is the correct answer.

15. 3 The curve moves one step each time in ACW direction. Alternate figures have single and double lines. They move  $90^\circ$  ACW in each step. Hence, option (3) is the correct answer.

16. 4 The numbers on each face successively increase by 1. Hence, option (4) is the correct answer.

17. 1



In each figure, all the elements move one step in ACW direction. Also, in each figure the element moving from 3 to 4 and 4 to 1 gets changed. Hence, option (1) is the correct answer.

18. 2 The outer shade moves through  $90^\circ$  and  $45^\circ$  in ACW alternately, while the inner shade moves through  $90^\circ$  CW. Hence, option (2) is the correct answer.

19. 2 Each of the arrow rotates through  $45^\circ$  ACW, while the curve successively moves in CW direction along the line. Hence, option (2) is the correct answer.

20. 5 Each object moves one step along the diagonal. The square rotates through  $45^\circ$ , the rectangle by  $90^\circ$  and the triangle becomes water image, in each figure.

21. 1 One 'A' and one 'T' gets added in alternate figures. Every object in the previous figure gets inverted. Hence, option (1) is the correct answer.

22. 4 The inverted N moves one place along the diagonal. Alternately it has two dashes and one dash along the ends. The stick also moves one place but along the vertical line and rotates through  $135^\circ$  CW in each figure.

23. 2 In each figure there are 4 lines, 2 curves, 1 arrow and 1 circle. Hence, option (2) is the correct answer.

24. 3 The number given inside the figure is the number of enclosed spaces. Hence, option (3) is the correct answer.

25. 3 The top two signs (+ and \_) interchange positions in successive figures. The two letters are water images of each other. Hence, option (3) is the correct answer.

26. 1 The triangle and the rectangle overlap each other in successive figures. The corner objects rotate through  $90^\circ$  CW and also moves one step in CW direction. Hence, option (1) is the correct answer.

27. 4 In successive figures, the two arrowheads are perpendicular and parallel to each other. Also, the number of line-breaks increases by 1. Hence, option (4) is the correct answer.

28. 5 The outer two curves move half a place successively along the vertical, while the inner two curves move half a place successively along the horizontal. Hence, option (5) is the correct answer.

29. 5 The first object rotates and goes to the second position. The second object rotates and goes to the last position. The third object gets replaced by a new object, which appears in the first position. The fourth object rotates and comes to the third position. Hence, option (5) is the correct answer.

30. 5 Each object is symmetrical (either vertical or horizontal) and also the number of segments (lines/curves) increases by 1 in successive figures.

31. 4 The number of lines is equal to the number of dots and also all the dots are joined (no dot is disjoint). Hence, option (4) is the correct answer.

32. 5 Alternate figures have triangles and squares. The numbers of objects are successive prime numbers, viz. 2, 3, 5, 7 and hence next is 11. Hence, option (5) is the correct answer.

33. 5 Every object increases by one in successive figures. Hence, option (5) is the correct answer.

34. 3 The arrow rotates by  $90^\circ$  in CW direction. The 'W' rotates by  $45^\circ$  in CW direction. The spring moves from one corner to the other in CW direction and the number of dots increases by one in successive figures. Hence, option (3) is the correct answer.

35. 2 In subsequent boxes, all the elements shift a place in CW direction. Also, all the elements rotates through  $45^\circ$ ,  $90^\circ$ ,  $135^\circ$  and  $180^\circ$  in CW direction. Hence, option (2) is the correct answer.

### Analogy-based Questions

1. 3 The rightmost figure becomes the outer figure, the middle figure becomes the inner-upper figure while the leftmost figure becomes the inner-lower figure.

2. 5 The two central figures are inverted and joined to form a single figure which is placed on the left. The next two similar figures are laterally inverted and joined to form a single figure which after rotating through  $90^\circ$  is placed in the lower right corner. One of the remaining two identical figures is lost and the other is placed in the right corner.

3. 4 In the two figures, the portions in which no lines are drawn are removed and the resulting figure is rotated through  $180^\circ$ . In the left part of this figure, the single vertical line is replaced by two parallel lines.

4. 5 The branches to which the arrows point get a filled circle, and the other gets a blank circle.

5. 5 Number of lines in the first figure equals the number of 'S' in the second.

6. 5 Outer most element moves to top right corner. Innermost element moves to the bottom left corner and the middle one moves to the bottom right corner. Also, the number of sides of each element increases by 1.

7. 1 In the middle row, 2 objects become 5 objects and move to the top row. Every object in the upper row rotates through  $45^\circ$  and moves to the bottom row. Every object in the middle row gets inverted and goes to the upper row.

8. 3 The figure rotates through  $90^\circ$  CW. One-half of a line is added to the figure. The 'X' rotates by  $45^\circ$ .

9. 3 The arrow rotates by  $180^\circ$  CW and goes to the middle. The object at the top reduces by one side and goes to the bottom. The object in the middle goes to the top after its open side reverses.

10. 4 The object on the left doubles (4 times) and joins to form a closed figure. The geometric shape goes to the middle after getting dark.

11. 5 The objects on the side of the geometric shape shift by one side in CW direction. The object situated outside goes inside in the same manner, while that situated inside comes outside after getting reversed.

12. 1 The two objects merge the way they are and the curves disappear.

13. 4 Each of the geometric figures on top increases by one side. The number of lines used in the two figures above is the same as the number of lines used in the three letters below. Option (4) is the only option which satisfies the first condition.

14. 5 The directions of the four arrowheads do not change, which remains static only in option (5).

15. 4 The left hand side objects are joined together the way they are to form the right hand side object.

16. 4 Identical elements are present in both of the boxes.

17. 1 The number of lines, arcs and arrowheads are identical in the given boxes.

18. 1 The number of arcs in the line consisting dot remains same. Also, the number of arcs is increased by 4 randomly in the opposite side of the line consisting dot.

19. 4 In the given relationship, the number of lines at the bottom is equal to the number of triangles. Only option (4) satisfies this condition where number of lines is equal to the number of 'L'.

20. 5 The number of arrows on the left hand side is equal to the number of numerals that appear on the right hand side. The number of letters on left side is equal to the number of numerals on the right side.

21. 5 The dark petals become light and are replaced by the equal number of light petals to the original figure. The same condition is satisfied by option (5).

22. 5 The three objects are joined in the similar pattern as they are given.

23. 1 First letter is rotated by  $180^\circ$ , second letter becomes water image and third letter becomes mirror image. Also, they are arranged in the similar way as they are in the original figure. This condition is satisfied only by option (1).

24. 1 The number of enclosed spaces in the figure A and the figure B is the same.

25. 3 One line/curve from the top vanishes and gets attached at the bottom.

### 'Odd Man Out'-based Questions

1. 5 The single and double lines at the bottom rotate CW through  $45^\circ$ . The line in figure 5 should have been vertical.

2. 3 In every figure three arcs open towards the central figure and two away from it. While in figure 3, four arcs open towards central figure and one away from it.

3. 3 Minute hand minus the hour hand equals to the second hand  $10 - 2 = 8$ ;  $12 - 3 = 9$ ;  $2 - 5 = -3$ . But  $-3$  is not represented by the figure.

4. 3 The object N has given a water image in figure 3.

5. 1 Number of free short lines = number of sides of the polygon.

6. 5 The dot moves to successive peaks. When the number at the bottom is even, the arrow points clockwise, while, when the number is odd, the arrow points anticlockwise.

7. 3 In all other figures, the number of enclosed space is three, while in figure 3, it is four.

8. 4 Quadrants 1 and 2 are mirror images of each other. Quadrant 4 is a water image of quadrant 2. While quadrant 3 is obtained by rotating quadrant 4 by  $90^\circ$  CW.

9. 5 By rotating the main figure, you can get every other figure, but you will never get figure 5.

10. 2 In every other figure, the top and the bottom rows have two arcs pointing in one direction and one in opposite direction. In figure 2, the bottom row has all the three arcs pointing in one direction.

11. 5 The arrow moves successively from one vertex to another in anticlockwise direction. Whenever the dot is at the top, we have a normal 'T'. While when the dot is at the bottom, we have an inverted 'T'. This does not happen in figure 5.

12. 4 The logic here is that in each option no figure has same number of elements, both inside and outside the figure except in option (4).

13. 4 In every figure, three arrows are pointing towards top, two arrows are pointing towards bottom, two are pointing towards right and one towards the left. The central object is rotating through  $90^\circ$  CW in successive figures. In figure 4, there are three arrows pointing towards bottom and one towards right.

14. 1 Figure 1 is different from others. In all the other figures, one end is a straight-line and the other is a curve, while in figure 1 both the ends are curves.

15. 2 The main object can be rotated to get all the other figures except 2. You will never get figure 2 unless you take a mirror image of the main object.

16. 5 Every figure has five lines. In no other figure you will find enclosed spaces.

17. 1 The main object rotates by  $90^\circ$  CW in successive figures. In every figure three of the curves are pointing towards the main object while two are pointing away from the object. While in figure 1 three curves are pointing away from the object and two towards the object.

18. 5 Every figure has some curves and lines. In every figure a curve intersects with a line. In figure 5, two lines intersect.

19. 4 Only figure 4 has a closed object.

20. 3 The number of arrowheads increases by one in successive figures. Alternate figures have a '+' and 'x'. The half-shaded circle is moving through  $90^\circ$  CW direction. Among two central arrows, one remains stationary, while the other one rotates through  $45^\circ$  in ACW direction. The 'P' rotates through  $90^\circ$  in CW direction in successive figures. The last movement happens wrongly in figure 3.

21. 4 In every figure, there are some curves that have circles at only one end. In figure 4, one curve has circles at both ends.

22. 3 In every figure, the number of circles plus the number written on right top gives the number written at the bottom. The number of lines at the bottom of every figure is equal to the number written on right top. This is not the case with figure 3.

23. 5 In every figure the number of objects is equal to the number that the given alphabet comes in alphabetical sequence. E.g. Figure 1 has 'E' and five objects, figure 2 has 'C' and three objects and so on. Using this logic, figure 5 should have had seven objects, but has only five instead.

24. 2 In every figure, the number of curves and the number given add to an odd number. In figure 2 they add to 6.

25. 1 In all the other figures, we have curves opening in all four directions, viz. right, left, top and bottom. In figure 1 there are two curves opening towards right, while none of them opening towards left.

26. 4 The logic here is that in each option one side of cuboid is missing except in option (4).

27. 4 In every other figure, the two lines inside the circle intersect at right angles.

28. 4 The logic here is that in each option sum of the given two numbers is always a prime number except in option (4).

29. 4 The logic here is that each option the spiral moves in CW direction except in option (4).

30. 4 In every successive figure, the object rotates by  $90^\circ$  in ACW direction. In all the figures, the arrowheads point towards the dot if there are even number of heads, while they point away from the dot if there are odd number of them. In figure 4 there are odd number of arrowheads, but are pointing towards the dot.

31. 5 If we perform the mathematical operator given in every figure, on the number of sides of the object and the number of dots inside the object, we get the number given on top. E.g. In figure 1,  $4 \text{ dots} + 4 \text{ sides} = 8$ . In figure 2,  $2 \text{ dots} \times 3 \text{ sides} = 6$  and, so on. In figure 5,  $3 \text{ dots} + 4 \text{ sides} = 7$  and not 6.

## **Part - 4 : Speed Tests on Visual Reasoning**

### **Test - 1**

1. 5 The logic here is that in each option except option (5), the arrow heads toward the anti-clockwise direction.

2. 4 The logic here is that in each option except option (4), the stars are placed in alternate segments of the circle.

3. 3 The logic here is that in each option the elements are placed in a particular direction i.e. either in clockwise or in anti-clockwise. But option (3) doesn't follow the given condition.

4. 4 The logic here is that there is no such option in which all different type of elements are equal in number. But in option (4) different types of elements are equal in number.

5. 3 The logic here is that all the options are identical except option (3). In option (3), one of the elements invert its direction.

6. 4 The logic here is that in every option the rectangular arrow heads toward the same direction. But this condition isn't followed in option (4).

7. 5 The logic here is that same elements are used in every option. But option (5) doesn't follow the condition as a new element is added.

8. 4 The logic here is that the small line is always bent towards the triangle. But the given condition isn't satisfied in option (4).

9. 1 The logic here is that the line which cuts both the circle in two quarters heads toward opposite side. But in option (1) it heads toward the same side.

10. 5 The logic here is that in every option, the number of horizontal and vertical lines are equal. But in option (5) number of horizontal lines is one more than the number of vertical lines

11. 4 The logic here is that in every option the 'star' is inside the figure. But in option (4) it is outside the figure.

12. 4 The logic here is that in every option at least an arc is not opening towards center. But option (4) is an exception of this.

13. 2 The logic here is that in every option at least two types of symbol are equal in number. But option (2) is an exception of this.

14. 1 The logic here is that in every option  $1/8^{\text{th}}$  part of the square is darkened. But option (1) is an exception of this.

15. 3 Both objects in each figure have same axis of symmetry either horizontal or vertical 'S' has diagonal axis of symmetry while T has vertical axis of symmetry

## **Test - 2**

1. 5 In all the other figure, the pin inside the square is attached to one and to the exalted side at the square.

2. 2 In all the other figures, the two triangles are oriented in the same direction.

3. 4 In options (1), (2), (3) and (5), the pins make an angle of  $45^{\circ}$  but in option (4), the pins make an angle  $135^{\circ}$ .

4. 4 The total number of objects is 15 in each figure.

5. 1 Starting with bottom left, the top left and the top right and the bottom right have alphabets in ascending order i.e. the bottom left should be followed by the letter immediately following it. In figure (1) the order is A, C, E and F which should be A, B, C and D.

6. 3 One of the circles should be place inside the main figure.

7. 3 In options (1), (2), (4) and (5), the lines drawn inside the figure divide it in equal parts but in option (3), figure is not a regular hexagon. Therefore, it will not divide the figure in equal parts.

8. 2 In options (1), (3), (4) and (5), the dot appears in region common to square, triangle and circle.

But in option (2), the dot appears in the region common to all figures.

9. 5 In options (1), (2), (3) and (4), the vertex of the inner figure touches at one of the sides of the outer figure but in figure (5) it touches at the vertex of the outer figure.

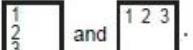
10. 1 In option (1), the figure is not the mirror image of English alphabet.

### **Test - 3**

1. 2 The elements are moving as  $1 \rightarrow 2 \rightarrow 4 \rightarrow 5 \rightarrow 3$ . Thus, in the next figure the elements must be arranged as given in option (2).

2. 4 The logic here is that the last element moves two places in ACW direction in each figure. Also, the arrow rotates  $90^\circ$  ACW and the darker part of triangle interchanges its place, in each figure. Thus, in the next figure the elements must be arranged as given in option (4).

3. 2 In each figure, the numbers are moving 2, 3, 4, 5 and 6 steps in clockwise direction.

4. 3 Let us divide the whole series into two alternate series as  and .

All the element follow a pattern  $(1,2,3) \rightarrow (2,1,3) \rightarrow (2,3,1)$ .

5. 1 The logic here is that in alternate figures, the first and the last element is replaced by a new element. Also, the darker part of circle rotates through  $90^\circ$ CW in every figure. Thus, in the next figure the elements must be arranged as given in option (1).

6. 1 The logic here is that in alternate figures an element is added at first place and at last place. Also, the series is moving a step in ACW direction. Thus, in the next figure

the elements must be arranged as given in option (1).

7. 3 The logic here is that the corner arrows in upper row changes their direction alternately. The arrow in the middle position on upper row changes its direction after two figures. Similarly, the elements in the lower row retains its position after two figures. Thus, in the next figure the elements must be arranged as given in option (3).

8. 5 The vertical object gets water image in the first step, mirror image in the second step, rotated by  $180^\circ$  in the third step and again rotated by  $180^\circ$  in the fourth step. The horizontal object is rotated by  $180^\circ$  in the first step, again rotated by  $180^\circ$  in the second, mirror image in the third and water image in the fourth. (HINT: The vertical and the horizontal objects form reverse series.)

9. 2 The logic here is that a similar pair of elements appear on 1<sup>st</sup> and 5<sup>th</sup> position. One of them is retained in next figure which appears on position 2<sup>nd</sup>, 4<sup>th</sup>, 3<sup>rd</sup> and 7<sup>th</sup> respectively in the next figures. Thus, in the next figures the elements must be arranged as given in option (2).

10. 5 The logic here is that the innermost elements, middle elements and outer elements are rotating in ACW direction in every subsequent figure. Thus, in the next figure the elements must be arranged as given in option (5).

11. 4 The logic here is that 1<sup>st</sup>, 2<sup>nd</sup> and 6<sup>th</sup> square rotates by  $90^\circ$  ACW. While 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> squares rotates by  $90^\circ$  CW. Also, 3<sup>rd</sup> and 4<sup>th</sup> square interchange their position in successive figures. Thus, in the next figure the elements must be arranged as given in option (4).

12. 2 The logic here is that the alphabetic element is kept constant at its place but is increased by 1 in subsequent figure. Also, the outer elements move 3 steps, 2 steps, 1 step and 0 step subsequently. Thus, in the next figure the elements must be arranged as given in option (2).

13. 3 The logic here is that the number of steps moved forward by the elements around the middle element is equal to the given number. Also, the given number indicates that the element on the particular position in CW direction must be replaced with a new element.

14. 3 The logic here is that the elements move 1 step, 2 steps, 3 steps and 4 steps in CW direction. Also, the 'I' rotates 45° CW, arrow rotates 135° CW and 'U' rotates 90° ACW in subsequent figures. Thus, in the next figure the elements must be arranged as given in option (3).

15. 5 The logic here is that the number of steps moved forward by the elements are equal to the difference between the position number of the middle elements. Thus, in the next figure the elements must be arranged as given in option (5).

### **Test - 4**

1. 2 The logic here is that the elements on 1<sup>st</sup> position rotates 135° CW, on 3<sup>rd</sup> position rotates 45° ACW, on 7<sup>th</sup> position rotates 45° CW and on 9<sup>th</sup> position rotates 90° ACW. Also, the middle element repeats itself alternately. Thus, in the next figure elements must be arranged as given in option (2).

2. 5 The logic here is that among the given type of elements, an element of each type is diminished subsequently. Thus, in the next figure the elements must be arranged as given in option (5).

3. 3 Stepped movement in ACW direction. Step sizes determined by the difference in the alphabets in the central position.

4. 4 The logic here is that the elements are moving as 1→9→5→6→2→3→7→8→4→1. Also, the arrow rotates 90° CW in subsequent figures. Thus, in the next figure elements must be arranged as given in option (4).

5. 5 The logic here is that the elements are moving as 1→3→7→2→4→5→8→6→9→1. Also, 'I' repeats its position alternately and arrow rotates 45° ACW in subsequent figures. Thus, in the next figure elements must be arranged as given in option (5).

6. 5 The logic here is that in every step the bottom element comes on top position and rest of both sides elements move a step downward. Thus, in the next figure the elements must be arranged as given in option (5).

7. 3 The logic here is that the elements are moving as 1→4→7→2→5→8→3→6→9→1. Thus, in the next figure the elements must be arranged as given in option (3).

8. 2 The logic here is that the elements are moving as 1→5→7→9→2→4→3→8→6→1. Thus, in the next figure the elements must be arranged as given in option (2).

9. 2 The logic here is that the elements are moving as 1→7→9→4→3→6→8→5→2→1. Thus, in the next figure the elements must be arranged as given in option (2).

10. 1 The logic here is that the elements are moving as 1→5→6→7→3→4→9→8→2→1. Thus, in the next figure the elements must be arranged as given in option (1).

### **Test - 5**

1. 4 The logic here is that the elements are moving as 3→9→5→7→1. Thus, in the next figure the elements must be arranged as given in option (4).

2. 4 The logic here is that the elements are moving as 3→9→1→5→3. Thus, in the next figure the elements must be arranged as given in option (4).

3. 5 The logic here is that the first and the last element interchange their position and invert. Similarly, the middle element inverts too but kept constant. Thus, in the next figure the elements must be arranged as given in option (5).

4. 5 The logic here is that every element is rotated  $90^\circ$  ACW. Thus, in the next figure the elements must be arranged as given in option (5).

5. 3 The logic here is that top-left element moves to bottom-right position and gets darkened. While bottom-right element moves to top-left position and remains unchanged. The rest two elements interchange their positions and arrow changes its direction. Thus, in the next figure the elements must be arranged as given in option (3).

6. 3 The logic here is that the element on 7<sup>th</sup> position moves to 6<sup>th</sup> position and rotates  $45^\circ$ , element on 2<sup>nd</sup> position moves to 7<sup>th</sup> position and rotates  $90^\circ$  ACW, element on 9<sup>th</sup> position moves to 3<sup>rd</sup> position and rotates  $90^\circ$  and elements on 5<sup>th</sup> and 6<sup>th</sup> place interchange their places (irrespective of repetition) and a new element appears on 2<sup>nd</sup> position. Thus, in the next figure the elements must be arranged as given in option (3).

7. 5 In the given question, one should only check the relative movements of the elements. Thus, in the next figure the elements must be arranged as given in option (5).

8. 4 The 'x' dividing the circle rotates through  $30^\circ$  CW (or the entire circle rotates through  $60^\circ$  CW) and the diagonally opposite symbols interchange the positions.

9. 1 The logic here is that two lines and one line is removed from consecutive elements. Thus, in the next figure the elements must be arranged as given in option (1).

10. 1 The logic here is that element on 1<sup>st</sup> position moves to 5<sup>th</sup> position and rotates  $90^\circ$  CW, element on 3<sup>rd</sup> position moves to 9<sup>th</sup> position and becomes water image, element on 5<sup>th</sup> position moves to 3<sup>rd</sup> position and rotates  $90^\circ$  ACW, element on 7<sup>th</sup> position moves to 1<sup>st</sup> position and becomes water image and element on 9<sup>th</sup> position moves to 7<sup>th</sup> position and rotates by  $45^\circ$ . Thus, in the next figure the elements must be arranged as given in option (1).

11. 2 The logic here is that the entire figure rotates by  $180^\circ$ . Also, the two curves on a side change their orientation. Thus, in the next figure the elements must be arranged as given in option (2).

12. 1 The logic here is that top-left element rotates  $90^\circ$  CW, top-right element rotates  $180^\circ$ , bottom-left element rotates  $180^\circ$ , bottom-right element rotates  $90^\circ$  CW and middle element rotates  $90^\circ$  ACW. Thus, in the next figure the elements must be arranged as given in option (1).

13. 2 Position 1 object moves to position 8. Position 7 object moves to position 9 after rotating through  $45^\circ$ . Position 9 object moves to position 6 after forming mirror image. Position 4 and 5 objects become one object and move to position 7 after getting empty (no shading). Position 6 object vanishes and a new object appears in position 1. Position 8 object gets replicated and moves on to positions 4 and 5 after rotating through  $90^\circ$  CW.

14. 2 The logic here is that the dark leaf is rotated by  $135^\circ$  CW and a light leaf appears on its opposite side. Also, the light leaf is rotated by  $180^\circ$ . Thus, in the next figure the elements must be arranged as given in option (2).

15. 2 The logic here is that the outer element rotates  $135^\circ$  CW and the inner element first rotates  $45^\circ$  CW and then becomes mirror image. Thus, in the next figure the elements must be arranged as given in option (2).

### **Test - 6**

1. 4 The logic here is that single line figure becomes double line and vice-versa. Thus, in the next figure the elements must be arranged as given in option (4).

2. 5 The logic here is that top-left element becomes mirror image, top-right element rotates  $90^\circ$  ACW, bottom-left element becomes mirror image, bottom-right element rotates  $45^\circ$  and the middle element rotates  $90^\circ$  CW. Also, diagonal elements interchange their positions. Thus, in the next figure the elements must be arranged as given in option (5).

3. 1 The logic here is that the lighter triangles remains constant in number but the orientation of one of them changes and two new darker triangles (of same orientation) replace the circles. Thus, in the next figure the elements must be arranged as given in option (1).

4. 4 The logic here is that the given element rotates  $180^\circ$  and the unshaded element moves a step backward and becomes darkened. Now, it is then placed between the two unshaded circles. Thus, in the next figure the elements must be arranged as given in option (4).

5. 2 The logic here is that the given figure first becomes water image and then turns mirror image. Now, one more line than the number of lines in given figure is added. Thus, in the next figure the elements must be added as given in option (2).

6. 5 The logic here is that the bottom line shifts on top and rest of the lines shift by a step downward. Also, the additional element attached to each line is transferred to opposite end. Thus, in the next figure the elements must be arranged as given in option (5).

7. 3 The logic here is that the entire figure rotates by  $90^\circ$  ACW and the smaller element is moved a step backward. Thus, in the next figure the elements must be arranged as

given in option (3).

8. 4 The logic here is that the elements are moving as  $1 \rightarrow 3 \rightarrow 9 \rightarrow 1$  and  $5 \rightarrow 7$ . Also, 'Y' rotates  $90^\circ$  ACW. Thus, in the next figure the elements must be arranged as given in option (4).

9. 1 The logic here is that both the arrows move a step backward. Then, the outer arrow moves inward and vice-versa. Thus, in the next figure the elements must be arranged as given in option (1).

10. 4 The logic here is that the darkened leaf rotates  $135^\circ$  CW and the unshaded leaf rotates by  $90^\circ$  ACW. Thus, in the next figure the elements must be arranged as given in option (4).

### **Test - 7**

1. 1 The logic here is that the top row and middle row interchange their place while bottom row remains unchanged. Thus, in the next figure the elements must be arranged as given in option (1).

2. 3 The logic here is that out of the two different type of elements, one is increasing by 1 and other is kept constant.

3. 2 The main figure (L.H.S and R.H.S.) consists of three dots and three lines and one of the lines is smaller than the other two lines.

4. 4 The logic here is that element on 1<sup>st</sup> position moves to 3<sup>rd</sup> position, on 2<sup>nd</sup> position moves to 4<sup>th</sup> position, on 3<sup>rd</sup> position moves to 6<sup>th</sup> position, on 4<sup>th</sup> position moves to 2<sup>nd</sup> position, on 5<sup>th</sup> position moves to 7<sup>th</sup> position, on 6<sup>th</sup> position moves to 9<sup>th</sup> position, on 7<sup>th</sup> position moves to 1<sup>st</sup> position, on 9<sup>th</sup> position moves to 5<sup>th</sup> position and element on 8<sup>th</sup> position remains unchanged. Thus, in the next figure the elements must be arranged as given in option (4).

5. 3 The logic here is that the first line moves  $90^\circ$  CW and occupies middle position, second line moves  $90^\circ$  and occupies top position and third line moves  $90^\circ$  and occupies bottom position with end points flipped. Thus, in the next figure the elements must be arranged as given in option (3).

6. 4 The logic here is that top-left position element rotates  $90^\circ$  ACW, element on top-right rotates  $90^\circ$  CW, element on bottom-left position rotates  $45^\circ$  CW and element on bottom-right position rotates  $45^\circ$  ACW. Thus, in the next figure the elements must be arranged as given in option (4).

7. 5 The logic is here is that the number of edges in outer element are increased by 2 while that in the inner element increased by 1. Thus, in the next figure the elements must be arranged as given in option (5).

8. 3 The logic here is that the larger element becomes mirror image and the number of smaller element is increased by 1. Thus, in the next figure the elements must be arranged as given in option (3).

9. 1 The logic here is that top-left element moves to top-right position, top-right element moves to bottom-right and converts into a new element, middle element moves to top-left position, bottom-left element remains constant and bottom-right element moves to middle position. Thus, in the next figure the elements must be arranged as given in option (1).

10. 2 The logic here is that outer element becomes innermost, middle element becomes outermost and innermost element becomes middle element. Thus, in the next figure the elements must be arranged as given in option (2).

11. 4 The logic here is that 1<sup>st</sup> moves to 5<sup>th</sup>, 3<sup>rd</sup> moves to 6<sup>th</sup> and changes into a new element, 5<sup>th</sup> moves to 9<sup>th</sup>, 7<sup>th</sup> moves to 4<sup>th</sup> and 9<sup>th</sup> moves to 1<sup>st</sup> position. Thus, in the next figure the elements must be arranged as given in option (4).

12. 1 The logic here is that 1<sup>st</sup> moves to 9<sup>th</sup>, 3<sup>rd</sup> moves to 5<sup>th</sup>, 5<sup>th</sup> moves to 7<sup>th</sup>, 7<sup>th</sup> moves to 3<sup>rd</sup>, 8<sup>th</sup> moves to 4<sup>th</sup>, 9<sup>th</sup> moves to 1<sup>st</sup> and 3<sup>rd</sup> is deleted from its place.. Thus, in the next figure elements must be arranged as given in option (1).

13. 4 The logic here is that the entire figure rotates by  $90^\circ$  CW and the smaller element attached to the end point of the lines changes its orientation. Thus, in the next figure the element must be attached as given in option (4).

14. 1 The logic here is that the entire element becomes mirror image and then becomes water image. Thus, in the next figure the elements must be arranged as given in option (1).

15. 3 The logic here is that top-left element moves to bottom-right and becomes mirror image, the top-right element moves to bottom-left and becomes water image, the bottom-left element moves to top-right and its number of side increase by 1 and bottom-right element moves to top-left and rotates by  $90^\circ$  ACW. Thus, in the next figure the elements must be arranged as given in option (3).

## Test - 8

1. 2 The logic here is that the number of sides of outer figure and inner figure increases by 1. Also, the given arrow becomes inverted and a new arrow appears on its adjacent side. Thus, in the next figure the elements must be arranged as given in option (2).

2. 1 The first element goes to the third position and the fourth element goes to the second position and both of them rotate by  $180^\circ$ . The second element goes to the first position and its head (the shaded arrow) inverts itself. Similarly, the third element moves to the fourth position and its head also gets inverted.

3. 5 The logic here is that the elements are moving as  $1 \rightarrow 4, 3 \rightarrow 2, 5 \rightarrow 1, 6 \rightarrow 3$  and two new elements are introduced at 5<sup>th</sup> - 6<sup>th</sup> position. Thus, in the next figure the elements must be arranged as given in option (5).

4. 4 The logic here is that the entire figure rotates by  $90^\circ$  CW and then it becomes mirror image. Also, the arrow attached to the lower part changes its orientation. Thus, in the next figure the elements must be arranged as given in option (4).

5. 3 The logic here is that top-left figure rotates  $90^\circ$  ACW and moves to bottom-left. The middle element rotates by  $135^\circ$  CW with the dot moving a step ahead and it finally moves to top-right position. The bottom-right element first becomes water image and then it becomes mirror image and finally moves to middle position. Thus, in the next figure the elements must be arranged as given in option (3).

6. 4 The logic here is that the uppermost element becomes water image and moves to bottom position. While the bottom element becomes mirror image and increases by 1 and finally moves to top position. Thus, in the next figure the elements must be arranged as given in option (4).

7. 2 The logic here is that 1<sup>st</sup> moves to 6<sup>th</sup>, 3<sup>rd</sup> moves to 4<sup>th</sup>, 6<sup>th</sup> moves to 7<sup>th</sup>, 8<sup>th</sup> moves to 5<sup>th</sup>, 5<sup>th</sup> moves to 2<sup>nd</sup> and appears as a new element. Thus, in the next figure the elements must be arranged as given in option (2).

8. 3 The logic here is the outermost element becomes middle, the middle element becomes outermost and inverts and the innermost element remains constant. Thus, in the next figure the elements must be arranged as given in option (3).

9. 1 The logic here is that 1<sup>st</sup> moves to 5<sup>th</sup>, 3<sup>rd</sup> moves to 1<sup>st</sup>, 5<sup>th</sup> moves to 3<sup>rd</sup>, 9<sup>th</sup> moves to 7<sup>th</sup> and 7<sup>th</sup> moves to either 6<sup>th</sup> or 9<sup>th</sup>. A new element appears at either 9<sup>th</sup> or 6<sup>th</sup>. Thus, in the next figure the elements must be arranged as given in option (1).

10. 2 The logic here is that the darker dots change their position diagonally. Also, each element along the edge of square either moves  $90^\circ$  CW or  $90^\circ$  ACW. Thus, in the next figure the elements must be arranged as given in option (2).

1. 3 The logic here is that the figure becomes water image and then increases by 1. All of the given options satisfy the condition except option (3). Thus, option (3) is the correct answer.

2. 5 The logic here is that the element inverts itself and then increases by 1. All of the given options satisfy the given except option (5). Thus, option (5) is the correct answer.

3. 1 The logic here is that the figure rotates by  $135^\circ$  CW and a half part of line is deleted. All of the given options satisfy the condition except option (1). Thus, option (1) is the correct answer.

4. 4 The logic here is that the darkened part along the edges of the square rotate  $90^\circ$  ACW. All of the given options satisfy the condition except option (4). Thus, option (4) is the correct answer.

5. 5 The logic here is that the figure becomes water image. All of the given options satisfy the condition except option (5). Thus, option (5) is the correct answer.

6. 3 The logic here is that the upper row and bottom row become mirror image. While the end element of the middle row goes from one end to other without any change in its orientation. All the options satisfy the condition except option (3). Thus, option (3) is the correct answer.

7. 3 The logic here is that in the upper part the elements move a step ahead in CW and in the lower part the elements move a step in ACW. All the options satisfy the condition except option (3). Thus, option (3) is the correct answer.

8. 3 The logic here is that the upper row moves to bottom, the bottom row becomes mirror image and moves to middle and middle row becomes mirror image with a new element appearing at its opposite end. All the options satisfy the condition except option (3). Thus, option (3) is the correct answer.

9. 1 The logic here is that the half circles are completed and an additional circle appears. All of the given options satisfy the condition except option (1). Thus, option (1) is the

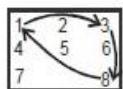
correct answer.

10. 2 The logic here is that 1<sup>st</sup> moves to 6<sup>th</sup>, 2<sup>nd</sup> moves to 8<sup>th</sup>, 3<sup>rd</sup> moves to 4<sup>th</sup>, 4<sup>th</sup> moves to 3<sup>rd</sup>, 6<sup>th</sup> moves to 1<sup>st</sup>, 7<sup>th</sup> moves to 9<sup>th</sup>, 8<sup>th</sup> moves to 2<sup>nd</sup> and 9<sup>th</sup> moves to 7<sup>th</sup>. All of the options satisfy the condition except (2). Thus, option (2) is the correct answer.

11. 2 From (I) to figure (II), following changes occur.

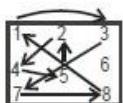
The 7<sup>th</sup> element remains un-changed.

The rest of the elements on 2<sup>nd</sup>, 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> placed move a step ahead in anti-clockwise direction.



12. 4 From figure (I) to figure (II) following changes occur.

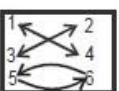
6<sup>th</sup> element of figure (I) always remains unchanged.



13. 3 '↑' in figure (I) is rotating by 180° and is placed on the opposite side of the square. '↖' is first rotating by 90° clockwise and then moves a step in anti-clockwise direction.

14. 4 In all other figures, the element in figure (II) is the mirror image of element in figure (I).

15. 5 The element of figure (I) moves in the following manner to result in figure (II).



Only in option (5), the two figures doesn't bear the same relationship.

### Test - 10

1. 4 The logic here is that top-left element becomes water image and moves to bottom-right, top-right element increases its number of sides by 1 and moves to bottom-left, bottom-left element rotates 90° ACW and moves to top-right and bottom-right element becomes water image and moves to top-left. All of the given options satisfy the given condition except (4). Thus, option (4) is the correct answer.

2. 5 The logic here is that top-left element changes into a new element and moves to bottom-right, top-right element moves to top-left, bottom-left element moves to top-right and bottom-right element to bottom-left. All of the given options satisfy the given condition except (5). Thus, option (5) is the correct answer.

3. 4 The logic here is that out of the given elements all are repeated but one of the element changes into a new element. All of the given options satisfy the condition except (4). Thus, option (4) is the correct answer.

4. 1 The logic here is that on the LHS all the elements change their orientation. While on the RHS one of the element remains same. All of the given options satisfy the condition except (1). Thus, option (1) is the correct answer.

5. 3 The logic here is that top-left element changes into a new element and then moves to bottom-right. Rest of the element appears as they are to their respective positions. All of the given options satisfy the condition except (3). Thus, option (3) is the correct answer.

6. 2 The logic here is that the upper element rotates by  $90^\circ$  CW and then they move a step ahead in CW. All of the given options satisfy the condition except (2). Thus, option (2) is the correct answer.

7. 1 The logic here is that top-left element rotates by  $90^\circ$  CW, bottom-left element becomes water image and bottom-right element rotates by  $90^\circ$  ACW. Finally, all of the elements move a step ahead in CW from their respective place. All of the given options satisfy the condition except (1).

8. 1 The logic here is that the entire figure rotates by  $135^\circ$  CW. All of the given options satisfy the condition except (1). Thus, option (1) is the correct answer.

9. 3 The logic here is that all of the unshaded parts become shaded and vice-versa. All of the given options satisfy the condition except (3). Thus, option (3) is the correct answer.

10. 5 The logic here is that both the elements i.e. outer & inner interchange their position. Also, the outer element rotates by  $90^\circ$  CW. All of the given options satisfy the given condition except (5). Thus, option (5) is the correct answer.

### Section Test

1. 4 The logic here is that three identical figures are joined in each option except option (4). Thus, option (4) is the correct answer.

2. 2 The logic here is that the circle is always parted by two blocks and a block from (:) and (.) respectively except in option (2). Thus, option (2) is the correct answer.

3. 4 The logic here is that the number of arrows are represented by an equal number of dots on the opposite side except in option (4). Thus, option (4) is the correct answer.

4. 3 The logic here is that the given array is repeated in other options in either CW direction or ACW direction except in option (3). Thus, option (3) is the correct answer.

5. 5 The logic here is that the full shaded petal is always at angle of  $135^\circ$  with the top half-shaded petal except in option (5). Thus, option (5) is the correct answer.

6. 2 The logic here is that three of the identical elements always head towards the same direction except in option (2). Thus, option (2) is the correct answer.

7. 1 The logic here is that the number of straight lines in each of the elements are consecutive except in option (1). Thus, option (1) is the correct answer.

8. 5 The logic here is that if the given elements are joined then they form a rectangular shape except in option (5). Thus, option (5) is the correct answer.

9. 1 The logic here is that arc on one of the arrows always heads toward a particular direction except in option (1). Thus, option (1) is the correct answer.

10. 3 The logic here is that except option (3), rest of the options can be obtained from each other. Thus, option (3) is the correct answer.

11. 5 All the circles in option (5) intersect each other which don't happen in any of the remaining options. Hence, option (5) is the correct answer.

12. 5 In all of the figures, one of the sides is extended which don't happen in option (5). Hence, option (5) is the correct answer.

13. 2 All of the figures except the figure in option (2) can be interchanged into one another by rotation. Hence, option (2) is the correct answer.

14. 1 Consider the pentagon to be a hut with and walls . The roof has curves curved inwards while the walls have curves turned outwards. In figure 1, the pentagon's bottom side of wall has an inward turned curve.

15. 1 In all the other figures, the dot occurs at in a right angle.

16. 2 The crescent moves one place and two places clockwise alternately. The oval moves left top corner and right top corner alternately. The rectangle moves two places

clockwise and one place anticlockwise respectively. The central object is  $\times$  and  $+$  alternately.

17. 5 Every time one object gets inverted from the top row and the bottom row while the other two objects remain the same. This inversion follows a pattern for example, from the top row, first the leftmost object gets inverted then the middle object then the rightmost object and again the middle object. While from the bottom row, first the middle object gets rotated, then the leftmost object, then the middle object and then the rightmost object.

18. 3 All the objects move one step down and remain there in alternate figures. The two edged line (bottommost object of the first figure) additionally also gets inverted in alternate figures.

19. 4 One of the limbs changes position every time and this follows a pattern. For example, first the left leg changes position then the left hand, then the right leg and finally the right hand. This pattern continues.

20. 1 In the given figures, we have to notice that the number of folds in umbrella forms an alternate series. Also, when the number of folds is even and odd, the umbrella stick points towards right and left respectively. Hence, we can conclude that option (1) is the correct answer.

21. 5 The square moves three places clockwise every time along the side. The line with a circle moves from the left top to left bottom, then centre top to centre bottom and finally right top. The arrow moves from right bottom to right top, centre bottom to centre top and finally left bottom. In alternate figures, the arrow has a small horizontal line in the middle.

22. 1 The main object moves  $90^\circ$  clockwise and anticlockwise respectively. The number of curved lines inside and the number of small lines outside always add to five. The central object is  $+$  or alternately. The antennae open away from each other and towards

each other in alternate figure. Finally the curved lines inside are towards the antennae and towards the straight-lines after every two figures.

23. 2 The object has an arrow at the end in alternate figures and this arrow switches the ends. Also, in alternate figures there is a V at the centre. The half-shaded capsule moves one place anticlockwise along the U shape and while doing so its shading gets reversed.

24. 5 In alternate figures one leaf is added and two petals are added.

25. 4 The shaded quadrant moves one place anticlockwise. The circle moves one place clockwise. The line moves to opposite quadrant in alternate figures, i.e. from right top to left bottom, and so on.

26. 5 Every time two new objects are added and the old object rotates  $90^\circ$  clockwise. The new objects that are added are of the same orientation (similar to the only object in the first figure).

27. 1 The shading goes on doubling every time, i.e.  $\frac{1}{2}$ , 1, 2, 4 and 8 petals are shaded in respective figures. Every time the shading pattern moves clockwise.

28. 1 Every object moves one place clockwise along the sides. As it does, it rotates by  $90^\circ$  clockwise in alternate figures.

29. 4 The relative movement of the objects remain same in every figure. For example, the object in position 1 goes to position 3, position 4 goes to position 6, position 6 goes to position 7, position 7 goes to position 1 and position 9 goes to position 4. Position 3 object gets replaced by a new one and goes to position 9.

30. 2 Every time 2, 3, 4 and 5 new objects are added. The new objects that are added get reduced by one in the next figure.

31. 2 The entire figure rotates  $90^\circ$  clockwise. The curve on one side flips at the same position and so does the arrow-head on the other side. The filled circles become empty

circles.

32. 5 The outermost object becomes the innermost object but flips vertically. The inner top object becomes the middle object. The inner bottom object becomes the outermost object.

33. 4 Out of the three regions that are filled one of them flips to the opposite side, the other one moves to the position where the earlier object was and the last one goes one place anticlockwise. For example in the main figure, the striped region moves to the opposite side, the triangle moves to the position occupied by striped region originally and the circle moves one place anticlockwise.

34. 1 All the loose objects get attached in a particular manner. The left bottom object rotates by  $90^\circ$  and becomes the central object. The left top object gets attached to it on the left side. The right top object gets attached to it at the bottom and the right bottom object rotates by  $90^\circ$  and gets attached to it at the top.

35. 4 The top and the bottom object switch positions. The left and the right object attached to the bottom object switch positions and while doing so the right object flips.

36. 4 The objects that are three in number become four in number ( $\times$  in the main figure), the objects that are two in number become three in number ( $\circ$  in the main figure) and the objects that are four in number become two in number ( $\square$  in the main figure).

37. 2 All the loose objects get attached in a particular manner. The horizontal line in the middle rotates by  $90^\circ$  clockwise. The left top object gets attached to it on the right side after rotating  $90^\circ$  clockwise. The right top object gets attached to it on the left side after rotating  $90^\circ$  anticlockwise. The bottom object gets attached to it at the bottom after rotating  $90^\circ$  clockwise.

38. 5 All the attached objects become loose in a particular manner. The two lines on the left and right move to the top right corner. The objects on the top and the bottom move

in the centre. The central object flips and comes to the bottom right corner.

39. 2 The entire object rotates  $180^\circ$ . The object at the middle moves to the other end ( $\times$  in the main figure) and so does the object at the top ( $\circ$  in the main figure).

40. 1 The right figure becomes the mirror image of the left figure (关乎 have you danced in front of the mirror).

41. 4 All the objects rotate  $90^\circ$  clockwise, the leftmost object becomes the third object from the top, the second from the left becomes the bottommost object, the third object from the left becomes the topmost object and the rightmost object becomes the second object from the top.

42. 1 Every square rotates  $90^\circ$  clockwise.

43. 4 The relative movement of the objects remain the same from the left figure to the right figure. For example, the left top object comes one place down, the right top object comes one place down, the left bottom object becomes the third object from the left in the top row, the bottom right object comes one place left, and so on.

44. 2 The number of objects on the right hand side is equal to the number of closed objects on the left hand side. 3 and 4 are not the answer because there are four objects on the right hand side but only three closed objects on the left hand side. Also, five is not the answer because there are two objects on the right hand side but only one closed object on the left hand side.

45. 5 The innermost and the outermost objects interchange. The middle object remains where it is but gets reduced by one side.

46. 5 The left top object rotates by  $90^\circ$  clockwise, the right top object rotates  $90^\circ$  anticlockwise, the left bottom object rotates  $45^\circ$  clockwise and the right bottom object rotates  $45^\circ$  anticlockwise. In figure 5 the left bottom object moves  $45^\circ$  anticlockwise and not clockwise.

in the centre. The central object flips and comes to the bottom right corner.

39. 2 The entire object rotates  $180^\circ$ . The object at the middle moves to the other end ( $\times$  in the main figure) and so does the object at the top ( $\circ$  in the main figure).

40. 1 The right figure becomes the mirror image of the left figure (⌚ have you danced in front of the mirror).

41. 4 All the objects rotate  $90^\circ$  clockwise, the leftmost object becomes the third object from the top, the second from the left becomes the bottommost object, the third object from the left becomes the topmost object and the rightmost object becomes the second object from the top.

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46. 5 The left top object rotates by  $90^\circ$  clockwise, the right top object rotates  $90^\circ$  anticlockwise, the left bottom object rotates  $45^\circ$  clockwise and the right bottom object rotates  $45^\circ$  anticlockwise. In figure 5 the left bottom object moves  $45^\circ$  anticlockwise and not clockwise.

47. 3 One of the objects becomes its water image (crescent in the master pair) and the other object becomes its mirror image (circle in the master pair). In figure 3, both the objects become water images.

48. 4 The entire figure rotates  $90^\circ$  anticlockwise. The two objects interchange positions and hence the shading also changes objects. In figure 4, the objects do not inter change positions.

49. 3 The shaded petal rotates  $45^\circ$  anticlockwise while the unshaded petal rotates  $90^\circ$  clockwise. In figure 3, the shaded petal moves  $90^\circ$  anticlockwise and not  $45^\circ$  anticlockwise.

50. 2 Both the objects,  $\circ$  and  $=$  move three places anticlockwise, while '' moves three places clockwise. In figure 2, all the three objects move three places clockwise.