# ANALOGY, SERIES AND EMBEDED FIGURE

Type1 : Five figure Series

This type of problems on series consist of five figures numbered A, B, C, D and E forming the problem set, followed by five other figures numbered 1, 2, 3, 4 and 5 forming the Answer Set. The five consecutive problem figures form a definite sequence and it is required to choose one of the figures from the Answer Set which will continue the same sequence.
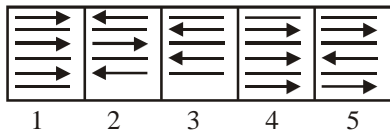
In each of the following examples find the figure from the answer Set (i.e. figs. 1, 2, 3, 4 and 5) which will continue the series given in the problem Set (i.e. figs. A, B, C, D and E).

Examples:

Ex.1   Problem Figures

A   B   C   D   E

Answer Figures

1   2   3   4   5
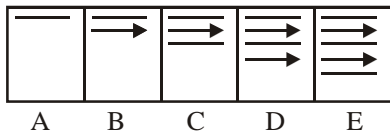
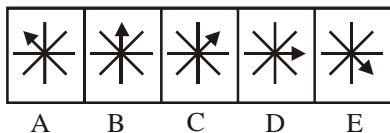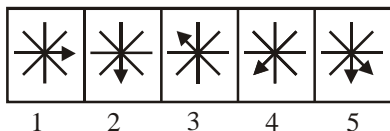**Sol.**   Clearly, arrows and straight lines are added alternately to get subsequent figures. Also all the arrows point towards the right. Hence, fig (4) is the answer.
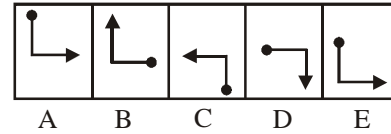
Ex.2   Problem Figures

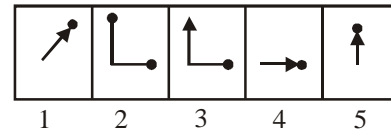A   B   C   D   E

Answer Figures

1   2   3   4   5

Sol.   Here, the arrow rotates one step clockwise in every subsequent figure.

∴ The answer is fig (2).

Ex.3   Problem Figures

A   B   C   D   E

Answer Figures

1   2   3   4   5

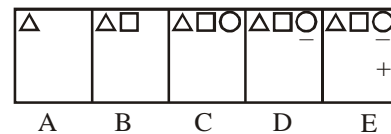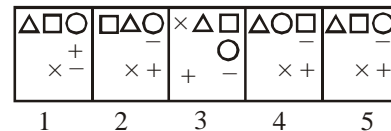**Sol.**   In this case, the pin rotates 90º clockwise and the arrow rotates 90º anticlockwise in each step.

Hence, the answer is fig. (3).

Ex.4   Problem Figures

A   B   C   D   E

Answer Figures

1   2   3   4   5

Sol.   New symbols are added in each step in a set order. Hence, the answer is fig (5).

Type 2 : Four figure Series

This type of questions are largely similar to those discussed in Type-1; the only difference being that in this case the series or the sequence is indicated by four problem figures and it is required to select a figure from amongst the answer figure, which would be fifth figure the continues the series.
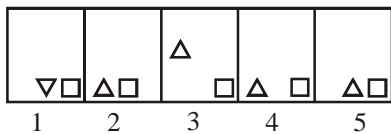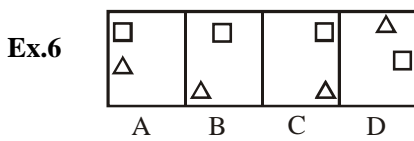
Directions :

Select a figure from the Answer Set (1, 2, 3, 4, 5) which would continue the series indicated by the four figures of the Problem Set (A, B, C, D).

Examples:

Ex.5


A   B   C   D

1   2   3   4   5
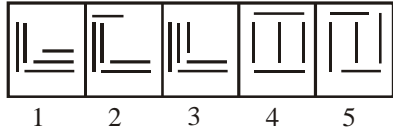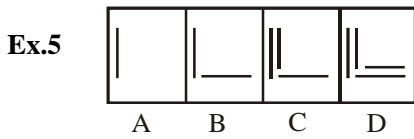
Sol. Clearly, vertical and horizontal lines are added alternately and in a set order. To continue this series, fig.(3) should follow fig.(D). Hence, fig.(3) is the answer.

Ex.6

A   B   C   D

1   2   3   4   5

Sol. Clearly, the square moves one step CW each time (each step being equal to half a side of the square). The triangle moves one, two, three, ... steps ACW in subsequent steps. So, in the next fig., the square should come to the lower right position and the triangle should move four steps ACW to come to the lower middle position.

Hence, the answer is (5).

Ex.7

A   B   C   D

1   2   3   4   5
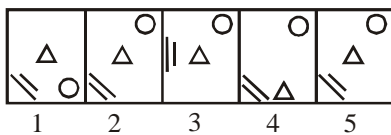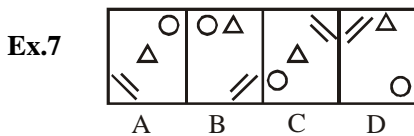
Sol. The triangle occurs at the central and upper middle positions alternately. The circle moves one step ACW each time. The lines also moves one step ACW but they also get inverted in each step. Hence, the answer is (5).

Ex.8

A   B   C   D

1   2   3   4   5
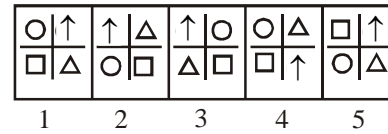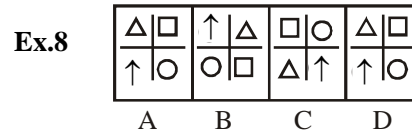
Sol. Clearly in one step, the symbols move one step CW and in the next step, the symbols at the vertically opposite positions interchange positions. Hence, the answer is (1).

Type 3 : Choosing the missing figure in a series

In this type of questions, you are given a set of four or five figures (labelled A, B, C, D and E) following a certain sequence and hence forming a series. However, the figure at C is missing. The candidate is required to choose this figure from the alternatives 1, 2, 3, 4, and 5.

Examples:

Ex.9

A   B   C   D

1   2   3   4   5
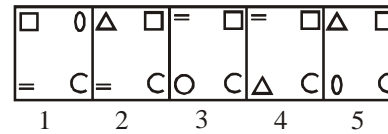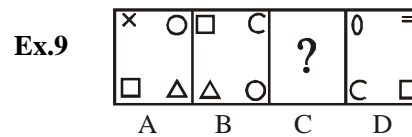
Sol. Clearly, each of the symbols moves one step CW in every step. Also, the symbols get replaced by new symbols one by one in an ACW direction. Thus, to obtain fig. (C), the symbols in (B) should move one step CW and the triangle should get replaced by a new symbol. Hence, the answer is (3).

Ex.10

A   B   C   D   E

1   2   3   4   5
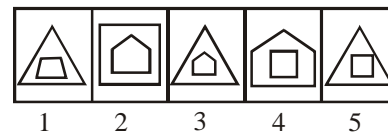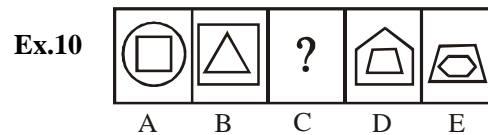
Sol. Clearly, the inner small figure become the outer large figure and a new small figure appears inside it in every step.

Hence, the answer is (3).

Type 4: Detecting the incorrect order in a series

The third type of questions on series constants of an un-numbered figure followed by five other figures numbered as 1, 2, 3, 4 and 5. All the six figures together 2, 3, 4, and 5. All the six figures together form a series. The un-numbered figure marks the beginning of the series and so its position is fixed. However, the positions of two of the figures in the series are incorrect and the series would be complete if these figures are interchanged. The earlier of the two numbered figures whose positions are interchanged, then the answer is 5.

Ex.11
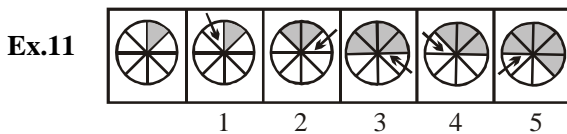
Sol. Clearly, in one step an arrow occurs adjacent to a shaded portion of the circle and in the subsequent step, that portion also gets shaded and the arrow is displaced on the other side of the shaded portions. This series will be complete if figures (3) and (4) are interchanged.

Hence, the answer is (3).

Type 5: Detecting the wrong figure in a series

This type of questions begin with an un-numbered figure followed by five figures numbered form 1 to 5 and then again an un-numbered figure on the extreme right. These seven figure together form a series which starts at the first (un-numbered) figure and ends at the last (un-numbered) figure. However, one and only one of these figures does not fit into the series. The number of that figure is the answer.

Example:

Ex.12
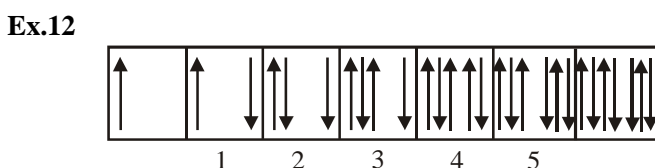
Sol. In the above set of figures, the arrows are added

to the right and left sides alternately. But in the third figure the arrow which was to be added to the right. Hence, the answer is (3).

ANALOGY

Type 6: Choosing one element of a similarly related pair

This type of Analogy involves problems consisting of four figures marked A, B, C and D forming the Problem Set and five other figures marked 1, 2, 3, 4, and 5 forming the Answer Set. The figures A and B of the Problem set are related in a particular manner and a similar relationship is to be established between figures C and D by choosing a figure from the answer set which would replace the question mark in fig. (D).
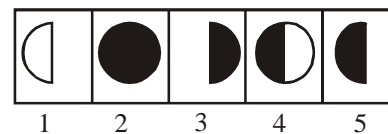
Directions:

Figures A and B are related in a particular manner. Establish the same relationship between figures C and D by choosing a figure from amongst the five alternatives, which would replaced the question mark in fig. (D).
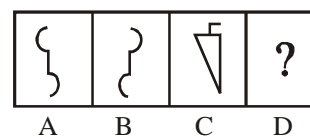
Examples:

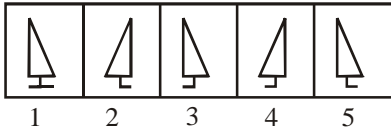**Ex.13** Problem Figures
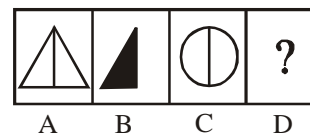
Answer Figures

Sol. Clearly, the right half of the figure is lost and the remaining portion is shaded to get fig. (B) from fig. (A). Similar relationship will give fig. (5) from fig. (C). Hence fig. (5) is the answer.
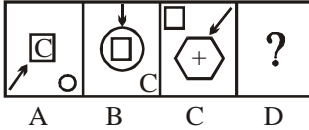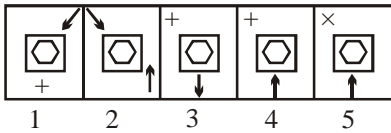
Ex.14 Problem Figures

Answer Figures

1   2   3   4   5

Sol.   Fig. (B) is the water image of fig. (A). Similarly, the water image of fig (C) is fig. (2) Hence, the answer is (2).

Ex.15   Problem Figures

A   B   C   D

Answer Figures


1   2   3   4   5

Sol.   Clearly, the symbol inside the central figure interchanges position with the closed figure at one of the corners. This figure enclosed the central figures. The arrow rotates 135º CW and moves one and a half side of the square in CW direction. Hence the answer is (4).

Type 7: Choosing the set of similarly related figures

In this type of questions on analogy, a related pair of figures in provided along with five other pairs of figures. The five pairs are numbered as 1, 2, 3, 4, and 5. The examinee has to choose one pair out of these five which most closely resembles the relationship indicated by the separated pair of figures.

Examples:

Ex.16   Problem Figures

Answer Figures

1   2   3   4   5
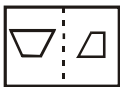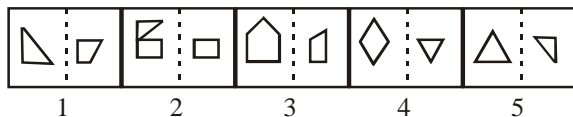
Sol.   As is clear from the L.H.S. figures, the R.H.S. half of the first figure is lost and the remaining half is inverted to form second figure. A similar relationship is indicated in fig. (5). Hence, fig. (5) is answer.

Ex.17   Problem Figures

Answer Figures

1   2   3   4   5
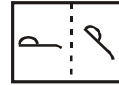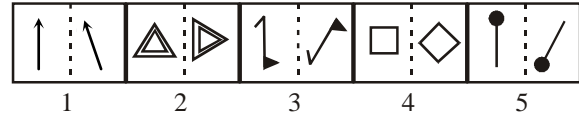
Sol.   As is clear from the L.H.S. figures, the second figure has been obtained by rotating the first one through 45º in a clockwise direction. A similar relationship is indicated in fig. (4). Hence, fig. (4) is the answer.

Type 8: Detecting one element of each of the two related pairs

This type of questions based upon analogy consists of figures 1, 2, 3, and 4 in the problem set and figures A, B, C, D and E in the answer Set. Each one of the figures in the answer set further comprises of two more figures. It is required to choose a figure from the answer set such that figures 1 and 2 may be related in the same way as 3 and 4.

Example:

Ex.18   Problem Figures

Answer Figures

A   B   C   D   E
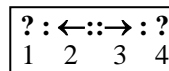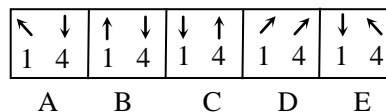
Sol.   Clearly, L.H.S. figure of (B) when placed at position 1 and R.H.S. figure of (B) when placed at position 4 set up a relation between 1 & 2 and 3 & 4. The fig.(1) rotates 90º anticlockwise to give fig.(2) and similarly. fig.(3) rotates 90º anticlockwise to give fig.(4). Hence (B) is the answer.

Type 9: Choosing the odd relationship

In this type of questions, five pairs of figures are given. The two figures in four out of five pairs are related in a particular manner. We have to select the pair which does not show this relationship.

Example:

Ex.19 Problem Figures
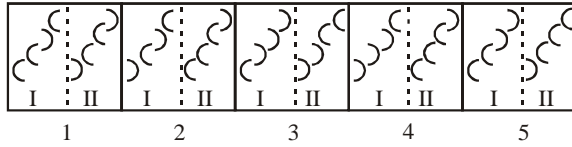
Sol. In all he pairs of figures accept in (4); all the arcs except the third one are laterally inverted. Thus, the second element is formed from the first element. Hence, fig. (4) is the answer.

## Type 10 : Detecting the relationship and choosing the correct substitute

This type of questions contains figures A, B, C, and D in the problem set and figures 1, 2, 3, and 4 in the answer set. It is required to select a figure from the answer set which best substitutes fig. D of the problem set such that element D is related to the element C in the same way as element B is related to element A. If none of the answers is suitable then answer is 5.

Example:

Ex.20 Problem Figures
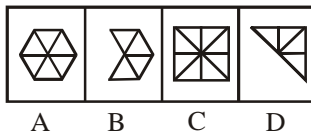
Answer figures
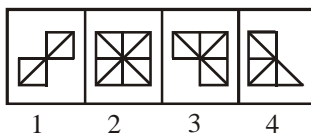
Sol. Here, two triangles from fig.(A) are lost to form fig.(B). With this relationship we find that with the loss of two triangles from fig.(C), fig.(3) will be formed. So, fig.(3) is the answer.

CLASSIFICATION

Type 11 : Choosing the odd figure

Under this heading, we study problems in each of which we are given five/four figures, out of which all except one are alike in some manner. We have to select the exclusively different figure in the given set.

Following examples will make understanding easier:

Examples:

Ex.21 Given below are five figures, out of which four are alike in some manner. Find the figure which differs from all other figures.
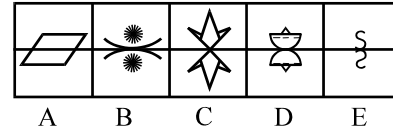
Sol. Except in fig (A), in all other figures the figure on either side of the central horizontal line are inverted images of each other. Hence, fig. (A) is the answer.

Ex.22 Out of the following five figures, four are alike in some manner and one differs from these in that manner. Select the odd figures.
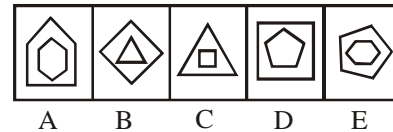
Sol. Except in fig (B), in all other figures, the outer figure encloses a figure with one side more than the outer figure. Hence, Fig. (B) is the answer.

Ex.23 From amongst the following five figures, select the one which is different from all others.
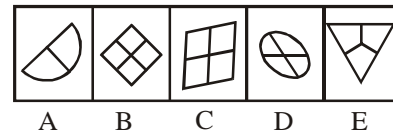
Sol. Except fig. (D), all other figures are divided into equal parts. Hence, fig. (D) is the answer.

Ex.24 From amongst the following four figures, select the one which is different from all others.
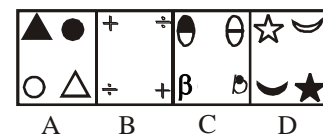
Sol. In all the figures except fig. (C), the similar symbols (one black and the other white) appear at diagonally opposite corners while in fig.(C), they appear in adjacent corners.

Type 12 : Choosing a similar figure

The problems on this type of classification, involve four un-numbered figures followed by five other figures numbered as 1, 2, 3, 4

and 5. The four un-numbered figures forming the problem set are alike in a certain manner. A figure, from amongst the numbered ones forming the answer set, is to chosen such that it is similar to the problem figures in that manner.

Example:

Ex.25   Problem Figures
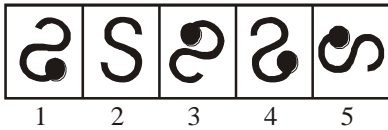
Answer Figures

Sol.   Clearly, all the problem figures can be rotated into each other. Fig. (5) is also similar to these in that respect.

Hence, fig. (5) is the answer.

Type 13 : Choosing the figure with same properties

This type of questions contain two figures forming the problem set followed by five other figures forming the answer set. The problem figures have some common characteristics. The candidate is required to select one of the figures from the answer set which also exhibits the same characteristics.

Ex.26
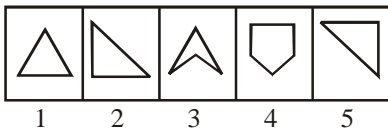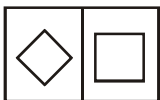
Sol.   Each one of the two figures one the left has been formed by four distinct lines. Similarly, fig. (3) is made up of four lines.

Hence, fig. (3) is the answer.

Example:

Ex.27
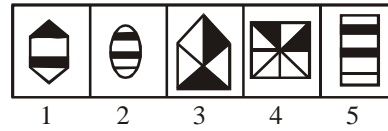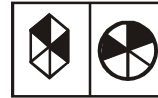
Sol.   Each one of the two problem figures has been divided into six equal parts and two of these parts are made black. Fig. (5) follows the same pattern.

Hence, the answer is (5).

Directions (Q. 1-5)

In this type of non-verbal test, two sets of figures pose the problem. The sets are called Problem Figures and Answer Figures. Each problem figure changes in design from the preceding one. The answer figure set contains 4 or 5 figures marked A, B, C, D, E. You are required to choose the correct answer figure, which would best continues the series. These tests are based on pattern perception tests, originally devised in England by LS Penrose

Q.1

A   B   C   D   E

Q.2

A   B   C   D   E

Q.3

A   B   C   D   E

Q.4

A   B   C   D   E

Q.5

A   B   C   D   E
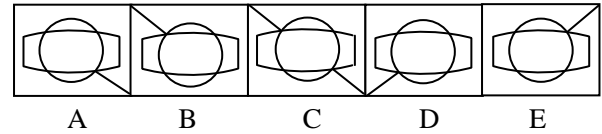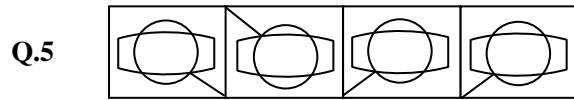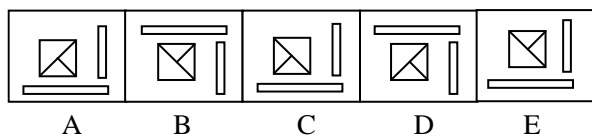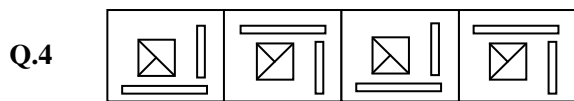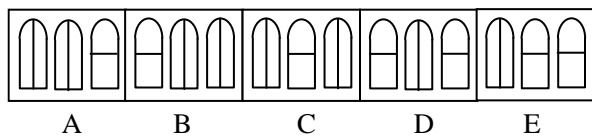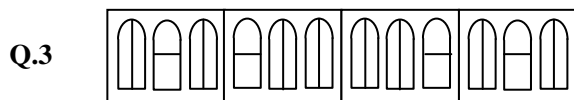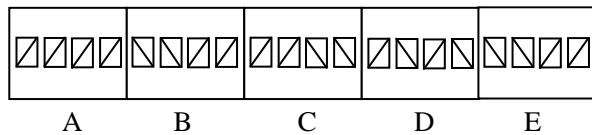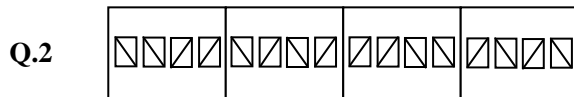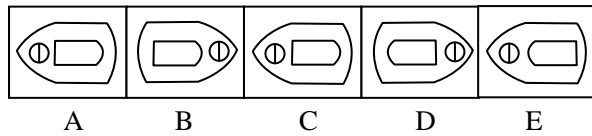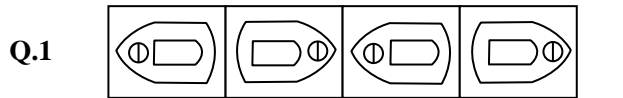
Directions (Q. 6-9)

In these questions the items in the diagrams either increase or decrease in number.

Q.6   Problem figures

1   2   3

Answer figures

A   B   C   D

Q.7   Problem Figures

1   2   3

Answer Figures

A   B   C   D
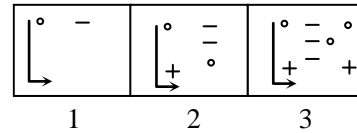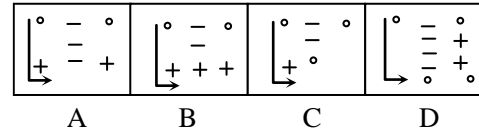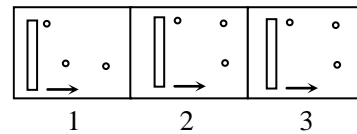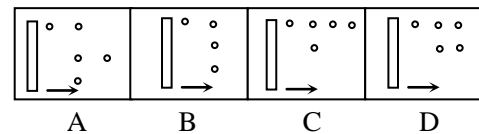
Q.8   Problem Figures

1   2   3

Answer Figures

A   B   C   D
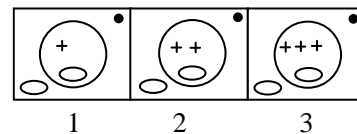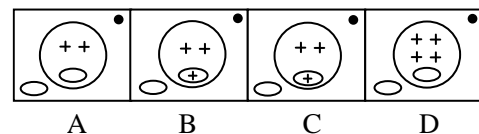
Q.9 Problem figures

1   2   3

Answer Figures

A   B   C   D
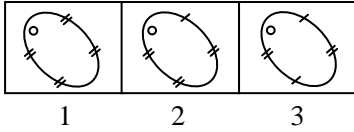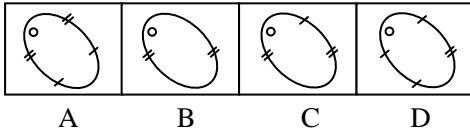
Directions (Q. 10-14)

The qualitative characteristics of various elements in the diagrams change to complete the series.

Q.10 Problem figures

1   2   3

Answer Figures

A   B   C   D

Q.11 Problem figures

1   2   3

Answer Figures

A   B   C   D
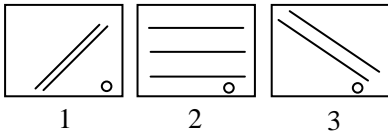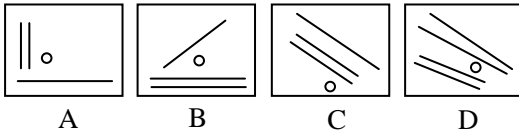
Q.12 Problem figures

1   2   3

Answer Figures

A   B   C   D
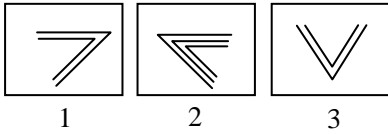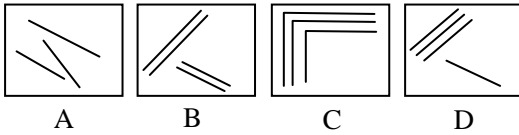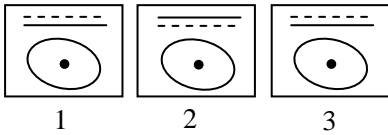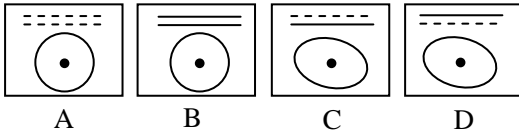
Q.13 Problem figures

1   2   3

Answer Figures

A   B   C   D
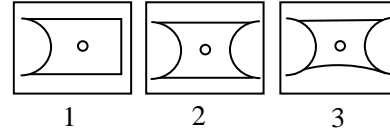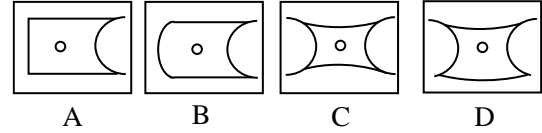
Q.14 Problem figures

1   2   3   4

Answer Figures

A   B   C   D   E
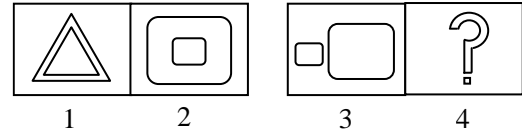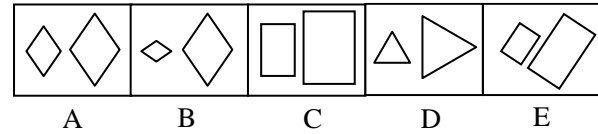
Directions (Q. 15-19)

The various elements in the diagrams move in a specific manner. They may rotate in clockwise or anti-clockwise direction.

Q.15 Problem figures
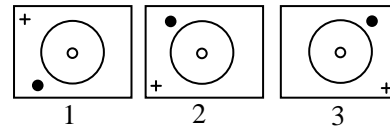
1   2   3

Answer Figures

A   B   C   D

Q.16 Problem figures

1   2   3

Answer Figures

A   B   C   D

Q.17   Problem figures

1   2   3

Answer Figures

A   B   C   D
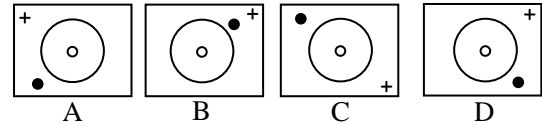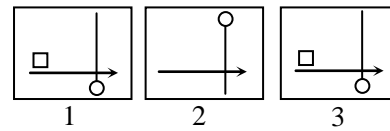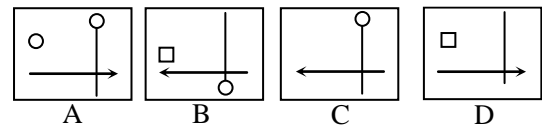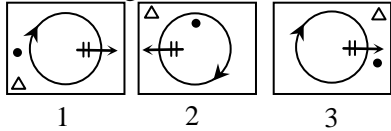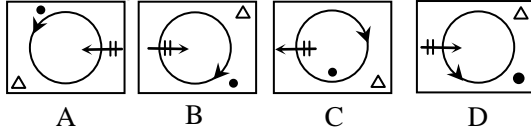
Q.18   Problem figures

1   2   3

Answer Figures

A   B   C   D
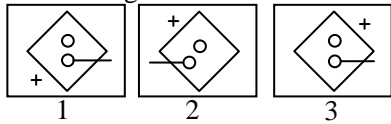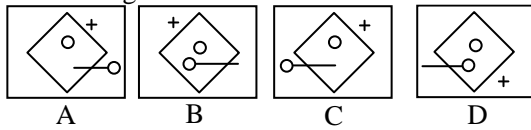
Q.19   Problem figures

A   B   C   D

Answer Figures

A   B   C   D   E
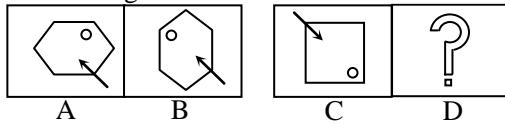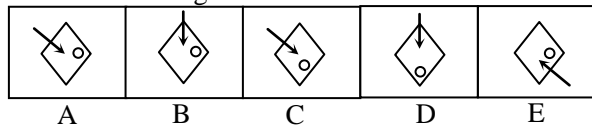
Directions (Q. 20-24)

These are mixed series in which various elements in diagrams increase/decrease in number, change direction/position in a set pattern.

Q.20   Problem figures

1   2   3

Answer Figures

A   B   C   D
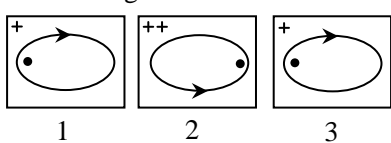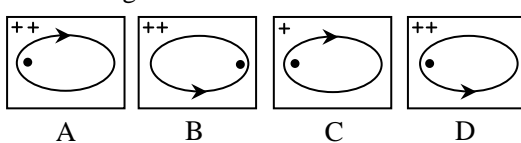
Q.21   Problem figures

1   2   3

Answer Figures

A   B   C   D
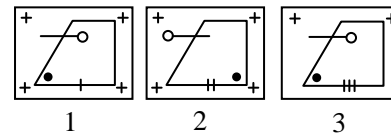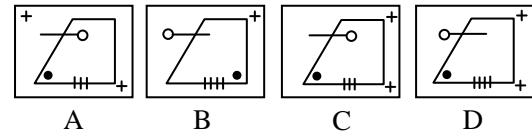
Q.22   Problem figures

1   2   3

Answer Figures

A   B   C   D
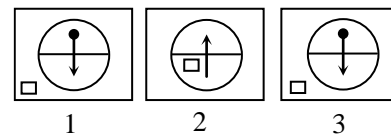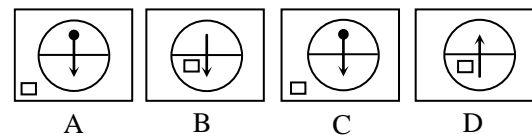
Q.23   Problem figures

1   2   3

Answer Figures

A   B   C   D
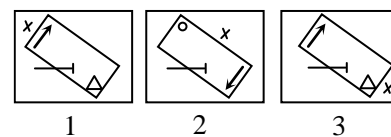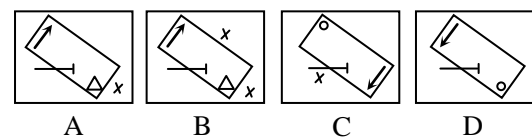
Q.24   Problem figures

1   2   3   4

Answer Figures

A   B   C   D   E
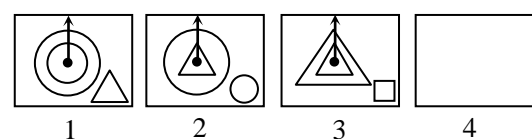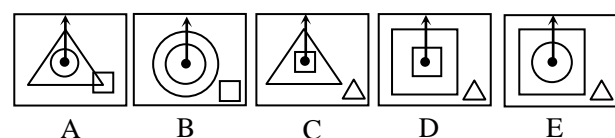
Directions (Q. 25-28)

Various elements in the problem figures follow a set ratio.

Q.25 Problem figures

1   2   3

Answer Figures

A   B   C   D
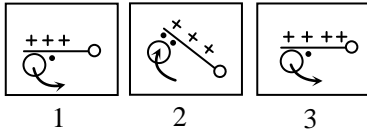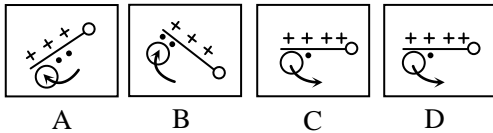
Q.26 Problem figures

1   2   3

Answer Figures

A   B   C   D
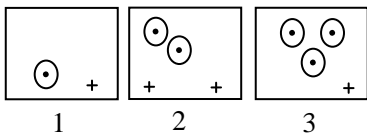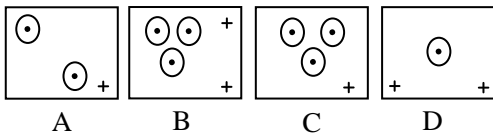
Q.27 Problem figures

1   2   3

Answer Figures

A   B   C   D
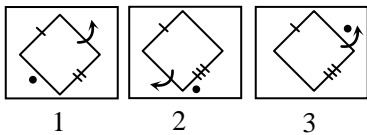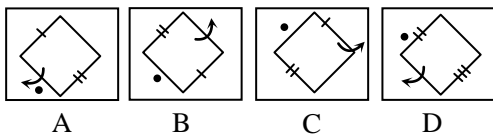
Q.28 Problem figures

1   2   3

Answer Figures

A   B   C   D
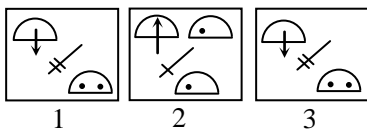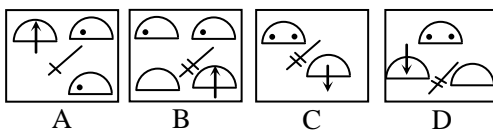
Directions (Q. 29-45)

There are two diagrams in each of the following questions. The series of diagram called PROBLEM FIGURE consists of figures in a particular sequence. Below the problem figure you will find a series of diagram called ANSWER FIGURES. You have to pick out the figure from the ANSWER FIGURES which should come at the end of the problem figure, i.e. dotted square. You have to choose the serial number of the figure in the answer pattern which should come next in the series to complete to pattern.

Q.29 Problem figures

1   2   3   4   5

Answer Figures

A   B   C   D   E
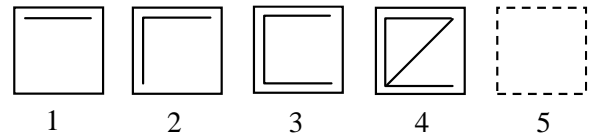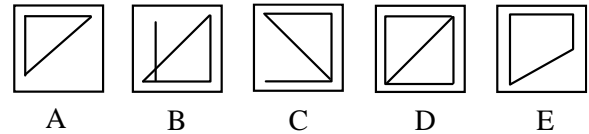
Q.30 Problem figures

1   2   3   4   5

Answer Figures

A   B   C   D   E
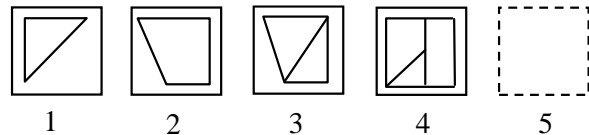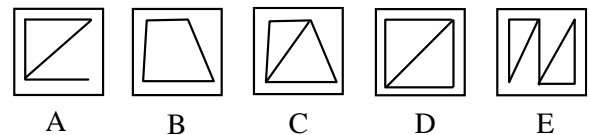
Q.31 Problem figures

1   2   3   4   5

Answer Figures

A   B   C   D   E

Q.32 Problem figures

1   2   3   4   5

Answer Figures

A   B   C   D   E

Q.33 Problem figures

1   2   3   4   5

Answer Figures

A   B   C   D   E

Q.34 Problem figures

1   2   3   4   5

Answer Figures

A   B   C   D   E

Q.35 Problem figures

1   2   3   4   5

Answer Figures

A   B   C   D   E
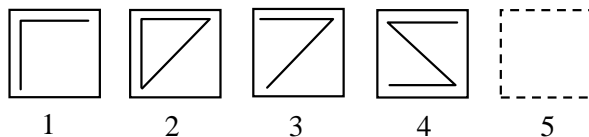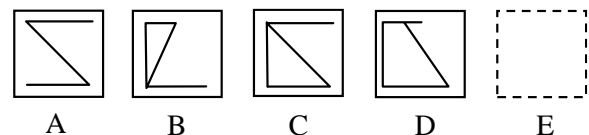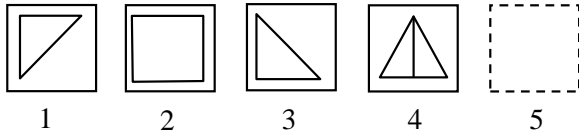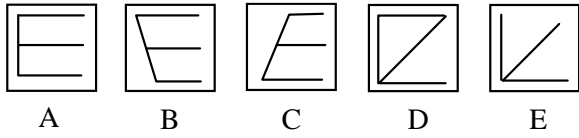
Q.36 Problem figures

1   2   3   4   5

Answer Figures

A   B   C   D   E
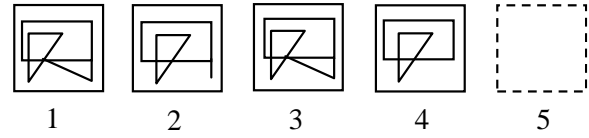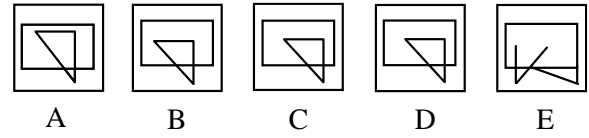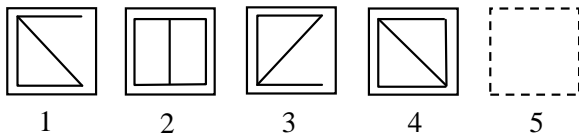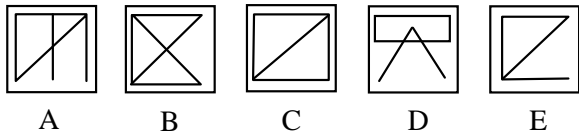
Q.37 Problem figures

1   2   3   4   5

Answer Figures

A   B   C   D   E
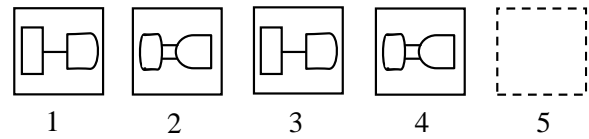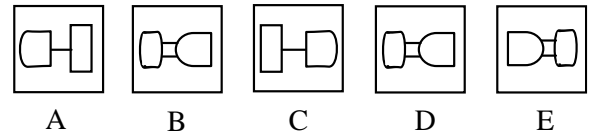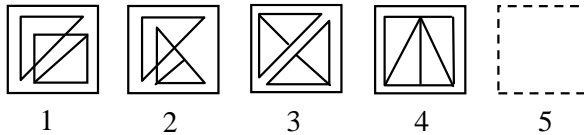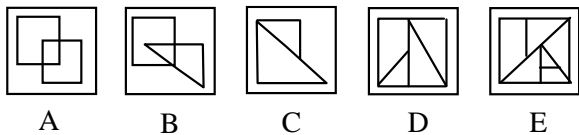
Q.38 Problem figures

1   2   3   4   5

Answer Figures

A   B   C   D   E

Q.39 Problem figures

1   2   3   4   5   6

Answer Figures

A   B   C   D   E   F
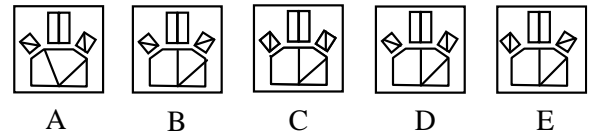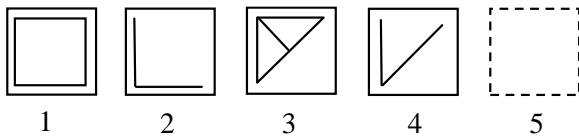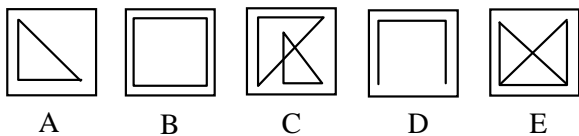
Q.40 Problem figures

| 1 | 2 | 3 | 4 | 5 | 6 |

Answer Figures

| A | B | C | D | E | E |
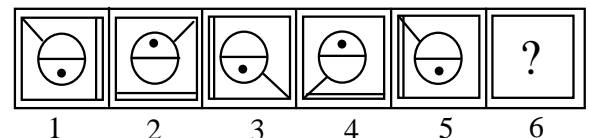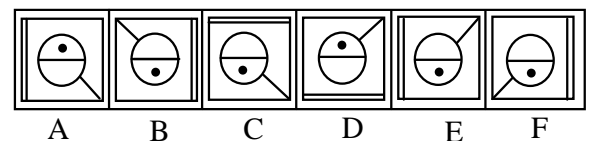
Q.41 Problem figures

| 1 | 2 | 3 | 4 | 5 | 6 |

Answer Figures

| A | B | C | D | E | F |
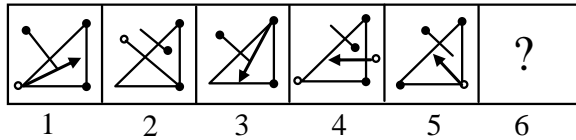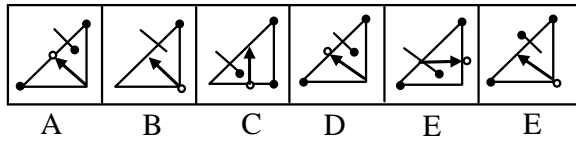
Q.42 Problem figures

| 1 | 2 | 3 | 4 | 5 | 6 |

Answer Figures

| A | B | C | D | E | F |
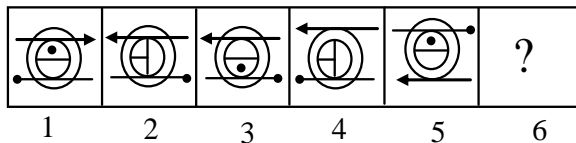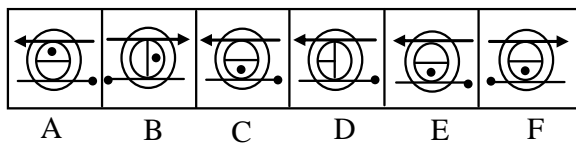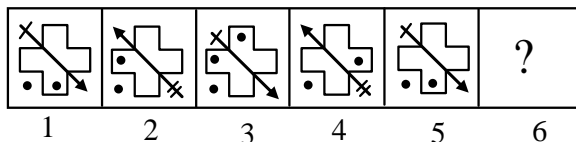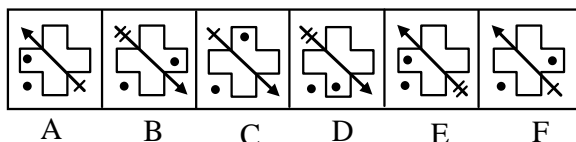
Q.43 Problem figures

| 1 | 2 | 3 | 4 | 5 |

Answer Figures

| A | B | C | D | E |
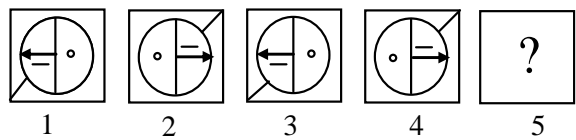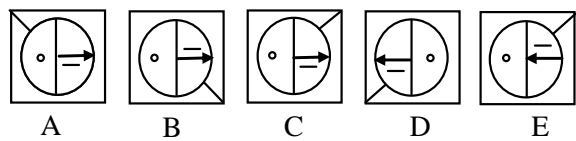
Q.44 Problem figures

| 1 | 2 | 3 | 4 | 5 |

Answer Figures

| A | B | C | D | E |
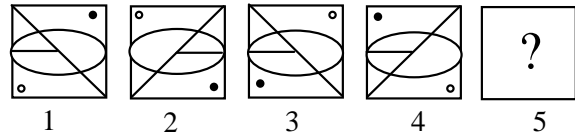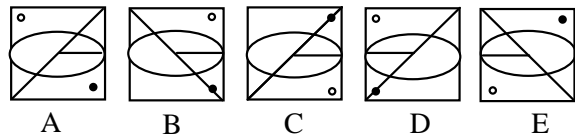
Q.45 Problem figures

| 1 | 2 | 3 | 4 | 5 |

Answer Figures

| A | B | C | D | E |
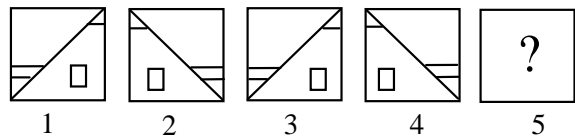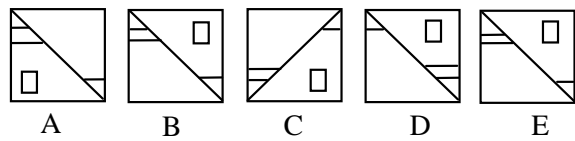
Directions (Q.46-50)

Find the relationship/analogy in the first set (2 figures) of Problem figures. Based on the same analogy find the suitable figure from Answer figure to fit in the blank space in following questions :
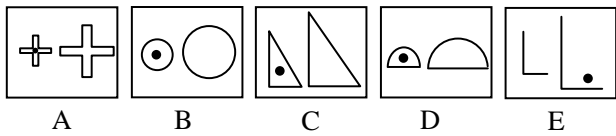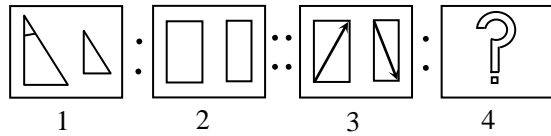
Q.46 Problem figures

| 1 | 2 | 3 | 4 |

Answer Figures

| A | B | C | D | E |
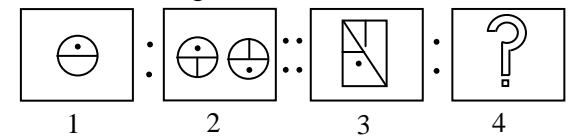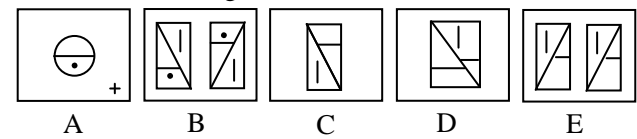
Q.47 Problem figures

| 1 | 2 | 3 | 4 |
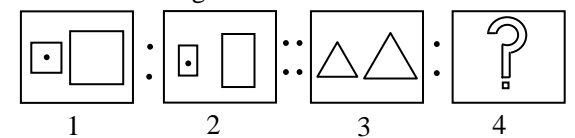
Answer Figures

Q.48 Problem figures

1   2   3   4

Answer Figures

A   B   C   D   E
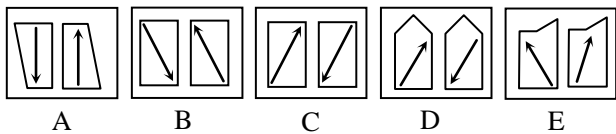
Q.49 Problem figures

1   2   3   4

Answer Figures

A   B   C   D   E
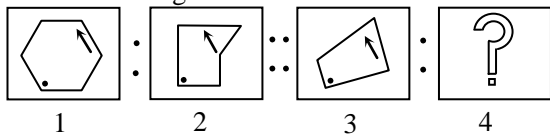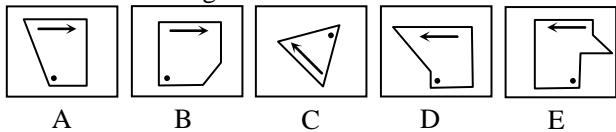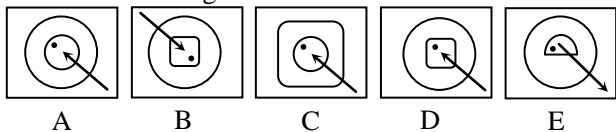
Q.50 Problem figures

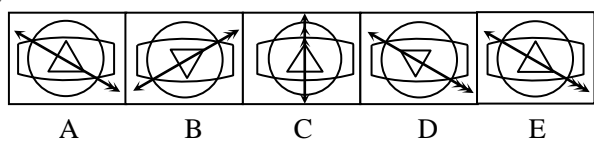1   2   3   4
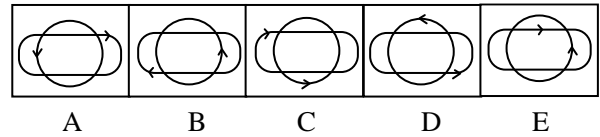
Answer Figures

A   B   C   D   E
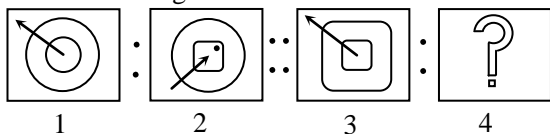
Directions (Q.51-54)

Here, the direction of figures or their various elements have a relationship and one figure which is different from the remaining is to be spotted out.
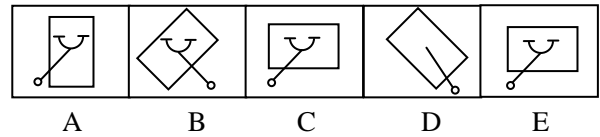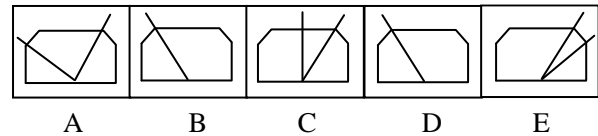
Q.51

A   B   C   D   E

Q.52

A   B   C   D   E

Q.53

A   B   C   D   E
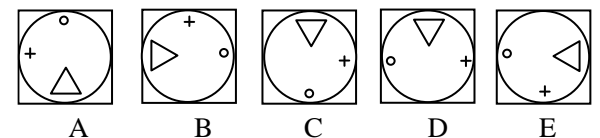
Q.54

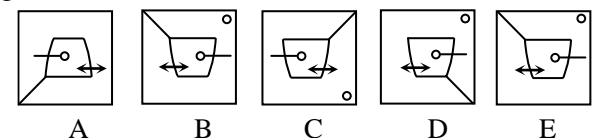

A   B   C   D   E

Directions (Q.55-58)

Given below is a set of five figures (A-E). Four of them resemble one another in a certain way. You have to identify the one which does not belong to the same class or is different from other (odd).
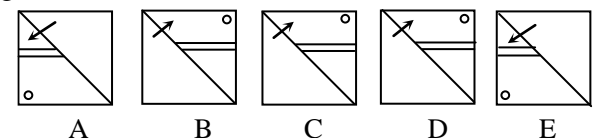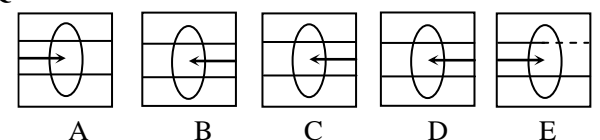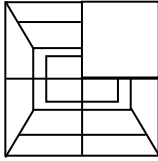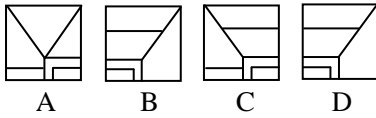
Q.55

A   B   C   D   E

Q.56

A   B   C   D   E

Q.57

A   B   C   D   E

Q.58

A   B   C   D   E

Directions (Q.59-68)

Given below is a set of five figures (A-E). Four of them resemble one another in a certain way. You have to identify

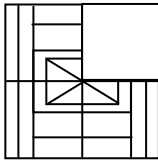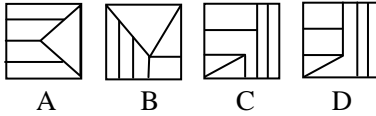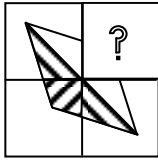**Q.59** Incomplete Figure

Answer Figures

A   B   C   D

Q.60 Incomplete Figure

Answer Figures

A   B   C   D

Q.61 Incomplete Figure

Answer Figures

A   B   C   D
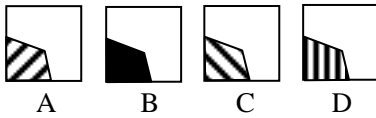
Q.62 Incomplete Figure

Answer Figures

A   B   C   D
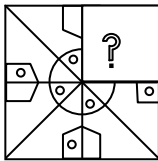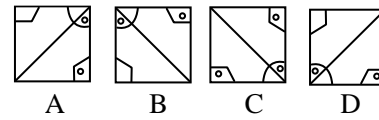
Q.63 Incomplete Figure

Answer Figures

A   B   C   D
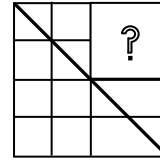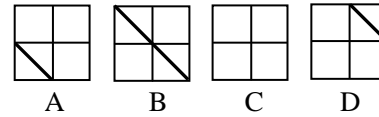
Q.64 Incomplete Figure

Answer Figures

A   B   C   D
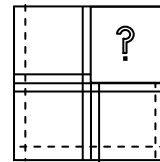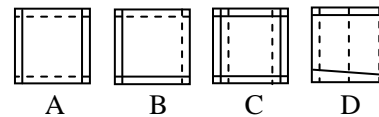
Q.65 Incomplete Figure

Answer Figures

A   B   C   D
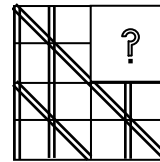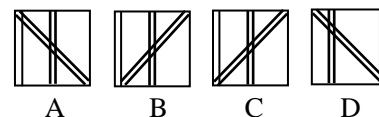
Q.66 Incomplete Figure

Answer Figures

A   B   C   D
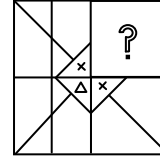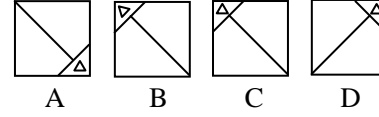
Q.67 Incomplete Figure

Answer Figures

A   B   C   D
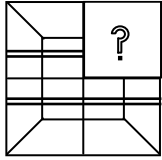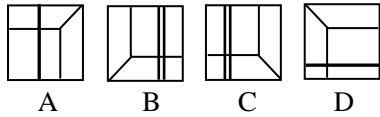
Q.68 Incomplete Figure

Answer Figures

A   B   C   D
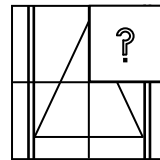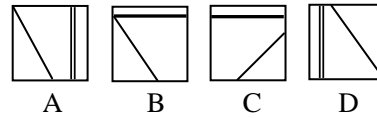
Answer Key

Q.No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Ans.	A	B	B	C	B	D	C	D	D	C	C	D	C	E	D	C	C	D	A	D
Q.No	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Ans.	B	D	C	C	B	D	D	A	D	E	E	E	E	A	B	E	C	B	D	C
Q.No	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Ans.	D	E	D	E	C	B	C	D	C	C	A	B	C	D	D	E	C	C	B	C
Q.No	61	62	63	64	65	66	67	68												
Ans.	A	B	C	B	A	D	A	C												