

3. Paper Folding & Paper Cutting

FOLDING A TRANSPARENT SHEET

In such type of problems a figure of transparent sheet carrying a design on it is given. There is a dotted line on this sheet. This sheet has to be folded along the dotted line.

A candidate requires to identify a figure from given options, that looks similar to the folded sheet.

Solved Examples

Ex.1 A square transparent sheet X, with a design and a dotted line on it is given. Choose the correct figure from the options which represents the sheet X after folding sheet along the dotted line.



(X)



(1)



(2)



(3)



(4)

Sol. (3) Clearly, the right half of the sheet X is put on the left half. The combination of the design in left half and mirror image of the design in the right half will appear on the folded sheet. So the sheet will then appear as shown in figure (3). Hence figure (3) is the correct option.

CUTTING / PUNCHING A FOLDED PAPER

In such type of problems a paper is folded twice or more than twice. Then one or more pieces of it are cut. After this the paper is unfolded. In this situation the paper has as many cuts or holes on it as folds. So it contains a pattern. A candidate requires to identify a figure from given four options, that shows the similar paper sheet as the pattern made.

Usually, the paper sheet is folded along the dotted lines marked on it. And arrows show the directions of the folds.

Solved Examples

EX.2 Figures X and Y respectively shows the two consecutive folds of the paper. Figure Z shows the cut on the folded paper. Choose one figure from the four options that is similar to the unfolded form of the sheet Z.



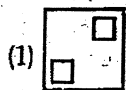
X



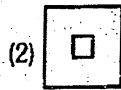
Y



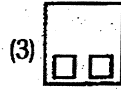
Z



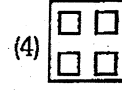
(1)



(2)



(3)



(4)

Sol. (4): In figure (X), the square sheet of paper has been folded along the vertical line of symmetry so that the right half of the sheet overlaps the left half.

In figure (Y), the sheet is folded further to a quarter.

In figure (Z), a square has been punched in the folded sheet Y.

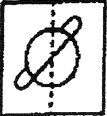
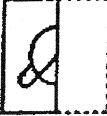
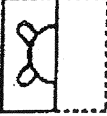
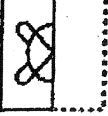
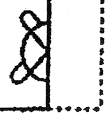




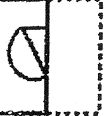
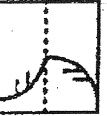







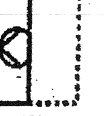
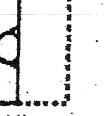


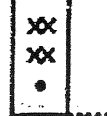


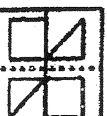
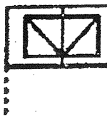

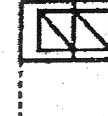
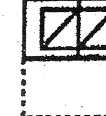
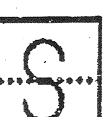




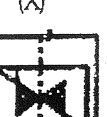
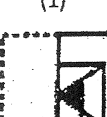
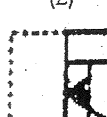
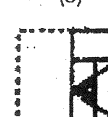
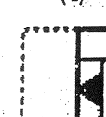
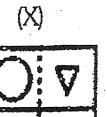
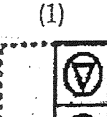
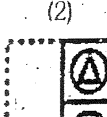
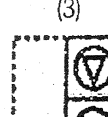
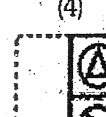
Clearly, the punched square will be created in each quarter of the paper.

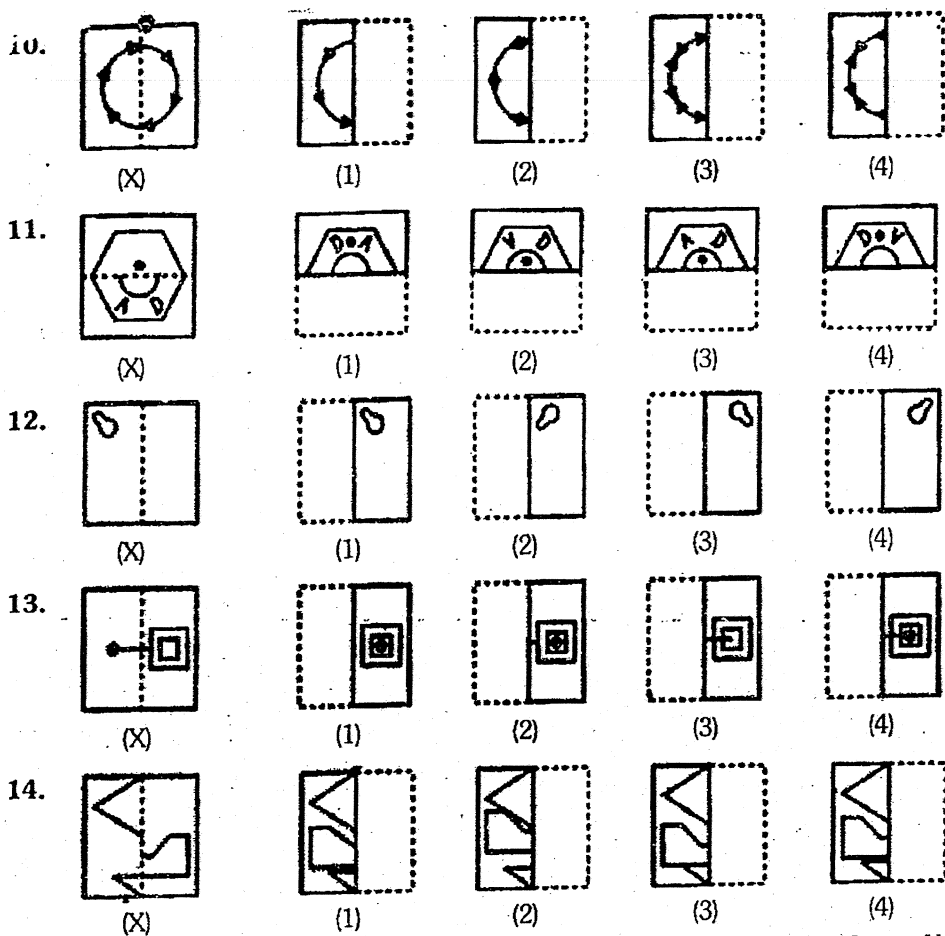
Thus, when the paper is unfolded, four square punches will appear symmetrically over it and the paper will then appear as shown in figure (4).

Hence the correct option is (4).

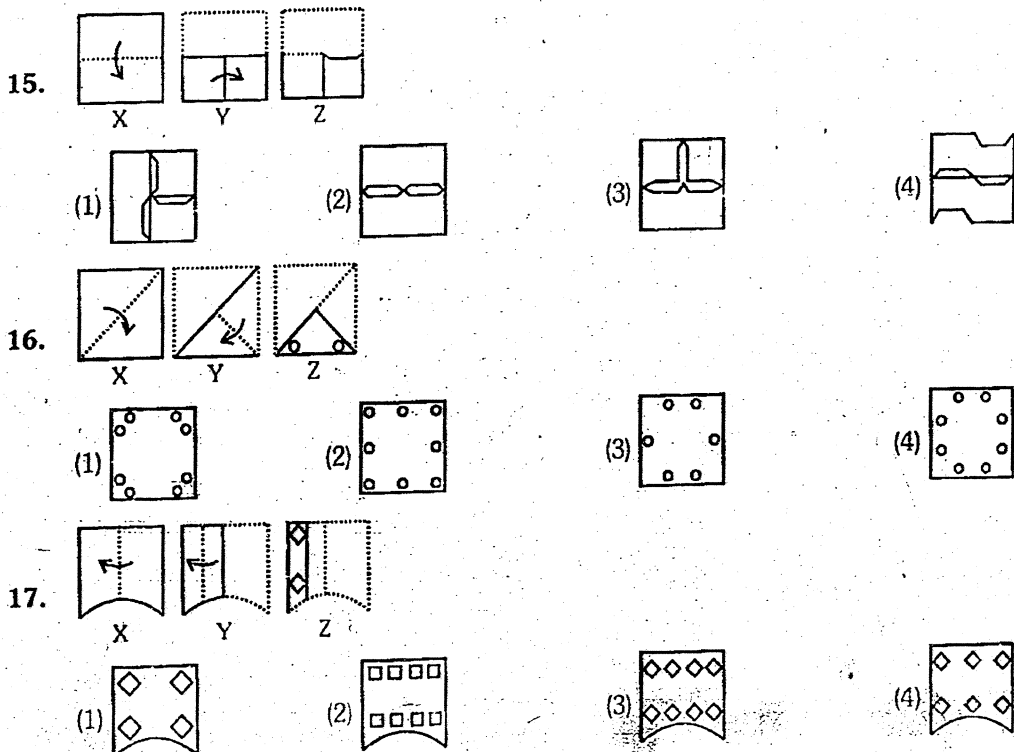
EXERCISE

Directions (Q.1 to Q.14) : In each of the following problems, a square transparent sheet (X) with a pattern is given. Figure out from amongst the four alternatives as to how the pattern would appear when the transparent sheet is folded at the dotted line.

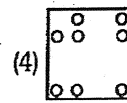
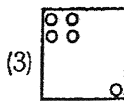
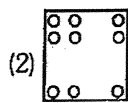
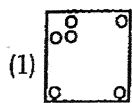
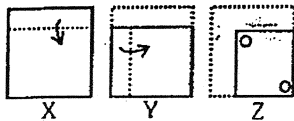
1.  (X)  (1)  (2)  (3)  (4)
2.  (X)  (1)  (2)  (3)  (4)
3.  (X)  (1)  (2)  (3)  (4)
4.  (X)  (1)  (2)  (3)  (4)
5.  (X)  (1)  (2)  (3)  (4)
6.  (X)  (1)  (2)  (3)  (4)
7.  (X)  (1)  (2)  (3)  (4)
8.  (X)  (1)  (2)  (3)  (4)
9.  (X)  (1)  (2)  (3)  (4)



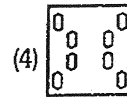
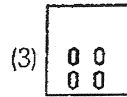
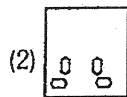
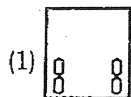
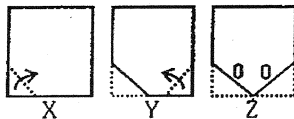
Directions (Q.15 to Q.20) : There are three forms, X, Y and Z of a sheet. Figures X and Y respectively show the two consecutive folds of the sheet. And the figure Z shows punch on the folded sheet. Choose one figure from the four options (1), (2), (3) and (4), that is similar to the unfolded form of the sheet ?



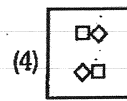
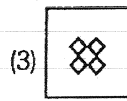
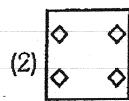
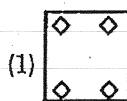
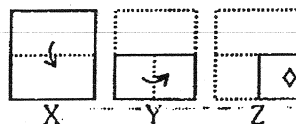
18.



19.



20.



EXERCISE

ANSWER KEY

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Ans.	4	3	4	1	-1	1	4	3	3	3	2	4	4	3	2	1	3	3	2	