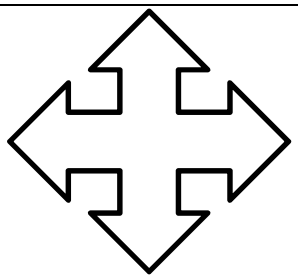
CLASS TEST

Chapter 12: Symmetry

Maximum Marks: 15 **Time: 35 minutes**

SECTION A

Choose the correct option: **[**$1 \times 5 = 5$]

Q1.	The angle of rotation of a figure is 36°. What is the order of rotational symmetry?						
(A)	1	(B)	9	(C)	10	(D)	infinite
Q2.	Which of the following regular polygon will have 11 lines of symmetry?						
(A)	Regular Decagon	(B)	Regular Octagon	(C)	Regular Nonagon	(D)	Regular Undecagon
Q3.	The angle of rotation and order of rotational symmetry of the adjoining figure is- 						
(A)	180° , 3	(B)	90° , 4	(C)	120° , 3	(D)	60° , 6
Q4.	After rotation by 24° about the centre, a figure looks exactly the same as its original position. At which of the following angles will this not happen again for the figure?						
(A)	120°	(B)	144°	(C)	206°	(D)	72°
Q5	**Assertion (A):** If a figure repeats its original position twice when it is rotated by a quarter turn, it will have rotational symmetry of order 8. **Reason (R):** A half turn means a rotation of 90°, and a quarter turn means a rotation of 180°.						
(A)	Both Assertion and Reason are true and Reason is the correct explanation of Assertion.						
(B)	Both Assertion and Reason are true but Reason is not the correct explanation of Assertion.						
(C)	Assertion is true and Reason is false.						
(D)	Assertion is false and Reason is true.						

SECTION B

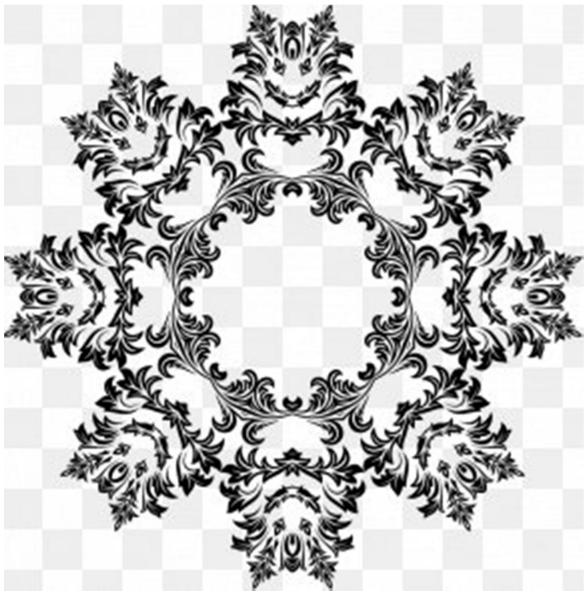
Q6. Complete the following table: $[\mathbf{1 \times 5 = 5}]$

Name of Shape	No. of line(s) of symmetry	Centre of rotation	Angle of rotation	Order of rotational symmetry
Parallelogram				
Circle				
Equilateral Triangle				
Rhombus				
Regular Octagon				

SECTION C

Q7. CASE STUDY: $[1 \times 5 = 5]$

Diwali celebrations often feature vibrant rangoli designs and colours, symbolizing joy and prosperity and welcoming guests. Anu created a rangoli for her home.



Look at the rangoli and answer the following questions:

(A) Does the rangoli have rotational symmetry?

(B) How many lines of symmetry are there?

(C) What is the angle of rotation of rotational symmetry?

(D) What is the order of rotational symmetry?

(E) Can you name another figure which has the same no. of lines of symmetry and order of rotational symmetry just like the given rangoli?