परमाणु ऊर्जा शिक्षण संस्था
Atomic Energy Education Society
कार्यपत्रक / Worksheet (2026-27)

कक्षा /Class: V **विषय /Subject: Mathematics** **माह/ Month: September अंक/Marks: 40**
दिया गया पाठ्यक्रम/Portion covered: Chapter - 7

विद्यार्थी का नाम/Name of the student: _____

अनुक्रमांक /Roll No._____ कक्षा/अनुभाग Class /Sec.:_____ दिनांक /Date: _____

Section A- Knowledge (10)

A. Choose the correct answer. **(3m)**

1. Which shape can tessellate (cover a surface without gaps or overlaps by itself)?

a) Circle b) Regular Pentagon c) Square d) Regular Octagon

2. How many regular hexagons fit perfectly around one point?

a) 2 b) 3 c) 4 d) 5

3. A triangle with all sides equal is called a _____.

a) Scalene triangle b) Right triangle c) Equilateral triangle d) Isosceles triangle

4. Which quadrilateral has opposite sides equal and parallel?

a) Kite b) Rectangle c) Parallelogram d) Both b and c

5. Which shape does NOT tessellate?

a) Square b) Equilateral Triangle c) Regular Hexagon d) Regular Pentagon

6. How many regular triangles fit perfectly around one point?

a)3 b) 4 c) 5 d) 6

B. Do as directed **(5m)**

1. Name any three shapes that tessellate by themselves.

_____, _____, _____

2 . What are the three types of triangles based on sides?

_____, _____, _____

3. How many pieces are there in a tangram? Name the non-triangular pieces.

_____

4. Why can four squares fit around a point but five squares cannot?

_____

5. Explain why circles cannot tessellate.

_____

_____

_____

6. Match the Following **(2m)**

Column A	**Column B**
A. 6 triangles meet at a point	1. Pattern
B. Floor tiles	2. Tessellation
C. Rangoli	3. Line of symmetry
D. Mirror line	4. Triangle

Section B-Understanding (10)

A. Fill in the Blanks **(3m)**

1. A pattern that repeats without gaps is called _____.
2. An equilateral triangle has _____ equal sides.
3. A quadrilateral has _____ sides.
4. A tangram consists of _____ pieces.
5. Three regular hexagons meet perfectly around _____.
6. _____is the process of crossing strips over and under each other to make a design.

B. Choose the correct answer. **(3m)**

1. Which of the following shapes has three sides?

a) Rectangle b) Triangle c) Square d) Pentagon

2. Which of the following is NOT a quadrilateral?

a) Square b) Rectangle c) Triangle d) Kite

3. Which shape has all four sides equal and all angles equal?

a) Rectangle b) Rhombus c) Square d) Trapezium

4. Which shape can cover a floor completely without leaving any gaps?

a) Circle b) Square c) Oval d) Pentagon

5. Name any two shapes that can tile a floor without leaving gaps.

a) Squares and regular hexagons b) squares and circle

c) Rectangle and circle d) triangle and rectangle

6. Four corners of a square together make:

a) 90° b) 180° c) 270° d) 360°

C. True or False **(4m)**

1. Circles tessellate without gaps. _____
2. A kite has two pairs of adjacent equal sides. _____
3. Every square is a rectangle. _____
4. A scalene triangle has all unequal sides. _____
5. Four squares fit around a point perfectly. _____
6. An icosahedron has 20 faces and dodecahedron has 12 faces._____
7. A pattern is an arrangement that repeats._____
8. A square has only one line of symmetry._____

Section C-Ability to compute (10)

A. Choose the correct answer **(2m)**

1. Which triangle has all sides equal?

a) Scalene triangle b) Right triangle c) Isosceles triangle d) Equilateral triangle

2. A triangle with two equal sides is called:

a) Equilateral triangle b) Scalene triangle c) Isosceles triangle d) Right triangle

3. Which shape has opposite sides equal and all angles 90°?

a) Rectangle b) Kite c) Trapezium d) Pentagon

4. Which of the following has no straight sides?

a) Square b) Triangle c) Circle d) Rectangle

B. Short Answer Questions **(5m)**

1. What is a quadrilateral?

2. Nisha painted a large cube made from 27 small cubes.

(a) Cubes with 3 faces painted = _____(b) Cubes with 2 faces painted =_____

(c) Cubes with 1 face painted =_____ (d) Cubes with no faces painted = _____

3 . Your school wants to design a floor using only one shape. Which shapes would you recommend?

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4. Rahul made a pattern using squares and triangles. At every corner, one square and two triangles meet. Is this a tessellation?

5.Give one example of a pattern seen in daily life.

_____

6.Match the Following – (2m)

Column A	**Column B**
A. Tessellation	1. Over and under strips
B. Pattern	2. Mirror image
C. Weaving	3. Covers a surface without gaps
D. Symmetry	4. Repeating design

7. Draw a design using circles and colour it (1m)

Section D-Problem Solving Ability (10)

A. Choose the correct answer (4m)

1. Which of these is a closed shape?

a) Open curve b) Zigzag line c) Triangle d) Line segment

2. Which of the following is an example of a tessellation?

a) Coins placed on a table b) Floor tiles made of squares

c) Balls in a basket d) Marbles in a bowl

3. Which combination can make a tessellation?

a) Squares only b) Circles only c) Ovals only d) Spheres

4. Which shape has two pairs of adjacent equal sides?

a) Rectangle b) Kite c) Triangle d) Circle

5. Which statement is correct?

a) Every square is a rectangle. b) Every rectangle is a square.

c) Every kite is a rectangle. d) Every triangle is a quadrilateral.

6.How many vertices does a dodecahedron have?

(a) 12 (b) 20 (c) 30 (d) 8

7.How many faces does a icosahedron have?

(a) 12 (b) 20 (c) 30 (d) 8

8.What is a 6 sided shape with equal sides called?

a) octagon b) hexagon c) pentagon d) heptagon

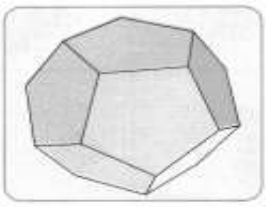
B. Give two real – life examples each of: **(1m)**

(i) Tessellation _____

(ii) Weaving patterns _____

C .Do as directed.

1. Identify the following shapes: **(1m)**

(a) 

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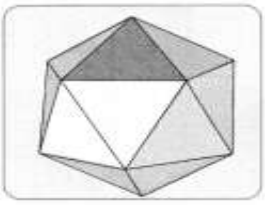
(b) 

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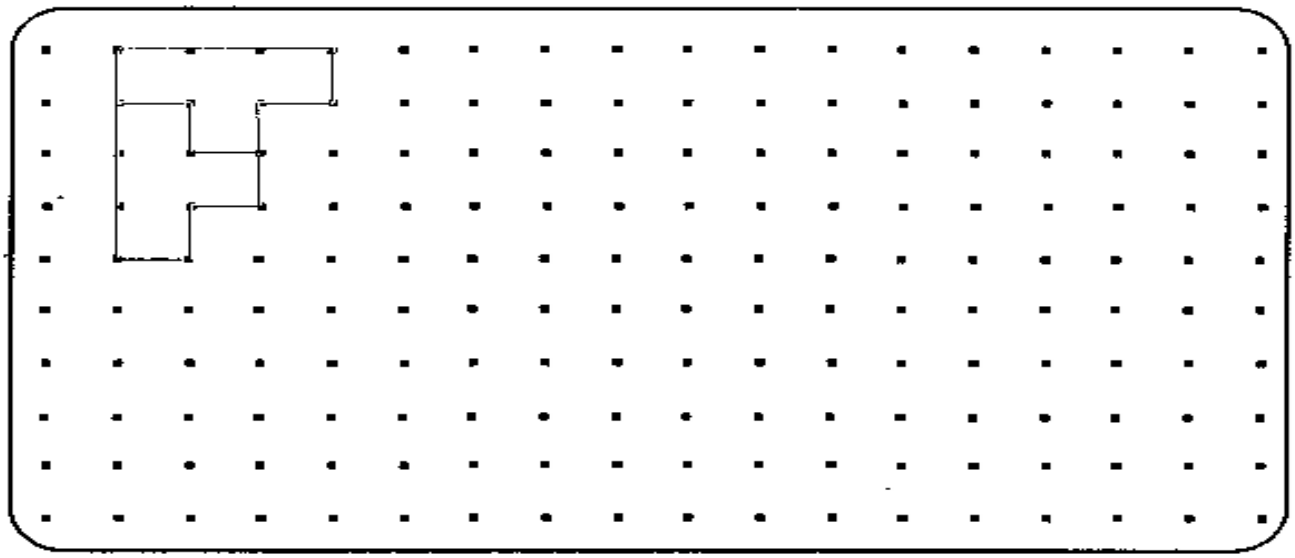
2. Complete the tessellation patterns by adding more shapes to the grid: **(1m)**



D. Match the following **(1m)**

Column A	**Column B**
A. Circle	1.Two pairs of equal adjacent sides
B. Kite	2. No corners
C. Square	3. Three sides
D. Triangle	4. Four equal sides

E. **True or False** **(2m)**

1. A rectangle has opposite sides equal. _____
2. A circle has corners. _____
3. A tessellation covers a surface without gaps or overlaps. _____
4. Regular hexagons can fit together without leaving gaps. _____
5. Weaving is done by placing strips over and under each other. _____
6. Five squares can fit perfectly around one point without gaps. _____
7. A parallelogram has opposite sides parallel. _____
8. Patterns can be seen in rangoli, floor tiles, and basket weaving. _____