	INDIAN SCHOOL AL WADI AL KABIR	
Class: XI	**Department: SCIENCE 2026 – 27** **SUBJECT: ENGINEERING GRAPHICS**	**Date: 17/04/2026**
Worksheet No: 1 **WITH ANSWERS**	**UNIT 1: RECTILINEAR FIGURES**	**Note:** **A4 FILE FORMAT**
NAME OF THE STUDENT	**CLASS & SEC: XI C**	**ROLL NO.**

MULTIPLE CHOICE QUESTIONS

1. Which of the following is a type of rectilinear figure?
a) Circle
b) Triangle
c) Ellipse
d) Parabola

2. Which of the following is NOT a property of a square?
a) All sides are equal
b) Opposite sides are parallel
c) All angles are 90°
d) The diagonals are perpendicular and bisect each other at 90°

3. Which of the following is the most commonly used method for dimensioning in Engineering Graphics?
a) Aligned system
b) Linear system
c) Vertical system
d) Diagonal system

4. What is the purpose of dimensioning in Engineering Graphics?
a) To indicate the shape of an object
b) To provide exact measurements for construction or manufacturing
c) To enhance the visual appeal of the drawing
d) To show the material properties of the object

5. To show the hidden edges, which type of line is used?
a) Continuous thick line
b) Centre line
c) Dashed line
d) Hatching line

6. In the metric system, the standard-length measure is ---------
a) Yard
b) Meter
c) Centimeter
d) Millimeter

7. A continuous thick line is used to denote ---------
a) Visible edges
b) Axis line
c) Leader line
d) Projection line

8. The axis of a circle is denoted by which type of lines?
a) Continuous thick lines
b) Centre line
c) Continuous thin lines
d) Double dashed lines

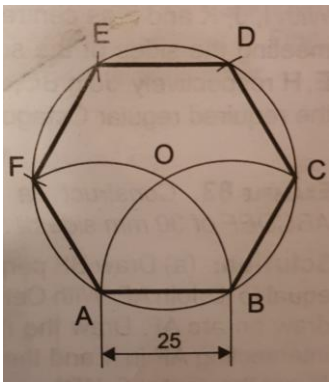
9. Mini drafter is a combination of ----------
a) Scale and compass
b) Compass and divider
c) Scale and protractor
d) Protractor and compass

10. In an equilateral triangle, all angles are equal to ---------
a) 45 degree
b) 60 degree
c) 90 degree
d) 120 degree

11. The size of an A2 drawing sheet is ----------
a)841 x 1189
b) 594 x 841
c) 420 x 594
d)210 x 297

12. Identify the symbol of first-angle projection

13.



Identify the polygon in the given figure?
a) Pentagon
b) Hexagon
c) Octagon
d) Trapezium

14. Match the LIST I with LIST II

List I – Name of the figure	**List II – No: of sides**
1.Triangle	i.5
2. Pentagon	ii.4
3. Square	iii.8
4. Octagon	iv.3

a) 1-iii, 2-iv, 3-i, 4-ii
b) 1-i, 2-iii, 3-ii, 4-iv
c) 1-iv, 2-i, 3-ii, 4-iii
d) 1-ii, 2-i, 3-iv, 4-iii

15. Which type of dimensioning is used for large drawings in Engineering graphics?
a) Aligned system
b) Unidirectional system
c) Vertical system
d) Diagonal system

DESCRIPTIVE TYPE QUESTIONS

1. Construct a regular hexagon on a baseline of 40 mm.

2. Construct a Right-angled Triangle ABC, having its hypotenuse AC = 60 mm and altitude AB = 40 mm.

3. Construct an Isosceles Triangle QPR, having each of its sides = 50mm and base = 40 mm.

4. Construct an equilateral triangle of 40 mm sides.

5. Construct a Triangle ABC, having its base BC=50mm, side AB=40mm, side AC=60mm.

6.Construct a rectangle PQRS having its base PQ = 60 mm and its side QR = 40 mm.

7. Construct a Trapezion or Kite ABCD, having its diagonal AC=50mm, its adjacent sides AD and AB each equal to 30mm, and CD and CB equal to 40mm.

8. Construct a regular pentagon with base side = 30 mm.

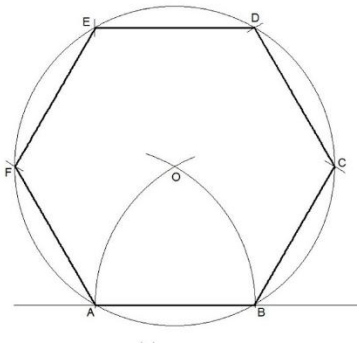
9. Construct a square of 50 mm sides

10. Divide a straight-line AB, proportionate to seven equal parts.

ANSWER KEY – MULTIPLE CHOICE QUESTIONS	
1	b) Triangle
2	d) The diagonals are perpendicular and bisect each other at 90°
3	a) Aligned system
4	b) To provide exact measurements for construction or manufacturing
5	c. Dashed lines
6	b. Meter
7	a. Visible edges
8	b. Centre lines
9	c. Scale and protractor
10	b. 60 degree
11	c. 420 X 594
12	a.
13	b. Hexagon
14	c. 1-iv, 2-i, 3-ii, 4-iii
15	b) Unidirectional system

Answers – Descriptive Type Questions

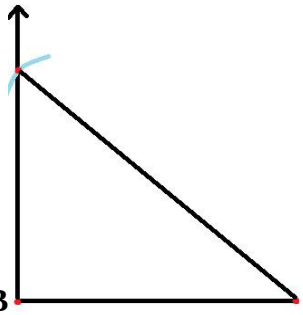
1.



(Hint: On a base line AB cut arcs equally with 30 mm and draw a circle with center O and radius OA, cut arcs equally on the circle, join all points.).

2.

A

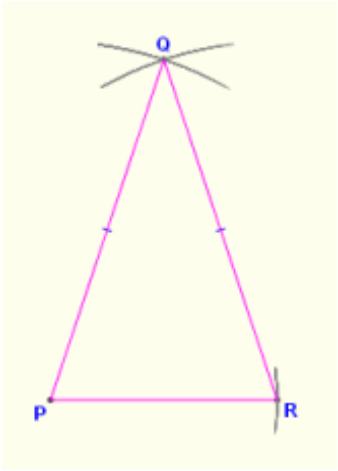


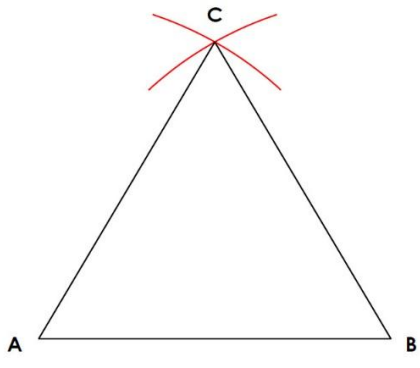
B **C** (Hint: construct perpendicular from B, AB = 40, AC = 60)

3.

(Hint: QP = QR = 50 mm, PR = 40 mm)

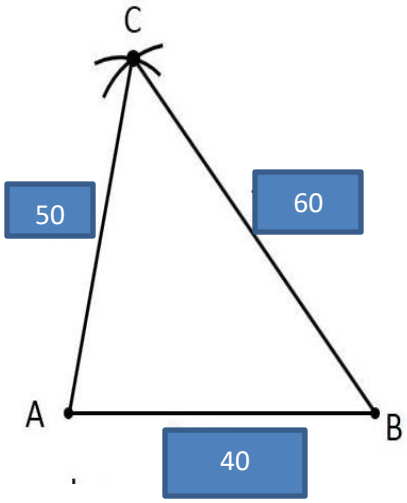
4.





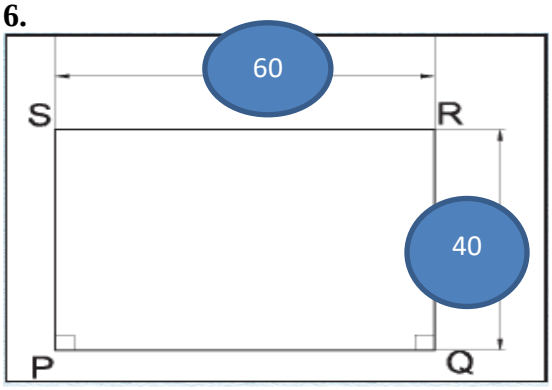
(Hint: CA = AB = CB = 40 mm)

5.



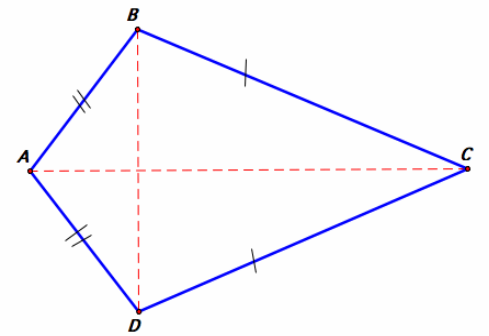
(Hint: AB = 40, AC = 50, BC = 60, using compass)

6.



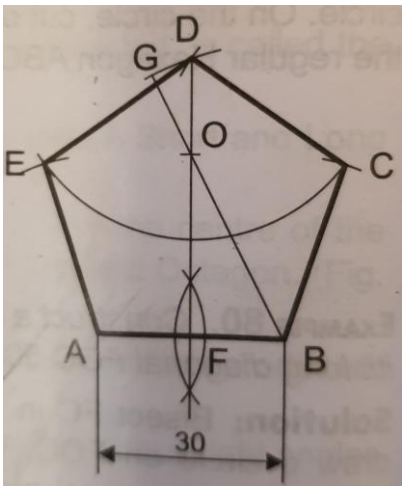
(Hint: PQ = 60, QR = 40, Construct a perpendicular from both points P and Q).

7.



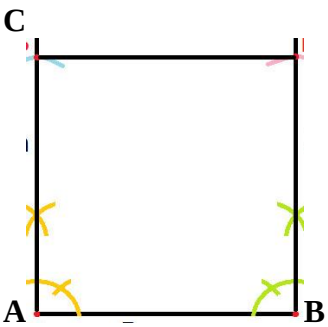
(Hint: Diagonal AC = 50, AB = AD = 30, CD =CB =40mm)

8.



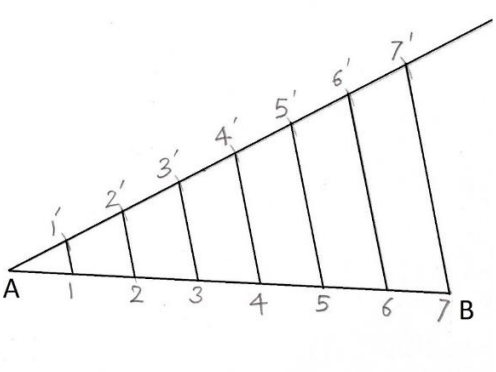
(Hint: Construct a regular pentagon on a baseline AB = 30 mm, using a compass)

9.



(Hint: Construct perpendiculars from points A and B, take equal measurement of 40 mm and cut arcs to get a square).

10.



(Hint: Using the Copy angle method)

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