



**INDIAN SCHOOL AL WADI AL KABIR**

<b>Class: XII</b>	<b>Department: SCIENCE</b>	<b>Date: 19/05/2026</b>
<b>MARKS: 30</b>	<b>UNIT TEST 1</b> <b><u>ENGINEERING GRAPHICS (046)</u></b>  <b><u>MARKING SCHEME</u></b>	<b>DURATION :1 HOUR</b>

**General Instructions:**

- (i) Attempt all the questions.
- (ii) Use both sides of the drawing sheet, if necessary.
- (iii) All dimensions are in millimeters.
- (iv) Missing and mismatching dimensions, if any, may be suitably assumed.
- (v) Follow the SP: 46 – 2003 revised codes. (with first angle method of projection)
- (vi) In no view of question 12, are hidden edges or lines required.

**10 × 1 = 10**

**SECTION – A**

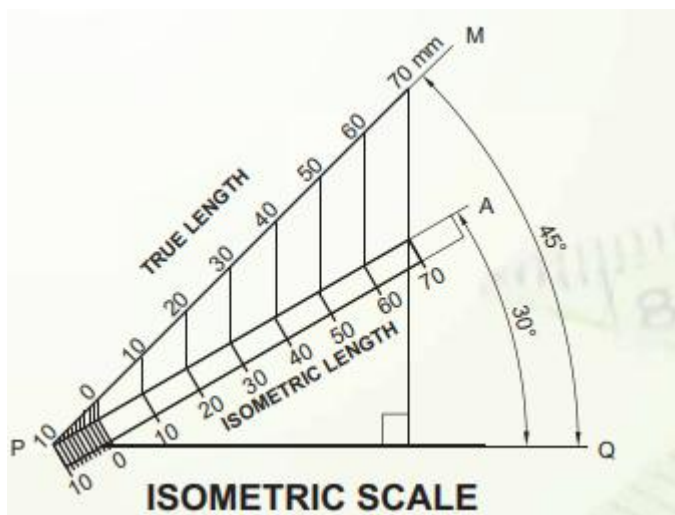
<b>Q.NO</b>	<b>ANSWERS</b>
<b>1</b>	(d) One plane drawings
<b>2</b>	(c) Rivet
<b>3</b>	(d) taper thread
<b>4</b>	(b) (ii) & (iii)

5	(c) (i) & (iv)
6	(b) The pentagonal ends are parallel to VP
7	(d) 1-ii, 2-iii, 3-iv, 4-i
8	(c) Rivet
9	(d) Knuckle thread
10	(c) Crest

**SECTION B**

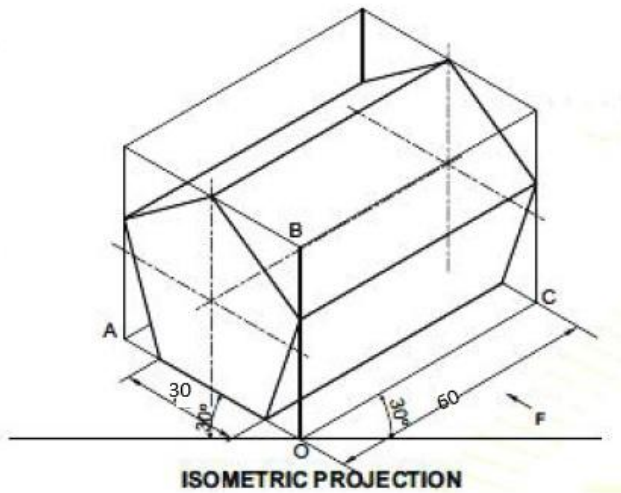
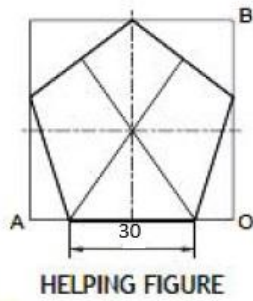
**1 × 4 = 4**

11. Construct an isometric scale.



$$1 \times 10 = 10$$

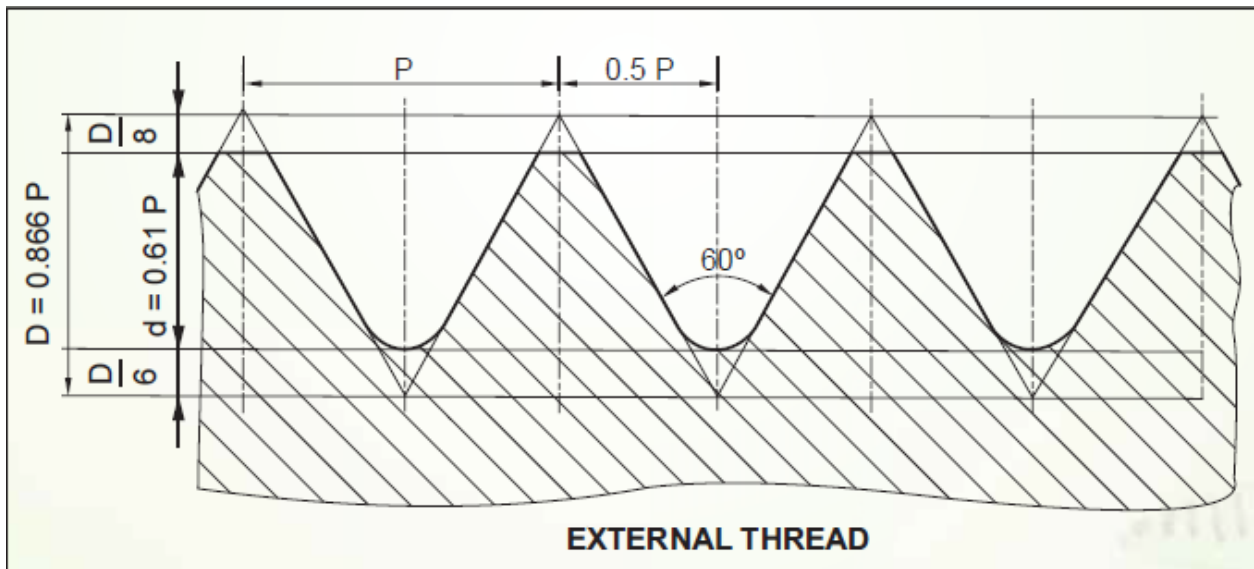
12. Draw the isometric projection of a pentagonal prism (base edge 30 mm, axial length 60mm) resting on its face with its axis parallel to H.P. and V.P. both. Indicate the direction of viewing. Give all the dimensions.



$$1 \times 6 = 6$$

13. Draw to scale 1:1, the standard profile of Metric thread external, taking pitch = 50 mm. Give standard dimensions.

P	$D = 0.86P$	$d = 0.61P$	$D/8$	$D/6$
50	43	30.5	5.3	7.1



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